

The Effects of Nursing Preceptorship Program Training on Preceptor and Preceptee Interprofessional Identity

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ABSTRACT

Nursing preceptorship programs are known to be effective and efficient methods for orienting nurses and supporting learning opportunities.

Aim: This study aims to examine the impact of preceptorship program training on preceptor and preceptee interprofessional identity.

Materials and Methods: Design: an observational study, using Pre, intervention, and Post design.

Setting and sample: The inpatient department at King Faisal Hospital, 20 staff and new graduate nurses.

Tools for Data Collection: Interprofessional Identity Questionnaire composed of 2 parts was used to collect data.

Results: The results identified significant five factors associated with preceptor and preceptee interprofessional identity. Also, the results showed positive impact of the training interventional program on improving the responses of the significant two items. The results showed positive impact of the training interventional program on improving the responses of the significant three items.

Conclusion: Nursing preceptorship programs show effective and efficient methods for orienting nurses and supporting learning opportunities. Preceptor relationships provide new nurses with reality-based and skills-oriented learning experiences, they are useful in familiarizing newly hired nurses with clinical settings, hospital policies, procedures, and routine.

KEYWORDS: Preceptorship program training; Preceptor; Preceptee; Interprofessional identity

Quick Response Code:



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Received: December 19, 2022

Published: December 30, 2022

How to cite this article: Aishah Raja A, Nourah Yousef A, Areej Abdulrasheed B, Rehab Hasan Omar H, and Rahaf M. The Effects of Nursing Preceptorship Program Training on Preceptor and Preceptee Interprofessional Identity. 2022- 4(6) OAJBS.ID.000532. DOI: 10.38125/OAJBS.000532

INTRODUCTION

As evidenced by the literature, new nurses face the highest stress during the first three months of practice, and approximately 30-70% of new nurses leave their jobs within one year of practice. This negatively affects new nurses' opportunities for professional development Ho et al. [1]. Nursing preceptorship programs are known to be effective and efficient methods for orienting nurses and supporting learning opportunities. Literature shows that preceptors are an important source of implanted knowledge Forneris [2] and are an essential component of education Sandau [3]. Since preceptor relationships provide new nurses with reality-based and skills-oriented learning experiences, they are useful in familiarizing newly hired nurses with clinical settings, hospital policies, procedures, and routine Hyrkäs [4]. In addition, nurse leaders typically rank new graduates lowest in nonclinical skills, including their ability to work as a member of a team, communicate with members of the interprofessional team, and delegate appropriately Berkow [5].

It is known that the healthcare workplace environment is a diverse, interrelated and interdependent profession that involves interaction on a regular basis. Moreover, at the core of patient-centered care is collaboration among the patient, caregiver, and an interprofessional team of healthcare professionals. However, collaborative skills are not necessarily intuitive, creating a need for interprofessional education Stull [6]. Some of the most important skills that new nurses must improve are their interprofessional skills and how they perform interprofessional. Interprofessional identity is defined as "a social identity based on a widening circle of group membership that consists of more than one profession" Reinders [7].

The purpose of preceptorship program training that includes interprofessional education is to follow the recommendation of these studies to provide an education regarding interprofessional skills and evaluate the effectiveness of changing and improving cognitions, affects, and behavior Reinders [7]. During the preceptorship experience, a new graduate nurse forms an intense relationship with a precepting nurse, who is a practicing staff nurse and is herself engaged in interprofessional collaboration through dialogue, observation, and role modeling Ke [8].

As the reviewed literature does not include any studies that examine the impact of preceptorship program training on preceptor and preceptee interprofessional identity, the current study examines this variable to highlight one of the main concerns for nursing professional development leaders in improving preceptee experience and helping them successfully transition from students to safe, competent professional nurses.

Aim: Examine the impact of preceptorship program training on preceptor and preceptee interprofessional identity.

Research Questions

- a) To investigate the impact of nursing preceptorship training on preceptor interprofessional identity during the preceptorship period.
- b) To examine the impact of nursing preceptorship training on preceptee interprofessional identity during the preceptorship period.
- c) To identify the factors associated with preceptor and preceptee interprofessional identity.

