

Effect of Educational Program about Professional Identity Development on Nurse-interns' Professional Values and Satisfaction

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Abstract

Background: Professional identity develops as a result of the internalization of professional knowledge, skills, attitudes, values and standards of ethics. A nurse-intern with strong professional identity works in harmony with the professional values and this harmony may bring about positive changes in the working environment and thus may increase professional satisfaction. **Aim of the study:** This study aimed to assess the effect of educational program about professional identity development on nurse-interns' professional values and satisfaction. **Study design:** A quasi-experimental design was utilized. **Setting:** The study was carried out at Beni-suef University hospital. **Subjects:** Convenience sample of (154) nurse-interns out of (250) nurse-interns who enrolled in the internship year 2020-2021 at Beni-Suef University Hospital. **Tools of data collection:** Four tools were used to collect data: **I.** professional identity knowledge questionnaire, **II.** Professional identity skills questionnaire, **III.** Professional values questionnaire and **IV.** Nurse-interns' satisfaction questionnaire. **Results:** More than one third of nurse-interns (37.7%) had adequate level of knowledge at preprogram phase while it increased to more than two thirds (83.1% & 79.9%) at post program and follow up study phases respectively. approximately three quarters (77.3 % & 78.6%) of nurse-interns had high level of professional identity skills at post program and follow up phases respectively as compared to preprogram phase (25.3%). more than three quarters (79.9% & 81.8%) of nurse-interns had good professional values at post program and follow up phases respectively as compared to preprogram (31.8%) phase. more than two thirds (74% & 76.6%) of nurse-interns had high satisfaction level at post program and follow up phases respectively as compared to preprogram phase (29.9%). **Conclusion:** There was a highly statistical improvement of nurse-interns' knowledge and skills about professional identity between pre and post program phases and between preprogram and follow up phase. **Recommendations:** Conducting education programs for refreshing and increasing knowledge and skills about nursing professional identity as well as emphasizing professional values of nurses at educational level. Considering a wider variety of variables that affect professional identity development like media and older generations behavior.

Keywords: Nurse-interns, Professional identity, Professional values, Satisfaction

Introduction

Nursing is highly regarded in society around the world, and it was not difficult to recognize the phenomenon that nursing is the main subject, with more and more students choosing nursing subjects. Nursing education is actively evolving, with bachelor's, master's

and even doctoral degrees, and more and more research focused on reforming nursing education. Most nursing programs focus on developing students' theoretical knowledge and operational skills (Jinyan & Tingting, 2019).

Professional identity is an indispensable concept in the practice and

behavior of nurses, while it forms a basis for nursing to become a profession. Positive professional identity is a key factor in providing high-level care to optimize patient outcomes, improve clinical performance, and enhance working retention rate (**Çöplü and Tekinsoy Kartın, 2019**).

Professional identity involves the internalization of core values and perspectives recognized as integral to the art and science of nursing. The core values become self-evident as the nurse learns, gains experience, and grows in the profession. The nurse embraces these fundamental values in every aspect of practice while working to improve patient outcomes and promote the ideals of the nursing profession (**Wu, Palmer, & Sha 2020**).

The formation of professional identity in nursing can be seen as a dynamic process, which begins during nursing education and continues to develop throughout each nurse's professional career. After graduation as a registered nurse, an enculturation into the workplace commences, forming a professional identity that becomes a complicated social activity. Through the trajectory of a nurse's working life, cultural changes, education, and individual expectations and experiences alter the nurse's professional identity (**Mao et al., 2020**).

Professional identity is fundamental to nursing practice and sets basis for the professionalization of nursing. Along with its core meaning as identification with the profession, professional identity is the comprehension by the nurse him/herself of acting as a nurse and what being a nurse means. Sufficient development of professional identity contribute to professional self-confidence, effective communication and acquisition of professional values, this in tern resulted in

better understanding of working environment and increase professional satisfaction (**Fitzgerald, 2020**).

Professional values are values which are adopted and accepted as a guide by a professional group. Professional values are main resources of the nursing applications and guide nurses in interaction with the patients, colleagues, and society. Moreover, professional values lead nurses to give safe and humanistic care when nurses face with ethical dilemma (**Parandeh et al., 2015**).

Professional satisfaction is an emotional response and behavioral expression and is established by an individual's assessment of his/ her job, working environment and working life. Professional satisfaction has been considered as one of the key factors related to the quality of nurses' performances in HCS (**Alghamdi, Topp & AlYami, 2018**).

