The Relationship Between Satisfaction Levels Regarding Clinical Training and Competency Self-efficacy among Undergraduate Nursing Students

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Abstract

Background: Clinical training is the most significant element of nursing education, which must be practiced in a suitable setting. Competency self-efficacy is essential to be attained by nursing students, as it is a significant indicator of the work's acceptance and commitment to nursing roles. Self-efficacy in nursing experience enhances nursing student's abilities to achieve clinical tasks independently. **Aim:** This study aimed to assess the relationship between satisfaction levels regarding clinical training and competency self-efficacy among undergraduate nursing students. **Design**: A descriptive correlational research design was utilized. **Setting:** The study was conducted at Al-Hussein University Hospital affiliated to Al-Azhar University.   **Sample**: A convenient sample of (115) students of 2nd year nursing college enrolled in the clinical training programme at Al-Hussein University Hospital. **Tools:** Data was collected through two tools; Tool I: Self-administered questionnaire included two parts: Part I: Nursing student's demographic data, Part II: Student's satisfaction regarding training in clinical settings inventory. Tool II: Nursing competence self-efficacy scale (NCSES). **Results**: More than half of the studied nursing students had a moderate total level of satisfaction regarding clinical training; as well about half of the studied nursing students had a moderate total level of self-efficacy for competent nursing practices. **Conclusion:** There was a high statistically positive correlation between total satisfaction scores of the studied nursing students and their total level of self-efficacy for competent nursing practices. **Recommendation:** Nursing students should receive a detailed orientation programme about clinical training at the beginning of training experiences.

Introduction:

Nursing is essentially a practice-based profession therefore clinical training is a vital component in any nursing curricula especially in medical surgical specialty. At least 50% of the total hours from nursing education have to be completed with clinical training (**Nachinab & Armstrong, 2022**).Clinical training is a plan to combine skills for nursing students to acquire competencies to satisfy the requirements of clinical training, this will intensify their morale, lowering turnover scores and store the terms and cost for the re-education of nursing students to ensure nursing student satisfaction (**Tawalbeh, 2020**).

Student satisfaction is defined as a short-term attitude resulting from an evaluation of a student's educational experience. In addition, it can be defined as an attitude resulting from an assessment of student's educational experience, services and facilities provided by the nursing colleges, it is a positive antecedent of student loyalty (**Kanwar & Sanjeeva, 2022**). Nursing Student satisfaction regarding clinical training is defined as a subjective perception of how well the clinical learning environment supports student's clinical and academic success (**Prifti, 2022**).

Student satisfaction is important as it influences the nursing student's level of motivation and promotes self-confidence resulting in skill development and knowledge acquisition. It is associated with later professional attitudes and career commitment, if nursing students are not satisfied with medical surgical courses, the students will be less interested in this area and less likely to choose them as their specialty in the future. Also, creates loyalty to the clinical setting and college, whereas satisfied students were attracted to attend another course/module or another higher degree from the same university. Also, promotes a student's mental health and stability **(Alqurashi, 2019)**.

Competency self-efficacy (CSE) is defined as the nursing student's ability to believe that they can effectively deal with or accomplish a task with some level of skill and capability in dealing with daily problems that will result in an anticipated outcome. CSE helps nursing students to decide how much effort they will expend on tasks, how long they will continue when experiencing difficulties and how resilient they will appear in harmful situations. CSE among nursing students is parallel with academic improvement, professional skill achievement and decreasing patient's risks **(Ibrahim et al., 2019)**.

Nursing students with CSE have a high assurance in their capabilities to complete difficult and various tasks and overcome any work challenge. Nursing students will be automatically mastering the skills to face problems and solve them, rather than avoidance of them, students rely on themselves when faced with complex issues as well as being patient during the process, making more efforts and persisting longer to overcome the challenges **(Kamali et al., 2023)**.

In contrast, nursing students who doubt with their capabilities avoid difficult tasks and can't reach their targets. They have low aspirations and a weak commitment to the goals they choose to pursue. They tend to fail in work accomplishment, achieve an unacceptable quality of care and commit many work errors and misbehaviors. Also, confront many obstacles in carrying out nursing care. They tend to avoid any situation or procedure, lack of self-esteem and poor clinical judgment. In such a case, the nursing students can't deal with clinical problems and unable to manage work responsibilities **(Ahmadi et al., 2023)**.

