

**Deanship of Graduate Studies
Al-Quds University**



**Perception of Nurses Toward In-Service Training
Activities at Governmental Hospitals in Gaza Strip,
Palestine**

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M. Sc. Thesis

Jerusalem- Palestine

1444/2023

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Activities at Governmental Hospitals in Gaza Strip,
Palestine**

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**Submitted in Partial Fulfillment of the Requirement for the
Master Degree in Nursing Management at the Faculty of
Health Professions – Al-Quds University**

1444 / 2023



Thesis Approval

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Governmental Hospitals in Gaza Strip, Palestine**

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Jerusalem- Palestine

1444/2023

Dedication

I dedicate this work to the sake of Allah, my Creator and my master.

To my beloved father and mother who are praying for me all the time.

To my family, I see the future in their eyes and who encouraged me all the way.

To my friends who help me and support me in every stage of this work.

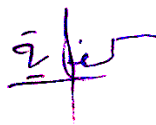
My thanks and appreciations to all those who contributed to the completion of this thesis.

Kifaya Jamal Abdallah Elmmlook

Declaration

I certify that this thesis submitted for the degree of Master, is the result of my own research, except where otherwise acknowledged, and this study (or any part of the same) has not been submitted for a higher degree to any other university or institution.

Signed:

A handwritten signature in blue ink, appearing to be 'Kifaya', written over a horizontal line.

Kifaya Jamal Abdallah Elmmlook

03/01/2023

Acknowledgement

First of all, praise to Allah, the lord of the world, and peace and blessings of Allah be upon our prophet Muhammad, all thanks for Allah who granted me the capability to accomplish this thesis.

I had the great fortune to complete this study under the supervision of Dr. Hamza Abdeljawad who supported me, and gave me instructions and guidance all the time during preparation of this thesis.

I would like to express my deepest thanks to the examining committee Dr. Yousuf Awad and Dr. Moetasem Salah for their comments that enriched the thesis.

I would like to convey my special thanks to all doctors who taught me from West Bank Dr Farid Gharyab, Dr Mohamad Bader, Dr. Asmaa Imam, Dr. Salam Alkhateep, Dr. Omar Salabi and, Dr. Abelmohsen Abo Fanona, and don't forget Dr. Ayman Abo Mostafa, Dr. Bassam Abu Hamad and Almighty Dr. Moetasem Salah from Gaza.

I would like to convey my thanks to all the nurses and my colleagues for their help during the study.

I would like to convey my special thanks to Dr. Khalil Shoeib, Dean of Palestine College of Nursing, for his support and encouragement all the time during my study.

To my family, who always supported me during my study.

To all those who contributed to the completion of this study, thank you very much.

Kifaya Jamal Abdallah Elmmlook

Abstract

Every hospital should provide training activities that are challenging, and lead to improving the quality of health services. The aim of the study is to assess the nurses' perception about the effectiveness of in-service training activities at governmental hospitals in Gaza Strip. The study utilized descriptive, cross sectional, analytical design. The sample of the study consisted of 337 nurses who attended at least one in-service training activity, selected by non-probability, proportional sampling method from seven governmental hospitals in Gaza Strip: 5 general hospitals (Indonesy hospital, Al Shifa medical complex, Al Aqsa hospital, Nasser medical complex, European Gaza Hospital), Al Nassr pediatric hospital, and Al Emaraty maternity hospital. The researcher prepared a self-administered questionnaire to measure the nurses' perception about the effectiveness of in-service training activities. The scoring of the questionnaire items was according to the 5-points Likert scale. A pilot study was conducted on 28 participants to examine the validity and reliability of the questionnaire, and alpha coefficient was 0.918. The researcher used SPSS (version 25), statistical analysis included frequencies, mean scores, percentage, independent sample (t) test and One-way ANOVA. The results showed that 52.2% of study participants were female nurses, their mean age was 33.39 ± 7.435 years, 84% of respondents attended emergency training, 83.7% of the training done by hospital trainers, and 83.1% of the training was conducted within the hospital premises. The perception about the knowledge content of the training activities was above moderate (80.8%), the perception about the skills content was above moderate (81.8%), and the perception about the relevancy of the training activities was above moderate (80.4%). There was significant positive relationship between knowledge, skills, and relevancy of the in-service training activities. Respondents from Al Emaraty hospital expressed significant higher perception about knowledge and skills content compared to respondents from the other hospitals. Female nurses exhibited significant higher perception about knowledge content than males, but no significant differences existed in skills and relevancy of the training activities. Respondents from obstetric and maternity departments expressed significant higher perception about knowledge and skills content of in-service activities, while respondents from pediatric departments expressed significant higher perception about relevancy of the training activities. In addition, respondents who attended three and five in-service training activities showed significant higher perception about knowledge and skills content of the training activities compared to those who attended one or two training activities. There were statistically no significant differences in perception about knowledge and skills content related to age, qualification, experience in nursing, experience in current department, job title, job description, marital status, and income. The study concluded that the nurses perceived the effectiveness of in-service training activities as above moderate level. The study recommended the need to allocate adequate time for in-service training activities, and to plan training activities relevant to each department.

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List of Abbreviations

AMTs	Advanced Medical Technologies
CE	Continuous Education
CFA	Confirmatory Factor Analysis
CNE	Continuous Nursing Education
COVID-19	Corona Virus Disease-19
CPD	Continuing Professional Development
CPR	Cardiopulmonary Resuscitation
FLHWs	Front Line Health Workers
GDP	Gross Domestic Product
GS	Gaza Strip
HCP	Health Care Provider
ICCNCS-1	Intensive and Critical Care Nursing Competence Scale
ICU	Intensive Care Unit
IST	In-service Training
KASRP	Knowledge and Attitudes Survey Regarding Pain
MoH	Ministry of Health
NGOs	Non-Governmental Organizations
NMC	Nasser Medical Complex
OSCE	Objective Structured Clinical Examination
PCBS	Palestinian Central Bureau of Statistics
PDP	Professional Development Plans
PHCCs	Primary Health Care Centers
PMP	Pain Management Program
SLHD	Sydney Local Health District
SMC	Shifa Medical Complex
UNRWA	United Nations Relief and Works Agency for the Refugees of Palestine in the Near East
WHO	World Health Organization
MMS	Military medical services
EGH	European Gaza Hospital

Chapter One

Introduction

In health care settings, qualified human resources are important for achieving the goals of the institution. The World Health Organization (WHO) asserts that poor training of healthcare providers (HCP) contributes significantly to the deplorable state of healthcare delivery globally and especially in developing countries (WHO, 2017).

It is believed that successful healthcare organizations generally spend more on training than others because training helps employees acquire the information and skills needed to perform tasks competently (Hafeez & Akbar, 2015). Arinze-Onyia et al. (2018) reported that poor healthcare delivery in public hospitals could be associated with incompetency.

Continuing professional development (CPD) is considered as crucial to health career development. It is needful to emphasize that healthcare professionals should have individual professional development plans (PDP). Subsequently, they need to develop a personal continuing professional plan. CPD plan should be anchored on a predetermined PDP that is attainable (Nwogbe & Haliso, 2020).

Development of human resources is essential for improving hospitals' functions. Therefore, every hospital should provide training activities that are challenging, and lead to improving the quality of health services (Ghorbandoost et al., 2020).

Health care workers, especially nurses, are the drivers of health care; However, a few lack the necessary training and skills to perform tasks responsive to health services and patient expectations, particularly in low- and middle-income countries (Nicol et al., 2019). Therefore, appropriate in-service training (IST) is essential to develop competent nurses equipped with the knowledge and skills necessary to provide quality care.

The aim of IST activities is to improve knowledge and skills of employees. In this regard, Ghorbandoost et al. (2020) assessed the effectiveness of IST courses on the knowledge of nurses and found that the sum of gained information among the nurses after attending the training course has considerably increased. In addition, Gundo (2019) evaluated the effectiveness of a training program for nurses who are working in cardiac care units and found that nurses who attended the training program expressed significant improvement in their competence scores.

1.1 Research problem

The health services are dynamic, with continuous advancement in techniques, treatment modalities and procedures, therefore, nurses need to be updated with the latest advancements and developments in methods of providing nursing care. In this regard, IST is the main pathway to prepare nurses, upgrade, and update their knowledge and skills to enable them to provide quality nursing care.

Several international studies emphasized the importance of IST to improve nurses' competencies. Leslie et al. (2016) found that in-service training and supervision were associated with quality of care. In addition, Jannati et al. (2017) recommended that before holding training courses, needs assessment of trainees should be done in order to have better efficiency and quality. Some barriers hinder the effectiveness of in-service education such as ineffective teaching methods, inappropriate content of educational programs, and inappropriate scheduling of teaching programs (Yektatalab et al., 2020).

In each hospital in Gaza Strip (GS), there is an in-service training department, responsible for designing and planning the training and educational needs of nurses, organizing and coordinating the training activities, aiming to promote knowledgeable, skillful and competent nurses. According to the researcher's experience, there is no unified in-service

training program for all the hospitals. Each hospital works alone, therefore, it is difficult to have accurate comprehensive information about the effectiveness of the in-service training activities in improving the quality of nursing care.

In GS, one study conducted by Jouda (2018) examined the effectiveness of IST programs on nurses' performance at Primary Health Care Centers (PHCCs). In this study, the researcher is going to assess the perception of nurses about the effectiveness of IST activities in improving nurses' competences, aiming to gain accurate insight about the current status of IST, and put suggestions to strengthen the IST activities, that may contribute to improve the quality of nursing care as a whole.

1.2 Significance of the study

Nursing is a profession that requires special education and training to prepare competent nurses who are able to provide quality health care to patients with different types of disease, and ability to work under pressure. It is expected that hospitals will use the in-service training for continuing education activities to maintain updated knowledge and skills, which will be reflected in improving the quality of nursing care.

In GS, with severe shortage of resources, the role of IST is critical to upgrade the knowledge and skills of nurses in order to empower nurses and enable them to work under all circumstances. In fact, nurses should be knowledgeable with the latest updates in clinical care due to their vital role in providing quality care.

Up to the researcher's knowledge this study will be one of the few studies to assess the perception of nurses who work at governmental hospitals regarding the IST activities, thus the findings of this study will contribute to provide feedback from nurses about the in-service education activities they receive at their workplace, as well will contribute to provide the nursing administrators with a scientific evidence to develop the in-service

education activities at their hospitals to promote the quality of nurses performance and patient care.

1.3 General objective

The aim of the study is to assess the nurses' perception about the effectiveness of in-service training activities at governmental hospitals in GS.

1.4 Specific objectives

- To determine the extent of perceived knowledge gained by nurses from in-service training activities at governmental hospitals in GS.
- To determine the extent of perceived skills gained by nurses from in-service training activities at governmental hospitals in GS.
- To identify the extent of perceived relevance of the in-service training activities to the nature of job they perform at their hospitals
- To assess the differences in nurses' perception about the effectiveness of in-service training activities in relation to their sociodemographic variables.
- To suggest the recommendations to improve the effectiveness of in-service education activities as perceived by nurses.

1.5 Questions of the study

- What is the nurses' perception about the effectiveness of in-services training courses, lectures, and demonstration sessions at governmental hospitals in GS?
- What is the perceived level of knowledge gained by nurses from in-service training activities at governmental hospitals in GS?
- What is the perceived level of skills gained by nurses from in-service training activities at governmental hospitals in GS?

- What is the perceived level of relevancy of the in-service education activities in relation to the type of job the nurses perform at their hospitals?
- Are there statistically significant differences in nurses' perception about the effectiveness of in-service training activities related to sociodemographic variables (educational background, sex, age, hospital, department of work, years of experience, and managerial level)?
- What are the recommendations to improve the quality of in-services training activities as perceived by nurses at governmental hospitals in GS?

1.6 Definition of terms

1.6.1 Theoretical definitions

– Training

It is a way of ensuring that people have knowledge and skills for a specific purpose that they acquired the necessary knowledge to do the tasks of the job. Acquiring new skills is expected to increase productivity or create a better outcome. Training activities include courses, lectures, demonstration sessions, etc.) (Ajithakumari & Hemavathy, 2014).

– In-service training

IST is a series of activities designed to develop the skills and competencies of employees to better perform their duties and thus help the organization to achieve its goals. In fact, continuous training serves to improve the professional knowledge and skills of employees and improve best practices for the performance of various tasks and responsibilities (Fateminejhad & Kolahjoei, 2013).

- **Effectiveness**

The capability of producing a desired result or the ability to produce desired output (Dictionary.com, 2011).

- **Knowledge**

Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, skills, or objects (Cambridge Dictionary, 2020).

- **Skills**

Skills are specific competencies that help employees perform their duties in the workplace. They can be learned through a curriculum, experience, or formal training. With the right job skills, employees can perform their duties effectively and efficiently (American Hospitality Academy, 2017).

1.6.2 Operational definitions

- **In-service education activities**

All the educational and training sessions and programs designed by the continuous education and training department, provided to nurses at their workplace setting e.g. courses, lectures, demonstration sessions, etc.

- **Relevancy of in-service education activities**

The educational activities are considered relevant to nurses according to its importance to their day to day job performance in relation to their scope of work and job description, it will be measured as the total scores obtained on the relevancy part of the scale.

– **Perception of effectiveness**

The degree to which nurses feel that the training activity was to providing them with knowledge, skills and relevant to them. It is calculated as the total score obtained through knowledge, skills, and relevancy domains of the questionnaire.

– **Knowledge**

The total scores obtained on the perceived knowledge gained part from the scale.

– **Skills**

The total scores obtained on the perceived skills gained part from the scale.

1.7 Context of the study

1.7.1 Demographic context

The total land of Palestine is about 27,000 Km². The Palestinians population is about 13.7 million, most of them live as refugees in many countries all over the world. According to reports of the Palestine Central Bureau of Statistics (PCBS), there are about 2.1 million live in GS in an area of 365 km². GS consists of 5 governorates: The North, Gaza, Middle-zone, Khanyounis, and Rafah (PCBS, 2020).

1.7.2 Economic context

The siege against GS caused severe deterioration in the economy by about 11.5% last year partly because of the Coronavirus (Covid-19) pandemic and the policy measures adopted (The World Bank, 2020). The year 2020 witnessed a decline in Gross Domestic Product (GDP) of 12% compared to 2019 as a result of the emergency measures and lockdowns to contain the outbreak of COVID-19. The Palestinian economy witnessed a decline of around 4% compared to 2019. In addition, gross consumption in Palestine dropped down by 6%, whereas gross investment decreased by 36%. Most of the economic activities

witnessed decline in most of the economic sectors; the services activity recorded a high decline value by 10%, in the tourism activity, including restaurants and hospitality, 10 thousands employees lost their jobs, the construction activity witnessed a decline of 35% the industry activity declined by 12%, and the agriculture activity witnessed a decrease of 11%, and the unemployment rate reached 18.2% in WB and 41.7% in GS (PCBS, 2021).

1.7.3 Health care system

The Ministry of Health (MoH) is the main provider of health services in GS. Other sectors include United Nations Relief and Works Agency (UNRWA), military medical services (MMS), Non-governmental organizations (NGOs) and private sector. There are 34 hospitals in GS, 13 of them under the authority of MoH, 17 for NGOs, 2 for MMS and 2 private hospitals (MoH, 2019).