Aim of the study

This study aimed to assess the effect of educational program about professional identity development on nurse-interns' professional values and satisfaction

Research Hypotheses

Implementation of professional identity development educational program would improve nurse-interns' knowledge and skills toward professional identity, professional values and satisfaction.

Subjects and Method

Research design

A quasi-experimental design was utilized to conduct this study.

Setting

This study was conducted at Beni-suef University hospital in the following units: hemodialysis unit, emergency unit, intensive care unit, operation room, cardiac care unit, pediatric intensive care unit and neonatal intensive care unit.

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Subjects

The subjects consisted of a convenience sample of (154) nurse-interns out of (250) nurse-interns who are enrolled in the internship year (2020-2021) and available during data collection period, calculated according to Slovin's Formula :

$$n=N/1\pm N(e)2.$$

Data collection tools

Data for the present study was collected using the following four tools (all tools were used throughout the three phases of the program implementation (pre, immediate post and follow-up three months after the program):

I. Professional Identity Knowledge Questionnaire

A structured questionnaire was developed by the investigator based on the review of related literature . It included two parts:

Part (1): Nurse-interns personal data such as (age, gender and previous education , residence , Attended previous courses about professional identity).

Part (2): Professional identity knowledge questionnaire: It included 40 items to assess nurse-interns knowledge regarding professional identity in the form of multiple choice and true or false questions.

II. Professional identity skills questionnaire:

Structured questionnaire was developed by the investigator based on the review of related literature to assess nurse-interns' professional identity skills. It consisted of 72 items divided into (4) categories regarding to professional identity skills. Nurse-interns' responses were scored based on 3 points of Likert scale as follows: (3) always (2) sometimes (1) never.

III. Professional Values Questionnaire:

It was developed by (Chikeme et al., 2019) to assess nurse-interns' professional values. It

consisted of 47 items divided into 5 dimensions regarding to professional values. Nurse-interns' responses were scored based on 3 points of Likert scale as follows: (3) agree (2) uncertain (1) disagree.

IV. Nurse-interns' Satisfaction Questionnaire:

Structured questionnaire was developed by the investigator based on the review of related literature to assess nurse-interns' satisfaction. It consisted of (25) items divided into (3) categories regarding nurse-interns' satisfaction. Nurse-interns' responses were scored based on 3 points of Likert scale as follows: (3) agree (2) uncertain (1) disagree.

Validity of the tools:

The tools and program were tested for validity (face and content) through distributing the format to a panel of seven experts from Nursing Administration departments at various Faculties of Nursing. (1) Professor from Tanta University, (1) Professor from Minya university, (2) Assistant Professors from Benha University, (2) Assistant Professors from Beni-suef University, (1) Assistant Professor from Ain-shams University, the necessary modifications were done according to jury comments, the modifications were done in the light of their valuable comments such as modify some words to give the right meaning for the phrases which were not clear.

Reliability of tools:

The reliability of the data collection tool scales was assessed using internal consistency method. The four tools showed good reliability as shown by their Cronbach's alpha coefficient. It was 0.75 for knowledge questionnaire, 0.83 for skills questionnaire , 0.86 for value questionnaire and 0.71 for satisfaction questionnaire.

Pilot study:

The Pilot study was carried out in order to ascertain the clarity and applicability of the study tools. It took one month. The pilot study was tested on 10% of sample (15). Nurse-interns who shared in the pilot study were included in the main study sample. It was also served in estimating the time needed for filling the tools. The time needed for answering knowledge sheet "25-30" minutes, professional identity skills questionnaire "20-30" minutes, professional values questionnaire "15-20" minutes and nurse-interns satisfaction questionnaire "10-15" minutes.

Ethical Considerations:

At the interview with intern- nurses to collect data, they were informed about the purpose and benefits of the study, their participation was voluntary, and they have the right to refuse to participate in the study without giving any reason. In addition, confidentiality and anonymity of the subjects were assured through coding of all data.

Field Work:

The field work for this study includes 4 phases; assessment, planning, implementation and evaluation phase.

Assessment phase :

The data was collected to assess intern- nurses' knowledge, skills regarding professional identity and to assess intern-nurses' professional values and satisfaction before implementation of the educational program through using of the different tools of data collection in the available hospital classroom and during their work hours every shift. This phase took one month. The questionnaire sheets were distributed to intern- nurses, the investigator presented all the time during filling the questionnaire sheets for any clarification as needed then the

investigator checked each one to ensure its completeness.