Significance of the study

Student satisfaction and CSE can reflect the educational situation of the nursing faculties, provide important information about nursing students' skills, knowledge and abilities (areas of strength and weakness) and the effect of clinical training attributes on it that will be helpful to provide important feedback for clinical education and potential curriculum revisions to best foster clinical practice and skill mastery and to reduce theory practice gab that will help them to provide high quality and safe patient care and meet the future workforce demands **(Saifan et al., 2021)**.

Evaluation of the nursing student's clinical training satisfaction and CSE will reduce attrition in nursing profession but till now there is a very limited studies in Egypt to assess the relationship between those variable and investigating this correlation will improve nursing students self-efficacy through fitting clinical training attributes also, provide an opportunity for collaboration and development of collegial relationship between the educational facilities and nursing services in the clinical setting to better facilitate students' clinical training through planning, resources allocation and monitoring of clinical learning settings **(Abd-Elhady et al., 2022)**.

Aim of the study

The aim of this study was to assess the relationship between satisfaction level regarding clinical training and competency self-efficacy among undergraduate nursing students through the following:

1. Assessing level of satisfaction regarding the clinical training among undergraduate nursing students.
2. Assessing level of competency self-efficacy among undergraduate nursing students.
3. Assessing the relationship between satisfaction level regarding clinical training and competency self-efficacy among undergraduate nursing students.

Research questions

1) What is the satisfaction level regarding the clinical training among undergraduate nursing students?
2) What is the competency self-efficacy level among undergraduate nursing students?
3) Is there a relationship between satisfaction level regarding clinical training and competency self-efficacy among undergraduate nursing students?

Subject and methods

I. Technical item:

The technical item for this study included research design, setting, subject and tools for data collection.

Research design:

A descriptive correlational research design was utilized in this study. Descriptive correlational research is a research design method that involves observing behavior to describe attributes, objectively and systematically, describes and predicts how variables are naturally related in the real world, without any attempt by the investigator to alter them or assign causation between them. The main objective of descriptive research is to create a description of the current state of affairs whereas correlational research helps in comparing two or more entities or variables and stating the relationship in-between **(Mbanaso et al., 2023).**

Setting:

The study was conducted at Al-Hussein University Hospital affiliated to Al-Azhar University. It has multiple sections in which studied nursing students were trained, including (general ICU, CCU, general operation, dialysis unit, emergency department, general medicine department, neurology department, endoscopy and digestive system department, general surgery department and cardiovascular medicine department).

Subject:

A convenient sample of (115) students of 2nd year nursing college enrolled in the clinical training programme at Al-Hussein University Hospital who were available at the time of data collection in the academic year (2022-2023) were agreed and included in the study.

Tools for data collection:
Data were collected using the following tools:

Tool (I): Self-administered questionnaire (Appendix I)
It consists of two following parts:
Part I: Nursing student's demographic data:
It was used to assess the demographic characteristics of the studied nursing students that include data about (age, gender, residence and qualification before joining the nursing college).

Part II: Student's satisfaction regarding training in clinical settings inventory:

It was adapted from (**Higazee et al. 2017**) to assess nursing student's satisfaction regarding training in the clinical settings which included (21) items under (5) domains including:

- Satisfaction regarding clinical setting (6 items).
- Satisfaction regarding nursing staff in the clinical setting (3 items).
- Satisfaction regarding clinical instructor roles (5 items).
- Satisfaction regarding learning opportunities (7 items).
   The investigator paraphrased tool's items to make it easier for the studied nursing students.

The scoring system of nursing student's satisfaction regarding training in the clinical settings inventory it consisted of (21) statements on (5) points Likert scale (1= strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree). Total scores ranged from (21) to (105) degrees and were categorized as:

- Low satisfaction if the total score is < 50%.
- Moderate satisfaction if the total score is 50% - ≤70%.
- High satisfaction if the total score is more than 70%   (**Higazee et al. 2017**).

Tool (II): Nursing competence self-efficacy scale (NCSES) (Appendix II):

It was adapted from (**Kennedy, 2013**) to assess nursing student's self-efficacy for competent nursing practice. This tool contains (32) statements about clinical performance on (9) points Likert scale. It was modified to (26) statements on (5) points Likert scale stated under (4) CSE domains:

- Leadership competencies (4 items).
- Prevention competencies (5 items).
- Clinical practices competencies (11items).
- Caring and patient advocacy competencies (6 items).