1.7.3.1 Governmental hospitals in Gaza Strip

There are 13 governmental hospitals owned by MoH in GS, 7 of them are general hospitals, 3 pediatric hospitals, one ophthalmic hospital, one maternity hospital, and one psychiatric hospital. The major general governmental hospitals are:

– Al- Shifa Medical Complex (SMC)

It is the largest hospital in Palestine, opened in 1946 and built on an area of 42,000 m² in west part of Gaza city. SMC is categorized as a medical compound composed of three hospitals (surgery, internal medicine, and maternity) and many patients referred from other hospitals and primary health care centers. There are about 620 beds in the complex, the SMC provides general and specialized health services including different types of surgical procedures, cardiac catheterization and cardiac surgery, orthopedics, uro-surgery, ICU, medical and surgical emergency departments and total numbers of nurses are 732 nurses (MoH, 2021).

– **Nasser Medical Complex (NMC)**

It is classified as a medical compound, including three hospitals (internal medicine, maternity, and surgery). The hospital serves the population in KhanYounis and some parts of Rafah. There are about 325 beds in the complex. The complex provides a variety of medical and surgical services to the people in the southern area of GS and total numbers of nurses are 416 nurses (MoH, 2021).

– **European Gaza Hospital (EGH)**

EGH opened in the year 2000. It is located in the east of Khanyounis, serving the people of Rafah and east Khanyounis. There are about 250 beds. The hospital provides internal medicine and surgical services and total numbers of nurses are 352 nurses. (MoH, 2021).

– **Al-Aqsa Martyrs Hospital**

The only general governmental hospital in Deir Al Balah, serving the residents of the Middle governorate. There are about 130 beds, and the hospital provides internal medicine and surgical services and maternity and pediatric services and total numbers of nurses are 288 nurses (MoH, 2021).

– **The Indonesy Hospital**

The hospital is located in Beit Lahia (northern of GS), serving the people of the North governorate. The total number of beds is 100. There is a new extension under construction and expected to increase the number of beds to 200 beds and total numbers of nurses are 147 nurses (MoH, 2021).

Chapter Two

Conceptual framework and Literature review

2.1 Conceptual framework

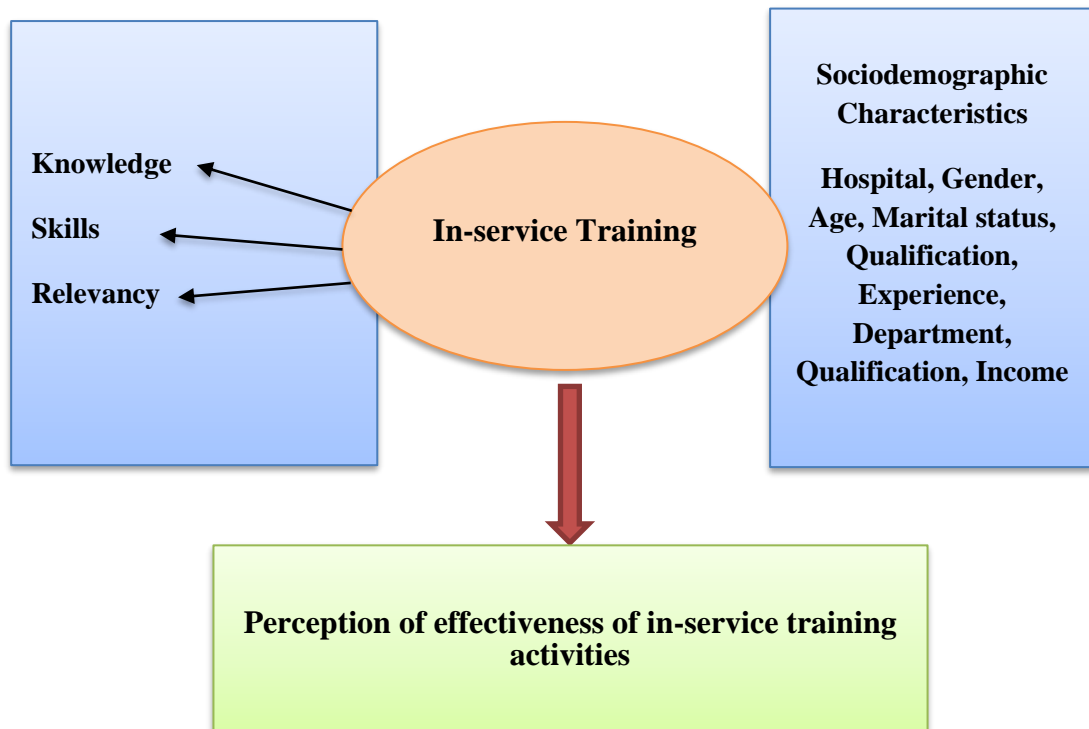


Figure (2.1): Conceptual framework (Self-developed)

The figure demonstrated the variables that affect in-service training. The diagram showed that three interrelated independent variables are associated with in-service training activities.

These variables include knowledge, skills, and relevancy of training. It is expected that nurses will receive adequate knowledge and skills that are relevant to their scope of work at hospitals.

Mediating factors include demographic characteristics and work-related factors. These factors act as intermediate factors that influence the perception of effectiveness of in-

service training activities as dependent variables. Sociodemographic factors include gender, age, marital status, qualification, and experience could make differences in acceptance of in-service training activities. It is assumed that planned in-service training activities based on nurses' needs will improve performance and quality of nursing care.

2.2 Literature review

2.2.1 Background

The current care and delivery environment, including educational, professional, administrative, and research environments, requires that caregivers receive ongoing training and education as the healthcare world evolves (Tachtsoglou et al., 2019). Training of nurses, is a cost-effective investment for hospitals with major economic return if designed and implemented properly (Amiresmaili et al., 2018). Continuous staffing is considered beneficial to adapt to rapid changes in the healthcare industry. Emphasis should be placed on the development of a pedagogical assessment tool aimed at evaluating clinically based training, as it can identify and evaluate the impact of knowledge transfer after the completion of the training course (Calmita & Boag, 2021).

2.2.2 The concept of in-service training (IST)

Current dynamic developments, together with the need to provide nursing care in an environment that is often limited by resources, require nurses to acquire new levels of knowledge, skills and competencies. Continuing education (CE) contributes to the ability of healthcare leaders to keep up with new developments in knowledge and to ensure the development of skills and competencies in a continuous and evolving manner. This contributes to the effectiveness of their actions so that they can cope with new knowledge by improving the quality of services (Adams, 2015).

In-service training is very important especially in the health field services due to the dynamic advancement in knowledge, equipment, and procedures. In health care services,

more specifically, in nursing field, IST is a mean of professional development in any health facility. IST for nurses aims to change and acquire knowledge, skills and behaviors to achieve organizational goals and thus improve the competencies needed in the workplace. They are those areas of information or experience of an individual or group that require further development to increase productivity (Muller et al., 2019).

Education and training refer to measures and programs designed to continuously develop the knowledge, skills and attitudes of the current and future workforce. Human resource development plays an important role in increasing the efficiency and effectiveness of the organization. The human development program of the organization is an important part of providing a favorable and positive work and training environment and supporting the individual's career (Sydney Local Health District [SLHD], 2016). According to WHO (2016), successful delivery of quality and safe health service is determined by having the right quantity and quality mix of HCPs in hospitals. Therefore, nurses should engage in IST to maintain updated knowledge and competent skills.

2.2.3 Benefits of in-service training for nurses

In-service training of nurses plays an important role in improving the quality of inpatient care, and enhancing the effectiveness of IST of nurses is an inevitable requirement (Chaghari et al., 2017).

IST programs are important and valuable in empowering nurses with knowledge and skills. They also assist nurses to contribute to and enable the realization of the institution's organizational goals. The functions that nurses perform daily in their workplaces should be reinforced by appropriate education and training programs. No nurse can perform his/her duties without the appropriate training (Jooste, 2018).

The advantages of investing into IST are obvious: highly skilled staff, high staff retention, magnificent reputation, optimized financial performance, better patient outcomes, and less medical malpractice. In contrary, not investing in personnel, hospitals risk losing their experts to other employers. and losing out on valuable knowledge gains can lead to inefficient system usage, frustrated users, and dissatisfied patients, and consequently to higher costs, wasted time, and image loss (Leonard, 2017).

In hospitals, medical devices and equipment are constantly being improved, and therefore lifelong learning is essential for professionals who use such technologies. Several studies have shown that educational interventions are both important and effective in learning how to use medical devices correctly and safely (Keller et al., 2017; Shukla & Muthal, 2017). Although educational interventions are effective, at least in the short term, regular training is required along with regular reinforcement and evaluation of the intervention after completion of formal education (Forsberg & Engstrom, 2018).

2.2.4 Goals of effective in-service training programs

Nurses, constitute the largest portion of professional in hospitals, need CE programs (in-service education and training) in order to maintain their professional and scientific skills, improve their performance, and adapt themselves to the rapid changes in knowledge as well as nursing care (Raofi et al., 2016). Participation in CE programs directly influences the nurses' performance, and contributes to higher productivity, reduction in occupational risks and medical errors, improvement in the organizational climate, and rise in the nurses' satisfaction and even patients. Therefore, nurses' engagement in the CE program is necessary to increase the quality of nursing care (Sajadi et al., 2017).

In-service training in nursing is considered an important component to help the professional nurse to keep up to date on the most recent developments in nursing and to be able to manage the demands of nursing practice.

IST of nurses plays an important role in enhancing the quality of inpatient care. The need to facilitate the effectiveness of IST of nurses is an inevitable requirement (Chaghari et al., 2017). IST is a determinant factor contributing to higher efficiency of the nurses and organizations. Training is important because it represents a good opportunity for employees to increase their knowledge base and improve their job skills to become more competent in their workplace (Herrity, 2022).

In health care setting, training is one of the key investments in staff and in its mission to achieve patient and family centered care. A good training program meets the goals of the patients and the hospital. As demonstrated in figure (2.2), a training program has the following goals in respect of education and training: (SLHD, 2016)

- Build and maintain skills and competency for patient and family centered care.
- Match workforce supply and skills with demand.
- Be high quality, accessible, innovative.
- Be underpinned by equity and CORE values.
- Be supported by organizational structures and resources.

2.2.5 Factors affecting in-service training

Due to the vital role of nurses and the effects of scientific advances on nursing care, providing high quality nursing services is not possible without participating in the IST programs and becoming familiar with the new techniques (Sajjadnia et al., 2015). There are several factors that motivate the nurses to participate in the IST. Zou et al. (2020) found that demographic factors influence IST. There was a negative correlation between age,

education level and ability of nurses to participate in CE. There was also a positive relationship between length of work experience and duration of CNE participation.

Improvement of nurses' performance is one of the basic tasks of nurse managers which involve activities that enrich the nurses' knowledge and skills to provide better care. Sajjadnia et al. (2015) found that the highest moderating factors affecting the nurses' participation in the IST were linked to the profession, while the lowest factors included those pertaining to planning of the training activities.

In addition, intrinsic factors have an influence on willingness to participate in IST. In this regard, Hirata et al. (2016) found that self-efficacy, having successful experiences, recognition from others, and confidence were significant factors that affect midwives' participation in IST.

Educating the staff in hospitals is one of the most important responsibilities in different countries, so concerning the necessity of nurses' roles and scientific updates in providing nursing care will not be achieved without IST, but several barriers may hinder the implementation of education and training of nurses such as ineffective teaching methods, inappropriate content of educational programs, and inappropriate scheduling of teaching programs (Yektatalab et al., 2020).

2.2.6 Previous studies

2.2.6.1 Studies focused on knowledge and skills

Ten Haken et al. (2021) conducted a descriptive study to examine nurses' experiences of learning to use advanced medical technology (AMT) in the home setting and their organizations' reporting systems. 209 home care workers from the Netherlands who worked with infusion therapy, parenteral nutrition and/or morphine pumps answered an online questionnaire between July 2018 and February 2019. The results showed that the

training measures were mostly used to learn how to use AMT. nursing (71%), practical training of necessary skills (71%) and receiving education to increase theoretical knowledge (69%). Patient safety (88%) and home environment (89%) are highly valued. However, a large proportion of caregivers (up to 29%) use AMT despite testing their skills. 95% of respondents were well aware of their organization's incident reporting protocol, but only 49% received structured or regular feedback on actions taken as a result of incident reporting.

Rentala et al. (2021) conducted a study in India to evaluate the effectiveness of short-term professional development training programs to improve nurses' knowledge, attitudes, and self-efficacy related to the use of physical restraints. A quasi-experimental trial (one group) was conducted involving nurses working in a tertiary psychiatric institution. The study included 3 consecutive days of intensive stress management training (from 6 hours to 2 hours per day) and follow-up for one month. Standardized questionnaires on knowledge, attitudes and practices related to physical disabilities were used as a tool to measure the impact of special education programs. The lesson was conducted by lecture method, group discussion and demonstration. The results showed that 58.5% of the study participants had a bachelor's degree. The average age of the respondents was 33.3 years, the average professional experience was 6.7 years. The results of the study showed that the average score for knowledge of physical limitations increased from 6.4 to 8.2 and the average score for attitude from 18.5 to 23.1 after continuous training. There was a significant difference in mean exercise scores between the pre-intervention and post-intervention phases (23.7 vs. 25.4). There was a significant correlation between knowledge, attitude and practice scores on the post-test.

Gorbandoost et al. (2020) conducted a descriptive and analytical study to evaluate the course of neonatal resuscitation training of nurses and midwives based on the Kirkpatrick model. The study participants consisted of 50 nurses and midwives who participated in neonatal resuscitation for the first time. The level of training skills for resuscitation in the workplace and their satisfaction were measured using a questionnaire developed by researchers based on the Kirkpatrick model. The results showed that there is no significant difference between students' satisfaction with work experience and educational level. Based on the average score obtained on the reaction level, it was 1.52/2. Participants were generally satisfied with the neonatal resuscitation course. At the study level, the mean pretest score of the participants was 14.76/20 and the mean posttest score of the participants was 17.93/20. The level of education of the students increased significantly after participating in the training.

Gundo (2019) conducted a study to explore the training needs of critical care nurses to inform the development and evaluation of IST for nurses in Malawi. A programming and evaluation approach was implemented using a multiphase design and mixed methods. The study was conducted in two tertiary care hospitals. The effect of the training was assessed by self-assessment of the Intensive Care and Critical Care Scale (ICCNCS-1) and additional competencies at moments 1 and 2, respectively, before and after the training; and completing the training evaluation form and interviewing the participants (n=8) at time 2. The results showed that at time 1 nurses rated their competence in ICNCCS-1 as good and excellent (m=604.97). The majority of nurses rated their competence in two additional competencies as poor or fair; basic electrocardiogram interpretation (83.5%) and arterial blood gas analysis (83.5%). Most of the identified learning needs relate to the knowledge area of nursing competence. In phase 2, the curriculum was developed based on the identified learning needs. Phase 3 results showed a statistically significant increase in

ICCNCS-1 knowledge scores from time 1 pre-training ($m=608.2$) to time 2 post-training ($m=684.7$). The average increase in competency scores was 76.9. 85.4% of the participants rated the entire program as very important. Interviews after the training showed that the training was well received by the participants.

