

Impact of COVID-19 on Clinical Training Satisfaction, Self-Esteem and Academic Achievement among Nursing Students in Jeddah City

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Abstract:

This study aimed to estimate the impact of the COVID-19 pandemic among nursing students that would negatively affect their clinical training satisfaction, self-esteem, and academic achievement. This is a cross-sectional study conducted among nursing students who were in clinical training during the COVID-19 pandemic period in Jeddah city from December 2019 to December 2020. A self-administered questionnaire was distributed among the nursing students using an online survey. The questionnaire was composed of basic demographic data (i.e. gender, GPA, training level, etc.), a 15-item satisfaction questionnaire, and the Rosenberg self-esteem scale to measure the self-esteem of the nursing students.

As results of this study, we found that, Of the 106 nursing students, 81.1% were females and 36.8% had a GPA rating of 4.5 to 5. The majority demonstrated high satisfaction levels (77.4%). The mean self-esteem score was 24.5 (SD 24.5) out of 36 points with low self-esteem had been detected in 11.3% of the nursing students. Being a junior training level was the factor associated with increased satisfaction scores while gender female and poor GPA rating were the factors associated with decreased self-esteem scores; we conclude from the study the nursing students' clinical training satisfaction and self-esteem during the COVID-19 pandemic were high. The poor academic rating seems to influence nursing students' self-esteem but not their level of satisfaction.

Keywords: Satisfaction, Clinical Training, Nursing students, Academic achievement, COVID-19

1. Introduction

The COVID-19 pandemic affected all the countries, this effect reached health care services due to the increase workload with additional pressure. As a result of this pandemic, the clinical training of nursing students was suspended, and thus nursing students confronted fear and anxiety due to their professional incompetence.

Clinical training is challenging for students even before the COVID-19 pandemic. This pandemic may have negatively affected the clinical training results on clinical skills of nursing students. Academic achievements are influenced by the efficiency of clinical training, which plays an important role in developing students' skills and confidence. The lack of access to training for students during or after the COVID-19 pandemic affects the requirements of the clinical work environment.

The aim of this study is to estimate the impact of the COVID-19 pandemic among nursing students that would negatively affect their clinical training satisfaction, self-esteem and academic achievement.

COVID-19 is a pandemic that has spread around the world and was declared by the World Health Organization (who), which has caused a change in the lifestyle. Consequently, education, especially clinical education for nursing students, was affected (Dian Fitria et al. ,2021).

Clinical training is the main for the education of nursing students. It is one of the important things to build their self-esteem, knowledge of their clinical skills and abilities, and ultimately prepare nursing students to work as professional nurses by applying the experiences they have learned in clinical training (Kuswantoro Rusca Putra et al. ,2021).

There are factors affecting clinical training education, including the COVID- 19 pandemic during the current period. Moreover, D. Ulenaers et al. (2021) found that the presence of the COVID-19 epidemic affected the efficiency and education of clinical nursing students, causing them fear and anxiety about contracting COVID-19 disease, but the study did not include the relationship of nursing students, their satisfaction with the clinical level, their self-esteem, and the achievement of what their studies required.

Another study found that clinical online learning methods for nursing students increased their academic satisfaction and self-confidence by 40.69% (Dian Fitria et al. ,2021). But they did not measure the students' self-esteem in the realistic clinical application and the sample they took was 110 students from nursing students in the diploma program.

On the other hand, there is a study that showed the impact of the COVID- 19 pandemic on the level of satisfaction of medical and nursing students. The percentage of those who were dissatisfied was 42% with regard to practical clinical learning, and the total number of participants was 1068 participants, but most of the participating students were from medicine, equivalent to 919 students (Siddhartha Dutta et al. ,2021).

2. Methodology:

A cross-sectional quantitative correlational design was conducted using structured questionnaire. The administered questionnaire consisted of demographic data , and two tools to measure self-esteem and training satisfaction during the pandemic of COVID-19.

2.1. Sample Criteria:

All nursing students who had clinical training during the COVID-19 pandemic period in Jeddah city from December 2019 till December 2020 were included in the study. While students in the preparatory year will be excluded from the study because as they still not enrolled in nursing program. Aslo second year students are excluded from the study because, most of them are still not clinically trained in the first semester, and even in the second semester, they don't know how the clinical training should be and there requirement only to observe.