The scale range with five points allowed a valid comparison between satisfaction level regarding training in the clinical settings and competency self-efficacy level. The investigator modified the scale by removing some items and modifying the wording of the items and the scoring system.

Scoring system for nursing competence self-efficacy scale:

It consisted of (26) statements on (5) points Likert scale. (1= certainly can't do it, 2= can't do it, 3= Uncertain, 4= can do it and 5= certainly can do it). Total practice scores ranged from 26 to 130 degrees and were categorized as:

- Low competency self-efficacy if the total score is < 50%.
- Moderate competency self-efficacy if the total score is 50% - ≤ 70%.
- High competency self-efficacy if the total score is more than 70%   (**Mohamed et al. 2023**).

II-Operational item:

The operational item for this study includes preparatory phase, content validity and reliability of the developed tool, pilot study and field work.

Preparatory phase:

This phase was conducted through reviewing the recent related literature and theoretical knowledge from various aspects of the study using books, internet, periodicals, magazine and journals to develop tools for data collection.

Pilot study:

The pilot study was done on 10% of the sample, (12) undergraduate nursing students from the 2nd year. The pilot study was carried out to confirm understanding, clarity, efficiency, applicability

of the tools and to determine the required time to fulfill tools**.** Those participants were included in the main study as there were no modifications in the tools.

Tools validity and reliability (**Appendix III**)**:**

Validity: The study tools were tested for validity (face and content validity). **Face validity** aimed to determine whether the tools measure what was supposed to measure **(Mishra & Allen, 2023).** **Content validity** was conducted to determine whether the content of the tool covers the aim of the study. It was measured by a jury of (5) experts, three assistant professors and two lecturers of medical surgical nursing faculty of Nursing, Helwan University. The experts reviewed the tool for clarity, relevance, accuracy, comprehensiveness, simplicity and applicability, necessary modifications were done. Ethics, values, culture and beliefs were respected.

Reliability: Cronbach's Alpha was used to determine the internal reliability of the developed tool. Reliability of the tools was tested to determine the extent to which the tools items are related to each other. The reliability score for student's satisfaction regarding training in the clinical settings inventory was 0.896 and for nursing competence self-efficacy scale was 0.929.

Field work:

Field work included the following:

• Data collection of the study was started and completed within three months from the beginning of March 2023 to the end of May 2023.

• The investigator was going to the hospital (1 or 2) days/week on Sunday & Monday (Student training days) in the morning shift 10.00am to 12.00pm for (12) weeks and met from (6 to 7) students each day.

• The purpose of the study was simply explained to studied nursing students who agreed to participate in the study prior to any data collection.

• The questionnaires were distributed to nursing students in their training setting after finishing their training assignments, the tools were filled by the nursing students themselves. It takes (25-35) minutes, beginning with self-administered questionnaire including (Nursing student's demographic data & Student's satisfaction regarding training in clinical settings inventory) that took (10-15) minutes and then nursing competence self-efficacy scale that took (15-20) minutes in the presence of the investigator to answer any questions.

• The investigator checked the completeness of each filled sheet to ensure the absence of any missing data.

III- Administrative item:

An official permission for this the study was obtained by submission of official letter to the dean of the faculty of Nursing, Helwan University and the director of Al-Hussein University Hospital.

Ethical considerations:

An official permission to conduct the proposed study was obtained from the scientific research ethics committee of faculty of Nursing Helwan University before starting the study. Studied nursing students were informed about research purposes. The investigator assured anonymity and confidentiality of the subjects' data, nursing students were informed that they were allowed to choose to participate or not in the study. In addition, they have the right to withdraw from the study at any time without giving any reasons; ethics, values, culture and beliefs were respected.

IV-Statistical item:

Upon completion of data collection, collected data were organized, tabulated and analyzed using Statistical Package for Social Science (SPSS), version 24 for analysis. For quantitative data, numbers, percentage, mean and standard deviation (SD) were used to describe the results. For qualitative data that describe a categorical set of data, frequency and percentage of each category were calculated.

Appropriate significance was adopted at $p < 0.05$ for interpretation of results **(Siregar, 2021)**. The observed associated differences were considered as highly significant (HS) if $p < 0.001$, significant (S) if $p \leq 0.05$ and not significant (NS) if $p > 0.05$. Appropriate inferential statistics such as chi square, Pearson correlation "r" test were used as well.

