



## Original Article

## Effect of Skills Competency- Based Orientation on Clinical Performance Among Nursing Interns at University of Lahore Teaching Hospital

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## ABSTRACT

The competencies of nursing interns have direct effects on the wellbeing and health of patients, and lack of it can result in severe problems for the patients. Thus, the clinical performance and competence of nursing interns are the main professional and corporate problems for nurses and patients. Furthermore, it is needed that the nurses show the capability to supply quality care for patients and to collaborate with other nurses and colleagues. **Objective:** To determine the effect of skills Competency-based orientation on clinical performance among nursing interns at University of Teaching Hospital Lahore. **Methods:** A quasi experimental study design was used to conduct this study at University of Lahore Teaching Hospital among nursing interns. A simple random sample of n=40 participants was recruited. The educational intervention consisted of 12 sessions of 40 to 50 minutes each, from June, 2022 to August 2022. To collect data, permission was granted from the Research Ethical Committee (REC) and then Medical superintendent of University of Lahore Teaching Hospital. To assess the performance among nursing interns, an observational checklist was used. Data of the study participants were entered in statistical software SPSS 21.0 and was analyzed accordingly. **Results:** Findings revealed a significant effect of the educational intervention program on performance of nursing interns (Pre interventional performance score 21.00 ±5.088 and post interventional performance score 38.00±4.481 among the nursing interns (p- value <0.001). **Conclusion:** It is concluded that nursing education program has effect on performance among nursing interns.

## INTRODUCTION

Competencies are essential for nursing interns to provide care for patients. The clinical performance and competence of nursing interns are the main professional and corporate problems for providers and buyers of nursing care. Furthermore, it is needed that the nurses show the capability to supply quality care for patients and to collaborate with other nurses and colleagues [1]. Previous research shows that Instead of taking a comprehensive approach to patients, nursing interns are task-oriented indicated that nursing interns struggle to recognize changes in patients' health because they lack advanced clinical skills such medical administration, physical assessment, emergency procedures, and communication

[2, 3]. Nursing education programs and nursing interns' professional development both benefit from lifelong learning initiatives [4]. High turnover rates also leads to lack of clinical skills and competences [5]. Although some research has been done to determine how competency-based orientation affects clinical performance and patient outcomes [6]. Nursing interns performed better in the clinical setting because to competency-based orientation. Implementing competency-based orientation is suggested in this review in order to improve nursing interns' clinical performance [7]. Unfortunately, both seasoned nurses and nursing students frequently overlook or disregard the warning indications of physiological decline.

However, these systems and processes have not yet assigned roles or specified the necessary capabilities for health care providers [8]. In order to guarantee patient safety in all care situations, it is important to be able to maintain a sufficient number of care personnel in addition to being able to offer a suitable mix of nursing competence [9]. Previous research shows that nursing interns are more task-oriented [10]. Nursing interns must be closely watched over and constantly monitored to ensure their clinical competency. The ongoing evaluation of nursing interns' clinical competence is a major source of worry since it is essential to ensuring that patients receive safe, high-quality care [11]. Nursing competence is defined as the capacity of a nurse to successfully exhibit a range of qualities, including personal traits, values, attitudes, knowledge, and abilities, which are necessary to carry out his or her professional responsibilities [12]. According to Naylor et al., there are beneficial relationships between nursing interns and the caliber of patient care, and nursing interns play a significant and influential role in enhancing health outcomes [13]. Additionally, some preventive services, like a vaccination for the 2020 corona virus, may have significant economic advantages that, according to long-standing custom, are not typically considered in a competency base orientation cost calculation [14]. Poor nursing interns' competency lead to increase in number of people being admitted to hospitals with co morbidities and multisystem disorders [15]. Also competency-based orientation places a strong emphasis on the nursing interns' capacity to carry out the role expectations for which they have been hired [16]. High levels of professional competence among nursing interns are linked to better patient outcomes. It has been demonstrated that the effectiveness of nursing care is dependent on nurses' competence, which is essential to the standard of care and patient safety [17]. In an experimental the outcome indicated that the Programmed was successful and that there was a very statistically significant change between the pre- and posttest ( $p < 0.0001$ ) [18]. A study was conducted in Hong Kong the nursing interns who had completed a competency test (87.3%) significantly showed that they knew more about patient care [19]. According to a study done in Turkey, the competency levels of interns was very good in 59.7%, good in 34.7%, fair in 79.2% of cases, and poor in 18.1% of cases. The kind of unit and the nursing interns' competency scores had a statistically significant link ( $p = 0.013$ ) [19]. A study conducted in Tehran, Iran, demonstrated that competency-based education affects clinical performance ( $P = .255$ , 95% CI: 0.319 to 0.192) [16]. In a study done in India, it was discovered that the Pre-Clinical Competency Certification Program had an immediate impact on the competency of nursing interns [20].