2.2. Data collection:

Using Google form, a structured questionnaire was dirtibuted to private and public universities which includes information letter and consent. The questionnaire consists of three main parts:

- Socio-demographic data, that also includes academic year and grades
- Second part: Rosenberg's self-esteem scale and it will measure their self-esteem in terms of 10 items from strongly agree to strongly disagree.
- Third part: Undergraduate Nursing Students' Academic Satisfaction Scale (UNSASS) using the clinical teaching part only.

2.3. Ethical consideration:

- Ethical approval was obtained from the university.
- At the biggening of the questionnaire there was a clear statement that states "By clicking the button (continue) you agreed to participate in the study".
- All the obtained information was kept confidential except from researchers.

2.4. Statistical analysis

According to the study of Mahdy and Mahfouz, (2016) cutoff points of 60% and 75% were used to classify satisfaction levels, wherein scores of below 60% were considered low satisfaction, 60% to 75% were considered average and above 75% were considered high satisfaction level. Self-esteem scale was classified as low esteem if the score was 50% or below and above 50% were considered normal (W.W. Norton).

Both descriptive and inferential statistics were performed using SPSS version 26 (Armonk, NY: IBM Corp, USA). For categorical data, numbers and percentages were used to calculate descriptive statistics, whereas, for continuous variables, means and standard deviations were calculated. The association between satisfaction and self-esteem according to the basic demographic characteristics of the nursing students had been carried out using Mann Whitney Z-test and Kruskal Wallis H-test. Pearson Correlation coefficient has been performed to determine the correlation between satisfaction score and self-esteem score. The normality test was performed using the Shapiro-Wilk test as well as the Kolmogorov-Smirnov test. Both satisfaction and self-esteem scores follow the non-normal distribution. Thus, the non-parametric tests were applied. A P-value of 0.05 was considered statistically significant.

3. Results

Table 1: Basic demographic characteristics of the nursing students ⁽ⁿ⁼¹⁰⁶⁾

Study data	N (%)
Gender	
• Male	20 (18.9%)
• Female	86 (81.1%)
Training Level	
• Level 3	05 (04.7%)
• Level 4	18 (17.0%)
• Level 5	17 (16.0%)
• Level 6	09 (08.5%)
• Level 7	21 (19.8%)
• Level 8	36 (34.0%)
GPA	

• 2.5 - 3.5	03 (02.8%)
• 3.5 - 4	26 (24.5%)
• 4 - 4.5	38 (35.8%)
• 4.5 - 5	39 (36.8%)
Hours of training	
• ≤8 hours	68 (64.2%)
• >8 hours	38 (35.8%)

This study recruited 106 nursing students. As seen in Table 1, females (81.1%) dominated males (18.9%). Students who were in level 8 of training constitute 34% while students who had a 4.5 to 5 GPA constitute 36.8%. In addition, nearly two-thirds (64.2%) had a training of 8 hours or less

Table 2: Assessment of nursing students' satisfaction with clinical training ⁽ⁿ⁼¹⁰⁶⁾

Statement	Score	Rank
	Mean ± SD	
1. Clinical instructors are approachable and make students feel comfortable about asking questions	2.75 ± 0.46	1
2. Clinical instructors provide feedback at appropriate times, and do not embarrass me in front of others (classmates, staff, patients and family members)	2.65 ± 0.60	3
3. Clinical instructors are open to discussions and difference in opinions	2.67 ± 0.58	2
4. Clinical instructors give me sufficient guidance before I perform technical skills	2.50 ± 0.71	13
5. Clinical instructors view my mistakes as part of my learning	2.46 ± 0.89	15
6. Clinical instructors give me clear ideas of what is expected from me during a clinical rotation	2.55 ± 0.68	10
7. Clinical instructors facilitate my ability to critically assess my client's needs	2.58 ± 0.65	9
8. Clinical instructors assign me to patients that are appropriate for my level of competence	2.52 ± 0.73	12