Results

Table (1): Represents that 53.9% of the studied nursing students are in the age group from 18 to less than 20 years with a mean age 20.38 ± 1.709, 100% of them were female, additionally 55.7% of them were living in urban areas, as well as 72.2% of them were at secondary school before college.

Table (2): Shows that the highest mean score of the studied nursing students was their satisfaction regarding nursing staff in the clinical setting. Meanwhile, the lowest mean score of them was their satisfaction regarding learning opportunities.

Figure (1): Indicates that, 56.5% of the studied nursing students had a moderate total level of satisfaction regarding clinical training, followed by 23.5% of them had a high total level of satisfaction. Meanwhile, 20% of them had a low total level of satisfaction regarding clinical training.

Table (3): Shows that the highest mean score of the studied nursing students was their self-efficacy regarding clinical practices competencies. Meanwhile, the lowest mean score of them was their self-efficacy regarding caring and patient advocacy competencies.

Figure (2): Reveals that, 45.2% of the studied nursing students had a moderate total level of self-efficacy for competent nursing practices, followed by 32.2% of them had a low total level of self-efficacy however, 22.6% of them had a high total level of self-efficacy for competent nursing practices.

Table (4): Demonstrates that there were statistically significant relations between total satisfaction scores of the studied nursing students and their age and qualification before joining nursing college with (p value = 0.032 and 0.048 respectively). While, there was no statistically significant relation between total satisfaction scores of the studied nursing students and their residence.

Table (5): Demonstrates that there was a statistically significant relation between total self-efficacy competent scores of the studied nursing students and their age with (p value = 0.020). While, there were no statistically significant relations between total self-efficacy competent scores of the studied nursing students and their residence and qualification before joining nursing college.

Table (6): Shows that there was a high statistically positive correlation between total satisfaction scores of the studied nursing students and their total level of self-efficacy for competent nursing practices with (p value = 0.000).

Table (1): Frequency and percentage distribution of the studied nursing students according to their demographic data (N=115).

Demographic data		No	%
Age (in years)	18 -<20	62	**53.9**
	20- <23	50	43.5
	23 or more	3	2.6
Mean ±SD	20.38 ± 1.709		
Gender	Female	115	**100**
	Male	0	0.0
Residence	Urban	64	**55.7**
	Rural	51	44.3
Qualification before joining nursing college	Secondary school	83	**72.2**
	Technical nursing institute	32	27.8

Table (2): Mean scores of the studied nursing student's satisfaction level regarding training in the clinical settings (N=115).

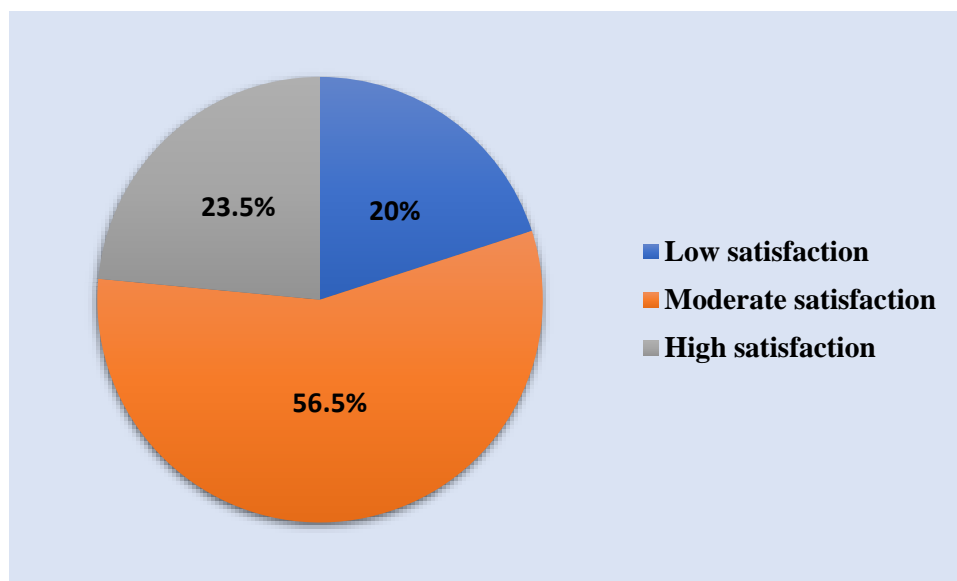| Items	Mean ± SD	Percentage	Rank
▪ Satisfaction regarding clinical setting (6 items)	15.808 ± 4.733	68.4	3
▪ Satisfaction regarding nursing staff in the clinical setting (3 items)	10.539 ± 2.741	**88.5**	1
▪ Satisfaction regarding clinical instructor roles (5 items)	14.747 ± 3.031	71.1	2
▪ Satisfaction regarding learning opportunities (7 items)	18.834 ± 4.694	**67.2**	4
Total mean score	57.930 ± 12.362		