REVIEW OF RELEVANT LITERATURE

A study of preceptees' perceptions demonstrates how newly qualified nurses are supported by structured preceptorship programs as they transition from students into competent nurses. The programs enhance both knowledge and skills and improve a wide range of clinical and communication abilities. The research is noteworthy because it looks at a variety of evaluation issues not seen in other studies. For 82 percent of those surveyed, finding time for preceptor and preceptor meetings was a problem. The study showed that almost 70 percent believed that they should be able to select their own preceptors. Effects on role development included settling into a new role, reflecting on their professional decision-making experience, and confidence.

The impact scale was considered to have a strong internal consistency for the development of clinical skills. 90% of preceptors indicated that they would consider being preceptors again in the future. Previous studies show that every year many hospitals in China employ at least 200 to 300 nurses, most of whom are new graduates. For the retention of new graduate nurses, a one-on-one mentorship program has great value. Standards for mentor choice, preparation, and assessment should be created by hospitals or nursing departments. The influence of a one-on-one mentorship program on the turnover rate of new graduate nurses was investigated in the study. The experimental group's turnover rates were 3.77 percent, 3.48 percent, and 8.11 percent; the control group's turnover rates were 14.07 percent, 9.36 percent and 14.19 percent. The study indicates that other methods for retaining nurses need to be examined by nurse administrators or educators. Simple preceptorships and one-on-one mentorship programs are popular because they involve appointing trained nursing staff to work closely with each other.

In several studies, orientation programs, qualification training, and periodic training classes for mentors were analyzed. Conflict resolution, critical thinking, adult literacy, communication, and nursing skills are among the subjects included in mentor training. It was found to be crucial that both the new nurse and the head nurse were involved in choosing the mentor Zhang et al. [9].

A systematic literature review assessed whether preceptorship improves confidence and competence in newly qualified nurses. It showed that the effect of the larger team dynamic is greater than that of an individual preceptor. The preceptor's skills and motivation, the degree of support, consistency of assessment features, and variability are key factors. For practice, policy, and research, this review suggests that it would be useful to study the benefits of team preceptorships. It is also recommended that programs develop more stringent minimum qualifications, including a longer minimum level of post-qualification experience, to become a preceptor. Evidence indicates that preceptorships increase trust and competence; the effect on trust is more pronounced. The main factors affecting the success of preceptorship are the preceptor's skill and motivation, the degree of encouragement, consistency of assessment features, and variability. Since preceptorship is currently a guideline, NMC advice and integration into national standards would benefit from a large number of policy and practice recommendations Irwin [10].

Interprofessional identity is one of the focuses of healthcare reform for integrated care; it has been studied recently and has been found to have an impact on education and healthcare. A study assessed the impacts of interprofessional education programs on

both interprofessional socialization and dual identity development among healthcare students using an interprofessional socialization conceptual framework. The findings showed that education based on interprofessional socialization assisted the students in transforming unprofessional identity into dual identity McGuire [11]. Another study measured the effects of interprofessional socialization and valuing scale (ISVS) on student perception regarding interprofessional relationships and teamwork. The study measured the students' perceptions before and after applying ISVS in a student-run free clinic over an 11-month period and found that ISVS led to significant improvement in the students' perception of interprofessional socialization August [12].

Collaboration is required for the development of interprofessional identity. Bayne-Smith et al. 2014 explored how representatives from six different professions perceive the relationship between professional identity and interprofessional community collaboration 2014. A questionnaire with dichotomous and open-ended questions was distributed to 50 informants; the intent was to explore if professional identities strengthen or weaken over time, if demographic characteristics affect or change professional identity, and if there is a relationship between strong or weak professional identity and change or lack of change in that identity. The study found no change in professional identity and no major differences among the six professions.

