Clinical Training Factors that Hinder or Facilitate Nursing Students' Learning: Its Effect on their Clinical Performance

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Abstract: Background: Effective clinical training is crucial for nursing students' success so in order to gain the appropriate qualifications for providing patient care, they should use their knowledge and abilities in clinical settings. **Purpose**: Identify clinical training factors that hinder or facilitate nursing students' learning and its effect on their clinical performance. **Methods: Design**: A descriptive correlation research design was used in this study. **Setting**: Conducted in two nursing secondary schools: Menouf Secondary Nursing School and sers-Ellain Secondary Nursing School. **Sampling**: A consecutive sample of 184 nursing students were included. **Instruments:** Two instruments were used for data collection: Nursing students'opinion regarding facilitating and hindering factors for learning during clinical training questionnaire and clinical performance observational checklist. Result: It was revealed that more than two thirds of study sample perceived clinical training factors as facilitating factors, while approximately one third of study sample did not perceive clinical training factors as facilitating factors. More than one quarter (29.9 – 27.7) of nursing students showed a very good to good performance level. While, more than one fifth of nursing students (21.7) showed an excellent performance level. **Conclusion**: There was a highly positive correlation between clinical training facilitating factors and nursing students' clinical performance. **Recommendation**: collaboration between hospital staff and nursing school staff to facilitate nurse students' induction to real work world. Apply workshop for nursing teachers about how to overcome clinical training hindering factors.

Key words: clinical training factors, clinical performance, Nursing students' learning.

Introduction

Through its specialized studies and talents, the challenging and complicated profession of nursing promotes physical, mental, and social health (Perry et al., 2019). A profession or community intentionally

conveys its acquired information, skills, habits, and values from one generation to the next through the formal process of education (AbdulGaniyu & Abdullahi, 2020). A corpus of knowledge, skills, attitudes, values, and habits are included in nursing education that are partially taught to students in classroom settings as well as through supervised and organized clinical training in patient care settings and demonstration simulation labs (Heradien, 2019).

The primary aim of nursing programs globally is to produce qualified nursing graduates who can handle common health issues in the community. This is accomplished by giving nursing students real-world clinical experiences so they may apply and integrate their academic learning (Lin et al., 2022). It will be beneficial for students' motivation and the development of their clinical competence if nursing students are given enough exposure to a variety of clinical circumstances (Wu et al. 2020).

The preclinical and clinical phases of the nursing school curriculum are generally separated into two separate sections. Students are typically exposed to clinical cases at a late time (Pfeifer, 2018). The core of the baccalaureate nursing program is clinical practice. It equips nursing students with the necessary knowledge, attitudes, and abilities for their future careers (Liang et al. 2019).

One of the responsibilities of nursing schools is producing graduates that excel in their particular professions and are values-driven, highly skilled, and

inventive. The school of nursing must take action to draw promising and talented nursing students who are capable of becoming skilled professionals (Panimdim & Ismael, 2018). The knowledge that is taught to nurses determines their competency. The theory that supports nursing practice is taught in both theoretical and practical settings in the bachelor of science in nursing program (Gassas, 2021).

A nursing student needs to develop both clinical skills and knowledge while taking educational courses. The school of nursing considered clinical training as the basic part in nursing education (Jefferies et al. 2018). Nursing students must apply their abilities and knowledge in clinical places to gain the appropriate qualifications for caring for patients and their success is greatly influenced by effective clinical training. (McAllister, 2019). Clinical training is considered as soul of nursing learning. For nursing students, creating a conducive learning environment in clinical settings is essential as a significant portion of their training and studies take place there (Zheng et al., 2023).

One of the factors influencing the clinical learning process is the perception of nursing teachers and students as they consider the primary owners of the teaching-learning process (Elbilgahy et al., 2020). Clinical training is a crucial component of professional nursing learning because it gives nursing students the values, abilities, attitudes, and knowledge needed for the best possible

practice in the field (Aboshaiqah & Qasim, 2018) Nursing graduates have been shown to possess inappropriate professional traits, and nursing schools have done little research on the difficulties associated with learning clinical skills (Gaber et al., 2019).

Up to half of the educational experience for nursing students enrolled in pre-registration nurse education program is gained through clinical practice (Hill et al., 2020). The value of this kind of experiential learning is significant in fields like nursing that emphasis on practical application. The two basic points of view are: (a) Clinical practice learning experiences of nursing students and (b) an examination of various educational models for pre-registration nurse training programs, focusing on the clinical training placement component (Tuomikoski et al., 2020).

Clinical training enables students to apply their theoretical knowledge into reality, to become competent in their psychomotor and cognitive abilities, to use critical thinking, identify and resolve problems, to make decisions, to work in teams, to develop their communicative, administrative and teaching skills, to prepare them for future roles, and to grow in their confidence (Ryan et al., 2022).

Numerous issues challenge nursing students, particularly throughout their practical training. These elements may prevent nursing students' competency from developing (Alghamdi et al. 2019). To get the most out of this component of nursing education, it is crucial to be aware of any problem that can influence how nursing students learn in the clinical setting (Cornine, 2020). All healthcare organisations are concerned about the competency of newly graduated nurses. Previous studies have revealed that they have different levels of competency (Charette et al. 2020).