9. Clinical instructors give me verbal and written feedback concerning my clinical experience	2.54 ± 0.69	11
10. Clinical instructors demonstrate a high level of knowledge and clinical expertise	2.65 ± 0.60	4
11. Clinical instructors are available when needed	2.64 ± 0.62	5
12. Clinical instructors provide enough opportunities for independent practice in the clinical sites	2.48 ± 0.72	14
13. Clinical instructors encourage me to link theory to practice	2.60 ± 0.63	6
14. Instructions are consistent among different clinical instructors	2.59 ± 0.69	7
15. Faculty members behave professionally	2.59 ± 0.64	8
Satisfaction total score	38.8 ± 6.82	--
Level of satisfaction	N (%)	--
• Low	10 (09.4%)	--
• Average	14 (13.2%)	--
• High	82 (77.4%)	--

Response has a range from 1 – Disagree to 3 – Agree.

Table 2 showed the assessment of nursing students' satisfaction with clinical training. It can be observed that the highest satisfaction rating was seen in the statement "Clinical instructors are approachable and make students feel comfortable about asking questions" (mean score: 2.75; SD 0.46), followed by "Clinical instructors are open to discussions and difference in opinions" (mean score: 2.67; SD 0.58), and "Clinical instructors provide feedback at appropriate times, and do not embarrass me in front of others" (mean score: 2.65; SD 0.60). The overall mean satisfaction score was 38.8 (SD 6.82) with low, average, and high satisfaction levels found in 9.4%, 13.2%, and 77.4%, respectively.

Table 3: Assessment of nursing students' self-esteem (n=106)

Statement	Score	Rank
	Mean ± SD	
1. On the whole, I am satisfied with myself	2.90 ± 0.85	3
2. At times I think I am no good at all †	2.37 ± 0.91	9
3. I feel that I have a number of good qualities	3.03 ± 0.76	2

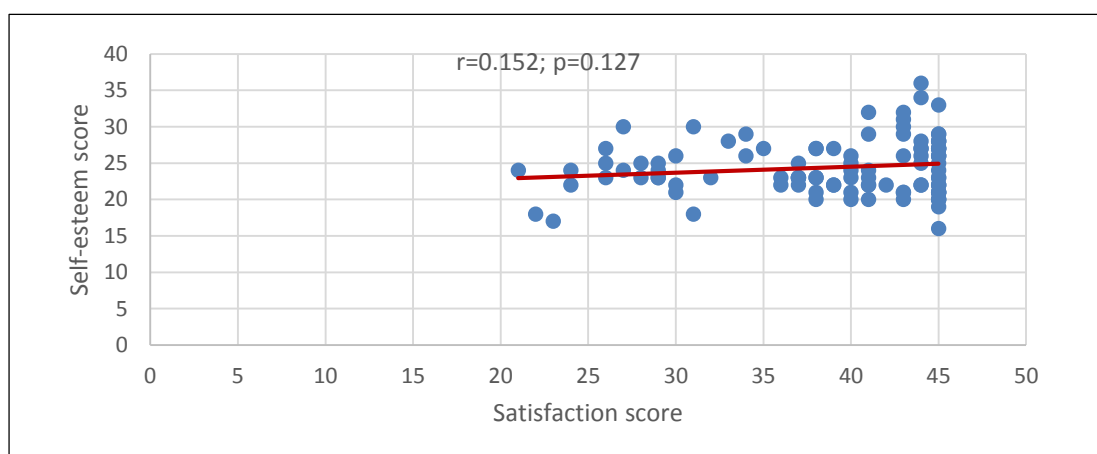
4. I am able to do things as well as most other people	3.05 ± 0.76	1
5. I feel I do not have much to be proud of †	2.59 ± 1.00	7
6. I certainly feel useless at times †	2.64 ± 0.89	5
7. I feel that I'm a person of worth, at least on an equal plane with others	2.79 ± 0.83	4
8. I wish I could have more respect for myself †	2.42 ± 1.01	8
9. All in all, I am inclined to feel that I am a failure †	2.65 ± 0.93	5
Self-esteem total score	24.5 ± 3.77	--
Level of self-esteem	N (%)	--
• Low	12 (11.3%)	--
• Normal	94 (88.7%)	--

† Reversed coded statement.