Salim et al. (2019) conducted a study that aimed to evaluate the impact of continuing nursing education programs on the knowledge and attitudes of nurses about pain management in one of the public hospitals in Dubai, United Arab Emirates. The study has a quantitative-experimental and random assignment design with a pre-test/post-test approach used in one of the public hospitals in Dubai. The sample of the study consisted of 200 participants who were randomly selected from hospital wards by simple random sampling using SPSS version 20 software. The experimental group received a pain management program (PMP) for 5 hours. Participants underwent a pre-test and, after receiving the PMP, a post-test, while a control group underwent a pre-test and post-test without intervention. The results of the experimental group showed that the Pain Knowledge and Attitude Survey (KASRP) after the intervention ranged from 61.36 to 69.94 with a mean difference of 8.58 ($t(99) = -5.97, p < 0.05$) has increased. , while in the control group, the mean KASRP after the test (mean \pm SD, $60.99 \pm 11.53\%$) decreased slightly compared to the pretest (mean \pm SD, $61.00 \pm 11.60\%$). The study concluded that KASRP is effective. Pain knowledge and attitudes improved after training. Nurses in the experimental group scored higher on the post-test, but still did not reach the 75% passing score.

Amiresmaili and others. (2018) conducted a case-control intervention study aimed at evaluating the effectiveness of a cardiopulmonary resuscitation (CPR) course as an educational program based on the Kirkpatrick model. The study sample consisted of 45 nurses, including 20 nurses in the case group and 25 nurses in the control group. The case

team attended four hours of CPR training. The Kirkpatrick model was used to determine the effectiveness of the CPR course. Data were collected through three questionnaires and hospital files. The results showed that the participants were satisfied with the training course, and a significant difference was observed in the mean score of the three evaluation intervals of the training level ($P < 0.0001$). The results also showed that CPR training affected nurses' level of training in case triage; however, the mean study score was not significantly different between the two groups ($P = 0.26$). In addition, the difference in the average rating of the behavior level before and after the training was not significant ($P = 0.91$). The results of the chi-square test also showed that CPR training did not affect the fourth stage ($P = 0.54$). Finally, the overall effectiveness of the CPR training course was rated at 32.51%. Research has shown that the effectiveness of continuous education is not at the desired level. Given that organizations spend most of their resources on such training each year, there is a need to rethink planning and implementation processes.

Jouda (2018) carried out a descriptive, cross-sectional, analytical study aimed to evaluate the effects of IST programs and their contribution in improvement of the nurses' performance at governmental primary health care centers (PHCCs) in Gaza Governorates. The selected sample size was 185 nurses who had participated in training programs and working in the governmental PHCCs at different clinics in GS. The study revealed that the mean of the study dimensions was ($3.809 = 76.18\%$) for all domains indicating that their perception is good about the training programs. The highest mean was about effects of training programs domain ($4.01 = 80.22\%$) revealed that the general perception of this domain was positive, and the lowest mean was training environment ($3.61 = 72.3\%$), and the role of the institution regarding training ($3.68 = 73.74\%$). This implies that the provision of training was conducted in inappropriate training environment, and inadequate support of the administration regarding the managing, monitoring and follow up of the training

programs. The results of the study showed that there was no statistically significant difference in all areas of the study in terms of gender, marital status, age groups, qualifications of nurses, job title and years of work experience. The results of the focus groups indicated that training programs are essential to improve performance and require more attention from management, management, monitoring, support and follow-up. Participants also stated that the training takes enough time to cover all topics, discussions and exercises in detail.

Magagula (2017) conducted a study to explore the experiences of AIDS nurses in a hospital in Swaziland. The study used a qualitative approach, interpretive paradigm and descriptive phenomenology. The sample consisted of 13 nurses who were specially selected. Data were generated through in-depth interviews using an open-ended interview guide and confirmed through focus group discussion. The study revealed a number of challenges related to planning, logistics, delivery, continuity and sustainability of IST. These were linked to numerous causes such as shortage of staff, workload, high staff turnover, high morning hospital routine, conflicting trainings, funding challenges, shortage of equipment and supplies among others. Recommendations for improvement of IST include the need for proper organization and design of IST; proper implementation of the training programs; improving post-training support and implementation; improving the work environment setting; engaging management; donor support; upgrading the in-service infrastructure. The argument put forth is that in order to improve nurses' experience of IST to produce performance change and possibly better patient outcomes, efforts must address factors that influence the outcome of the experience. These are personal, significant others, internal organizational, and health systems factors.

2.2.6.2 Studies focused on relevancy of training activities

Lhbibani et al. (2021) carried out a two-phase mixed method design, aimed to identify the factors hampering the participation of nurses in the activities of continuous education (CE) sessions at the level of hospitals in the region of Casablanca. The data analysis confirmed that the work overload is the first individual difficulty hindering the participation of nurses in CE sessions. The most mentioned organizational difficulties are schedule recommended in the focus group content not encouraging and not suitable, i.e., 23%, non-targeted content (does not meet the needs of the nursing staff), i.e., 66.7%. Finally, the absence of support measures in terms of monitoring and evaluation to maintain the real situations at the workstation occupied is the first institutional difficulty mentioned by the interviewed (88%).

Tachtsoglou et al. (2021) carried out a review study, aimed to describes the factors that contribute to the development of modern continuing education programs, and the use of technology and free learning in achieving goals. The results revealed that each nurse can seek participation in either self-education or organized educational programs, which can be offered not only from in-service resources but also from resources not related to the service. In the case of in-service education, it includes simple educational procedures such as orientation and training in the applied protocols of new employees, updating the knowledge of older employees in the changes of the applied protocols, as well as the various training programs, including lectures, courses, interactive workshops or demonstrations in the workplace. The study concluded that in the field of health, the growing knowledge base, rapid scientific developments and changes in the provision of health care make the urgent need for well-trained and qualified nurses.

Zou et al. (2020) conducted a cross-sectional study to investigate and analyze the current status of CKD among IST nurses in Tibet and their need for further training. 663 nurses in

Tibet were selected as study participants and a self-developed questionnaire was used to investigate the current status and needs of CKD. The results showed that 65.61% of nurses did not participate in CKD and 91.86% of nurses believed that they should participate in CKD. Challenges that nurses face when attending to CKD include financial, time, and skill limitations. Stepwise logistic regression analysis showed that nurses' age and years of service were negatively associated with financial constraints to participate in CKD. For young nurses with less work experience, it is more difficult to get funding to participate in CNE. In addition, there is a negative correlation between age, education level and ability of nurses to participate in CKD. Younger and less educated nurses find it more difficult to participate in CKD because of their personal skills. There is a positive relationship between length of work experience and duration of CNE participation. The head nurses are too busy with their work that they do not participate in the CBT due to time constraints. The study concluded that the challenges faced by nurses in attending CKD stem from funding, time and skills.

Yektatalab et al. (2020) conducted a study in Iran that aimed to explore ICU nurses' perceptions of barriers to effective work-based learning. The study used a descriptive qualitative research design with a content analysis approach. The study participants included 24 nurses in the intensive care unit of Shiraz University of Medical Sciences Hospital. They were selected based on purposive random sampling. The criteria for entering the study included at least 1-year work experience, having the experience of attending the in-service education, and willingness to participate in the study. Data collection was conducted through individual in-depth semi-structured interviews and focus groups. The results showed that the mean age of study participants was 35.86 years, 95.8% of study participants were female nurses, 91.7% were married, 91.6% have associate degree, and mean experience was 6.08 years. Three main themes of barriers to nurse's in-

service education was: ineffective teaching methods, inappropriate content of educational programs, and inappropriate scheduling of teaching programs. The study concluded that identifying the barriers to effective in-service education can guide nurses and nursing administrators in improving education in the nursing field and subsequently providing better treatments for patients.

Shayan & Nowroozi, (2019) carried out a descriptive study to assess the effectiveness of staff IST system in Tehran Taleghani Hospital with Kirkpatrick Approach, which would ultimately be a guide for hospitals by producing a guideline. The sampling method was convenience sampling, and the sample size was 48 operating room staff. Data analysis was performed in accordance with four levels of the Kirkpatrick model including reaction levels (researcher-made questionnaire and face-to-face interview), learning (pre-post written tests and skill tests such as objective structured clinical examination (OSCE), behavior (360-degree evaluation), and outcomes (Change of indicators). The results showed that mean scores in the reaction stage (136.35). In the learning stage, t-test statistics of the pre-and-posttest in writing exam (12.93), and OSCE (8.45) and in behavior stage the mean score of 360 degrees from the viewpoints of head nurses (55.83 ± 7.96) and colleagues (44.29 ± 6.92), and junior colleagues (39.85 ± 4.75) self-assessment (57.5 ± 3.01) patients (13.25 ± 0.001), and in the result stage hospital indices were significantly different and change. The study concluded that participants were satisfied with the response phase and that significant changes in mean pre-test and OSCE scores indicated that learning had occurred. Based on an analysis of 360-degree evaluation from the perspective of five evaluation sources, approximately 50% of learning is transferred to the workplace, resulting in a change in hospital performance.

Asiamah and others. (2019) conducted a study that aimed to provide an empirical basis for considering IST, extension, and continuing education as methods to improve nursing

performance. A self-reported questionnaire was used to collect data from 532 nurses selected by simple random sampling from ten hospitals in Accra North, Ghana. Confirmatory factor analysis (CFA) was used to test the hypotheses. The resulting model performs well at the 5% level of significance where IST is the ultimate method to improve nursing performance. The fitted CFA model also showed that IST was positively associated with education and employment. General evidence suggests that training, formal education, and extension are methods for improving nursing performance.

Okereke and others. (2019) conducted a study in Nigeria. The research used a mixed method design with quantitative and qualitative approaches. The objective of the study was to assess IST and CE for health workers in Bauchi and Cross River states. Qualitative data were collected in focus groups and key informant interviews with 20 policymakers and stakeholders in each state and 60 managers of health facilities and service units, followed by interview transcription and coding. Thematic analysis to identify emerging themes and subthemes. Results from Cross River State showed that while most health care professionals (FLHW) were aware of IST or CE programs for their work, about a quarter of respondents had never participated in one. FLHWs identified seniority, personal relationships, gender, and region of origin as factors influencing their choice of IST and CE. The girls interviewed believe that pregnancy, childbirth and motherhood can put them in a disadvantageous position when it comes to their choices. More than a third of the respondents consider the selection process to be gender blind. Most respondents reported that they could not identify the type of training they needed or received. Bauchi State Findings Like in Cross River, most FLHWs in Bauchi were aware of IST or CE programs for their workplaces, but about a quarter had never participated. FLHWs identified seniority, region of origin, gender, and personal relationships as factors influencing their

choice of IST and CE. The girls surveyed believe that childbirth, maternity leave and family responsibilities put them at a disadvantage when it comes to their choice.

Safeeifard et al. (2019) conducted a study at the University of Medical Sciences (Tabriz-Iran) with the aim of determining the preferred learning styles of nurses in IST courses. In this cross-sectional study, all nurses working in the medical and educational centers of a university in northwest Iran were randomly selected. A two-part questionnaire on Kolb's demographic and social information was used to collect data. A total of 470 nurses with a mean age of 36.46 ± 5.77 years were examined. There was a significant association between favorable learning methods of nurses with nursing title, employment status, and income level. There was insignificant statistical correlation between the preferred learning style of nurses with age, work experience and experience in the center. The present study shows that the highest percentage of Kolb's learning style is related to the preferential converging learning style (57.8%). The results of the study reflected that converging and assimilating methods were the favored learning among the majority of nurses; these methods are effective and understood according to their career requiring a lot of information and knowledge.

Porte et al. (2018) conducted a study to examine the risk assessment tools and criteria used to assess medical device risks in hospitals and the relationship between medical device risks and the impact or modification of these risks on staff training to investigate. A total of 65 Dutch hospitals participated in the study. The results showed that the response rate to the questionnaire was 81%; All hospitals use a risk assessment tool, and the largest cluster (40%) uses a tool developed in-house. The criteria most commonly used to assess risk are: device function (92%), severity of adverse events (88%) and frequency of use (77%). Also, 84% of hospitals based their training on risks associated with medical equipment. For

medium and high-risk devices, the main method is hands-on training. As the risk increases, so does the scope and type of training and testing.

Germossa and others. (2018) conducted a quasi-experimental study in Ethiopia to investigate the effect of an in-service training program on nurses' knowledge and attitudes about pain management in an Ethiopian university hospital. A total of 111 nurses participated in the study. The researchers provided intensive pain management training for two consecutive days with a follow-up training one month later. KASRP has been used as a tool to measure the impact of educational programs. The results showed that 39.5% were women, 46.8% had a bachelor's degree, and 67.6% had an experience between six to ten years. The average age of the respondents was 26.9 (SD \pm 5.6) years. In general, respondents answered 41.4% of the survey questions correctly before the intervention and 63.0% after the intervention. The mean score of nurses' knowledge and attitude towards pain significantly improved after participating in the training program ($Z = -9.08$, $p < 0.001$). The study concluded that the training program improved nurses' knowledge and attitude scores, which can lead to more effective pain management by caregivers.

Reisi et al. (2017) conducted a qualitative study with a phenomenological approach that used structured interviews to collect data. A total of 10 study leaders, study volunteers and clinical area leaders selected through a purposive process were interviewed. The results showed that five primary codes and fifteen secondary codes were obtained. Primary codes included administrative support, financial support, needs assessment, duration, and program content. Based on this study, the implementation of IST faces serious challenges due to the different training needs of hospital staff and the medical team, which are classified into five groups: administrative support, program needs analysis, program duration, program financial support, and training content. It seems that solving such

problems requires the cooperation of three key decision makers. vice-rectors for treatment, hospitals and universities of medical sciences.

Yfanti & Sipitanou (2016) carried out a study, aimed to detect the attitudes and views on human resources training. The results showed that 99% of respondents agreed that IST must take place according to nurses' needs, 71% said that nurses' training should happen at a specific time periods, during which the nurse should be off duty. Furthermore, 52% expressed their preference in short programs, which would last less than a week and only 5% suggested attending programs which would last longer than four weeks. In addition, 42% said that educational programs should be based on practical certified scientific data, and 18% were interested in case studies. Important obstacles of IST are lack of staff (66%), lack of time (59%), financial reasons (58%), family reasons (37%), lack of interesting programs (19%), not enough incentives (15%), lack of personal interest (13%), illness (10%) and venues (6%). Concerning educational needs, 70% stated that emergency nursing care was the field of interest, followed by CPR, neonatal resuscitation, handling emergency obstetrics, advanced life support. Other training needs are work safety (41%), prevent hospital infections (28%), and tackling health needs (23%).

Hirata and others. (2016) conducted a semi-structured interview study in Sudan. Here are five graduates of the midwifery school studying part-time. The interview was designed to determine progress, facilitators, and transfer of knowledge from curriculum to practice. The results of the data content analysis revealed 24 concepts, 5 subcategories and 3 categories. These categories were "developing referral motivation", "developing midwifery skills" and "improving midwifery care in the facility". The results also showed that the processes of capacity building of midwifery leaders were affected by environmental factors such as the perception of community members as barriers to safe birth, lack of knowledge about pregnancy and childbirth among women in the community, and poor language skills

among colleagues. In addition, there were internal self-regulatory factors such as a sense of achievement, recognition from others, and confidence in new abilities.