Nursing students faced difficulties during clinical training due to a lack of qualified instructors, inadequate facilities, a staff that was uncooperative, a lack of procedures for students to practice, a lack of clinical education tasks, a mismatch between the objectives and the curriculum for clinical education, and a lack of prerequisite knowledge before entering the clinical fields. Also inadequate learning opportunities, a lack of student motivation, a lack of information about the field, the execution of acquired objectives in clinical settings, and students' ignorance of the objectives and evaluation methods (Markowski et al., 2021).

Clinical performance is the total capacity to carry out nursing interventions and practises in a safe and effective manner while utilising skills, knowledge, attitude, and professional values (Nabizadeh-Gharghozar et al., 2021). Clinical performance is the extent to which a person can use their professional knowledge, abilities, and judgement to perform well in the range of potential encounters (Agea et al. 2019). Clinical performance has been defined as a nursing student's capacity to exhibit knowledge of nursing care and technical proficiency (Terry & Peck, 2020). The degree to which a student

nurse provides clinical services that are appropriate for each patient's condition is referred to as clinical performance. Nursing students' clinical performance includes the proper diagnosis and treatment of patients as well as the application of suitable nursing procedures and tools for effective communication (Potter et al., 2021). Nursing students can practice and develop their decision-making and prioritizing abilities, which enhances their clinical performance and raises the possibility of improving patient outcomes (Lau et al., 2020). The practical section of nursing education has always been essential. Nursing students are prepared to be capable of both "knowing" and "doing" the clinical concepts of patient care through this program (Richard et al., 2018). The clinical experiences of nursing students give educators more knowledge about how to create efficient clinical teaching strategies (Tuomikoski et al., 2020).

Numerous authors contend that teaching those abilities as part of a comprehensive strategy to teaching disciplinary knowledge and general skills inside course curricula is the best way to ensure that students obtain the necessary competencies (Zumstein-Shaha & Grace, 2023). Students must show that they can combine these professional criteria of the qualified nurse for whom they are preparing in order to develop nursing practice, which necessitates the synchronization of both knowledge application and clinical abilities. (Kadhila, 2023).

Significance of the study

There is no denying the significance of clinical performance in the development of clinical, professional, and personal skills in nursing education. It has been demonstrated that good clinical performance among nursing students enhances clinical competencies, enabling them to provide patients with extremely acceptable, timely, appropriate, quality, and cost-effective care (Kajogo, 2018). From the investigator's clinical experience in nursing school observed that the school laboratories were not sufficiently equipped to serve students' training in addition to the overcrowded inside clinical training hospitals which impedes students' acquisition of sufficient skills and experience to provide nursing care to patients. Therefore, the current study will be conducted to identify clinical training factors that hinder or facilitate nursing students' learning and its effect on their clinical performance.

Purpose

This study aimed to identify clinical training factors that hinder or facilitate nursing students' learning and its effect on their clinical performance.

Objectives

- Assess nursing students' perception regarding clinical training factors that hinder their learning.
- Assess nursing students' perception regarding clinical training factors that facilitate their learning.
- Assess nursing students' clinical performance levels.
- Assess the relationship between clinical training factors that hinder or

facilitate nursing students' learning and their clinical performance.

Methods:

Design:

A descriptive correlation research design was used in this study.

Study Setting:

This study was carried out in two nursing secondary schools namely: Menouf Secondary Nursing School which is considered one of the oldest nursing schools in the Governorate and Sers-Ellain Secondary Nursing School which had been established since 2019. Teaching at theses nursing school is carried out in a three-year system.

Sample:

The subjects included a consecutive sample of 184 nursing students who accepted to participate in the study, enrolled in second and third grade in previous mentioned setting at the academic year 2021/2022.

Instruments:

To achieve the objectives of the current study two instruments were used.

First instrument: Nursing students'opinion regarding facilitating and hindering factors for learning during clinical training that consists of two parts:

- **Part one:** Academic characteristics (school's name, scholastic grade, total grade of nursing in previous year and the reason for joining the nursing school was collected too).

- **Part two: Clinical training factors questionnaire** this questionnaire was adapted from Ahmed (2016) and modified by the investigator. It was used to assess clinical training factors that facilitate and hinder nursing students' learning. The questionnaire included 107 items regarding the following six main dimensions; Student preparation includes 27 items, learning opportunities includes 15 items, student relationships includes 35 items, characteristics of nurse teachers includes 5 items, facilities provided from hospital to support clinical training includes 17 and facilitates provided from school administration to support clinical training includes 8 items.

Scoring system:

It was measured using three points Likert scale ranging from agree 3 to disagree 1. The score was categorized into < 2, ≥2 where the value 2 is the median value: -

- ◆The items' score <2 was defined as hindering factors.
- ◆The items' score ≥2 was defined as facilitating factors.