Figure (1): Percentage distribution of the studied nursing students according to their total satisfaction scores regarding clinical training (N=115).

Table (3): Mean scores of the studied nursing student's self-efficacy for competent nursing practice (N=115).

Items	Mean ± SD	Percentage	Rank
▪ Leadership competencies (4 items)	10.243 ± 2.995	66.1	2
▪ Prevention competencies (5 items)	13.652 ± 2.837	65.9	3
▪ Clinical practices competencies (11 items)	32.982 ± 6.736	**72.3**	1
▪ Caring and patient advocacy competencies (6 items)	15.130 ± 3.419	**52.9**	4
Total mean score	68.408 ± 14.508		

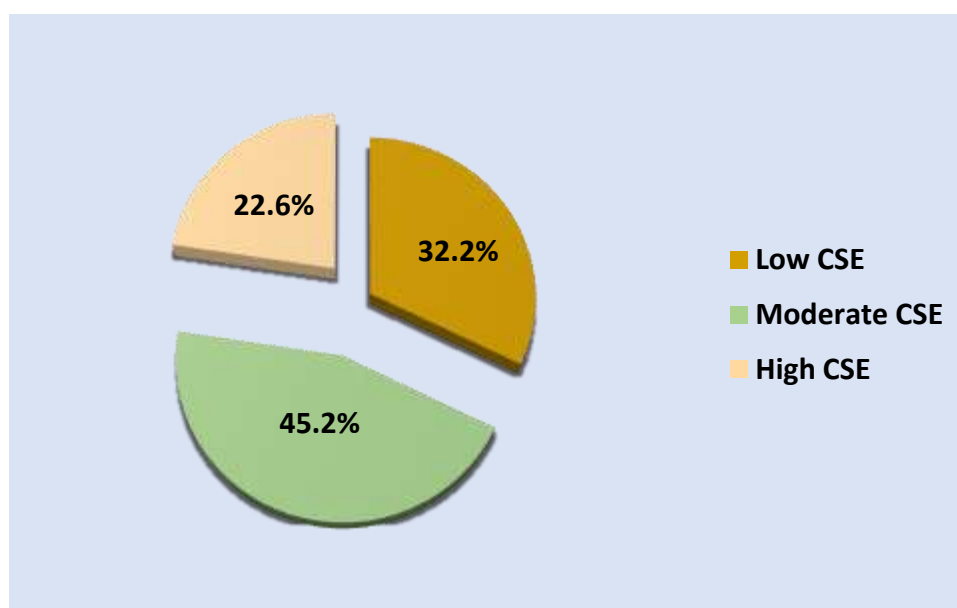| Demographic data		Satisfaction scores			Chi square	p value
		Low	Moderate	High		
Age (in years)	18 -< 20	18	33	11	10.56	**0.032** *
	20 - < 23	5	29	16		

Figure (2): Percentage distribution of the studied nursing students according to their total level of self-efficacy for competent nursing practices (N=115).

Table (4): Relations between total satisfaction scores of the studied nursing students and their demographic data (N=115).

	23 or more	0	3	0		
Residence	Urban	18	33	13	2.37	0.668
	Rural	5	32	14		
Qualification before joining nursing college	Secondary school	18	48	17	6.07	**0.048** *
	Technical nursing institute	5	17	10		

   * Significant (S)   p < 0.05

Demographic data		Self-efficacy competent scores			Chi square	p value
		Low	**Moderate**	**High**		
Age (in years)	18 -<20	28	22	12	11.611	**0.020** *
	20 - <23	9	27	14		
	23 or more	0	3	0		
Residence	Urban	25	26	13	3.13	0.208
	Rural	12	26	13		
Qualification before joining nursing college	Secondary school	26	42	15	1.06	0.899
	Technical nursing institute	11	10	11		

Table (5): Relations between total self-efficacy competent scores of the studied nursing students and their demographic data (N=115).