Sajjadnia et al. (2015) conducted a descriptive, cross-sectional study, aimed to determine the motivational factors influencing the participation in the IST courses among nurses working in the teaching hospitals in Shiraz, Iran. A sample of 216 nurses participated in the study. The results showed that the mean score of nurses' motivation for participating in the ST programs was 3.41 ± 0.5 . Also, the highest and lowest means of motivational factors affecting the nurses' participation in the IST courses were associated with the factors related to the profession (3.75 ± 0.71), and those related to the training courses planning (3.20 ± 0.59), respectively. In addition, there were significant associations between the personal factors and factors related to the profession and the studied nurses' positions, between the organizational factors and their employment status ($p=0.007$), and between the factors related to the training courses planning and the nurses' service unit ($p=0.014$).

Chapter Three

Methodology

3.1 Study design

The study utilized descriptive, cross sectional, analytical design to assess the perception of the effectiveness of in-service training activities. Cross-sectional studies are usually carried out on large number of participants over a relatively short period of time. Also, it is used to determine the correlation between variables; and characterized as cheap, does not consume much time, and managed easily (Polit and Beck, 2017).

3.2 Study population

The population of the study included all the nurses who are working at governmental hospitals in GS. Their total number is about 2720 nurses (MoH, 2021).

3.3 Sample size and sampling method

The researcher used the survey system to calculate the sample size. The sample of the study is a non-probability, proportional sample according to the number of nurses in each hospital. The sample of the study is 337 nurses.

Determine Sample Size	
Confidence Level:	<input checked="" type="radio"/> 95% <input type="radio"/> 99%
Confidence Interval:	<input type="text" value="5"/>
Population:	<input type="text" value="2720"/>
Sample size needed:	<input type="text" value="337"/>

Sample size = (337). This means 337 or more measurements/surveys are needed to have a confidence level of 95% that the real value is within $\pm 5\%$ of the measured/surveyed value.

3.4 Setting of the study

The study was conducted in the following governmental hospitals in GS: 5 general hospitals (The Indonesy, SMC, Al Aqsa, NMC, EGH), one Pediatric hospital (Al Nassr), and one Maternity hospitals (Al Emaraty).

3.5 Period of the study

The study was conducted during the period from May 2022 to December 2022.

3.6 Inclusion criteria

- Full-time nurses and midwives who are employed at governmental hospitals in GS.
- Attended at least one training activity in the last two years.

3.7 Instrument of the study

The researcher used a self-administered questionnaire developed by the researcher. The questionnaire was designed to measure the nurses' perception about the effectiveness of in-service training activities at governmental hospitals in GS.

The scoring of the items of the questionnaire is according to the 5-points Likert scale.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
5	4	3	2	1

- Criteria for measurements of variables

Score	Cell length	Weighted percent	Interpretation
1	1.0 – 1.80	20% - 36%	Very low
2	1.81 – 2.60	>36% - 52%	Low
3	2.61 – 3.40	>52% - 68%	Moderate
4	3.41 – 4.20	>68% - 84%	Above moderate
5	4.21 – 5.0	>84% - 100%	High

Source: (2004، تميمي)

3.8 Pilot study

A pilot study was performed on 28 participants prior to the actual data collection, to gain feedback about the validity and reliability of the questionnaire.

3.8.1 Internal consistency

The researcher calculated the correlation between each item and the total score of the domain as follows:

Table (3.1): Correlation between each item and total score of the domain

Knowledge		Skills		Relevancy	
No.	Correlation	No.	Correlation	No.	Correlation
1	0.654 **	1	0.441 *	1	0.527 **
2	0.308	2	0.648 **	2	0.698 **
3	0.708 **	3	0.837 **	3	0.846 **
4	0.608 **	4	0.791 **	4	0.568 **
5	0.695 **	5	0.541 **	5	0.769 **
6	0.722 **	6	0.512 **	6	0.709 **
7	0.698 **	7	0.489 **	7	0.707 **
8	0.654 **	8	0.685 **		
9	0.740 **				

**significant at 0.01 *Significant at 0.05

As shown in table (3.1), all the items had statistically significant correlation with the total score of their domain (Except item No. 2 in knowledge domain).

Table (3.2): Correlation between each domain and total score of the scale

No.	Domain	Correlation
1	Knowledge	0.943 **
2	Skills	0.865 **
3	Relevancy	0.902 **

**significant at 0.01

As shown in table (3.2), all the domains have statistically significant correlation with the total score of the questionnaire.

3.8.2 Reliability

The researcher used Cronbach alpha method to examine the reliability of the items of the questionnaire, as presented in the table (3.3).

Table (3.3): Cronbach alpha coefficient

No.	Domain	No. of items	Correlation
1	Knowledge	9	0.816
2	Skills	8	0.782
3	Relevancy	7	0.815
	Total	24	0.918

As presented in table (3.3), the items of the questionnaire showed high reliability as alpha coefficient was 0.918. Therefore, the questionnaire had good validity and reliability, and suitable to be used in this study.

3.9 Data collection and data management

The researcher visited each hospital that was included in the study. The researcher arranged for a meeting with the director of nursing in each hospital to inform them about the purpose of the study, and to ask for their help and cooperation during data collection.

3.10 Statistical analysis

After completing the data collection, data entered into the computer for analysis. SPSS program (version 25) was used for data analysis.

Statistical analysis included descriptive statistics: frequency, percent, and mean scores. Inferential statistics included t-test and One-way ANOVA.

3.11 Ethical and administrative considerations

The researcher got an agreement to conduct the study from Al- Quds University (Annex4). An approval letter obtained from Helsinki Committee in the GS Annex (6). Also, an approval letter obtained from MoH Annex (5). A consent form was attached to each

questionnaire including the purpose of the study, confidentiality of information also was assured.

3.12 Limitation of the study

The study was limited to nurses who are working full-time at governmental hospitals, and attended training activity during the last year of employment.

Chapter Four

Results and Discussion

4.1 Sociodemographic characteristics of study participants

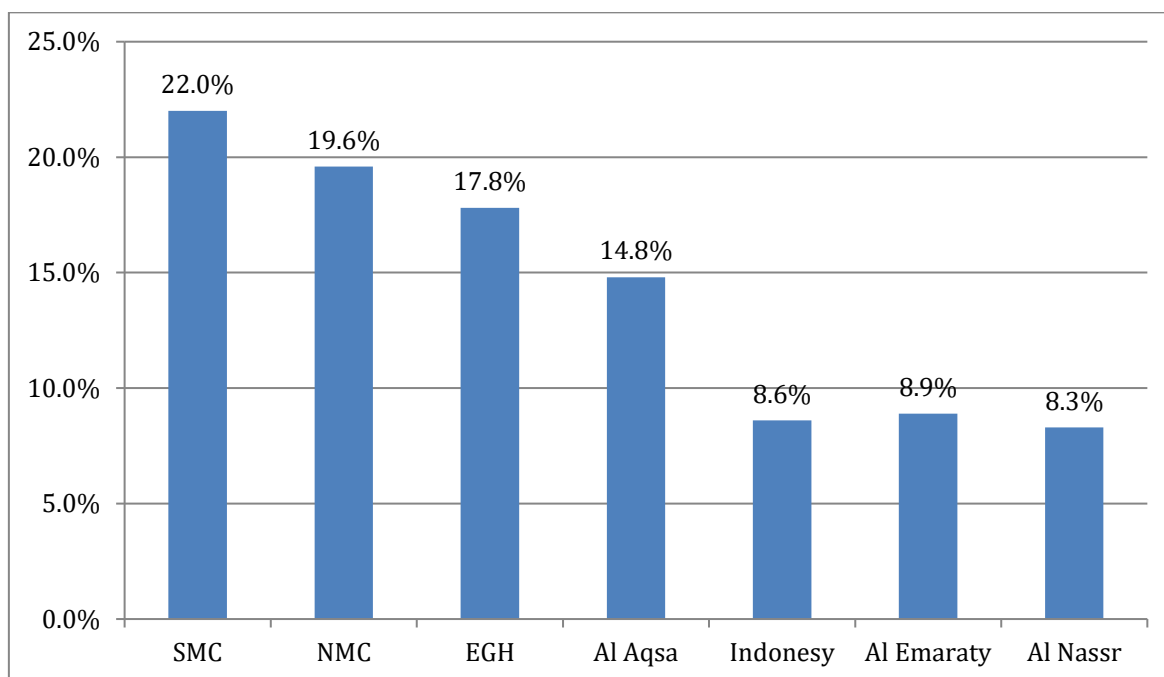


Figure (4.1): Distribution of study participants according to the hospitals

As presented in figure (4.1), the highest number of participants 74 (22.0%) were from SMC, followed by NMC 66 (19.6%), EGH 60 (17.8%), Al Aqsa 50 (14.8%), Al Emaraty hospital 30 (8.9%), and the Indonesy hospital 29 (8.6%). The distribution of study participants was in accordance with the number of nurses in each hospital. The highest number of participants were from SMC, which is the largest health facility in Palestine.

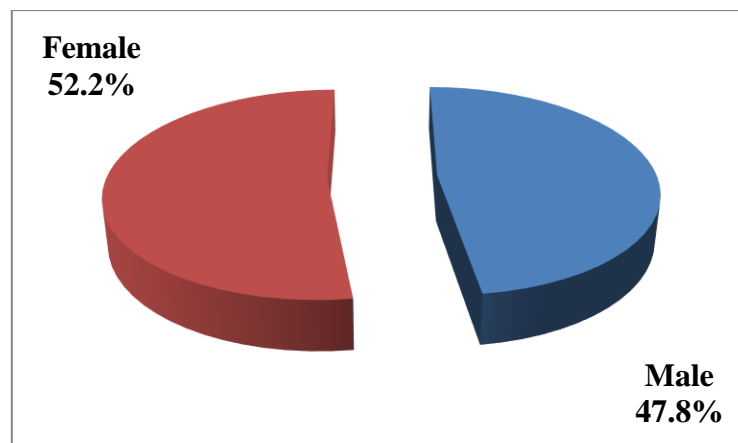


Figure (4.2): Distribution of study participants according to gender

Figure (4.2) showed that 161 (47.8%) of study participants were male nurses and 176 (52.2%) were female nurses.

Table (4.1): Sociodemographic characteristics of study participants (n= 337)

Variable	n	Percentage (%)
Age		
25 years and less	44	13.1
26 – 30 years	96	28.5
31 – 35 years	76	22.5
36 – 40 years	76	22.5
More than 40 years	45	13.4
Total	337	100.0
Mean age = 33.39±7.435 years		
Qualification		
Diploma	60	17.8
Bachelor	247	73.3
Master / PhD	30	8.9
Total	337	100.0
Marital status		
Single	75	22.3
Married	257	76.3
Divorced	5	1.5
Total	337	100.0
Income		
1974 NIS* and less	245	72.7
More than 1974 NIS	92	27.3
Total	337	100.0
Mean= 1883.91±590.742 NIS		

Table (4.1) showed that 96 (28.5%) of study participants aged between 26 – 30 years, 76 (22.6%) aged 31 – 35 years, and 76 (22.6%) aged 36 – 40 years, the mean age was 33.39 years. In addition, most of the study participants 247 (73.3%) have bachelor degree, 60

(17.8%) have diploma certificate, and 30 (8.9%) have master degree or PhD, 257 (76.3%) were married, 245 (72.7%) have an income of 1974 NIS and less, with mean income 1883.91 NIS. These results reflected that the majority of the nurses who participated in the study were from the middle-age, have bachelor degree, were married, and below the poverty line.

Table (4.2): Distribution of study participants by job characteristics (n= 337)

Variable	N	Percentage (%)
Years of experience in nursing		
1 – 5 years	118	35.0
6 – 10 years	62	18.4
11 – 15 years	95	28.2
16 years and more	62	18.4
Total	337	100.0
Mean = 10.09±6.916 years		
Department		
Medical	71	21.1
Surgical	57	16.9
ER & ICU	119	35.3
Maternity	42	12.5
Pediatrics	48	14.2
Total	337	100.0
Years of experience in current department		
Less than 5 years	172	51.0
5 – 9 years	65	19.3
10 – 14 years	65	19.3
15 years and more	35	10.4
Total	337	100.0
Mean = 6.233±5.617 years		
Job title		
Nurse	295	87.5
Head nurse	30	8.9
Supervisor	12	3.6
Total	337	100.0
Available job description		
No	259	76.9
Yes	78	23.1
Total	337	100.0

Table (4.2) showed that 118 (35%) have an experience of 1 – 5 years and 62 (18.4%) have 6–10 years, 71 (21.1%) are working in medical departments, 57 (16.9%) are working in surgical departments, 119 (35.3%) are working in emergency and critical care departments,

42 (12.5%) are working in obstetrics and maternity departments, and 48 (14.2%) are working in pediatric departments. Furthermore, 172 (51%) worked 1 – 5 years in current department, and 65 (19.3%) worked for 5 – 9 years ($m = 6.233$ yrs.). Most of respondents 295 (87.5%) were regular nurses, 30 (8.9%) were head nurses, and 12 (3.6%) were supervisors. Most of the study participants 259 (76.9%) said that they do not have job description, and 78 (23.1%) have job description.

Table (4.3): Number of attended in-service training activities (n= 337)

Variable	N	Percentage (%)
Number of attended training activities in the last two years		
One activity	164	48.7
Two activities	106	31.4
Three activities	37	11.0
Four activities	20	5.9
Five activities	10	3.0
Total	337	100.0

Table (4.3) showed that 164 (48.7%) of study participants attended one IST activity in the last two years, 106 (31.5%) attended two IST activities, 37 (11%) attended three activities, 20 (5.9%) attended four activities, and 10 (3%) attended five activities. This result reflects the need data base records in the hospitals to facilitate more nurses in further IST activities to increase and update nurses' knowledge and skills.

In a study carried out by Nwogbe & Haliso (2020) found that 44.9% of nurses engage in CPD programs quarterly, 20.6% engaged in CPD every six months, and 11.2% engage in CPD programs annually, and the results of a study carried by Okereke et al. (2019) indicated that more than half of the study respondents mentioned that they attended between 2 – 4 IST activities.

In my opinion, attending IST activities should be mandatory for all health care providers to maintain professional competence and improve abilities to provide quality care to patients.

To increase participation in CPD and IST activities, the hospital administration should consider the participation in educational and training activities as a prerequisite for promotion and renewal of the job contract.