The total score of each nursing student's perspective was converted into a percentage score, maximum score will be 100%: -

♦If the score was equal or more than 80% = perceived as facilitating factor.

♦If the score is less than 80% = perceived as hindering factor.

Second instrument: Clinical performance observational checklist:

This observational checklist was adapted from Eid (2003) and modified by the investigator. It aims to assess clinical performance of nursing students. It includes 39 items related to the following six dimensions: Assessment (10 items), Nursing diagnosis (4 items), Planning (5 items), Implementation (11 items), Health education
(5 items) and Evaluation (4 items).

Scoring system:

Each question was scored 1 if the action was done, 0 if the action was not done. The score of each nursing student was converted into a percentage score, a maximum percentage was 100%. If the score was equal or more than 80% the performance was considered as an excellent, the score from 75% to less than 80% was
considered as a very good performance, the score from 60% to less than 75% was considered as a good performance, the score was less than 60% was considered as a poor performance as designed by statistical analyst.

Validity of the instruments:

A Bilingual group of five experts was selected to test face validity of the instrument from Nursing Administration department (3 experts from Menoufia University and 2 experts from Benha University). It was used to judge its clarity, relevance, and accuracy. Minor modification and rephrasing of some statements were done based on the jury's opinions (e.g. rephrasing some verbs from "talk, using screen, indicate the changes, formulate the information" into" communicate, maintain privacy, mentor the changes, assure the information "). The instruments were considered valid from the experts' perspective.

Reliability of the instruments:

Reliability of the two instruments was tested by Cronbach's Alph test, reliability of Nursing students'opinion regarding facilitating and hindering factors for learning during clinical training was 0.90 while the reliability of Clinical performance observational checklist was 0.94.

Pilot study:

After reviewing the instruments by the experts, the investigator conducted a pilot study before administering the final questionnaire. The purpose of the pilot study was to ascertain clarity, relevance, applicability of the study instruments and to determine obstacles that may be encountered during data collection. It also helped to estimate the time needed to fill the questionnaires which was estimated to be 25-30 minutes for each questionnaire. The pilot study was carried on 18 nursing students who presented (10%) of sample size. Some modifications were recommended such

as replacing negative statements with positive statements to avoid conflict and confusion. So, the sample of the pilot study was excluded from the study.

Ethical considerations

An official approval has been obtained from Research and Ethical committee of Faculty of nursing, Menoufia University. The study was conducted with careful attention to ethical standards of research and the rights of participants. The respondents' rights were protected by ensuring voluntary participation; so that informed consent was obtained by explaining the purpose, nature, time of conducting the study, potential benefits of the study and how data will be collected. The respondents were assured that the data will be treated as strictly confidential; furthermore, the respondents' anonymity was maintained as they weren't required to mention their names.

Data collection procedure:

Before collecting data, an official approval letter was submitted to the Dean of the Faculty of Nursing to collect data from the pre-mentioned study setting. Also, a written approval letter was submitted to the directors of Menouf Secondary Nursing School and Sers-Ellain Secondary Nursing School to collect data from the pre-mentioned study subjects. The letter contained the title, purpose of the study, and methods of data collection. Data were undertaken in a manner designed to protect the confidentiality of studied nursing students.

The investigator reviewed the recent national and international literature using textbooks, journals, magazines, internet, and theoretical knowledge of the various aspects concerning the study topics, the investigator prepared the instruments for data collection and translated into Arabic, and checked its accuracy.

Before beginning to collect data from the study subjects the investigator introduced herself to them, explained the aim of the study and informed them that their information will be treated confidential and will be used only for the research; additionally, each participant was notified about the right to accept or refuse to participate in the study. Data was collected in the classroom at the break of lectures and the nursing students filled in the questionnaire in the presence of the investigator to ascertain that all questions were answered. The time required for each nursing student to fill the questionnaire was 25-30 minutes. For observation checklist, the investigator performed three observations for each nursing student's procedure during the clinical training days for each grade. The data collection started in December 2021 and ended in March 2022.

Statistical design

The collected data were organized, tabulated, and statistically analyzed using SPSS software statistical computer package version 21. For quantitative data, numbers, percentage, mean, and standard deviation were calculated. For qualitative data, a comparison was done using the Chi-

Square test (χ2). For comparison between means for two variables in a sample, a line regression and T-test between study variables were used. Correlation between variables was evaluated using Pearson and Spearman's correlation coefficient r. A significance was adopted at P≤0.05 for interpretation of results of tests of significance (*). Also, a highly significance was adopted at P≤0.001 for interpretation of results of tests of significance.

Results

Table 1:- shows the distribution of studied nursing students regarding their academic characteristics. This table illustrated that more than half of nursing students (59.2%) had associated Sers-Ellain technical secondary school of nursing and more than half of them (58.7%) were at second scholastic grade. The majority of nursing students (89.7) were excellent grade as mentioned. Also approximately half of the studied nursing students (51.1%) joined nursing school for their desire.

Figure 1:- illustrates the percentage distribution of studied nursing students about their perception regarding clinical training. This figure indicated that more than two thirds of study sample (67.4) were perceived clinical training factors, while approximately one third of study sample (32.6) were not perceived clinical training factors.