An exploratory study was performed to determine the relationship between perception of professional identity and interprofessional education and collaboration. The study targets the staff as opposed to the students for two reasons: first, the staff possesses professional knowledge that helps them implement the initiatives for effective collaboration; second, the staff is already actively practicing professional identity while the students are still developing professional identity. The staff was divided into two categories: health care employees and academic employees from universities. Participants were recruited by completing surveys sent *via* email. The results show no single, homogenous experience of professional identity; identity differs from person to person, as each individual has his or her own unique perception of professional identity Joynes [13]. No studies currently exist that address the effects of preceptorship program training on the interprofessional identity of the preceptor and preceptee. This work aims to fill this gap in the current research.

RESEARCH METHODOLOGY

Materials and Methods

Research design: This is an observational study, using Pre, intervention, and Post design.

Setting: The inpatient department at King Faisal Hospital, Makkah.

Sampling technique: Non-Probability Sampling technique was chosen for this study, representative sample that suit the inclusion criteria was selected. Staff nurses were assigned as preceptors for the new graduate nurses; and preceptees were new graduate nurses within their first year of hire.

Inclusion and exclusion criteria: The following inclusion and exclusion criteria were used in recruiting participants of nurses into the study.

Inclusion criteria:

a) **Preceptor:** Registered nurses in the inpatient department who have more than 2 years of clinical experience and identify as preceptor who's attending the training program.

b) **Preceptee:** New graduate registered Saudi nurses during their first year of hire.

Exclusion criteria: Any others who do not meet the inclusion criteria.

Sample Size

Staff and new graduate nurses will constitute the study subjects. Staff nurses were assigned as preceptors for the new graduate nurses; and preceptees were new graduate nurses within their first year of hire.

The equation for sample size was as follows:

$$n = z^2 P(1-P) / d^2$$

Where:

n: sample size

z: The standard variable of the normal distribution corresponding to 95% confidence level

P: Anticipated population proportion

d: the absolute statistical precision on either side of anticipated population proportion

Using 95% confidence, d = 5% and P = 50%

The estimated sample size is 20 nurses, which was distributed among staff and new graduate nurses.

Procedure

a) **Phase I (assessment phase):** Assessment of preceptor and preceptee interprofessional identity

b) **Phase II (intervention phase):** Conduct training program for the preceptor. Education will take place 2 days a week for 3 months.

c) **Phase III (re-assessment phase):** Preceptor and preceptee interprofessional identity were assessed for 3 months.

Instruments

An Assessment of Interprofessional Identity Questionnaire composed of 2 parts was used to collect data.

a) The first part consists of demographic data (age, sex, nationality, years of experience).

b) The second part is the Extended Professional Identity Scale (EPIS) scale. This is a 5-point Likert scale that measures 3 areas of interprofessional identity (interprofessional belonging, interprofessional commitment, and interprofessional beliefs). The scale includes 12 items (4 items related to interprofessional belonging, 4 items related to interprofessional commitment, and 4 items related to interprofessional beliefs), and the possible responses for each item are 1 = strongly disagree, 2 = disagree, 3 = neutral / no opinion, 4 = agree, and 5 = strongly agree. The scale's validity was examined and found to have a reliability of $\alpha = 0.9$; Reinders [7].

Data Collocation

Data was collected using the Extended Professional Identity Scale (EPIS) scale. The researcher was responsible for the process of data collection. Data collection process for pre and post survey is planned to be conducted in King Faisal Hospital in-patient department. Data was collected by Paper Questionnaire, pre the training program and 3-month post.

Data Analysis

Data was verified, coded, loaded, and analyzed using the Statistical Package of Social sciences (SPSS) version 24. Descriptive statistics were used to compute means, variances, and standard

deviations, while inferential statistics were used to determine the differences and correlations among study variables.

Ethical Considerations

Consent was received from the nursing department at King Faisal Hospital to conduct the study. Additionally, approval was obtained from the Research Ethics Committee international review board for the Makkah Region. Permissions to utilize the Extended Professional Identity Scale (EPIS) scale were obtained from the authors before data collection. Informed Consent was obtained from the participants. Personally, identifiable information (PII) data will not be collected.

RESULTS

Table 1: Preceptors and preceptees.

