

## Effect of a Preceptorship Development Program among Nurses in UAE

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### Abstract

**Introduction:** Nurses constitute the majority of health care personnel, and the high turnover and instability of nurse staffing can affect patient outcomes. Systematic education and the support of co-workers and organization are imperative to maintain the current nurse workforce. <sup>1</sup> As nurses are frontline staff in most healthcare contexts, their contribution is essential to the delivery of safe and effective patient care, it is essential that nurses are trained to a high standard. The quality of nursing education, including the clinical placement, is of outmost importance, and research indicates that it influences intent to stay in the nursing profession at a time when nursing shortages are a concern worldwide. <sup>2</sup> The clinical placement is a central component of nursing education. The clinical placement involves learning under the supervision of a healthcare professional within a healthcare organisation and it has been described as a social process requiring active participation. Clinical placements provide the opportunity for nursing students and new nurses to apply theoretical knowledge obtained during their campus-based learning. Furthermore, the clinical placement enables students to develop cognitive and affective skills, to acclimatise culturally) and to develop their professional identity. <sup>3</sup>

**Objectives:** The objectives of the study are:

1. To assess the knowledge and perception of nurses regarding preceptorship before and after the Preceptorship Development Program
2. To correlate knowledge and perception regarding preceptorship among nurses

**Methods:** A pre-post cohort educational intervention on 200 Nurses from UAE was conducted by total enumeration sampling. Pre-test, PDP training conducted and Post-test after 10 days. A pilot study was done before the main study.

**Results:** The reliability of the knowledge tool was 0.88, internal consistency of the perception tool was >85%. Feedback from participants showed 38.50% strongly agreed and 61.50% agreed that the workshop improved their ability to utilize the skills in their working area. For main study the overall increase in the mean knowledge scores was from 10.62 to 15.76 which was statistically significant ( $p < 0.001$ ). Overall decrease in perception score from 95.95 to 90.76 which was significant at  $p < 0.001$ . A weak positive correlation identified before the training which was not statistically significant ( $p > 0.05$ ). A weak negative correlation identified after the training which was not statistically significant ( $p > 0.05$ ).

**Conclusions:** As the tool & the PDP has good reliability & validity. The PDP is effective in training nurses as preceptors in improving knowledge and sensitizing them regarding their perception towards preceptorship.

**Keywords:** Preceptor, Preceptorship, Nurses, Preceptorship Development Program

### 1. Introduction

Nurses constitute the majority of health care personnel, and the high turnover and instability of nurse staffing can affect patient outcomes. Systematic education and the support of co-workers and organization are imperative to maintain the current nurse workforce. <sup>1</sup> As nurses are frontline staff in most healthcare contexts, their contribution is essential to the delivery of safe and effective patient care, it is essential that nurses are trained to a high standard. The quality of nursing education, including the clinical placement, is of outmost importance, and research indicates that it influences intent to stay in the nursing profession at a time when nursing shortages are a concern

worldwide.<sup>2</sup> The clinical placement is a central component of nursing education. The clinical placement involves learning under the supervision of a healthcare professional within a healthcare organisation and it has been described as a social process requiring active participation. Clinical placements provide the opportunity for nursing students and new nurses to apply theoretical knowledge obtained during their campus-based learning. Furthermore, the clinical placement enables students to develop cognitive and affective skills, to acclimatise culturally) and to develop their professional identity.<sup>3</sup>

A preceptor is “an educator who gives on-the-job training to novice nurses and nursing students”. As experienced nurses with specialized knowledge in their area of work, preceptors can aid novice nurses in adjusting to the clinical environment and impart to them specialized knowledge needed in their work environment.<sup>4</sup> The stress level of novice nurses, who interacted with their mentors on a regular basis, was found to decrease. A Research that examined the effect of training given by preceptors revealed that preceptor-based training programs increased the training satisfaction and retention rate of new nurses, and the caring of preceptors had a positive correlation with the job satisfaction and competence of novice nurses. Therefore, providing training to newly graduated nurses, wherein preceptors maintain good relationships with new nurses and help them gain a positive perception regarding nursing work, is crucial to the socialization of new nurses. The roles of a preceptor include being an educator, evaluator, protector, and role model.<sup>4</sup>