   * Significant (S)   p < 0.05

Table (6): Correlation between total satisfaction scores of the studied nursing students and their self-efficacy competent scores.

Items	Total satisfaction score	
	Correlation coefficient (r)	**P value**
Total self-efficacy competent scores	0.573	**0.000 ****

* * Highly significant   (HS)   p < 0.001

Discussion

   Considering demographic data of studied nursing students, the result of the present study revealed that more than half of the studied nursing students were in the age group from 18 to less than 20 years with a mean age (20.38 ± 1.709). This study result is in agreement with **Bahari et al. (2022)**, who applied their study in Saudi Arabia about "Learning motivation and self-efficacy towards improved clinical performance in undergraduate nursing students", and reported that half of the studied nursing students were in the age group of 18-20 years old.

Regarding the gender of studied nursing students, this study result reported that all of the studied nursing students were females. From the investigator's point of view, this can be explained as this study was conducted on students of the faculty of Nursing Al-Azhar University for girls only according to the Al-Azhar University policy. This study result disagrees with **Shehadeh et al. (2020),** whose study entitled "Academic stress and self-efficacy as predictors of academic satisfaction among nursing students in Jordan", and mentioned that more than three fourth of studied nursing students were females.

Concerning residence of the studied nursing students, the present study results reported that more than half of studied nursing students were living in urban areas. This study result is supported by **Yezengaw et al. (2022)**, who done a study about "Clinical practice competence and its associated factors among undergraduate health sciences students in Northwest Ethiopia", and showed that more than two thirds of studied nursing students were living in urban areas.

As regard to qualifications before joining nursing college of the studied nursing students, this study revealed that more than two thirds of studied nursing students were at secondary school education before joining the college. From the investigator point of view, this can be explained as Al-Azhar nursing college only accept students from secondary school to join the college then accepting a limited percentage of students from technical nursing institute in the second year.

This study result goes in line with **Lee and Ahn (2020),** who carried out a study about "The effect of learning self-efficacy, confidence in performance of fundamental nursing skills, satisfaction with practicum and satisfaction in major in South Korea", and mentioned that about two thirds of studied nursing students were at secondary school before joining faculty of nursing.

As regard to mean scores of the studied nursing student's satisfaction level regarding training in the clinical settings, this study finding showed that the highest mean score of the studied nursing students was their satisfaction regarding nursing staff in the clinical setting, this finding is in disagreement with **Rodríguez-García et al. (2021),** who conduct a study about "The connection of the clinical learning environment and supervision of nursing students with nursing student's satisfaction and future intention to work in clinical placement hospitals in Spain", and showed that the role of the clinical instructor was the highest mean score of studied nursing student's satisfaction.

Regarding the same context, this study results mentioned that the lowest mean score of studied nursing students was their satisfaction regarding learning opportunities and similar to this study finding **Nejad et al. (2019),** who carried out a study in Iran about "Investigation of nursing student satisfaction with the first clinical education experience in universities of medical sciences", and revealed that the lowest mean score of studied nursing students was related to creating appropriate learning opportunities.

Pertaining to answering of the first question, what is the satisfaction level regarding the clinical training among undergraduate nursing students? This study clarified that more than half of studied nursing students had a moderate total level of satisfaction regarding clinical training. From the investigator point of view, this result can be attributed to training in medical surgical courses is the first experience of nursing students for clinical training in hospitals which viewed by nursing students as a stressful and traumatic experience as this was the first experience to contact with patients with different diagnosis and nursing students were unfamiliar with the clinical settings atmosphere. This result is inconsistent with **Ahmed et al. (2023),** whose study entitled "Satisfaction

and anxiety level during clinical training among nursing students in Egypt", and reported that more than four-fifths of students were highly satisfied about their clinical training.

As regard to mean scores of self-efficacy for competent nursing practice, this study finding indicated that the highest mean score of studied nursing was their self-efficacy regarding clinical practices competencies and the lowest mean score of studied nursing students was their self-efficacy regarding caring and patient advocacy competencies. This study finding disagrees with **Manna et al. (2020),** who performed a study about "Nursing competency self-efficacy, feedback of selected course outcome in Kolkata, Bengal", and reported that advocacy and ethical issue was the highest mean score of studied nursing student's self-efficacy and leadership competency was the lowest mean score of studied nursing students' self-efficacy.