Figure 2:- shows the percentage distribution of studied nursing students regarding clinical training factors facilitated and hindered their learning. As shown in the figure, (86.9/75/94.5)

of nursing students agreed on nursing students' preparation, learning opportunities and characteristics of clinical nurse teacher were clinical training facilitating factors. Also, (69) of nursing students agreed that nursing students' relationships were clinical training facilitating factor. On the other hand, (55.5) of nursing students agreed that facilities provided from hospital were clinical training hindering factor. Also, (65.8) of nursing students agreed that facilities provided from school administration were clinical training hindering factor.

Table 2:- demonstrates ranking with mean score of studied sample regarding their facilities items score. As shown in the table, "Total characteristics of clinical nurse teacher" came at the first ranking with the percentage score (86.9). Besides the last ranking was related to "Total facilities provided from school to support clinical training" with the percentage score (43.5%).

Figure 3:- illustrates percentage distribution of studied nursing students regarding their performance levels. As shown, more than quarter of nursing students (29.9/ 27.7) indicated a good to very good performance level, while more than one fifth of nursing students (21.7) showed an excellent performance level. Also, approximately one fifth of nursing students (20.7) showed a poor performance level.

Table 3:- demonstrates correlation between clinical training factors and students' performance. It showed that there was a positive statistically significant correlation between nursing

students' perception regarding clinical training factors and nursing students' performance levels.

Table 4:- demonstrates the relation between total factors facilitated and hindered and students' academic data. It indicated that there was a statistical significant correlation between clinical training factors that facilitated and hindered and scholastic grade.

Table 5:- demonstrates the relation between students' performance levels and their academic characteristics. It indicated that there was a highly statistical significant correlation between students' performance and school name and scholastic grade.

Table (1): Academic Characteristics of Studied Nurses (n=184).

| Academic characteristics	No.	%
School name:		
• Menouf technical secondary school of nursing	75	40.8
• Sers-Ellain technical secondary school of nursing	109	59.2
Accademic grade:		
• Second grade	108	58.7
• Third grade	76	41.3
Total grade of pervious year:		
• Excellent	165	89.7
• Very good	17	9.2
• Good	2	1.1
mean ±SD	513.26±52.30	
The reason for joining to nursing school:		
• My desire	94	51.1
• Desire of parents	78	42.4
• Total score in secondary school	12	6.5
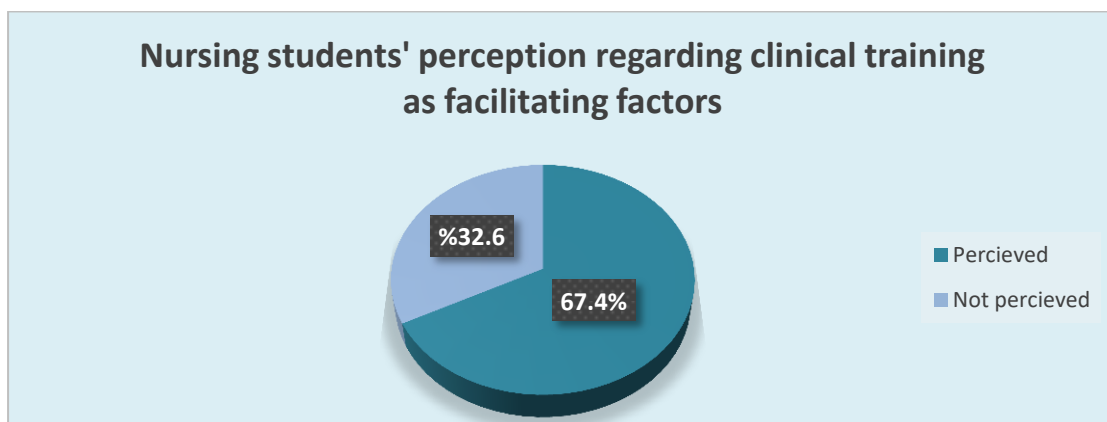
Figure (1): Percentage distribution of studied students about their perception regarding clinical training as facilitating factors (n=184).