Planning phase:

This phase started from January to February 2021. An educational program was developed based on determined needs and relevant review of literature. Different instructional strategies, methods of teaching, media and methods of evaluation were selected to suit the learner's needs and achieve the objectives and content of the program.

Implementation phase:

Data of the current study were collected from March 2021 and continued to a period of two months. The educational program was consisted of 15 hours distributed as theoretical session 10 hours and practical session 5 hours. The program took about 10 sessions, the duration of each session was one hour and half depending on workload and including periods of discussion according to their achievement, progress and feedback. It started at 10.00 am to 11.30 am, the beginning of first session an orientation to the education program. Feedback was given in the beginning of each session about the previous one and at the ending of each session about the current session.

Evaluation phase:

During this phase the impact of the educational program was evaluated. Immediate evaluation included, immediate post program implementation for all subjects using the same tools which were used before the program. Follow up after three months of program implementation, all the study tools were applied to the study subjects to test the follow up gain in their knowledge, skills regarding to professional identity and change in level of intern- nurses' professional values and satisfaction.

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Statistical analysis:

Data were verified prior to computerized entry. The Statistical Package for (SPSS version 25.0) was used for that purpose, followed by data analysis and tabulation. For numerical values, the mean and standard deviations were calculated. Descriptive statistics were applied (eg., mean, standard deviation, frequency and percentages, chi-square (χ^2), test of significance (paired (t) test, Pearson correlation coefficients were used investigation of relationships among scores. The P-value is the probability of error that indicate significance of results through observed difference. A significant level value was considered when $p < 0.05$. And A highly significant level value was considered when $p < 0.01$.

Results

Table (1): Illustrates the personal characteristics of study participants: approximately One third of nurse-interns aged 23 years (39.0%). approximately two thirds of them were females, unmarried, complete a previous professional identity course (67.5%), (68.2%) & (62.3%) respectively. approximately three quarters of them have general secondary school and from rural (83.1%) & (75.3%).

Figure (1): It is clear from this figure that, less than half of nurse-interns (37.7%) had adequate level of knowledge at preprogram phase while it increased to more than two thirds (83.1%&79.9%) at post program and follow up study phases respectively.

Table (2): Illustrates that there was a highly statistically significant improvement in nurse-interns' knowledge regarding all dimensions of professional identity knowledge except self-concept dimension

and self-esteem dimension ($p = 0.145$), ($p = 0.775$) respectively. Also, there was statistically significant improvement in nurse-interns' total knowledge ($p = 0.000$) between pre and post program phases. there was a statistically significant improvement in nurse-interns knowledge regarding all dimensions of professional identity between pre-program and follow up phases.

Figure (2): It was obvious from this figure that, approximately three quarters (77.3% & 78.6%) of nurse-interns had high level of professional identity skills at post program and follow up phases respectively as compared to preprogram phase (25.3%).

Table (3): Shows that there was a highly statistical significant improvement of nurse-interns related to professional identity skills between pre and post program and between preprogram and follow up phase ($p = 0.000$).

Figure (3): It was obvious from this figure that, more than three quarters (79.9% & 81.8%) of nurse-interns had good professional values at post program and follow up phases respectively as compared to preprogram (31.8%) phase.

Table (4): Shows that there was a highly statistically significant improvement of nurse-interns' related to professional values dimensions between pre and post program and between preprogram and follow up phase ($p = 0.000$).

Figure (4): It was observed from this figure that, more than two thirds (74% & 76.6%) of nurse-interns had high satisfaction level at post program and follow up phases respectively as compared to preprogram phase (29.9%).

Table (5): Shows that there was a highly statistical significant improvement of nurse-interns' satisfaction dimensions

between pre and post program and between preprogram and follow up phase (p= 0.000).

Table (6): Indicates the presence of statistically significant correlations between different study variables at various study phases. the strongest correlation was between total values and total satisfaction at post program implementation phase (r= 0.782).

while, the weakest correlation was between total identity skills and total satisfaction (r= 0.242). there was no statistically significant correlation between total identity knowledge and total satisfaction at pre and follow-up phases of program implementation.