Response has a range from 1 – Strongly disagree to 4 – Strongly agree.

Table 3 presented the assessment of nursing students' self-esteem. Based on the results, it was shown that the highest rating was related to the statement "I am able to do things as well as most other people" (mean score: 3.05; SD 0.76), followed by the statement "I feel that I have a number of good qualities" (mean score: 3.03; SD 0.76) and "On the whole, I am satisfied with myself" (mean score: 2.90; SD 0.85). The overall mean self-esteem score was 24.5 (SD 3.77). 11.3% of the nursing students were considered low self-esteem levels while the rest was normal (88.7%)

Figure 1: Correlation between satisfaction score and self-esteem score



In Figure 1, it was revealed that there was no significant correlation between self-esteem and satisfaction score ($r=0.152$; $p=0.127$).

Table 4: Association between satisfaction and self-esteem according to the basic demographic characteristics of the nursing students ⁽ⁿ⁼¹⁰⁶⁾

Study data	Satisfaction Score (45) Mean ± SD	Z/H-test; P-value	Self-esteem Score (36) Mean ± SD	Z/H-test; P-value
Gender ^a				
• Male	39.0 ± 7.69	0.482;	26.6 ± 4.40	2.454;
• Female	38.7 ± 6.65	0.629	23.9 ± 3.44	0.014 **
Training level ^a				
• Junior level (Level 3-5)	40.6 ± 5.71	1.967;	24.3 ± 3.50	0.344;
• Senior level (Level 6-8)	37.7 ± 7.23	0.049 **	24.6 ± 3.94	0.732
GPA ^b				
• <4.0	36.7 ± 7.71	2.646;	22.7 ± 3.22	8.264;
• 4 - 4.5	39.9 ± 5.96	0.266	24.9 ± 3.99	0.016 **
• 4.5 - 5	39.1 ± 6.77		25.4 ± 3.54	
Hours of training ^a				
• ≤8 hours	38.4 ± 7.05	0.877;	24.1 ± 3.44	1.209;
• >8 hours	39.5 ± 6.42	0.380	25.1 ± 4.27	0.230

^a P-value has been calculated using Mann Whitney Z-test.

^b P-value has been calculated using Kruskal Wallis H-test.

** Significant at p<0.05 level.

When measuring the association between satisfaction score and self-esteem score according to the basic demographic characteristics of the nursing students (Table 4), it was found that a higher satisfaction score was more associated with being a junior training level (Z=1.967; p=0.049) while gender female (Z=2.454; p=0.014) and low GPA (H=8.264; p=0.016) were more associated with decreasing self-esteem score.

4. Discussion

This study evaluates the impact of the COVID-19 pandemic on nursing students' clinical training satisfaction, self-esteem, and academic achievement. The findings of this study revealed that there was a high level of satisfaction among nursing students. Based on the given criteria, 77.4% were considered high satisfaction while 13.2% were average and only 9.4% were considered low satisfaction levels (mean score: 38.8; SD 6.82). These findings are consistent with the study done by Shaban et al, (2021). According to reports, 71.2% of Egyptian nursing students had a high satisfaction level and only 7.1% demonstrated a low academic satisfaction level. This had also been observed by the reports of Musabyimana et al, (2019) wherein many of the nursing and midwifery students were highly satisfied with the supervisory relationship (62%), the leadership of the ward manager (58%), clinical learning environment (58%), and ward atmosphere (54%). Contradicting these reports, a study done by Dutta et al (2021), reported that the majority of the students (42) were dissatisfied with the current setup of online clinical teaching suggesting that face-to-face classes are far better than virtual. However, given the current situation, students are bound to accept the current set up but it may not as effective as face-to-face interactions.