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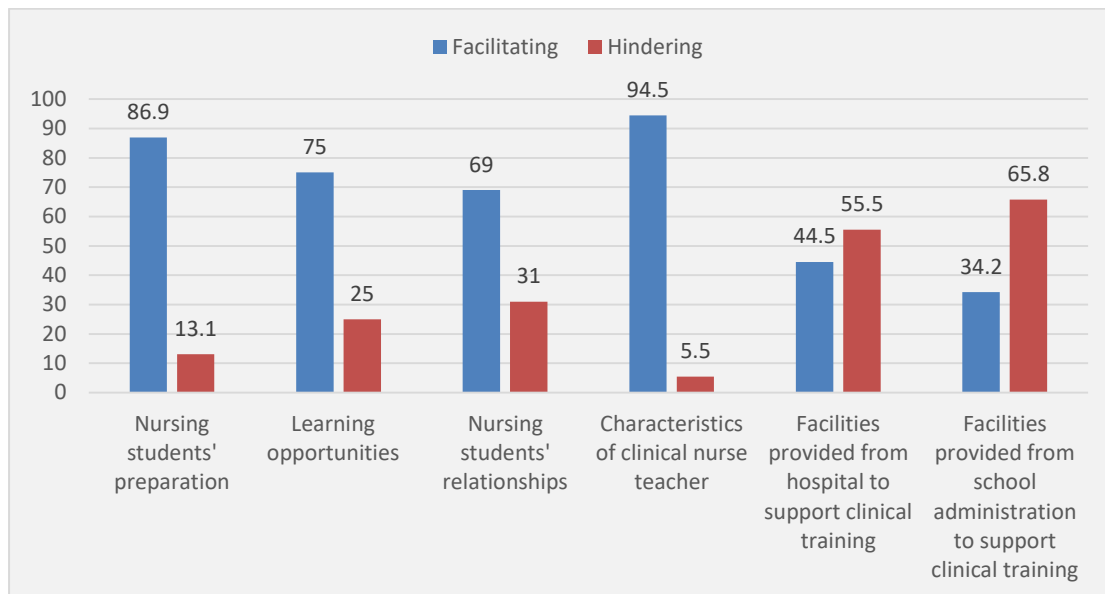

Figure (2): Agreement of studied nursing students regarding clinical training factors facilitated and hindered their learning(n=184): -

Table (2): Ranking and mean score of studied students regarding their facilities items score (n=184): -

| Facilities items	Max	Mean ±SD	% score	Ranking
Students preparation	50	41.16±7.40	82.3	2
Learning opportunities	30	19.66±5.66	65.5	3
Student relationships	68	42.48±7.17	62.5	4
Characteristics of clinical nurse teacher	10	8.69±1.67	86.9	1
Facilities provided from hospital to support clinical training	22	13.53±3.72	61.5	5
Facilities provided from school to support clinical training	16	6.96±3.86	43.5	6
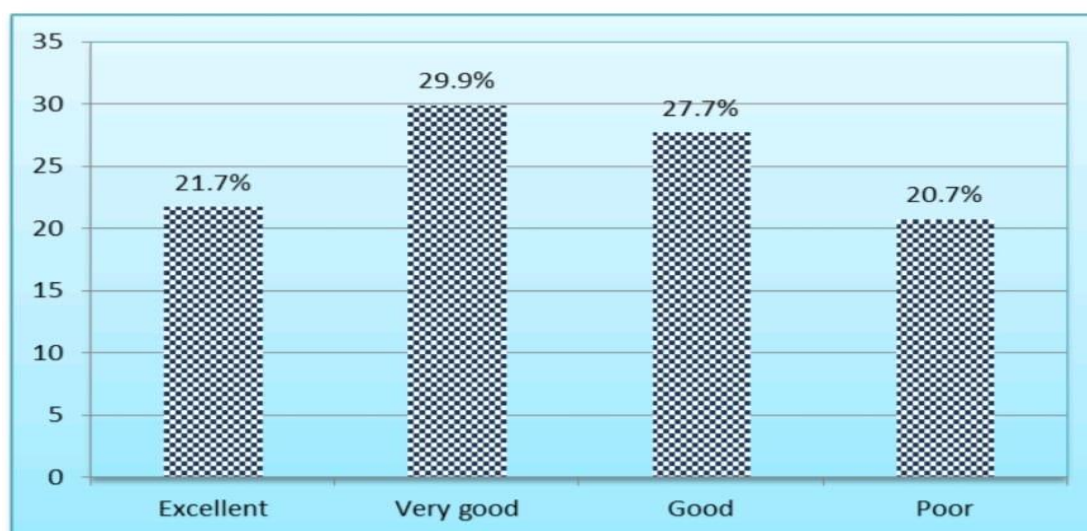
Figure (3): Percentage distribution of studied nursing students regarding their performance levels (n=184).

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Table (3): Correlation between clinical training factors and students' performance score: -

Variables	Clinical training factors	
	R	**p-value**
Students' performance	0.631	0.006*

Table (4): Relation between total factors facilitated and hindered and students' academic characteristics (n=184): -

Students' academic characteristics	Facilitated (n=115)		Hindered (n=69)		X2	p-value
	No	**%**	**no**	**%**		
School name						
• Menouf technical secondary school of nursing	44	38.3	31	44.9	0.794	0.373
• Sers-Ellain technical secondary school of nursing	71	61.7	38	55.1		
Scholastic grade						
Second	77	67.0	31	44.9	8.632	0.003*
Third	38	33.0	38	55.1		
Desire						
My desire	52	45.2	42	60.9	4.376	0.112
Desire of parents	54	47.0	24	34.8		
Total score in secondary school	9	7.8	3	4.3		
Grade score						
Excellent	0	0.0	2	2.9	3.388	0.184
Very good	**11**	**9.6**	**6**	**8.7**		
Good	104	90.4	61	88.4		

Table (5): Relation between students' performance levels and their academic characteristics
n=184: -