Table (1): Frequency distribution of nurse-interns regarding their personal characteristics (n=154)

Personal characteristics	No	%
Age/year		
22	46	29.9
23	60	39.0
24	36	23.4
25	12	7.8
Min -Max	22-25	
$\bar{X} \pm SD$	23.09±0.91	
Gender		
Male	50	32.5
Female	104	67.5
Marital status		
Married	49	31.8
Un-married	105	68.2
Previous education		
General Secondary degree	128	83.1
Technical Nursing diploma	26	16.9
Residence		
Rural	116	75.3
Urban	38	24.7
Previous courses about professional identity		
Yes	96	62.3
No	58	37.7

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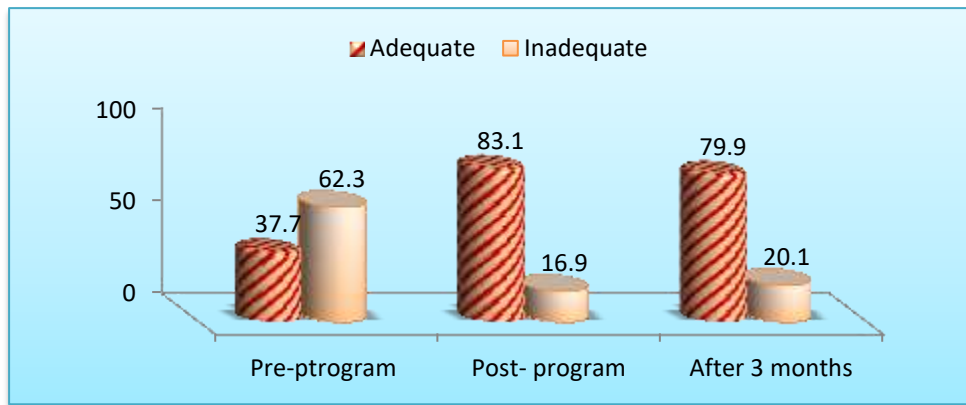


Figure (1): Percentage distribution of nurse-interns knowledge regarding professional identity through the program phases.

Table (2): Mean and stander deviation of nurse-interns' knowledge regarding professional identity throughout the program phases

Knowledge dimensions	Max score	Pre-program		Post-program		Follow-up		t ₁	p-value	t ₂	p-value	t ₃	p-value
		\bar{X}	$\pm S D$	\bar{X}	$\pm S D$	\bar{X}	$\pm S D$						
Nursing profession	4	1.35	± 1.14	3.11	± 0.99	2.96	± 1.08	5.743	.000*	1.310	.191	4.289	.000*
Professional identity	7	2.41	± 1.45	5.03	± 1.17	4.83	± 1.36	7.563	.000	1.338	.182	5.882	.000
Self-image	2	.82	± 0.74	1.46	± 0.59	1.38	± 0.66	4.966	.000**	1.170	.243	3.691	.000**
Self-concept	2	.96	± 0.48	1.05	± 0.60	1.00	± 0.61	1.460	0.145	.748	.455	2.618	.037*
Self-esteem	2	.56	± 0.60	1.58	± 0.42	.54	± 0.57	0.286	0.775	.588	.557	2.290	.027*
Nursing ethics	4	1.78	± 1.01	3.19	± 0.60	2.74	± 1.19	6.708	.000**	1.211	.227	5.051	.000**
Professional values	4	1.68	± 0.84	3.44	± 0.49	3.30	± 0.67	10.612	.000**	1.008	.450	8.035	.000**
Nursing competencies	4	1.76	± 0.99	3.94	± 0.75	2.81	± 0.88	6.463	.000*	1.381	.168	4.842	.000**
Inter-professional communication	6	2.35	± 1.12	5.42	± 0.44	5.24	± 0.97	9.018	.000**	1.518	.130	7.135	.000**
Continuous nursing education	4	1.88	± 1.07	3.05	± 0.71	2.92	± 0.79	7.131	.000**	1.580	.115	5.616	.000**
Total knowledge	40	11.59	± 4.61	33.01	± 3.53	31.75	± 5.25	13.724	.000**	1.467	.140	9.167	.000**

* Statistically significance $p < 0.05$

** highly statistically significance $p < 0.001$

t₁ between pre and post program t₂ between post and after 3 months t₃ between pre and after 3 month