Many preceptors in health care facilities have difficulties due to their excessive workload, because they have to train new nurses and attend to patients at the same time. Previous studies have suggested that health organizations must train preceptors to effectively interact with newly graduated nurses to reduce turnover intention. However, in some cases, they became a preceptor without receiving structured preceptor training or preparing themselves for the role, which also resulted in excessive work and stress.<sup>1</sup> A study conducted in Taiwan and the U.K. found that most nurses became preceptors without receiving sufficient training, and that the training they received was mostly theoretical rather than practical. Thus, it did not help them understand the demands of the preceptees and become good role models. A study conducted in Korea revealed that the training and support systems for preceptors varied by the size of health care facilities. The facilities with fewer than 300 beds did not have standardized guidelines and had an inadequate number of personnel committed to nursing education, and such facilities often did not have a proper preceptorship support system.<sup>3</sup>

A study was conducted in Qatar, to assess the effectiveness of preceptorship program models that can eventually be used for adoption as training programs for nurses in Health Centres in Qatar. The need for a preceptorship program was to ensure nurses were equipped to carry out Qatar’s National Health Strategy at the Primary Health Care Corporation. A Mixed Methods Appraisal Tool was used to assess the quality of these studies. The data was analysed by categorizing the included articles in a matrix sheet based on study design. The study concluded that Preceptorship programs were effective in four key areas: increasing nursing knowledge, supporting effective and safe care delivery by newly graduated nurses, increasing organizational support, and decreasing turnover rate and cost.<sup>8</sup>

A study was done in Brazil to analyze the preceptors' perceptions about preceptorship and their role as educators. Data were collected via a questionnaire with 35 five-point Likert-type scale statements and analyzed using quantitative and qualitative approaches. The qualitative analysis consisted of two open-ended questions: (1) What is Preceptorship? And (2) What is your perception of the preceptor's role as an educator? Out of 619 health professionals, 327 (52.8%) participated in the study. Among them, 80.7% were females, 35.2% were nurses and 8.9% were physicians. Participants described preceptorship as an educational task in a clinical setting, in which active learning methods are used for the training of health care professionals. Preceptorship was considered a bridge between the Unified Health System and the Academic Practice. Preceptors envisioned their educator role as a model, tutor, leader, supervisor, and mentor. Preceptors expressed a critical view about the nature of preceptorship and their role as educators, recognizing its challenges as well as its potential in clinical settings.<sup>6</sup>

This study aims at evaluating the effect of a Preceptorship Development Program(PDP) on knowledge & perception regarding preceptorship among nurses in UAE. The study is the need of the hour which will help in scientific training of preceptors.

Before the main study a pilot study was conducted among 25 preceptors to validate the PDP and the tools that would be used for the study. The Content Validity Index(CVI) was done for both the knowledge questionnaire and the perception scale by giving it to experts in the field and was found to be .95 and .98 respectively. For the knowledge questionnaire the correlation value was found to be 0.67. Test retest was done for measure of stability, for which pre and post scores were correlated, degree of correlation (coefficient value) was found to be 0.88.

Cronbach's Alpha was used to test for internal consistency of the perception tool which showed a good reliability of >85%. Hence both tools were found to have good validity and reliability.

Feedback was taken from the participants regarding the training objectives, the facilitators, the content, the time allotment, the question & answer during sessions, the exercises, case scenarios & reflections, the group activities and whether the workshop overall training helped to improve their abilities as preceptors. Most of the responses (100%) were rated between strongly agree and agree. A feed-back was taken from the resource persons for validation of the of the program, inputs were taken and necessary changes were made before the main study. Figure 1 shows the feedback responses which shows that 38.50% strongly agreed and 61.50% agreed that the workshop improved their ability to utilize the skills in their working area. Table 1 shows that most of the responses (100%) were between strongly agree and agree for the items that were asked. Hence the pilot study proved that the PDP was validated as good and the tools had good reliability hence the PDP was then used to train 200 preceptors.

## 2. Objectives

**Aim:** The aim of this study is to evaluate the effect of a Preceptorship Development Program on knowledge & perception among nurses in UAE.

### Objectives

1. To assess the knowledge and perception of nurses regarding preceptorship before and after the Preceptorship Development Program
2. To correlate knowledge and perception regarding preceptorship among nurses

## Hypothesis

H01: There will be no significant change in knowledge & perception among nurses at 0.05 level of significance

H02: There will be no significant correlation between knowledge & perception regarding preceptorship among nurses at 0.05 level of significance

## 3. Methods

**Research Approach & Design** – pre-post cohort educational intervention study

**Study population** – Nurses working in UAE

**Sample** – Nurses working in UAE who satisfy the inclusion criteria

### Inclusion criteria:

#### Preceptors

- Minimum 2 years of experience
- Staff Nurse or Nurse manager

### Exclusion criteria:

#### Preceptors

- Nurses who have not attended the Nurse Preceptorship Development program

**Sample size:** 200 nurses

**Sampling Technique:** Total Enumeration Sampling technique. Sample size is not calculated as all nurses attending training will be included in the study.