Table (4.4): Description of in-service training activities (n= 337)

Variable	n	Percentage (%)
Title of training activities		
Emergency (BLS, ACLS)	283	84.0
Infection control & patient safety	22	6.5
Mental health & psychological support	13	3.9
Obstetrics & maternity	5	1.5
Management & communication	11	3.3
Others (Blood transfusion, medication, dialysis)	3	0.9
Total	337	100.0
Distribution of trainers of in-service training activities		
From the hospital	282	83.7
Outside the hospital	55	16.3
Total	337	100.0
Training venue		
Inside the hospital	280	83.1
Outside the hospital	57	16.9
Total	337	100.0

Table (4.4) pointed out that 283 (84%) of subjects attended IST activities that focused on emergencies such as BLS and ACLS, 22 (6.5%) of study participants attended training that focused on infection control and patient safety, 13 (3.9%) attended IST activities that focused on mental health and psychological support, 5 (1.5%) attended IST activities that focused on obstetric and maternity skills, 11 (3.3%) attended training that focused on management and communication, and 3 (0.9%) attended activities that focused on other skills such as blood transfusion, medication administration, and dialysis.

This result agreed with the result of Yfanti & Sipitanou (2016) who found that 70% of respondents agreed that emergency nursing care was the field of interest, BLS, ALS,

neonatal resuscitation, and management of emergency obstetrics. Other training needs are safety in the work place, infection control and prevention, and health needs.

It is obvious that having adequate training on emergency management is essential for all the nurses, but it is also that the nurses are qualified enough to provide quality nursing care. Therefore, the in-service training department should have a plan with diversity of educational and training activities to widen the nurses' range of knowledge and skills that increase their ability to provide effective nursing care in all the circumstances.

The results also showed that the majority of training activities done by hospital staff 282 (83.7%), and 280 (83.1%) of the IST activities were carried out inside the hospital. All the hospitals have venues for in-service education and training, equipped with audio-visual aids, which enable each hospital to carry out the IST sessions within the hospital premises, which will facilitate the training activities without the need to go outside the hospital for most of the training activities.

Table (4.5): Evaluation of in-service training activities (n= 337)

Variable	Mean	SD	Mean %
Knowledge level	8.20	1.480	82.0
Skills level	8.15	1.454	81.5
Relevancy level	8.25	1.575	82.5
Trainers' performance	n	Percent	
Excellent	160	47.5	
Very good	149	44.2	
Good	28	8.3	
Total	337	100.0	

Table (4.5) presented the participants' evaluation of the IST activities. The study participants viewed the level of knowledge as above moderate (82%), above moderate level of skills (81.5%), and the relevancy of the IST activities was above moderate (82.5%). In addition, 160 (47.5%) of the study participants evaluated the performance of

trainers as excellent, 149 (44.2%) evaluated the performance of trainers as very good, and 28 (8.3%) evaluated the performance of trainers as good. These results indicated that the IST activities were rich in knowledge and skills, and the trainers were qualified for training.

This result agreed with the results of Okereke et al. (2019) which reflected that almost all the respondents rated the skills content and the trainers of the IST as very high or high. In addition, Amiresmaili et al. (2018) assessed the effectiveness of CPR training course, and their results reflected that the effectiveness of the training program was suboptimal as its effectiveness estimated to be about 32.5%. For any educational program to be effective, the contents of the program should be suitable to the subject and the target group, including appropriate time, environment, and method of teaching. In this regard, Yektatalab et al. (2020) reported that obstacles to IST were inappropriate teaching methods, irrelevant content of educational sessions, and unsuitable timing of teaching activities.

Nowadays, with the dynamic advancements in health services, the importance of IST increased to enable the health care providers and nurses gain and maintain updated knowledge and skills. IST for nurses implies efforts to modify and increase knowledge, and improve skills as a means to achieve organizational objectives and improve patients' outcome (Muller et al., 2019).

4.2 Perception about effectiveness of in-service training activities

4.2.1 Knowledge level

Table (4.6): Perception of study participants about knowledge level (n= 337)

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD	%	Rank
1	The content of the training material helped me to gain new knowledge.	32.3	61.4	4.7	1.5	0	4.25	0.609	85.0	1
2	Most of the knowledge I gained was focused on nursing activities	28.8	61.1	8.3	1.8	0	4.17	0.644	83.4	2
3	The scientific knowledge of in-service training is up-to-date.	28.5	59.6	8.6	3.0	0.3	4.13	0.708	82.6	3
4	The knowledge that was provided in training activities is related to my day to day activities in my job	19.6	62.0	14.8	3.3	0.3	3.97	0.709	79.4	7
5	The knowledge that was provided covers most types of care for patients admitted to my department	19.3	51.9	20.8	6.8	1.2	3.81	0.865	76.2	9
6	The knowledge that was provided through training contributed to improve my practice with patients	24.9	59.1	12.8	3.3	0	4.06	0.711	81.2	4
7	The knowledge of training activities increased my ability to participate in discussions with my colleagues	23.7	60.2	12.8	3.0	0.3	4.04	0.714	80.8	5
8	The knowledge of training activities improved my critical thinking abilities	20.2	59.9	16.0	3.3	0.6	3.96	0.739	79.2	8
9	The knowledge that was provided through training activities improved my communication skills	25.2	57.6	13.4	3.3	0.6	4.04	0.755	80.8	6
Average							4.04	0.520	80.8	

As illustrated in table (4.6), the highest score was in item “the content of the training material helped me to gain new knowledge” ($m = 4.25$, 85%), followed by “most of the knowledge I gained was focused on nursing activities” ($m = 4.17$, 83.4%). The lowest score was in item “the knowledge that was provided covers most types of care for patients admitted to my department” ($m = 3.81$, 76.2%), followed by “the knowledge of training activities improved my critical thinking abilities” ($m = 3.96$, 79.2%). The average mean score was 4.04 with mean percent 80.8%, which reflected above moderate perception about the effectiveness of knowledge content of IST activities.

IST activities are valuable in empowering nurses with adequate knowledge that enable them to function on a scientific base. In this regard, Ten Haken et al. (2021) reported that acquiring information to increase theoretical knowledge was among the most often used educational interventions, and the results of Pueyo-Garrigues et al. (2022) found that the mean score of knowledge was moderate (70.10). Also, Rentala et al. (2021) found significant improvement in knowledge level after in-service education (6.4 vs. 8.2). In addition, Ghorbandoost et al. (2020) found significant increase in the amount of knowledge after participating in a resuscitation training course. Moreover, Salim et al. (2019) assessed the effect of pain management program on nurses’ knowledge, and found that the mean score of knowledge about pain management increased significantly from 61.36 to 69.94.

In my opinion, IST and education during employment is an important task for the improvement of quality of health services. The hospital administration should encourage nurses to participate in IST activities and should consider attending IST and educational programs as part of the evaluation for nurses. Through IST and continuous education, nurses gain new knowledge and maintain updated knowledge, which will be reflected in improving nurses’ abilities and performance.

4.2.2 Skills level

Table (4.7): Perception of study participants about skills level (n= 337)

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD	%	Rank
1	I apply most of the skills I have gained from training activities	28.2	59.9	8.3	3.3	0.3	4.12	0.713	82.4	2
2	The training helped me do things I had not done before	23.1	56.1	15.4	4.7	0.6	3.96	0.794	79.2	8
3	The training activities improved my professional skills	23.4	61.7	11.3	3.6	0	4.05	0.699	81.0	7
4	The training helped me to develop my skills	27.0	59.1	11.3	2.7	0	4.10	0.693	82.0	5
5	Training is very important to raise the level of professionalism	36.5	55.2	5.9	2.1	0.3	4.26	0.686	85.2	1
6	My performance improved by in-service training	26.7	58.2	11.9	3.0	0.3	4.08	0.725	81.6	6
7	The training activities contained applicable practical skills	27.6	59.9	8.9	2.7	0.9	4.11	0.736	82.2	3
8	I feel more confident in my skills after training	27.9	57.9	11.3	3.0	0	4.11	0.707	82.2	4
Average							4.09	0.536	81.8	

Table (4.7) indicated that the highest score was in “training is very important to raise the level of professionalism” (m= 4.26, 85.2%), then “I apply most of the skills I have gained from training activities” (m= 4.12, 82.4%). The lowest score was in “the training helped me do things I had not done before” (m= 3.96, 79.2%), followed by “the training activities

improved my professional skills” (m= 4.05, 81%). The average mean score was 4.09 with mean percent 81.8%, which reflected above moderate perception about the effectiveness of skills content of IST activities.

Participation in IST activities have a direct effect on the nurses’ performance and productivity, and increase the quality of nursing care (Sajadi et al., 2017). The practical part of IST activities is important to gain skills and become competent. Ten Haken et al. (2021) reported that practical training in the required skills was among the most important educational intervention (71%), and the results of Pueyo-Garrigues et al. (2022) found that the mean score of skills was high (92.14). In addition, Gundo (2019) evaluated the effectiveness of IST program for critical care nurses, and found significant improvement in nurses’ competencies after the training program.

I believe that the IST is the easiest and cheapest way to gain and maintain updated skills. Training contributes tremendously to the development of health workers’ competencies for quality health care services. In the ongoing dynamic advancement in health services, any hospital that struggles to provide high quality care should pay attention to IST for nurses, and the training should be mandatory and include all the nurses from different departments. The staff who is responsible for IST should be selected carefully; they should be able to make assessment needs, and plan appropriate training programs that meet the needs of the nurses, and make a significant change in nurses’ skills and abilities.

4.2.3 Relevancy level

Table (4.8): Perception of study participants about relevancy level (n= 337)

No.	Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD	%	Rank
1	The objectives of the training activities were relevant to my work	35.3	57.0	6.2	1.2	0.3	4.26	0.651	85.2	1
2	Training activities met my professional needs	27.3	59.6	10.7	2.4	0	4.12	0.680	82.4	2
3	Training activities were relevant to care of my patients	27.6	59.1	10.7	2.7	0	4.12	0.691	82.4	3
4	The content of the training activities was relevant to my job description	21.7	58.8	15.4	3.6	0.6	3.97	0.753	79.4	5
5	Training programs were appropriate to level of trainees	20.8	62.0	13.9	3.0	0.3	4.00	0.703	80.0	4
6	Duration of training activities were sufficient to meet my work needs	19.3	51.0	18.7	9.5	1.5	3.77	0.918	75.4	7
7	Training is consistent with working protocols of the hospital	22.8	56.7	14.8	5.0	0.6	3.96	0.795	79.2	6
Average							4.02	0.546	80.4	

Table (4.8) indicated that “the objectives of the training activities were relevant to my work” was the most prevalent (m= 4.26, 85.2%), followed by “training activities met my professional needs” (m= 4.12, 82.4%). The lowest score was in “duration of training activities was sufficient to meet my work needs” (m= 3.77, 75.4%), followed by “training is consistent with working protocols of the hospital” (m= 3.96, 79.2%). The average mean score was 4.02 with mean percent 80.4%, which indicated that the perception about the relevancy of IST activities was above moderate.

This result agreed with the results of Gundo (2019) which indicated that the implemented training program for critical care nurses was rated very relevant by the majority of nurses. Also, Okereke et al. (2019) emphasized the need for periodical evaluation of the

effectiveness of IST programs to make training more relevant for HCPs. In addition, Jouda (2018) highlighted the importance of IST, and emphasized the need to allocate adequate time for training programs to enable participants to share in discussions and practice of the intended skills. In addition, Lhibani et al. (2021) reported that difficulties that face IST included that the IST content not suitable and does not meet the needs of the nurses. Also, Yfanti & Sipitanou (2016) assessed the nurses views about IST and found that the vast majority of respondents agreed that IST must take place according to nurses' needs, 71% said that training should happen during times of being off duty, more than half of respondents expressed their preference of short training programs, and 42% said that educational programs should be based on practical certified scientific data.

In my opinion, the field of health is dynamic, the growing knowledge base, rapid scientific developments and changes in the provision of health care, raised the urgent need for well-trained and qualified nurses, therefore, it is important that the training programs for nurses being relevant to the specialty and field work of nurses for better understanding and benefit for both the nurses and the patients.

4.2.4 Relationship between knowledge, skills, and relevancy of in-service training activities

Table (4.9): Relationship between knowledge, skills and relevancy of in-service training activities

Variable	r
Knowledge x skills	0.709 **
Knowledge x relevancy	0.657 **
Skills x relevancy	0.589 **

Table (4.9) showed that there was statistically significant relationship between knowledge and skills content of IST activities ($r=0.709$), knowledge and relevancy of IST activities ($r= 0.657$), and skills and relevancy of IST activities ($r= 0.589$).

To be effective, the knowledge and skills content of any educational or training activity should be interrelated, and relevant to the specialty of the trainees. In nursing field, I

believe that the contents of IST activities should provide nurses with updated knowledge and skills that is relevant to nursing care in different settings. The expected outcome is improvement in knowledge and skills level, which will be translated in the nurses' practice, and improve the quality of nursing care.

4.3 Differences in perception about effectiveness of in-service activities related to sociodemographic variables

Table (4.10a): Differences in perception about effectiveness of in-service activities between hospitals (n= 337)

Hospital		n	Mean	SD	F	P value
Knowledge	Al Aqsa	50	4.026	0.480	2.505	0.022 *
	EGH	60	4.168	0.471		
	Al Shifa	74	3.985	0.546		
	Al Nassr	28	3.968	0.647		
	NMC	66	4.047	0.435		
	Al Emaraty	30	4.263	0.339		
	Indonesy	29	3.842	0.704		
	Total	337	4.047	0.520		
Skills	Al Aqsa	50	4.067	0.414	2.170	0.046 *
	EGH	60	4.225	0.421		
	Al Shifa	74	4.015	0.613		
	Al Nassr	28	4.067	0.688		
	NMC	66	4.132	0.511		
	Al Emaraty	30	4.262	0.416		
	Indonesy	29	3.892	0.649		
	Total	337	4.099	0.536		
Relevancy	Al Aqsa	50	4.020	0.468	1.450	0.195
	EGH	60	4.097	0.557		
	Al Shifa	74	3.947	0.491		
	Al Nassr	28	3.872	0.742		
	NMC	66	4.084	0.518		
	Al Emaraty	30	4.190	0.411		
	Indonesy	29	3.960	0.705		
	Total	337	4.028	0.546		

Table (4.10b): Multiple comparisons LSD Post hoc for hospitals

Domain	Hospital		Mean Difference	P value
Knowledge	Al Emaraty	Al Aqsa	0.236	0.047 *
		EGH	0.094	0.412
		SMC	0.277	0.013 *
		Al Nassr	0.294	0.030 *
		NMC	0.215	0.057
		Indonesy	0.420	0.002 *
Skills	Al Emaraty	Al Aqsa	0.195	0.113
		EGH	0.037	0.752
		SMC	0.247	0.032 *
		Al Nassr	0.195	0.162
		NMC	0.129	0.267
		Indonesy	0.370	0.008 *

Table (4.10a) showed that there were statistically significant differences in perception about gained knowledge (0.022) and gained skills (0.046) from in-service training activities between hospitals, while there were no significant differences in relevancy of in-service training activities (0.195). To find the direction of these differences, the researcher performed LSD test as presented in table (4.10b), which showed that nurses from Al Emaraty hospital expressed statistically significant higher perception about gained knowledge compared to nurses from Al Aqsa hospital ($P= 0.047$), SMC ($P= 0.013$), Al Nassr hospital ($P= 0.030$), and Indonesy hospital ($P= 0.002$). In addition, nurses from Al Emaraty hospital expressed statistically significant higher perception about gained skills compared to nurses from SMC ($P= 0.032$), and Indonesy hospital ($P= 0.008$), while the differences were not significant with the other hospitals.