Students' academic characteristics	Poor (n=38)		Good (n=51)		Very good (n=55)		Excellent (n=40)		X2	p-value
	No	%	No	%	No	%	No	%		
School name										
• Menouf technical secondary school of nursing	13	34.2	0	0.0	22	40.0	40	100.0	93.914	0.000**
• Sers-Ellain technical secondary school of nursing	25	65.8	51	100.0	33	60.0	0	0.0		
Scholastic grade										
Second	12	31.6	24	47.1	51	92.7	21	52.5	41.281	0.000**
Third	26	68.4	27	52.9	4	7.3	19	47.5		
Desire										
My desire	17	44.7	29	56.9	28	50.9	20	50.0	4.182	0.652
Desire of parents	16	42.1	20	39.2	24	43.6	18	45.0		
Total score in secondary school	5	13.2	2	3.9	3	5.5	2	5.0		
Grade score										
Excellent	0	0.0	1	2.0	0	0.0	1	2.5	5.932	0.431
Very good	3	7.9	8	15.7	3	5.5	3	7.5		
Good	35	92.1	42	82.4	52	94.5	36	90.0		

Discussion:

Nursing is one of the key disciplines of the health care team and play many roles in various fields. Nursing education has two theoretical and clinical aspects. Learning in the clinical environment is part of nursing education and should therefore be designed to train and prepare students for their future profession and provide the necessary knowledge and skills in clinical competence. The clinical training is the mainstay of nursing education. Nursing education faces issues in the clinical education environment, which requires special attention to the clinical environment and facilitating the context and conditions for learning the best of students' knowledge and skills. The quality of nursing care depends on the quality education in the clinical setting, and the qualitative clinical education is provided, the more successful and professional students will graduate, which can result in a healthier community (Arkan et al., 2018).

This current study was conducted to identify clinical training factors that hinder or facilitate nursing students' learning and its effect on their clinical

performance through achieving the following objectives; the 1st objective was "Assess nursing students' perception regarding clinical training factors that hinder their learning", the 2nd objective was "Assess nursing students' perception regarding clinical training factors that facilitate their learning", the 3rd objective was "Assess nursing students' clinical performance level" and finally the 4th objective was " Assess the relationship between clinical training factors that hinder or facilitate nursing students' learning and their clinical performance".

Concerning factors which affect clinical training, this study showed that more than two third of nursing students perceived clinical training factors as facilitator factors for their learning. This may be due to the clinical training create more learning opportunities for the students, provide training to nursing students for application of theories in practice. Moreover, This result agreed with Gemuhay et al., (2019) who studied "Factors Affecting Performance in Clinical Practice among Pre-service Diploma Nursing Students in Northern Tanzania" stated that most of the studied sample perceived that clinical practice allowed students to apply their theoretical knowledge in a real environment, develop nursing skills and clinical reasoning, and observe and adapt the professional role. Also, this result comes in accordance with Manjula, (2018) who studied and reported that teaching learning process was enhanced by a cordial relationship among peer group, health team

members and their teachers. The incongruence in the expectation of nursing faculty and staff nurses was a hindrance in their learning experience. This result agrees Shokria et al., (2017) who studied "A Qualitative Study on Factors Affecting the Clinical Learning of Nursing students in College of Nursing, Kuwait" who reported that the majority of the studied sample describe the clinical practice as an excellent opportunity to learn and perform different procedures. Also, this result was confirmed with Jantzen, (2019) who studied Refining nursing practice through workplace learning: A grounded theory" and stated that clinical practice was considered to be an essential component of learning process and the nurse education must commit itself to a high level of clinical practice for students of nursing.

Additionally this result was in the same line with Alammar et al., (2020) who studied Nursing students' perception of the clinical learning environment" They reported that clinical training among nursing students improve the learning process. Also, Inocian et al., (2022) who studied "Factors in the clinical learning environment that influence caring behaviors of undergraduate nursing students: An integrative review" reported that the clinical learning experience is effective on the development of professional nursing. Therefore, it is used widely in teaching and learning of undergraduate nursing students and its' objectives are included for empowerment of nursing students to develop clinical competencies and socialization in the nursing profession. But this result

inconsistent with Fitzgerald & Clukey, (2022) who studied Factors influencing nursing professional identity development: A qualitative study. In Nursing Forum" and stated that competence level and learning outcomes was affected by students feeling welcomed and valued in the ward improves the students' motivation, self-confidence, and self-respect.