	Statement	Pre-Mean	Pre %	Post-Mean	Post %	P-Value
1	I like meeting and getting to know people from other health professions.	4.2	84	4.4	88	0.598
2	I feel a strong attachment toward interprofessional teams comprising cross-disciplinary health professionals.	3.87	77.4	4.53	90.6	0.039
3	I enjoy learning and collaborating with people from other health professions.	4.13	82.6	4.67	93.4	0.085
4	I like learning about other health professions.	4.46	89.2	4.8	96	0.132
5	I would be very happy to spend the rest of my career with an interprofessional team.	3.87	77.4	4.33	86.6	0.183
6	I identify myself with other members of an interprofessional team.	3.87	77.4	4.53	90.6	0.004
7	I am proud to be a part of an interprofessional team.	4.27	85.4	4.4	88	0.48
8	I prefer working with others in an interprofessional team	4.13	82.6	4.47	89.4	0.166
9	All members of an interprofessional team should be involved in goal setting for each patient.	4.33	86.6	4.6	92	0.285
10	When care decisions are made, the interprofessional team members should strive for consensus on planned processes.	3.53	70.6	4.33	86.6	0.02
11	Interprofessional team members should jointly agree to communicate plans for patient care.	4.2	84	4.47	89.4	0.102
12	Joint clinical decision-making should be an important part of interprofessional collaboration.	4.13	82.6	4.6	92	0.035

Table 1 summarized the means of Interprofessional Identity Scale IPES, the percentages of agreement, and the *p* values of Wilcoxon test for difference between pre and post training program for both preceptors and preceptees combined responses.

The results identified significant five factors associated with preceptor and preceptee interprofessional identity, these factors are: I feel a strong attachment toward interprofessional teams comprising cross-disciplinary health professionals, I identify myself with other members of an interprofessional team, When care decisions are made, the interprofessional team members should strive for consensus on planned processes, Interprofessional team members should jointly agree to communicate plans for patient care, and Joint clinical decision-making should be an important part of interprofessional collaboration (*p*-value < 0.05). Training interventional program has significant impact on enhancing the responses of both preceptors and preceptees in the five significant items.

Table 2 summarized the means of Interprofessional Identity Scale IPES, the percentages of agreement, and the *p* values of Wilcoxon test for difference between pre and post training program for preceptors' responses. Significant differences were identified between pre and post program in the items of Identify me with other members of an interprofessional team and All members of an interprofessional team should be involved in goal setting for each patient (*p*-value < 0.05). The results showed positive impact of the training interventional program on improving the responses of the significant two items.

Table 3 summarized the means of Interprofessional Identity Scale IPES, the percentages of agreement, and the *p* values of Wilcoxon test for difference between pre and post training program for preceptees' responses. Significant differences were identified between pre and post program in the items of I feel a strong attachment toward interprofessional teams comprising cross-disciplinary health professionals, I identify myself with other

members of an interprofessional team, and All members of an interprofessional team should be involved in goal setting for each patient (p -value <0.05). The results showed positive impact of the

training interventional program on improving the responses of the significant three items.

Table 2: Preceptors.

Statement	Pre-Mean	Pre %	Post-Mean	Post %	P-Value
I like meeting and getting to know people from other health professions.	4.1	82	4.4	88	0.137
I feel a strong attachment toward interprofessional teams comprising	3.8	76	4.3	86	0.248
Cross-disciplinary health professionals.					
I enjoy learning and collaborating with people from other health professions.	4.3	86	4.7	94	0.305
I like learning about other health professions.	4.5	90	4.7	94	0.414
I would be very happy to spend the rest of my career with an interprofessional team.	3.9	78	4	80	0.854
I identify myself with other members of an interprofessional team.	3.9	78	4.5	90	0.034
I am proud to be a part of an interprofessional team.	4.1	82	4.1	82	0.998
I prefer working with others in an interprofessional team	4	80	4.2	84	0.527
All members of an interprofessional team should be involved in goal setting for each patient.	4.1	82	4.9	98	0.011
When care decisions are made, the interprofessional team members should strive for consensus on planned processes.	4	80	4.5	90	0.096
Interprofessional team members should jointly agree to communicate plans for patient care.	4.2	84	4.4	88	0.317
Joint clinical decision-making should be an important part of interprofessional collaboration.	4.2	84	4.6	92	0.102

Table 3: Preceptees.