In my opinion, this result is logic because Al Emaraty hospital is specialized for obstetrics and maternity health services, and most of the IST activities are concentrated, with in-depth and details, aiming to improving the knowledge and skills of the nurses and midwives on maternity issues, while the other hospitals are general hospitals and their IST

activities covers many areas in the hospital with multiple specialties, which could be irrelevant to some nurses, and as a result, the gained knowledge and skills would be less than the participants from Al Emaraty hospital.

Table (4.11): Differences in perception about effectiveness of in-service activities related to gender (n= 337)

Domain	Gender	n	Mean	SD	t	P value
Knowledge	Male	161	3.984	0.532	-2.112	0.035 *
	Female	176	4.104	0.505		
Skills	Male	161	4.048	0.582	-1.645	0.101
	Female	176	4.144	0.487		
Relevancy	Male	161	3.975	0.566	-1.714	0.087
	Female	176	4.077	0.525		

Table (4.11) revealed that female nurses expressed statistically significant higher gained knowledge than male nurses (0.035), while there are no significant differences in gained skills (0.101), and relevancy of in-service training activities (0.087). This result was approximate to the results of Jouda (2018) who found non-significant differences in all the domains of IST attributed to gender of nurses. In contrary, the results of Lhibani et al. (2021) found that gender has a significant effect on participation in CNE, and Pueyo-Garrigues et al. (2022) found that male nurses had higher scores in knowledge compared to female nurses, while the results of Germossa et al. (2018) found higher improvement in knowledge among female nurses compared to male nurses after engagement in IST program for pain management.

Hospitals employ both male and female nurses to cover all the departments and specialties. Therefore, engagement in IST activities should be for both male and female nurses according to the needs of each department to ensure providing quality care in all the departments. Male and female nurses are equally responsible to provide safe and quality care that meet the patients' needs, therefore, updating the knowledge and skills of male and female nurses is a requirement to maintain high quality nursing care.

Table (4.12a): Differences in perception about effectiveness of in-service activities related to age (n= 337)

Age		n	Mean	SD	F	P value
Knowledge	25 and less	44	4.133	0.547	0.572	0.683
	26-30	96	4.041	0.523		
	31-35	76	4.058	0.436		
	36-40	76	3.986	0.527		
	More than 40	45	4.056	0.611		
	Total	337	4.047	0.520		
Skills	25 and less	44	4.233	0.527	1.308	0.267
	26-30	96	4.079	0.538		
	31-35	76	4.144	0.527		
	36-40	76	4.021	0.527		
	More than 40	45	4.063	0.561		
	Total	337	4.099	0.536		
Relevancy	25 and less	44	4.188	0.539	2.429	0.048 *
	26-30	96	4.072	0.534		
	31-35	76	4.054	0.504		
	36-40	76	3.930	0.558		
	More than 40	45	3.898	0.593		
	Total	337	4.028	0.546		

Table (4.12a) indicated no significant differences in gained knowledge (0.683), and skills (0.267) in relation to age. The results also showed that there were statistically significant differences in relevancy related to age (0.048). To find the direction of these differences, the researcher performed Post hoc LSD test as presented in table (4.12b).

Table (4.12b): Multiple comparisons LSD Post hoc for age

Domain	Age		Mean Difference	P value
Relevancy	25 years and less	26 – 30 years	0.115	0.243
		31 – 35 years	0.133	0.194
		36 – 40 years	0.257	0.013 *
		More than 40 years	0.289	0.012 *

Which showed that the nurses from 25 years and less expressed significant higher perception about relevancy of in-service training activities compared to nurses aged 36 – 40 years (0.013) and nurses whose age was more than 40 years (0.012).

This result was consistent with the results of Jouda (2018) which indicated no significant differences in all the domains of IST related to age of nurses. In contrary, the results were inconsistent with the results of Lhibani et al. (2021) which reflected significant relationship between age and participation in CNE, and the results of Zou et al. (2020) which indicated negative relationship between age and participation in IST programs, and younger nurses with lower educational level are more difficult to participate in CNE and IST activities. While the results of Pueyo-Garrigues et al. (2022) found that age was negatively associated with knowledge. Moreover, Yfanti & Sipitanou (2016) found that about 80% of the nurses who participated in IST were 30 – 50 years old, while younger aged nurses (20 – 30 years old) who engaged in IST activities represented only 13% of the study participants.

Table (4.13): Differences in perception about effectiveness of in-service activities attributed to qualification (n= 337)

Level of education		n	Mean	SD	F	P value
Knowledge	Diploma	60	4.075	0.532	0.119	0.888
	Bachelor	247	4.042	0.519		
	Master / PhD	30	4.029	0.529		
	Total	337	4.047	0.520		
Skills	Diploma	60	4.131	0.550	0.300	0.741
	Bachelor	247	4.085	0.542		
	Master / PhD	30	4.145	0.457		
	Total	337	4.099	0.536		
Relevancy	Diploma	60	4.021	0.599	0.006	0.994
	Bachelor	247	4.030	0.529		
	Master / PhD	30	4.028	0.599		
	Total	337	4.028	0.546		

Table (4.13) highlighted insignificant differences in perception about gained knowledge (0.888), gained skills (0.741), and relevancy of in-service training activities (0.994) related to qualification.

This result agreed with the results of Jouda (2018) who found no significant differences in all the domains of IST related to education level of nurses. In contrary, this result disagreed with the results of Zou et al. (2020) which indicated negative correlation between

qualification and participation in IST programs and nurses with lower educational level showed less participation in CNE and IST activities and the results of Pueyo-Garrigues et al. (2022) found that nurses with higher education level had a higher rate of knowledge and skills.

In my opinion, attending IST is essential for nurses to maintain updated knowledge and skills regardless of their qualification. Nurses with different qualifications should participate in different IST activities to be competent and able to work in different settings and under all the circumstances.

Table (4.14a): Differences in perception about effectiveness of in-service activities related to experience in nursing (n= 337)

Years		n	Mean	SD	F	P value
Knowledge	1-5 years	118	4.118	0.537	1.722	0.162
	6-10 years	62	4.014	0.475		
	11-15 years	95	3.962	0.520		
	16 years and more	62	4.073	0.523		
	Total	337	4.047	0.520		
Skills	1-5 years	118	4.143	0.523	0.789	0.501
	6-10 years	62	4.135	0.584		
	11-15 years	95	4.042	0.543		
	16 years and more	62	4.066	0.498		
	Total	337	4.099	0.536		
Relevancy	1-5 years	118	4.170	0.499	4.242	0.006 *
	6-10 years	62	3.965	0.571		
	11-15 years	95	3.941	0.577		
	16 years and more	62	3.953	0.516		
	Total	337	4.028	0.546		

Table (4.14b): Multiple comparisons LSD Post hoc for years of experience in nursing

Domain	Years of experience in nursing		Mean Difference	P value
Relevancy	1 – 5 years	6 – 10 years	0.205	0.016
		11 – 15 years	0.229	0.002
		16 years and more	0.216	0.011

Table (4.14a) demonstrated that there were statistically no significant differences in perception about gained knowledge (0.162), and gained skills (0.501) related to years of experience in nursing, but there were statistically significant variations in relevancy of in-service training activities (0.006). To determine the direction of these differences, the researcher performed Post hoc LSD test as presented in table (4.14b) which showed that the nurses with an experience of 1 - 5 years have significant higher perception about relevancy of in-service training activities compared to nurses with 6 – 10 years of experience ($P= 0.016$), nurses with experience of 11 – 15 years ($P= 0.002$), and nurses with experience of 16 years and more ($P= 0.011$).

These results disagreed with the results of Jouda (2018) who found no significant differences in all the domains of IST related to years of experience, while the results of Zou et al. (2020) indicated a positive association between the years of experience and the time constraints that hindered participation in CNE, and the results of Pueyo-Garrigues et al. (2022) found negative association between years of experience and knowledge scores.

Table (4.15a): Differences in perception about effectiveness of in-service activities related to department (n= 337)

Department		n	Mean	SD	F	P value
Knowledge	Medical	71	4.007	0.634	2.818	0.025 *
	Surgical	57	4.013	0.533		
	ER & ICU	119	4.085	0.419		
	Maternity	42	4.232	0.383		
	Pediatric	48	3.888	0.605		
	Total	337	4.047	0.520		
Skills	Medical	71	4.052	0.630	2.858	0.024 *
	Surgical	57	4.103	0.520		
	ER & ICU	119	4.133	0.443		
	Maternity	42	4.279	0.474		
	Pediatric	48	3.919	0.618		
	Total	337	4.099	0.536		
Relevancy	Medical	71	4.060	0.658	2.892	0.022 *
	Surgical	57	4.087	0.526		
	ER & ICU	119	4.020	0.455		
	Maternity	42	4.166	0.451		
	Pediatric	48	3.809	0.624		
	Total	337	4.028	0.546		

Table (4.15b): Multiple comparisons LSD Post hoc for departments

Domain	Department		Mean Difference	P value
Knowledge	Obstetrics & maternity	Medical	0.224	0.026 *
		Surgical	0.219	0.037 *
		ER & critical care	0.147	0.111
		Pediatrics	0.343	0.002 *
Skills	Obstetrics & maternity	Medical	0.226	0.029 *
		Surgical	0.176	0.102
		ER & critical care	0.146	0.125
		Pediatrics	0.360	0.001 *
Relevancy	Pediatrics	Medical	-0.250	0.014 *
		Surgical	-0.278	0.009 *
		ER & critical care	-0.210	0.023 *
		Obstetrics &	-0.357	0.002 *

Table (4.15a) showed that there were statistically significant differences in perception about gained knowledge ($P= 0.025$), gained skills ($P= 0.024$), and relevancy of in-service training activities ($P= 0.022$) related to department. Post hoc LSD test in table (4.15b) showed that participants from obstetric and maternity departments exhibited statistically significant higher gained knowledge compared to participants from medical departments ($P= 0.026$), surgical departments ($P= 0.037$), and pediatric departments ($P= 0.002$). In addition, participants from obstetric and maternity departments expressed significant higher gained skills compared to participants from medical departments ($P= 0.029$), and pediatric departments ($P= 0.001$). Moreover, participants from the pediatric departments showed significant lower perception about relevancy of IST activities compared to participants from medical departments ($P= 0.014$), surgical departments ($P= 0.009$), ER and critical care departments ($P= 0.023$), and obstetrics & maternity departments ($P= 0.002$).

This result agreed with the results of Pueyo-Garrigues et al. (2022) who found significant differences in nurses' self-efficacy related to work department, while the results of

Germossa et al. (2018) indicated that nurses from surgical, medical, and gynecology wards scored higher knowledge than those in maternity wards.

In my opinion, nurses who are working in specialized hospitals such as maternity hospitals and pediatric hospitals will gain more knowledge and skills because all the IST activities will be relevant and concentrated on the specialty in more details, while general hospitals will have a variety of IST activities which may not be specific and relevant to the specialty of the working area.

Table (4.16a): Differences in perception about effectiveness of in-service activities related to experience in department (n= 337)

Years		n	Mean	SD	F	P value
Knowledge	less than 5	172	4.073	0.546	0.439	0.725
	5-9	65	4.006	0.479		
	10-14	65	4.005	0.500		
	15 and more	35	4.069	0.516		
	Total	337	4.047	0.520		
Skills	less than 5	172	4.151	0.520	1.186	0.315
	5-9	65	4.028	0.607		
	10-14	65	4.040	0.544		
	15 and more	35	4.082	0.445		
	Total	337	4.099	0.536		
Relevancy	less than 5	172	4.109	0.554	2.645	0.049 *
	5-9	65	3.951	0.532		
	10-14	65	3.947	0.560		
	15 and more	35	3.922	0.465		
	Total	337	4.028	0.546		

Table (4.16b): Multiple comparisons LSD Post hoc for experience in departments

Domain	Years of experience in department		Mean Difference	P value
Relevancy	Less than 5 years	5 – 9 years	0.157	0.046
		10 – 14 years	0.162	0.041
		15 years and more	0.187	0.0.0

Table (4.16a) reflected insignificant differences in perception about gained knowledge (0.725), and gained skills (0.315) related to years of experience in nursing, but there were

statistically significant differences in relevancy of in-service training activities (0.049). To determine the direction of these differences, the researcher used Post hoc LSD test as presented in table (4.16b) which showed that the nurses with an experience less than 5 years have significant higher perception about relevancy of in-service training activities compared to nurses with 5 – 9 years of experience (0.046), and nurses with experience of 10 – 14 years (0.041).

This result disagreed with the results of Zou et al. (2020) which reflected positive correlation between the length of working experience and participation in IST, and the results of Lhibani et al. (2021) which indicated significant association between age and participation in CNE activities.

This result reflects that nurses with different experiences are interested in engagement in IST activities to gain the needed knowledge and skills to make them competent and able to carry out the responsibilities and tasks in a good manner. I believe that nurses should have adequate knowledge and skills to provide quality care to patients regardless of their experiences.

Table (4.17a): Differences in perception about effectiveness of in-service activities related to job title (n= 337)

Job title		n	Mean	SD	F	P value
Knowledge	Nurse	294	4.037	0.529	1.656	0.192
	Head nurse	30	4.196	0.421		
	Supervisor	13	3.923	0.509		
	Total	337	4.047	0.520		
Skills	Nurse	294	4.087	0.551	2.047	0.131
	Head nurse	30	4.270	0.407		
	Supervisor	13	3.961	0.351		
	Total	337	4.099	0.536		
Relevancy	Nurse	294	4.037	0.554	3.302	0.038 *
	Head nurse	30	4.100	0.409		
	Supervisor	13	3.659	0.548		
	Total	337	4.028	0.546		

Table (4.17b): Multiple comparisons LSD Post hoc for job title

Domain	Job title		Mean Difference	P value
Relevancy	Nurse	Head nurse	-0.062	0.548
		Supervisor	0.378	0.015 *
Relevancy	Head nurse	Nurse	0.062	0.548
		Supervisor	0.440	0.016 *

Table (4.17a) revealed statistically no significant differences in perception about gained knowledge (0.192), and gained skills (0.131) related to years of experience in nursing, while there were statistically significant differences in relevancy of in-service training activities (0.038). To determine the direction of these differences, the researcher performed Post hoc LSD test as presented in table (4.17b). Table (4.17b) showed that nurses had significant higher perception about relevancy of in-service training activities compared to supervisors (P= 0.015). Also, head nurses expressed significant higher perception about relevancy of IST activities compared to supervisors (P= 0.016).

This result agreed partially with the results of Jouda (2018) who found no significant differences in all the domains of IST related to job title of nurses. In addition, Zou et al. (2020) reported that senior nurses are too busy with their work to participate in IST due to limited time.

In my opinion, the when designing the IST activities, it should be relevant and contain knowledge and skills that meet the needs of all the nurses from all the profession levels. If the training programs do not meet the nurses' needs for learning, then the training will not be effective, and would be a waste of time. Therefore, those who design the IST activities should make sure that the activities provide the nurses with new knowledge and gaining skills that empower nurses and make them competent in their field specialty.