## METHODS

A quasi experimental pre-post study design was used to carry on this study. This study was conducted at the University of Lahore Teaching Hospital. The study participants were all the nursing interns working there. A simple random sample of  $n=40$  participants was recruited with  $\alpha=0.05$  and  $\beta=0.10$ . The calculated sample size was 40 using the following Slovinc's formula

$$n = N / (1 + N(e)^2)$$

(n)=sample size, N=Total population, (e)= margin of error

$$N = 45$$

$$e = 0.05$$

$$n = 45 / (1 + 45(0.05)^2)$$

$$n = 40$$

Inclusion Criteria were nursing interns appointed at University of Lahore teaching Hospital, nursing interns directly involved in patient care, willing to participate. All the participants were in the age group 22 to 25 because they got admission in the age of 17 to 18 years and at the completion of degree they were about 22 around. Exclusion Criteria was working at out-patient department and not willing to participate. An educational program was developed with the help of different books and internet material. The educational intervention consisted of 12 sessions where each session consisted of 40-50 minutes. This was done through different learning methods like groups lecture, groups' discussion and distribution of skills handouts. To conduct this educational program, the participants were approached in groups during at the teaching room of university of Lahore teaching hospital. The educational interventions plan started from June, 2022 till August 2022, where each study participant received all the education sessions one by one each month during their duty. A performance is an act or skill performed by a nursing intern working at university hospital that was measured by nursing competencies for nursing interns. Total score was 42 where score < 15 was considered as poor performance, score 15-30 was considered as Satisfactory performance and score > 30 was considered as Good performance. To collect data, first of all, permission was granted from the Research Ethical Committee (REC) of the University of Lahore. Then permission was taken from the Medical superintendent of University of Lahore Teaching Hospital. The nursing interns were approached for data collection. To assess the performance among nursing interns, an observational checklist was used. After the intervention, the participants were asked to fill the data collection tool of performance of nursing competency checklist again to assess the comparison. Data of the study participants was entered in statistical software SPSS 21.0 and was analyzed accordingly. Results of the study were

presented as median ± standard deviation through tables. Performance among nursing interns, pre and post score was compared using Wilcoxon ranked (z) test after checking for normality test assumptions. P-value ≤ 0.05 as standard value was considered as significant value..

## RESULTS

Table 1 below indicated that there were 37(92.50%) of the study participants in the age category of 22-23 years and 3 (7.5%) among the study participants were in the age group of 24- 25 years. Similarly, among the study participants 37(92.50%) were female and remaining 3 (7.5%) were male participants. Moreover, the findings also showed that 3 (7.5%) among the nurse interns belonged to general nursing Diploma and majority 37 (92.5%) were BS Nursing Graduates. It was also found that 3 (7.5%) among the participants were married and remaining majority 37 (92.5%) were unmarried.

Variables	Frequency
<b>Age (n=40) in years</b>	
22-23 Years	37(92.5%)
24-25 Years	03(7.5%)
<b>Gender (n=40)</b>	
Male	03(7.5%)
Female	37(92.5%)
<b>Qualification (n=40)</b>	
General Nursing Diploma	03(7.5%)
B S nursing	37(92.5%)
<b>Marital status (n = 40)</b>	
Unmarried	37(92.5%)
Married	03(7.5%)

**Table 1:** Demographic characteristics of participants(n=40)

The findings in below table 2 showed that before the competency based skills intervention 18 (45%) of the research participants had poor performance, 22 (55%) were having satisfactory performance and no participant was having good performance in the pre-intervention phase. After the competency based educational intervention 6 (15%) of the study participants were having satisfactory performance and 34 (85%) of the participants had good practices. On the other hand 0 (0.00%) had poor performance which indicated that the intervention increased the performance score to a great extent.