Regarding the studied students' perception about factors which affect clinical practice, the current study illustrated that the majority of nursing students indicated that nursing students' preparation, learning opportunities and characteristics of clinical nurse teacher are facilitating factors. More than half of nursing students indicated that facilities provided from hospital is a hindering factors. Near two third of nursing students mentioned that total facilities provided from school administration is a hindering factor. This result may be due to the preparation of students to overcome the clinical placement challenges and improve their self-confidence. Also, the nursing students indicated that the equipment in the hospitals are inadequate and corrupted. This result came in accordance with Gemuhay et al., (2019) who stated that one third of the students perceived that effective supervision and assessment are factors contribute improvement in clinical practice. Also this result was supported by Parveen & Inayat, (2017) who studied "Evaluation of factors of stress among nursing students in pakistan" stated that more than two third were perceived "lack of students

preparation and teacher's attitude towards students affect negatively the students learning". This result was confirmed with Jansson & Ene, (2016) who studied "Nursing students' evaluation of quality indicators during learning in clinical practice" stated that the most of the studied students stated that the student preparation and the effective clinical instructor facilitate learning and 81% of them stated that the shortage of institutional resources hinder students learning. Also this result in the same line with Egilsdottir et al., (2019) who studied "Revitalizing physical assessment in undergraduate nursing education - what skills are important to learn, and how are these skills applied during clinical rotation? A cohort study Noreg at a Norwegian University " reported that the 42.6% of the studied sample indicated that facilitation from preceptor and student preparation were facilitated learning process.

On the other wise, this study was incongruent with Mathisen et al., (2023) who conducted a study on " Practice education facilitators perceptions and experiences of their role in the clinical learning environment for nursing students: a qualitative study" who revealed that majority of nursing students felt there was a need to improve learning opportunities in the clinical areas. Moreover This result come inconsistent with Joolaee et al., (2015) who studied " Iranian nursing students' preparedness for clinical training: A qualitative study" who reported that the nursing students are not prepared well for clinical training. Also this result

differs with Cornine, (2020) who studied "Reducing nursing student anxiety in the clinical setting: An integrative review" and reported that the majority of the studied sample reported that they not fully prepared for clinical training.

Moreover, the finding of the current study indicated that the majority of nursing students agreed with their ethical and scientific preparation as facilitating factors for their learning. While less than one-fifth of nursing students disagreed with their psychological preparation as clinical training facilitating factor for their learning. This result may be due to the nursing students agreed that they have been acquainted with the instructions that must be followed during the clinical training such as their responsibilities. Also the support they perceived from their clinical instructor to overcome their worried or tense about clinical training and they were trained in the nursing lab on nursing skills before going to the clinical training areas.

This result came in the same line with Kalyani et al., (2019) who studied " How do nursing students experience the clinical learning environment and respond to their experiences? A qualitative study" stated that the clinical instructor should enhancing students' preparedness and capabilities before entering the clinics. Also this result came in accordance with Berhe & Gebretensaye (2021) who studied " Nursing students challenges towards clinical learning environment at the school of nursing and Midwifery in Addis Ababa University. A qualitative

study " and stated that proper scientific preparation of students, adequate coaching, guidance and supervision is necessary to enhance quality education and to produce competent nurse professionals before clinical training. Also This result supported by Yen et al., (2017) who studied " Structured Clinical Teaching Initiatives: A Preparation for First Year Nursing Students as First Timer in the Clinical Placement" who stated the nursing students agree that they should be scientifically prepared before clinical training.

Finally, This result came in agreement with Mehdipour Rabori et al., (2019) who studied " Nursing students' ethical challenges in the clinical settings: A mixed-methods study in Iran" 97% of the students had had more than one ethical challenge in clinical settings and 48% of them stated that their challenges did not resolve.

On the opposite, this finding disagreed with Anarado et al., (2016) who studied " Factors hindering clinical training of students in selected nursing educational institutions in Southeastern Nigeria" and reported that most of the studied sample had in adequate preparation regarding hospital policy before the clinical training. Also this result disagreed with Ali & Saad, (2016) who studied "Nursing Students' Perception Regarding Quality of Nursing Courses and Its Relation to Their Academic Achievement" and reported that about nearly half of nursing students had low level of perception regarding quality of nursing courses dimensions of objectives of the nursing course. Additionally, this result

in contrast Ayed et al., (2020) who studied "Sources of Nursing Students' Stress and Coping Behaviors during their Clinical Training in Palestine" and reported that being responsible for patients is the most common stressor among nursing students.

Regarding studied sample perception regarding their ranking for facilities items score, the present study illustrated that "Total characteristics of clinical nurse teacher" came at the first ranking with the percentage score. Besides the last ranking was related to "Total facilities provided from school to support clinical training" with the percentage score. This result may be due the indication of nursing students that nurse teacher has sufficient clinical skills for clinical training Also is patient and flexible. On the other hand, they disagreed that "school administration provides social assistance to needy students" and "the school provides me with transportation methods to transfer me to clinical training areas".

This result came in agree with Soroush et al., (2021) who stated that participants believed that clinical instructor skills are very important for the transmission of the right content to students. Also, This result was confirmed by Banan & Elsharkawy, (2017) who studied "Undergraduate Nursing Students' and Clinical Instructors' Perceptions of the Characteristics of an Effective Clinical Instructor at the Faculty of Nursing of Cairo university" stated that the effective clinical instructor is crucial for the learning of nursing students in the clinical settings.

At the opposite line Alammar et al., (2020) who revealed that the nursing teacher's role had the lowest mean score.