Table (4.18): Differences in perception about effectiveness of in-service activities related to job description (n= 337)

Domain	Presence of job description	n	Mean	SD	t	P value
Knowledge	No	259	4.060	0.484	0.884	0.377
	Yes	78	4.001	0.628		
Skills	No	259	4.118	0.527	1.199	0.231
	Yes	78	4.035	0.564		
Relevancy	No	259	4.071	0.521	2.673	0.008 *
	Yes	78	3.884	0.604		

Table (4.18) indicated that there were statistically no significant differences in perception about gained knowledge (P= 0.377) and gained skills (P= 0.231) related to availability of job description. The results also showed that participants who do not have job description expressed significant higher perception about relevancy of IST activities than those who have job description (P= 0.008).

One of the main problems in GS is the unavailability of written, recognized job description. Most of the nurses perform the tasks and provide the nursing care without having clear job description that define the scope of practice and set limitation in accordance with nurses' position and job title. Having clear job description will enable the nurse to define their responsibilities and understand their limitation. Also, job description will prevent duplication of tasks between different job titles, and enable the nurses to work with clear understanding of their roles toward the patients that they are caring for them.

Table (4.19): Differences in perception about effectiveness of in-service activities attributed to marital status (n= 337)

Domain	Marital status	n	Mean	SD	t	P value
Knowledge	Single	75	4.111	0.550	1.183	0.238
	Married	257	4.029	0.515		
Skills	Single	75	4.175	0.540	1.362	0.174
	Married	257	4.078	0.537		
Relevancy	Single	75	4.099	0.583	1.209	0.228
	Married	257	4.012	0.536		

Table (4.19) indicated that there were statistically no significant differences in perception about gained knowledge ($P= 0.238$), gained skills ($P= 0.174$), and relevancy of IST activities ($P= 0.228$) related to marital status. This result was consistent with the results of Jouda (2018) who found no significant differences in all the domains of IST related to marital status of nurses.

I believe that this result is logic as being single or married is not a significant determinant factor of participation in IST activities or gaining knowledge and skills. Other factors may motivate the nurse to engage in IST activities to gain new knowledge and skills such as being a competent to provide high quality nursing care, looking for higher appraisal and promotion.

Table (4.20): Differences in perception about effectiveness of in-service activities related to monthly income (n= 337)

Domain	Income	n	Mean	SD	T	P value
Knowledge	1974 NIS and less	245	4.037	0.532	-0.546	0.585
	More than 1974 NIS	92	4.072	0.489		
Skills	1974 NIS and less	245	4.090	0.553	-0.487	0.626
	More than 1974 NIS	92	4.122	0.488		
Relevancy	1974 NIS and less	245	4.039	0.545	0.584	0.560
	More than 1974 NIS	92	4.000	0.552		

Table (4.20) indicated that there were statistically no significant differences in perception about gained knowledge ($P= 0.585$), gained skills ($P= 0.626$), and relevancy of IST activities ($P= 0.560$) related to monthly income.

Most of the nurses are earning low salary due to the current political situation in GS as the majority of nurses receive 60% of their monthly salary. Having a job is the dream for graduates even with low salary. I think that other factors rather than income may influence the perception about IST, such as workload, working evening and night shifts, and shortage of nurses may affect the perception about IST.

Table (4.21a): Differences in perception about effectiveness of in-service activities related to number of received activities (n= 337)

Number of activities		n	Mean	SD	F	P value
Knowledge	1	164	3.968	0.584	4.009	0.003 *
	2	106	4.048	0.472		
	3	37	4.210	0.382		
	4	20	4.161	0.266		
	5	10	4.488	0.363		
	Total	337	4.047	0.520		
Skills	1	164	4.041	0.578	2.798	0.026 *
	2	106	4.077	0.521		
	3	37	4.290	0.356		
	4	20	4.156	0.428		
	5	10	4.437	0.500		
	Total	337	4.099	0.536		
Relevancy	1	164	3.972	0.602	1.350	0.251
	2	106	4.060	0.506		
	3	37	4.088	0.469		
	4	20	4.064	0.423		
	5	10	4.314	0.414		
	Total	337	4.028	0.546		

Table (4.21b): Multiple comparisons LSD Post hoc for number of received in-service training activities

Domain	Number of IST activities		Mean Difference	P value
Knowledge	5 activities	1 activity	0.520	0.002 *
		2 activities	0.440	0.010 *
		3 activities	0.278	0.128
		4 activities	0.327	0.099
	3activities	1 activity	0.241	0.010 *
Skills	5 activities	1 activity	0.395	0.023 *
		2 activities	0.359	0.041 *
		3 activities	0.146	0.438
		4 activities	0.281	0.172
	3 activities	1 activity	0.248	0.010 *
		2 activities	0.212	0.037 *

Table (4.21a) demonstrated that there were statistically significant differences in gained knowledge (0.003) and gained skills (0.026) related to the number of received IST activities, while there were no significant differences in perception about relevancy of IST activities. To find the direction of these differences, the researcher performed Post hoc LSD test as presented in table (4.21b), which indicated that nurses who participated in five IST activities expressed statistically significant higher gained knowledge compared to nurses who participated in one activity (0.002), and two activities (0.010). Also, nurses who participated in three IST activities showed significant higher gained knowledge than nurses who participated in one IST activity (0.010). In addition, nurses who participated in five IST activities expressed statistically significant higher gained skills than nurses who participated in one activity (0.023), and two activities (0.041). Also, nurses who participated in three IST activities showed statistically significant higher gained skills than nurses who participated in one activity (0.010) and two activities (0.037).

This result agreed with the results of Pueyo-Garrigues et al. (2022) which indicated that nurses who had received health education training had higher knowledge and skills compared to those who did not receive training. In addition, comparing age terciles, findings showed there were significant differences in the scores of total knowledge and skills domains, as well as in each of the skills dimensions. Comparisons by sex reflected male nurses scored higher for the “knowledge about pedagogical techniques” dimension.

This result is logic, as more participation and engagement in IST lectures and courses will result in gaining new knowledge and skills and strengthen the competence of nurses, which will lead to higher performance and higher quality of nursing care.

4.4 Response to open-ended questions

The participants were asked give their opinion about positive points of the training activities, areas that need to be improved, and recommendations to improve the quality of IST activities. The most frequent responses of the study participants were as the following:

1. Positive points of training activities:

- Qualified trainers: the majority of respondents stated that the trainers were competent and qualified as trainers.
- Knowledge and skills: most of the respondents mentioned that they gained new knowledge and updated their skills from the training and educational activities, especially the BLS, which they considered as a basic skill that every nurse should know.
- Relevancy of the training activities: most of the respondents said that the training activities were relevant to their career, and they were most interested in training activities related to management of emergency and life threatening conditions, such as BLS and ACLS.

2. Activities that need to be improved:

- Medication errors: the need to increase the attention on training about medication preparation and administration, especially intravenous medication for newly employed nurses.
- The midwives need more training about recognizing and management of high risk pregnancy.
- More efforts are needed to improve the communication skills with patients and their relatives.

3. Recommendations to improve IST activities

- To put annual plan with defined topics and dates for training activities, so nurses know in advance the dates of training.
- Allocate adequate time for IST activities to make sure that the nurses gain the needed knowledge and skills from the training.
- Provide incentives to motivate the nurses to attend the IST activities, and this could be achieved by considering attendance in the performance appraisal, promotion, and choosing suitable time for the training activities.

Chapter Five

Conclusion and Recommendations

5.1 Conclusion

This study explored the nurses' perception about the effectiveness of in-service training activities at governmental hospitals in GS. The study included 337 nurses from five governmental general hospitals, one pediatric hospital, and one maternity hospital.

The results of the study reflected that the nurses perceived the effectiveness of knowledge contents of IST activities as above moderate, the effectiveness of skills content was above moderate, and the relevancy of the IST activities was above moderate.

Significant higher perception about knowledge and skills content existed among nurses from Al Emaraty hospital, female gender, nurses working in maternity departments, attending three and five in-service training activities. Insignificant differences in perception about knowledge and skills content was apparent in relation to age, qualification, experience in nursing, experience in current department, job title, job description, marital status, and income.

The study concluded that there was above moderate perception about the effectiveness of in-service training activities at governmental hospitals in GS.

5.2 Recommendations

In the light of the study results, the researcher recommended the following:

For administration

- The need to pay more attention to in-service education and training as a mean for staff development and improve the quality of health services.
- Provide adequate time for continuous education and in-service training to allow for in-depth explanation and practice of the intended skills.
- To establish a rewarding system to motivate trainers and trainees to participate in the in-service training activities.
- To include the participation in in-service training activities as a requirement for promotion and performance appraisal.

For nurses

- To increase attendance of in-service training activities to enhance self-development and increase competency level.
- To participate actively in in-service training activities to maintain updated knowledge and skills, which will improve nurses' performance.
- To put a plan of time management that allow for free time to attend the in-service training activities.

5.3 Suggestions for further studies

- To carry out a study aiming to determine the educational and training needs of the nurses.
- To commence a study to examine the effects of in-service training activities on performance of nurses.
- To conduct a study aiming to identify internal and external motivators that would enhance nurses' participation in in-service training activities.

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Annexes

Annex (1): Perception about effectiveness of in-service training questionnaire in Arabic



الأخ/الأخت: حفظكم الله
أنا الباحثة/ كفاية المملوك أقوم بجمع البيانات من أجل البحث الخاص بي للحصول على درجة الماجستير في إدارة التمريض من جامعة القدس-أبو ديس.
وهي بعنوان: نظرة الممرضين والممرضات حول أنشطة التدريب الداخلي في المستشفيات الحكومية في قطاع غزة - فلسطين،

Perception of Nurses Toward In-Service Training Activities at Governmental Hospitals in Gaza Strip, Palestine

يشترط للمشاركة أن يكون الممرض/الممرضة قد حضر على الأقل نشاط تعليم داخلي بالمستشفى واحد خلال آخر سنتين. يرجى التكرم بالإجابة على الاستبانة مع العلم أن المعلومات ستستخدم لغرض البحث العلمي ولن ترتبط بأشخاصكم ومشاركاتكم طوعية وستعود بالنفع على التخطيط للتعليم الداخلي مستقبلاً.

وتقبلوا كل التحية والتقدير ،،،،

الباحثة

كفاية جمال عبدالله بركة

أولاً: المعلومات الشخصية

اسم المستشفى الذي تعمل به:
الجنس:	<input type="checkbox"/> ذكر <input type="checkbox"/> أنثى
العمر بالسنوات:	سنة.....
المؤهل العلمي:	<input type="checkbox"/> دبلوم <input type="checkbox"/> بكالوريوس <input type="checkbox"/> ماجستير <input type="checkbox"/> دكتوراه
الخبرة العملية في مجال التمريض:	سنة.....
قسم عملك الحالي:
الخبرة في هذا القسم:	سنة.....
المسمى الوظيفي:	<input type="checkbox"/> عضو فريق بقسم تمريض <input type="checkbox"/> رئيس قسم تمريض <input type="checkbox"/> مشرف أقسام تمريض
هل لديك وصف وظيفي:	<input type="checkbox"/> نعم <input type="checkbox"/> لا
الحالة الاجتماعية:	<input type="checkbox"/> أعزب <input type="checkbox"/> متزوج <input type="checkbox"/> مطلق / أرملة
متوسط الدخل الشهري: شيكل
كم عدد الأنشطة التدريبية التي تلقيتها من خلال مؤسستك (مستشفاك ووزارة الصحة) في آخر سنتين؟	

ثانياً: أنشطة التدريب أثناء الخدمة التي تم تلقيها خلال آخر سنتين في مكان عملك:

1: وصف أنشطة التدريب أثناء الخدمة التي تلقيتها في آخر 2 سنوات (بحد أقصى 5 أنشطة)

عنوان الدورة	المدة (ساعات)	سنة الدورة	الجهة المنفذة	مكان التدريب
1			<input type="checkbox"/> موظفو المستشفى <input type="checkbox"/> خارجيون	<input type="checkbox"/> داخل المستشفى <input type="checkbox"/> خارج المستشفى
2			<input type="checkbox"/> موظفو المستشفى <input type="checkbox"/> خارجيون	<input type="checkbox"/> داخل المستشفى <input type="checkbox"/> خارج المستشفى
3			<input type="checkbox"/> موظفو المستشفى <input type="checkbox"/> خارجيون	<input type="checkbox"/> داخل المستشفى <input type="checkbox"/> خارج المستشفى
4			<input type="checkbox"/> موظفو المستشفى <input type="checkbox"/> خارجيون	<input type="checkbox"/> داخل المستشفى <input type="checkbox"/> خارج المستشفى
5			<input type="checkbox"/> موظفو المستشفى <input type="checkbox"/> خارجيون	<input type="checkbox"/> داخل المستشفى <input type="checkbox"/> خارج المستشفى
2	مستوى المعرفة (10 - 0)	مستوى المهارة (10 - 0)	مستوى الملاءمة (حسب نوع العمل الذي تقوم به) (10 - 0)	كيف يمكنك تصنيف مستوى المعرفة والمهارات ومدى ملاءمة إجمالي الدورات التدريبية التي تلقيتها بمقياس من (10-0) بحيث صفر هو أدنى مستوى و 10 هو أعلى مستوى
3	1. ممتاز	2. جيد جدا	3. متوسط	4. ضعيف

ثالثاً: تصور فعالية أنشطة التدريب أثناء الخدمة

ضع علامة (x) أمام كل عبارة من العبارات التالية بما يتفق مع وجهة نظرك الشخصية

المعرفة		أوافق بشدة	أوافق	محايد	لا أوافق	لا بشدة أوافق
1	ساعدني محتوى المادة التدريبية على اكتساب معرفة جديدة.					
2	معظم المعرفة التي اكتسبتها ركزت على العمل التمريضي					
3	المعرفة العلمية للتدريب المقدم أثناء الخدمة حديثة.					
4	ترتبط المعرفة التي تم توفيرها في أنشطة التدريب بأنشطتي اليومية في عملي					
5	المعرفة التي تم توفيرها تغطي معظم أنواع الرعاية للمرضى المنومين في قسمي					
6	ساهمت المعرفة التي تم توفيرها من خلال التدريب في تحسين ممارستي مع المرضى					
7	زادت معرفتي بأنشطة التدريب من قدرتي على المشاركة في المناقشات مع زملائي					
8	معرفة أنشطة التدريب حسنت من قدراتي على التفكير النقدي					
9	المعرفة التي تم توفيرها من خلال أنشطة التدريب حسنت مهاراتي في التواصل					
المهارات		أوافق بشدة	أوافق	محايد	لا أوافق	لا بشدة أوافق
1	أطبق معظم المهارات التي اكتسبتها من الأنشطة التدريبية					
2	ساعدني التدريب على القيام بأشياء لم أقم بها من قبل					
3	حسنت الأنشطة التدريبية مهاراتي المهنية					
4	ساعدني التدريب على تطوير مهاراتي					
5	التدريب مهم جداً لرفع مستوى الأداء المهني					
6	تحسن أدائي من خلال التدريب أثناء الخدمة					
7	تضمنت الأنشطة التدريبية مهارات عملية قابلة للتطبيق					
8	أشعر بثقة أكبر في مهاراتي بعد التدريب					
العلاقة والصلة		أوافق بشدة	أوافق	محايد	لا أوافق	لا بشدة أوافق
1	كانت أهداف الأنشطة التدريبية ذات صلة بعملتي					

2	الأنشطة التدريبية تلبي احتياجاتي المهنية				
3	كانت الأنشطة التدريبية ذات صلة برعاية مرضاي				
4	كان محتوى الأنشطة التدريبية ذا صلة بالوصف الوظيفي لعملي				
5	كانت البرامج التدريبية مناسبة لمستوى المتدربين				
6	كانت مدة الأنشطة التدريبية كافية لتلبية احتياجات عملي				
7	التدريب ذو علاقة ببروتوكولات العمل في المستشفى				

رابعاً - ما هي أهم النقاط الإيجابية في الأنشطة التدريبية؟

1.
2.
3.