Interestingly, our study found that nursing students who are at junior levels in terms of clinical training were more satisfied than nursing students who are at senior training levels. In a study by Putra et al (2021), investigations lead them to know that there was an association between the clinical learning environment (pedagogic learning, nursing care in the ward, the relationship of supervision, leadership style, and the role of nurse teacher) and the satisfaction of nursing clinic students and based on a predictive linear model, the dimensions of pedagogic learning and the role of the nurse teacher affected nursing student satisfaction. They further indicated that the trend is positive, indicating the higher the clinical learning environment score, the higher the student satisfaction score with a modest closeness level. However, in the cross-sectional study of Fitria et al., (2021) by using a clinical simulation method of "thinking like a nurse", they documented an increased satisfaction and confidence among nursing students ($p < 0.05$), the average increase in using the method was approximately 114%. On the other hand, our results no significant association observed between satisfaction in terms of gender, hours of training, and academic grade ($p > 0.05$) which was consistent with the study documented by Mohammed & Mohammed, (2020) wherein students' satisfaction/confidence showed no significant relationship with students demographic data.

In the specific assessment of nursing students' satisfaction with clinical training, according to our results, taking into consideration the highest satisfaction rating of 3 points, most students scored approximately 2.5 points in all of the satisfaction statements indicating high satisfaction with regard to clinical training. For instance, students were highly satisfied because their clinical instructors are approachable and easy to talk with, and instructors are open to discussion even with conflicting opinions. Also, preceptors offered a response in a timely manner without embarrassing students. Overall, our results indicate that students' clinical instructors are very supportive making the most to facilitate the learning process of the nursing students. These scenarios are not in accordance with the report of Ulenaers et al, (2021). Based on the reports, although, most students felt supported by their nursing schools, however, nursing students expressed a strong sentiment that they needed to be heard, prepared, and supported. The deficiencies that were identified by students centered on the importance of more psychosocial support, bridging the gaps in communication with the clinical placement supervisor, acknowledging the difficult work situation, and the importance of having time to unwind. Most of the students believed that the role of the receptor during COVID-19 is becoming more important. Among Indian aspirant nurses (Dutta et al., 2021), there was a major dissatisfaction with practical and clinical learning. Students indicated negative comments about interaction and focus, teaching content, practical learning, and flaws of technical and infrastructural. They suggested that blended learning (mixing both online and face-to-face education) may be a viable option during the current pandemic and that online learning alone may not be effective as an alternative solution for medical and nursing education.

Regarding self-esteem, most of our nursing students scored high ratings on the Rosenberg Self-esteem Scale questionnaire suggesting normal self-esteem (88.7%). Only 11.3% considered low self-esteem levels (mean score: 24.5; SD 3.77). This is almost consistent with the paper of Khan et al, (2022). Based on their accounts, most of the students (91.9%) had average self-esteem levels toward their academic performance after performing their clinical duties while in a study by Mohammed and Mohammed, (2020) the majority of the students demonstrated a high level of clinical simulation self-confidence (61.9%), 32.7% had a low level and only 14.4% of them had a moderate level. Further investigation is required to establish the level of self-esteem among undergraduate nurses during this time of the COVID-19 pandemic.

Moreover, data in this study indicate that gender female and poor academic grading were more associated with a decreased level of self-esteem. This echoed the study of Zhang et al. (2023). The authors conducted a comparative assessment between nursing students who attended in-person classes (control group) versus online learning students (case group). According to reports, students enrolled in distance learning had worse academic performance ($p = 0.001$) and lower levels of learning behavior self-efficacy ($p < 0.05$). Furthermore, we have learned that the satisfaction level of the students may not directly influence students' self-esteem levels which mirrored the study carried out among Pakistani nursing students (Khan et al., 2022).

5. Conclusion

There was great clinical training satisfaction and normal self-esteem levels among nursing students during the COVID-19 pandemic. However, poor academic achievement seems to affect nursing students' self-esteem but overall satisfaction remains the same. Further, female nursing students tend to exhibit lower self-esteem levels than male nursing students. It is interesting to note that the satisfaction levels of the students who were in the senior training levels were lower than the students in the junior training levels. During the pandemic, the importance of having a positive outlook in the clinical training of future nurses is important. Clinical instructors had the vital role to ensure students' mental well-being was not affected by the current situation. Being accessible to students may be one of the best methods to prevent any influencing factors that may affect the satisfaction and self-esteem of nursing students during this time of the pandemic.

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