Nursing Interns' Performance	Pre-Interventional F (%)	Post-Interventional F (%)
Poor performance	18 (45%)	0 (0.00%)
Satisfactory Performance	22 (55%)	6 (15%)
Good performance	0 (0.00%)	34 (85%)

**Table 02:** Comparison of pre-post intervention performance (n=40)

Table 3 below indicated that Wilcoxon signed ranked test was used to evaluate the effect of competency based

educational intervention on participants' performance. A very highly statistical significant median difference was found(+17.00) on nursing interns performance between pre and post interventional scores of skills based competency among nursing interns *Wilcoxon (z)* (-5.513<sup>b</sup>), *pvalue*=(0.000), with median and SD (21.00 ±5.088vs. 38.00±4.481).

Variable	N	Pre-Intervention Median +SD	Post-Intervention Median +SD	Median difference	Wilcoxon (Z) Test	p-Value
Performance Score	40	21.00 +5.088	38.00+4.481	17.00	-5.513 <sup>b</sup>	.000

**Table 3:** Wilcoxon Signed Ranks Test

## DISCUSSION

Findings of this current study indicated that majority of the participants 37(92.50%) were in the age category of 22-23 years. Similar findings were found in a previous study where all (100%) of the participants were in the age group of 20 to 23 years. Other study findings also showed that the mean age of the studied subjects is 22.8± 2.99 years which means that they were 22 to 23 years of age [21]. Moreover some different findings were found by a past research where two thirds of them (66.7%) were aged less than 23 years with Mean ± SD (22.45±1.06) [22]. Similarly, among the study participants 37(92.50%) were female and only 3(7.5%) were male participants which indicates that females are in a great majority in this current study. These findings were found consistent with a past study where 98% of students were female, and 2% were males [21]. The gender statistics represented in all above studies gives such an impression that all over the world, majority of the nurses constituent among females nurses. The findings in this current study showed that before the competency based skills intervention 18(45%) of the research participants had poor performance, 22 (55%) were having satisfactory performance and no participant was having good performance in the pre-intervention phase. After the competency based educational intervention 6 (15%) of the study participants were having satisfactory performance and 34 (85%) of the participants had good practices. On the other hand 0 (0.00%) had poor performance which indicated that the intervention increased the performance score to a great extent. A previous study presented very similar distribution of nurse interns (73%), were having poor or average skills competency in the pre-test and gained skills competency as experts (94%) in the post-test [21]. Findings of this current study also evaluated the effect of competency based educational intervention on participants' performance. A very highly statistical significant median difference was found(+17.00) on nursing interns performance between pre and post interventional scores of skills based competency among nursing interns

Wilcoxon ( $z$ )(-5.513b),  $p$ value=(0.00·), with median and SD (21.00 ±5.088 vs. 38.00±4.481). Similarly, a previous study also showed that there was very highly statistically improvement in total competencies skills with Mean ± SD (38.92±7.90) pre-program that improved to (81.69±7.62) immediate post educational program<sup>21</sup>. Also in another past study the mean value for the pretest was 30.05 ± 7.23 and 71.87 ± 6.93 for the posttest. The  $p$ -value is <0.001, which is significant [21]. Moreover another quasi-experimental study evaluated the effects of competency-based orientation among nurses intern at Benha University Hospital was undertaken in Egypt in 2019. After the program's implementation, there was an extremely statistically significant ( $P$  0.005) improvement in the practicing abilities of nursing interns toward competencies [22].

## CONCLUSIONS

The overall findings in this current study showed that after the competency based educational intervention 6 (15%) of the study participants were having satisfactory performance and 34 (85%) of the participants had good practices. On the other hand 0 (0.00%) had poor performance which indicated that the intervention increased the performance score to a great extent. Also the findings of this current study also evaluated the effect of competency based educational intervention on participants' performance. A very highly statistical significant median difference was found (+17.00) on nursing interns performance between pre and post interventional scores of skills based competency among nursing interns Wilcoxon ( $z$ )(-5.513<sup>b</sup>),  $p$ value=(0.00·), with median and SD (21.00±5.088 vs. 38.00±4.481).

## Conflicts of Interest

The authors declare no conflict of interest

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