خامساً - ما هي أهم الأنشطة التدريبية التي تحتاج إلى تحسين؟

1.
2.
3.

سادساً - ما الذي توصي به لتحسين جودة الأنشطة التدريبية داخل المستشفى الخاص بك في المستقبل؟

1.
2.
3.

شكراً لكم على تعاونكم

Annex (2): Questionnaire in English

I. Personal information

Hospital:
Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female
Age: years
Qualification:	<input type="checkbox"/> Diploma <input type="checkbox"/> Bachelor's <input type="checkbox"/> Master <input type="checkbox"/> PhD
Experience in nursing: Years
Department of your current work:
Experience in this department: Years
Job title:	<input type="checkbox"/> Team member <input type="checkbox"/> Head nurse <input type="checkbox"/> Supervisor
Availability of job description:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Marital status:	<input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Divorced / Widow
Monthly income: Shekel
How many training activities did you receive through your organization in the last 2 years?	

I. In-service training activities received during the last 2 years of your work:

A: Describe the in-service training activities you received in the last 2 years (maximum 5 activities)

course title		Duration (hours)	Year	Provider		Place of training
1				<input type="checkbox"/> Hospital staff External	<input type="checkbox"/>	<input type="checkbox"/> Inside the hospital <input type="checkbox"/> Outside the hospital
2				<input type="checkbox"/> Hospital staff External	<input type="checkbox"/>	<input type="checkbox"/> Inside the hospital <input type="checkbox"/> Outside the hospital
3				<input type="checkbox"/> Hospital staff External	<input type="checkbox"/>	<input type="checkbox"/> Inside the hospital <input type="checkbox"/> Outside the hospital
4				<input type="checkbox"/> Hospital staff External	<input type="checkbox"/>	<input type="checkbox"/> Inside the hospital <input type="checkbox"/> Outside the hospital
5				<input type="checkbox"/> Hospital staff External	<input type="checkbox"/>	<input type="checkbox"/> Inside the hospital <input type="checkbox"/> Outside the hospital
B	How can you classify the level of knowledge, skills, and relevancy of the overall training courses you received (0-10) zero is the lowest level and 10 is the highest level	Knowledge level (0 – 10)	Skill level (0 – 10)	Relevancy level (to type of work you do) (0 – 10)		
C	The performance of trainers was?	1.excellent	2. very good	3.moderate		4.poor

Perception of effectiveness of in-service training activities

II. Put (x) mark in front each of the following statements

	Knowledge	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The content of the training material helped me to gain new knowledge.					
2	Most of the knowledge I gained was focused on nursing activities					
3	The scientific knowledge of in-service training is up-to-date.					
4	The knowledge that was provided in training activities is related to my day to day activities in my job					
5	The knowledge that was provided covers most types of care for patients admitted to my department					
6	The knowledge that was provided through training contributed to improve my practice with patients					
7	The knowledge of training activities increased my ability to participate in discussions with my colleagues					
8	The knowledge of training activities improved my critical thinking abilities					
9	The knowledge that was provided through training activities improved my communication skills					
	Skills	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I apply most of the skills I have gained from training activities					
2	The training helped me do things I had not done before					
3	The training activities improved my professional skills					
4	The training helped me to develop my skills					
5	Training is very important to raise the level of professionalism					
6	My performance improved by in-service training					
7	The training activities contained applicable practical skills					
8	I feel more confident in my skills after training					
	Relevancy	Strongly agree	Agree	Neutral	Disagree	Strongly disagree

1	The objectives of the training activities were relevant to my work					
2	Training activities met my professional needs					
3	Training activities were relevant to care of my patients					
4	The content of the training activities was relevant to my job description					
5	Training programs were appropriate to level of trainees					
6	Duration of training activities were sufficient to meet my work needs					
7	Training is consistent with working protocols of the hospital					

IV- What were the most important positive points of the training activities?

1.
2.
3.

V- What are the most important activities that need to be improved?

1.
2.
3.

VI- What do you recommend to improve the quality of in-service education activities at your hospital in future?

- 1.....
- 2.....
- 3.....

Thank you for your cooperation

Annex (3): Names of judgement panel

Dr. Khalil Shaqfa	Ministry of Health
Dr. Khalil Shueib	Palestine College of Nursing
Dr. Fareed Gareep	Al-Quds University
Dr. Wael Mekky	Palestinian Red Crescent
Dr. Yousef Awad	University of Palestine
Dr. Maysa Osta	Al-Quds University
Dr. Akram Abu Salah	Palestine College of Nursing
Dr. Abdel Mohsen Abu Fanona	Al-Quds University
Mr. Abdel Raheem Shaqora	Ministry of Health
Mr. Yousuf Elshamy	Ministry of Health

Annex (4): Request for data collection

Al-Quds University
Faculty of Health Professions
Nursing Dept. - Gaza

جامعة القدس
كلية المهن الصحية
حائرية التمريض - غزة

AL QUDS UNIVERSITY

التاريخ: 2022/10/31

حضرة الأخ/ أ. هاني سلطان الوحيدي
مدير عام وحدة المعلومات الصحية بوزارة الصحة
السلام عليكم ورحمة الله وبركاته

حفظه الله

الموضوع: تسهيل مهمة الطالبة الباحثة كفاية المملوك (بركة)

تهديكم كلية المهن الصحية بجامعة القدس أطيب التحيات، ونرجو من حضرتكم مساعدة الطالبة المذكورة بتسهيل مهمتها في توزيع وتعبئة استبانة الدراسة الخاصة بموضوع دراستها البحثية بعنوان:

Perception of Nurses Toward In-Service Training Activities at Governmental Hospitals in Gaza Strip, Palestine

حيث هذه الدراسة من متطلبات الحصول على درجة الماجستير في إدارة التمريض وستكون عينة الدراسة من الممرضين والممرضات العاملين في أقسام مستشفيات وزارة الصحة.

وتفضلوا بقبول وافر الاحترام والتقدير

د. حمزة محمد عبد الجواد
أستاذ مساعد في علوم التمريض
منسق برامج ماجستير التمريض بغزة
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التمريض
Nursing Department

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ون: 08 2644210+08 2644220
اكس: 082644220

Annex (5): Approval from MoH

State of Palestine
Ministry of health



دولة فلسطين
وزارة الصحة

التاريخ: 01/11/2022
رقم المراسلة 1101743

السيد : جهاد عبدالقادر عكاشه المحترم

مدير دائرة الإدارة العامة للمؤسسات الإدارية المساعدة /وزارة الصحة

السلام عليكم ...

الموضوع/ تسهيل مهمة الباحث كفاية جمال عبد الله بركة / المملوك

التفاصيل //

السلام عليكم

نهدىكم أطيب التحيات ونود منكم تسهيل مهمة الباحث/ة كفاية جمال عبد الله بركة الملتحق/ة ببرنامج ماجستير إدارة التمريض - جامعة القدس أبو ديس في اجراء بحث بعنوان:

Perception of nurses toward in-service training activities at governmental hospitals in Gaza Strip, Palestine

حيث الباحث/ة بحاجة لتعبئة استبانة من عدد من العاملين في مرافق وزارة الصحة (المستشفيات)، دون اجراء أي تدخل طبي او سحب عينات دم ، نأمل توجيهاتكم لذوى الاختصاص بضرورة الحصول على الموافقة المستنيرة من المشاركين ، بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات البحث العلمي، ودون تحمل الوزارة أي أعباء أو مسئولية

وتفضلوا بقبول التحية والتقدير

ملاحظات /

تسهيل المهمة الخاص بالدراسة أعلاه صالح لمدة 3 أشهر من تاريخه.

يرجى التأكد من توافق الاستبانة المرفقة والتي يتم تعبئتها ميدانيا على أن لا يتم أي إضافة أو تعديل على الاستبانة المرفقة

علي حسن البليسي
حكيم جامعي

المرفقات

■ أدوات البحث كفاية جمال عبد الله بركة - المملوك.pdf



Annex (6): Helsinki Committee for Ethical Approval

**المجلس الفلسطيني للبحوث الصحي**
Palestinian Health Research Council
تعزيز النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار
Developing the Palestinian health system through institutionalizing the use of information in decision making

Helsinki Committee
For Ethical Approval

Date: 2022/12/05
Name: Kifaya Jamal Elmamlouk

Number: PHRC/HC/1207/22
الاسم:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:
We would like to inform you that the committee had discussed the proposal of your study about:

Perception of Nurses Toward In-Service Training Activities At Governmental Hospitals in Gaza Strip, Palestine

وقد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه
The committee has decided to approve the above mentioned research. Approval number PHRC/HC/1207/22 in its meeting on 2022/12/05

Signature

Member


Chairman


Member


Genral Conditions:-

1. Valid for 2 years from the date of approval.
2. It is necessary to notify the committee of any change in the approved study protocol.
3. The committee appreciates receiving a copy of your final research when completed.

Specific Conditions:-



Abstract in Arabic

عنوان الدراسة: نظرة الممرضين والممرضات حول أنشطة التعليم والتدريب الداخلي في المستشفيات الحكومية في قطاع غزة.

إعداد: كفاية جمال عبدالله بركة

إشراف: د. حمزة عبد الجواد

الملخص:

يتوجب على كل مستشفى تقديم أنشطة تدريبية تؤدي إلى تحسين جودة الخدمات الصحية المقدمة للمرضى. هدفت الدراسة إلى التعرف على رؤية الممرضين والممرضات حول أنشطة التعليم والتدريب الداخلي في المستشفيات الحكومية في قطاع غزة. وقد تم استخدام المنهج الوصفي المقطعي التحليلي، وتكونت عينة الدراسة من 337 ممرض وممرضة ممن التحقوا بأنشطة التعليم والتدريب الداخلي، وقد تم اختيارهم بالطريقة النسبية الغير احتمالية. تضمنت الدراسة سبع مستشفيات حكومية، منها خمسة مستشفيات عامة (المستشفى الإندونيسي، مجمع الشفاء الطبي، مستشفى شهداء الأقصى، مجمع ناصر الطبي، ومستشفى غزة الأوروبي)، ومستشفى النصر للأطفال والمستشفى الإماراتي للولادة. لجمع البيانات، قامت الباحثة بإعداد استبانة لقياس رؤية الممرضين والممرضات حول أنشطة التعليم والتدريب الداخلي في المستشفيات، وقد تم استخدام مقياس ليكرت الخماسي لتصحيح فقرات الاستبانة، كما تم إجراء دراسة استطلاعية على عينة مكونة من 28 فرداً للتأكد من صدق وثبات الاستبانة، وقد بلغ معامل ألفا لجميع فقرات الاستبانة 0.918. لتحليل البيانات تم استخدام برنامج الرزم الإحصائية للعلوم الاجتماعية (SPSS 25)، واستخدمت الباحثة المعالجات الإحصائية التالية: التكرارات، المتوسط الحسابي، النسبة المئوية، اختبار (ت)، واختبار تحليل التباين الأحادي. أظهرت نتائج الدراسة أن 52.2% من المشاركين في الدراسة كانوا من الممرضات و47.8% كانوا من الممرضين، وبلغ متوسط العمر 33.39 سنة، 73.3% من المشاركين في الدراسة حاصلين على درجة البكالوريوس، بلغ متوسط سنوات الخبرة في القسم 6.233 سنة، 48.7% التحقوا بنشاط تدريبي واحد على الأقل أثناء الخدمة و31.5% التحقوا بنشاطين تدريبيين خلال السنتين الأخيرتين. وأظهرت النتائج أن 84% من المشاركين في الدراسة التحقوا بأنشطة تدريبية تختص بحالات الطوارئ، 83.7% من الأنشطة التدريبية تمت من خلال مدربين من داخل المستشفيات، كما أن 83.1% من الأنشطة التدريبية تمت داخل أروقة المستشفيات.

بينت النتائج أن رؤية المشاركين في الدراسة حول المحتوى المعرفي للأنشطة التعليمية والتدريبية الداخلية كان بدرجة فوق المتوسطة (80.8%)، كما أن رؤيتهم حول المحتوى المهاري كان بدرجة فوق المتوسطة (81.8%)، أيضاً كانت رؤيتهم حول ملائمة الأنشطة التدريبية بدرجة فوق المتوسطة (80.4%).

كما أظهرت النتائج وجود علاقة ارتباطية إيجابية بين كل من المحتوى المعرفي والمحتوى المهاري وملاءمة الأنشطة التدريبية لاحتياجات التمريض. وأظهرت النتائج أن المشاركين في الدراسة من المستشفى الإماراتي أعطوا قيمة أعلى للمحتوى المعرفي والمحتوى المهاري للأنشطة التدريبية مقارنة بالمشاركين في الدراسة من المستشفيات الأخرى، كما أن تقييم الممرضات للمحتوى المعرفي للأنشطة التدريبية كان بدرجة أعلى من تقييم الممرضين بينما لم توجد فروق دالة إحصائية في تقييم المحتوى المهاري وملاءمة الأنشطة التدريبية بين الممرضين والممرضات.

وأظهرت النتائج أن المشاركات في الدراسة من أقسام الولادة كانت رؤيتهم حول المحتوى المعرفي والمحتوى المهاري للأنشطة التدريبية أعلى من الأقسام الأخرى، في حين أن الممرضين العاملين في

أقسام الأطفال كانت رؤيتهم حول ملاءمة الأنشطة التدريبية أعلى من الأقسام الأخرى. وبينت النتائج أن الممرضين الذين التحقوا بثلاثة أو خمسة أنشطة تدريبية أعطوا قيمة أعلى للمحتوى المعرفي والمحتوى المهاري مقارنة بأقرانهم الذين التحقوا بنشاط واحد أو نشاطين تدريبيين. في المقابل، لم توجد فروق ذات دلالة إحصائية في رؤية المشاركين في الدراسة حول فعالية الأنشطة التدريبية الداخلية تعزى لكل من العمر، المؤهل العلمي، سنوات الخبرة في مهنة التمريض، سنوات الخبرة في القسم الحالي، المسمى الوظيفي، الحالة الاجتماعية، والدخل الشهري. خلصت الدراسة إلى أن رؤية الممرضين حول فعالية الأنشطة التعليمية والتدريبية الداخلية كانت بدرجة فوق المتوسطة. أوصت الدراسة بالحاجة إلى منح الوقت الكافي للأنشطة التعليمية والتدريبية الداخلية، وتخطيط الأنشطة التدريبية بحيث تكون ملاءمة لكل قسم من أقسام المستشفى.