Statement	Pre-Mean	Pre %	Post-Mean	Post %	P-Value
I like meeting and getting to know people from other health professions.	4.4	88	4.4	88	0.995
I feel a strong attachment toward interprofessional teams comprising	4	80	5	100	0.025
Cross-disciplinary health professionals.					
I enjoy learning and collaborating with people from other health professions.	3.8	76	4.6	92	0.102
I like learning about other health professions.	4.4	88	5	100	0.18
I would be very happy to spend the rest of my career with an interprofessional team.	3.8	76	5	100	0.063
I identify myself with other members of an interprofessional team.	3.8	76	4.6	92	0.046
I am proud to be a part of an interprofessional team.	4.6	92	5	100	0.157
I prefer working with others in an interprofessional team	4.4	88	5	100	0.083
All members of an interprofessional team should be involved in goal setting for each patient.	4.8	96	4	80	0.046
When care decisions are made, the interprofessional team members should strive for consensus on planned processes.	2.6	52	4	80	0.102
Interprofessional team members should jointly agree to communicate plans for patient care.	4.2	84	4.6	92	0.157
Joint clinical decision-making should be an important part of interprofessional collaboration.	4	80	4.6	92	0.18

DISCUSSION

Where there are three components of the scale used: interprofessional- belonging, commitment, and beliefs, our study showed a significant increase in the belonging to an interprofessional team as our candidates expressed a strong attachment to their teams and considered themselves members of these teams reflecting good communications and leadership aspects in the preceptorship training programs which was found as well clearly by Kowalski 2010; ($p = .022$) and Lee et al. 2020. On the other hand, the enjoyment of learning and the desire to continue in the interprofessional team were not significant in our study in contrast to Goode et al. 2013 and Pandelaki 2022. This could be explained by the short term of the program we conducted and the busy work in our hospital.

Interprofessional education (IPE) is defined as an educational process whereby professions learn about, from, and with each other to improve collaboration and the quality-of-care Bressler [14]. It is further defined as a vehicle by which learners in health profession programs learn about the diverse roles and contributions of all health professionals in the health care system. Interprofessional practice (IPP), on the other hand, is health care provided in a coordinated manner by health professionals who share mutual goals, resources, and responsibility for patient care Breitbart [15].

The IPE will produce a level of mutual respect and collaboration among these students when they become health professionals in IPP to help them deliver patient-/population centered care that is safe, timely, efficient, effective, and equitable Gum [16]. Therefore, IPE programs are designed to provide students with the teamwork skills they will need in a “collaboration ready IPP workforce O’Leary [17].

Interprofessional education and IPP have been recognized as effective means of improving health care by the Institutes of Medicine O’Leary [17]. Although IPE has been defined by a variety of professional groups Cangany [18]. The definition developed by the WHO is most frequently used: IPE is “an action that occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.” Lutfiyya [19]. Both IPE and IPP initiatives are grounded in the theory that patient care will improve as health care professionals work in a collaborative manner Breitbart [15].

Health profession students in IPE initiatives favor IPE more when the experiences are directly relevant to their current or future practice Bennett et al. [20]. Collaborative practice increases efficiency and understanding of interprofessional roles.60 Further benefits include deconstruction of negative stereotypes, improvement in level of confidence for communicating across professions, and a positive influence on Lerner ’ willingness to continue learning together throughout Interprofessional education initiatives in health professions education curricula and practice settings are designed to produce quality patient-centered outcomes because effective and highly integrated teams have been found to facilitate and optimize collaborative patient care and safety Bray et al. [21]. Developing effective interprofessional teams and redesigned systems is critical to achieving care that is patient centered, safer, timelier, and more effective, efficient, and equitable Verspuy [21].