Concerning studied nursing students' performance levels, the findings of the current study indicated that the highest percentage of nursing students between a very good to good performance level. This result may be due to the good preparation for nursing students, the presence of learning opportunities, the role model of clinical instructor for students and good relationship between them.This result came in the line with Rosenberg et al., (2019) who studied "Nursing students' experiences of the clinical learning environment in Norwegian nursing homes: a cross-sectional study" reported that slightly less than one third of the studied sample had good performance level. Also this result supported by Rosenberg et al., (2019) who stated that less than one third of the studied sample had good performance level during clinical training.

On the opposite side this result differed with Kirkpatrick et al., (2019) who studied "Relationships among nursing student palliative care knowledge, experience, self-awareness, and performance: An end-of-life simulation study at Midwest Jesuit university" reported that the most of the studied students had high performance in the clinical area .Also this result differed with Kirkpatrick et al., (2019) who reported that the most of the studied students had high performance.

Concerning the relation between clinical training factors and nursing students' performance, the current

study showed that there was a highly positive statistically significant correlation between nursing students' perception regarding total clinical training factors and total nursing students' performance level. This may be due to the two-way influence of clinical training factors on nursing students' learning, which, if taken in a positive direction, would raise their clinical performance level.

The current study was in the same line with Fooladi et al., (2022) who studied "Factors Associated with Undergraduate Nursing Students' Academic and Clinical Performance: A Mixed-Methods Study in Australia" reported that there was a positive correlation between the clinical training factors and their clinical performance. Moreover, this result supported Cho & Kim (2022) who studied "Correlation of the academic and clinical performance of Libyan nursing students" stated that positive correlation between the students' performance and the factors affecting clinical factors.

Concerning Liner regression between studied nursing students' performance and clinical training factors, the current study showed that a highly statistical significance between characteristics of clinical nurse teacher and students' performance. Also, the current study illustrated the statistical significance between students' preparation, learning opportunities, students' relationships and student's performance. This result came in accordance with ElIdrissi et al., (2022) who studied "Evaluation of Clinical Teaching by Nursing Students at the Higher Institute of Nursing and

Health Techniques in Casablanca, Morocco" reported one of the most important factors that affect nursing performance was the characteristics of nurse educator. Also this result was confirmed by who studied Panlican et al., (2020) who studied " Students and teachers' perception of an effective clinical nurse teacher characteristics: A comparative study" reported that an effective clinical teacher characteristic has a significant influence on students' performance.

Finally this findings supported by Fath-Elbab et al., (2020) who reported that there was a significant relationship between the nurse educator characteristics and the student competence in the clinical training area.

Concerning relation between clinical training facilitated or hindered factors and nursing students' academic data, the current study showed that, there was a statistical significant relation between clinical training that facilitated and hindered factors and scholastic grade "second grade". This due to the sample size of second grade is larger than the third grade. This result came in accordance with George et al., (2017) who studied "Factors Affecting Learning Among Undergraduate Nursing Students: Cross-Sectional Survey at Karnataka" reported that their a statistical significant relation between total clinical training factors and their academic year. Also This result came in the same line with Kaliyangile & Ngoma (2015) who studied "Factors Influencing Student Nurses' Clinical Learning during their Clinical Practice

at Rusangu University, Monze campus, Zambia" reported that there was a statistical significant relationship between studied sample students year of study.

Concerning relation between nursing students' clinical performance levels and their academic data of the studied students, the current study showed that there was a highly statistically significant relation between nursing students' performance levels and school name and scholastic grade. This is due to sample size from sirs-Ellain school is larger than menouf school. Also sample size of second grade is larger than the third grade. This result agrees with Mohamed, (2022) who studied "factors affecting academic performance among nursing students and their relation to academic achievement in Egypt" stated that there is a high statistical significance relationship between students' performance and their socio-demographic data. Also this result confirmed by Gamtessa, (2021) who studied "Correlation Between Academic and Clinical Practice Performance of Nursing Students at a Pediatrics and Child Health Nursing Course; Mizan-Tepi University, Ethiopia" reported that the clinical performance of the studied student was affected by their academic year and their school.

On the opposite side this result differed with Ramadan et al., (2020) who studied "Nursing students' clinical performance and professional self-concept in Bangladesh" and reported that there is no statistical significance relationship between the studied

sample clinical performance and their socio-demographic data.

Conclusion

In the light of the current study findings, it was concluded that: near to two thirds of study sample perceived clinical training factors as facilitating factors, while approximately one third of study sample were not perceived clinical training factors as facilitating factors. Also, more than two thirds of study sample indicated that nursing students 'relationships were clinical training facilitating factor. On the other hand, more than half of study nursing students indicated that facilities provided from hospital was clinical training hindering factors. Additionally, more than one quarter of study nursing students showed a very good performance level, while more than one fifth of study sample showed an excellent performance level. There was a highly statistically positive significant correlation between nursing students' perception regarding clinical training factors and their performance level.

Recommendations:

- Factors which hinder or facilitate nursing students learning should be clarified for teaching staff (e.g. workshops, training courses).
- Educational psychology courses should be provided for teaching staff.
- This study could be applied in another educational setting on a larger number of students to compare between the results of the two settings.

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