**Study settings:** Gulf Medical University, Ajman

**Duration of study:** 6 months

### Study instrument & validation procedure

**Section A:** A proforma to elicit the baseline variables of the preceptors. Preceptor's baseline include age, gender, qualification, total years of experience, designation name of hospital & whether exposed to a preceptorship program earlier.

**Section B:** A structured knowledge questionnaire to assess the knowledge of the preceptors consisting of 25 items

**Section C:** A perception scale consisting of 25 items to assess the perception of preceptors

### Data collection

Total enumeration sampling technique was used to select the subjects(preceptors) based on inclusion criteria. A Pre-test was conducted for the preceptors on knowledge and perception towards preceptorship. Preceptors underwent a Preceptorship Development Program which is a 14-hour training session face to face on two days; which includes lectures, discussions, videos, case scenarios, reflections and exercises. This training took place in batches of 30 preceptors. Post - test Knowledge & perception of preceptors was assessed through an online survey 10 days after the training.

### 4. Results

The result revealed (Table 1) that there was a significant increase in knowledge from 10.62 to 15.76 which was statistically significant (0.032,  $p < .001$ . McNemar's test was done between individual pre-test and post test questions which showed a 23% increase in the correct responses after the program which was found to be statistically significant. at  $p < .001$ .

Table 1: Mean Knowledge & Perception scores before and after the PDP & test of significance

Variable	Max score	Pre test Mean	Post Test Mean	Shapiro-Wilk Test/Kolmogorov-Smirnov test	p value
Knowledge	25	10.62	15.76	.032	$p < .001^*$
Perception	125	95.95	90.76	.001	$p < .001^{**}$

\*There is a significant increase in knowledge which is statistically significant at  $p < .001$

There was a significant decrease in the perception scores from 95.95 to 90.76 which was significant at which was statistically significant at (0.001,  $p < .001$ )

In relation to correlation, it was found that the before the training correlation was  $r = 0.117$  not statistically significant ( $p > 0.05$ ). A weak positive correlation was identified. Perception improved slightly for better knowledge.

After the training the correlation was found to be  $r = -0.145$  not statistically significant ( $p > 0.05$ ). A weak negative correlation was identified. Slight decrease in the Perception score when knowledge score increases. These results can be observed in Table 3.

Table 2 – Spearman's Rank correlation between Knowledge & Perception scores

Correlation	Before the Training		After the training	
Variable	Spearman's rank correlation	P value	Spearman's rank correlation	P value

Knowledge	0.117*	0.154	-0.145**	0.076
Perception				

Table 3 shows that:

\*Weak positive correlation identified. Perception improved slightly for better knowledge. Observed correlation coefficient is not statistically significant ( $p>0.05$ ).

\*\*Weak negative correlation identified. Slight decrease in the Perception score when knowledge score increases. Observed correlation coefficient is not statistically significant ( $p>0.05$ ).

## 5. Discussion

### Present study findings

#### Sociodemographic variables

Out of 150 subjects 70(46.66%) were of the age group of 31-40 years;134(89%) were females; majority127(84.66%) had qualification of BSc females; 98(65.33%) were staff nurses; 103(68.66%) had <15years of experience and 88(58.66%) did not attend preceptorship training earlier.

#### Findings related to Knowledge

There was a 23% increase in the correct responses which was statistically significant ( $p<0.001$ ). Overall increase in the mean knowledge scores from 10.62 to 15.76 which was statistically significant ( $p<0.001$ ). The PDP was effective in enhancing knowledge of the preceptors and can be recommended to be used for further training programs for new preceptors

#### Findings related to Perception

Overall decrease in perception score from 95.95 to 90.76 which was significant at  $p<0.001$ . Reason could be that the training program had sensitized the preceptors regarding the concept of preceptorship and helped them reflect regarding their perception of their actual role & performance as preceptors.