Pertaining to answering of the second question, what is the competency self-efficacy level among undergraduate nursing students? This study finding showed that about half of studied nursing students have a moderate total level of self-efficacy for competent nursing practices. From the investigator point of view, this may be attributed to quality of clinical teaching effectiveness, low fidelity clinical equipments, short clinical training period with lack of work experiences. This study result is incompatible with **Mohamed et al. (2023),** who carried out a study in Egypt about "Nursing competency self-efficacy: feedback to course outcome", and revealed that more than three fourth of nursing students got a high level of competency self-efficacy.

Pertaining to the relations between total satisfaction scores and demographic data, the present study revealed that there was statistically significant relation between total satisfaction scores of the studied nursing students and their age. From the investigator point of view, this can be related to as nursing students progress in their age they had more experience, more maturity and being exposed to many problems and challenges that affect their satisfaction level.

This study result goes in the same line with **Woo and Li (2020),** who done a study about "Nursing student's views and satisfaction of their clinical learning environment in Singapore", and revealed that age group of studied nursing students, is significantly related to their satisfaction regarding the clinical learning environment.

As regard to the relations between total level of self-efficacy competent scores and demographic data, the present study revealed that there was a statistically significant relation between total self-efficacy competent scores of the studied nursing students and their age. From the investigator point of view, this can be traced to the fact that self-efficacy is depending on the level of life skills and experiences of students which increased by growing the age.

The same study result was reported by **Fawaz and Alsalamah (2022),** who conducted a study about "Clinical competence and self-efficacy of Lebanese and Saudi nursing students", and found a statistically significant relation between total clinical competence self-efficacy of the studied nursing students and their age.

Pertaining to answering of the third question, is there a relationship between satisfaction level regarding the clinical training and competency self-efficacy among undergraduate nursing students? The current study revealed that there was a high statistically positive correlation between total satisfaction scores of the studied nursing students and their total self-efficacy competent scores.

From the investigator point of view, this could be understood from the point that students with self-efficacy have a greater ability to overcome stressful circumstances and being less negative when facing hard situations and do their best to achieve their clinical goals which leads to

motivation and satisfaction. Also, students with high CSE always use better self-regulation strategies and feel good about the learning environment and possess a higher level of satisfaction. The same study reported by **Ibrahim et al. (2019),** who carried out a study in Egypt about "Nursing student satisfaction regarding clinical learning environment and competency self-efficacy", and reported that there is an obvious parallel correlation between nursing student satisfaction about the clinical learning environment and their competency self-efficacy levels.

Conclusion

Based on the findings of the present study, it was concluded that:

The present study revealed that more than half of the studied nursing students had a moderate total level of satisfaction regarding clinical training, as well about half of the studied nursing students had a moderate total level of self-efficacy for competent nursing practices. There was a high statistically positive correlation between the total satisfaction scores of the studied nursing students and their total level of self-efficacy for competent nursing practices.

Recommendation

In the light of the study findings, the following recommendations are suggested:

Nursing students

•Nursing students should receive a detailed orientation programme about clinical training at the beginning of training experiences.

•Counseling sessions are needed to help nursing students to verbalize their feelings about clinical training.

Clinical instructors

•Recruitment of adequate number of competent clinical instructors that matches the ratio of nursing students.

•Continues development of clinical instructors' skills to be more competent and skillful and to know how and what to teach.

Clinical training

•Conduct pre-assessment of skills and theoretical knowledge before sending nursing students to clinical settings with continuous assessment tests and giving feedback on time.

•Students must be exposed to positive leadership practices during clinical training. Moreover, leadership theory and competence should be introduced early in the nursing curriculum and assessed throughout the clinical training.

Recommendations for further research:

•Investigate the factors affecting clinical training and competency self-efficacy among nursing students in their clinical setting.

•Replication of the current study is needed, but in more than one nursing faculty and with different tools (assessment of skills and knowledge).

Limitation

The findings of this study are limited to the student's perspective and based on data from one training setting. Therefore, the results might be neither representative nor generalized. Also, the relatively short periods of time spent in clinical setting, specifically two days per week during a period of eight to nine weeks as "Short clinical rotations", may not provide sufficient time to build mutual understanding and familiarity within the specific clinical training program.

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