Although preceptors are important stakeholders in IPE, there is little documented evidence in the literature that discusses the effects

of IPE on them Grice et al. [23]. However, it is likely that preceptors experience similar benefits and barriers to those experienced by faculty and have also likely not had any IPE experiences during their professional education or training in leading or participating in collaborative efforts Breitbart [15]. Because supervision during an IPE activity was found to be the most important contribution to learner satisfaction during IPE experiences, interprofessional facilitation and leadership training may be an important preceptor development activity Conte [24].

Furthermore, students learning from and with each other often stimulate greater IPP in their preceptors, and IPE may increase IPP for preceptors. Lastly, future research on IPE should include the effects on preceptors McNair [25]. Furthermore, educational institutions must take steps to break down the unprofessional educational barriers by fostering a cultural paradigmatic shift toward IPE for collaborative person-centered practice Cameron 2011; Gilbert 2005; Hall 2005; Ho [1]. This cultural shift will require governance and management structures that encourage collaborative environments for developing joint curricula and sharing of resources amongst all professions Khalili [26].

In the preceptorship relationship, preceptors have to fulfill extended roles. Organizations should be responsible for the skills development and training of preceptors Henderson [27]. In extending the preceptor role to a protector, role model, evaluator, facilitator, motivator, educator and socializer, both the preceptee and the patient form the foundation of the precepting role.

Teaching by example as a role model educates by being supportive and motivates by demonstrating commitment. Students seek preceptors who are committed in the role, who give regular feedback and reflect on practice as a dual process of care and education Omer [28]. This allows the preceptee to give meaning to the clinical environment and even if the preceptee is overwhelmed by clinical realities, support from the preceptor and inter-professionals will facilitate the student into a professional role Devlin [29]. The success of a professional relationship must reflect realistic expectations of the clinical environment and in which Happell 2009 viewed preceptorship as an essential element of high-quality nursing education. This inevitably leads to high quality patient care established through an interactive process of professional relationships Sahota [30].

The preceptor plays an important role in the transition phase of the newly graduate nurses into a health organization environment. since health organization environment has multi professionals and they interact among each other on a regular basis that may have an effect on their carrier later. As evidenced by a study that, new nurses during the first months of joining the practice, face huge stress, and approximately 30-70% of new nurses leave their jobs within one year of practice Ho [1]; Wu [31]. So, guiding and monitoring those nurses by a trained preceptor has a great impact.

Using a structured preceptorship program was developed and delivered with training sessions and establish a structured relationship between preceptor and preceptee over a period of time found out that preceptors felt that the preceptorship program is an effective intervention to helped them in their role in the time period of the transition phase of the newly graduate into health organization workforce Tucker et al. [32]. This study resulted in positive Significant differences were identified between pre and post the training intervention among preceptors.

Also, Significant differences were identified between pre and post program in the items of Identify me with other members of an interprofessional team, which one of items that described interprofessional commitment. And that comes in aligned with a study that measures the experience of preceptor nurses participating in a brand-new nurse preceptorship program, using an exploratory, correlational methodology. The study resulted are, preceptor commitment to their role in the organization was significantly improved Gholizadeh et al. [33]. Moreover, in the present study Significant differences were identified between pre and post program in the item all members of an interprofessional team should be involved in goal setting for each patient, which one of items that described interprofessional beliefs. That fits in line with an intervention study by Marcussen [34] found that team collaboration statistically significant in the intervention group, within interprofessional environment among Undergraduate students from multidiscipline.

CONCLUSION AND RECOMMENDATIONS

Nursing preceptorship programs are known to be effective and efficient methods for orienting nurses and supporting learning opportunities. The result shows that preceptors are an important source of implanted knowledge and are an essential component of education. Since preceptor relationships provide new nurses with reality-based and skills-oriented learning experiences, they are useful in familiarizing newly hired nurses with clinical settings, hospital policies, procedures, and routine. In addition, nurse leaders typically rank new graduates lowest in nonclinical skills, including their ability to work as a member of a team, communicate with members of the interprofessional team, and delegate appropriately.

ACKNOWLEDGMENT

First and foremost, praises and thanks to Allah, the Almighty, for His showers of blessings and strength throughout my research work to complete the research successfully. Finally, I am very much thankful to our families for understanding, prayers and continuing support to complete this research.

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