A descriptive online survey method on180 registered nurses in Korea who were preceptors revealed overall mean score of CTBI of 89.30. Positive perceptions of preceptorship experiences were positively related with Clinical Teaching Behavior. The number of precepting experiences affected CTB only for nurses having undergone preceptor training courses. The use of role-playing as a method in training courses positively affected preceptors' CTB. These findings suggest that preceptors need support from nurse managers and colleagues, and preceptor training programs should be developed

#### Correlation between Knowledge & Perception

A weak positive correlation identified before the training. Perception improved slightly with better knowledge. Observed correlation coefficient is not statistically significant ( $p>0.05$ ). A weak negative correlation identified after the training. Slight decrease in the Perception score was observed when knowledge score increased. Observed correlation coefficient is not statistically significant ( $p>0.05$ ). The reason could be sensitization regarding preceptorship and perception of actual role performance as a preceptor

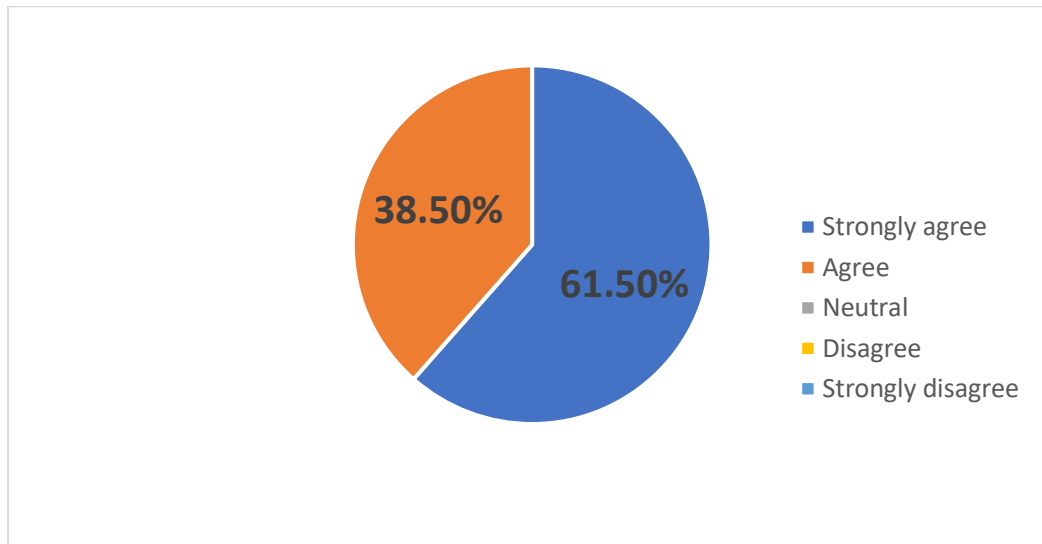
#### Feedback of Preceptors after 4-5 months of training

Please share your experience at the workplace after the preceptorship training ..

Participant 1: "Its help us to know how to involve the student in work place, how to let them feel they are in welcome in area where they can gain more knowledge and experience; also its help us to communicate with them in positive way ,also give us strong belief they are the future and we need to guide them"

Participant 2: "The training that you provided has personally motivated me to deal with the preceptee in more professional and systematic manner. Particularly use of reflection as a method in learning and teaching is very practical and helping in self-improvement. I feel I am much more engaged with my preceptee. I try to give my preceptee a better environment to learn, which was possible after the preceptorship training, which also enabled me to develop a good relationship."

Participant 3: “The preceptorship work shop was very informative and useful, as a preceptor it is very helpful for me in implementation in my work”



**Figure 1:** Shows that 38.50% and 61.50% strongly agreed and agreed respectively that the workshop improved their ability to utilize the skills in their working area.

#### **Limitations of the study**

Randomization was not done, all who attended the training were included in the study and post-test attrition

#### **Conclusion**

The preceptorship training program can be utilized in training a large number of nurse preceptors on a regular basis. The outcome will be seen as retention of staff and increased job satisfaction among new nurses. It will help in the scientific training of new nurses and student nurses. Overall, it will help in enhancing quality patient care

#### **Ethical considerations**

The study proceeded after ethical clearance from the Institutional Review Board of Gulf Medical University

#### **Outcome of the study**

The study revealed that the Preceptorship Development Program (PDP) was effective in improving the knowledge & brought about a change in perception regarding preceptorship among nurses in UAE. Based on the outcome of the study the developed PDP can be used training can be provided to preceptors

#### **Acknowledgement**

We acknowledge all the nurses who participated in this research study.

#### **Conflict of Interest**

The authors declare that there is no conflict of interest in writing this article.

#### **Author's contribution**

All authors have contributed to this research article

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