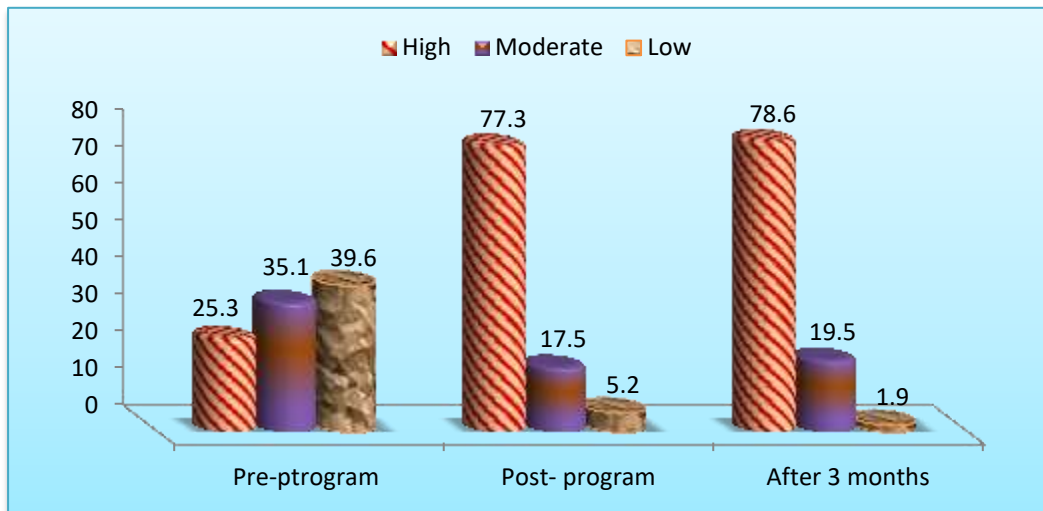


Figure (2): Percentage distribution of nurse-interns' skills levels regarding professional identity through the program phases.

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Table (3): Mean and stander deviation of nurse-interns' regarding total Professional identity skills through the program phases

Professional identity skills dimensions	Max score	Pre		Post		Follow-up		t1	p-value	t2	p-value	t3	p-value
		\bar{X}	\pm S D	\bar{X}	\pm S D	\bar{X}	\pm SD						
Professional competence	71	42.50	8.21	70.51	7.17	71.16	7.13	21.289	.000**	.805	.422	20.496	.000**
Nursing care	12	5.70	1.85	10.52	1.73	10.48	1.79	13.351	.000**	0.226	.822	13.775	.000**
Value based nursing care	12	6.41	1.78	10.48	1.59	10.77	1.49	17.904	.000**	1.622	.106	15.912	.000**
Medical and technical care	12	6.03	2.18	10.92	1.47	11.00	1.69	13.278	.000**	0.430	.668	13.549	.000**
Care pedagogies	12	7.01	2.06	10.79	1.58	10.85	1.50	13.558	.000**	0.000	1.000	13.306	.000**
Administration of nursing care	21	10.42	2.87	17.35	2.51	17.75	2.71	13.620	.000**	1.373	.171	12.757	.000**
Organization and leadership of nursing care	12	6.90	1.50	10.42	1.35	10.35	1.40	14.715	.000**	0.453	.651	15.403	.000**
Professional communication	60	36.00	7.13	52.46	7.77	53.50	6.62	15.930	.000**	1.270	.205	13.472	.000**
Nurse-patient relationship-communication	24	13.42	3.23	20.83	3.75	21.32	3.20	13.349	.000**	1.224	.222	11.039	.000**
Nurse-Team Communication	36	22.57	4.70	31.62	4.35	32.18	3.86	15.497	.000**	1.191	.234	13.639	.000**
Nursing Ethics	48	27.84	5.91	41.11	4.70	41.56	4.36	16.416	.000**	.879	.380	15.213	.000**
Responsibility to Patient	24	12.92	3.45	20.20	2.31	20.24	2.27	12.975	.000**	.149	.882	12.783	.000**
Responsibility as a Professional	24	14.92	3.21	20.90	2.89	21.31	2.67	16.016	.000**	1.308	.192	14.289	.000**
Self-Esteem	27	15.27	3.61	21.09	3.96	21.68	3.40	11.005	.000**	1.387	.166	8.841	.000**
Total Professional Identity	206	121.62	20.90	185.18	21.98	187.92	19.65	19.587	.000**	1.153	.250	17.406	.000**

* Statistically significance p<0.05

** highly statistically significance p<0.001

t1 between pre and post program

t2 between post and after 3 months

t3 between pre and

after 3 month

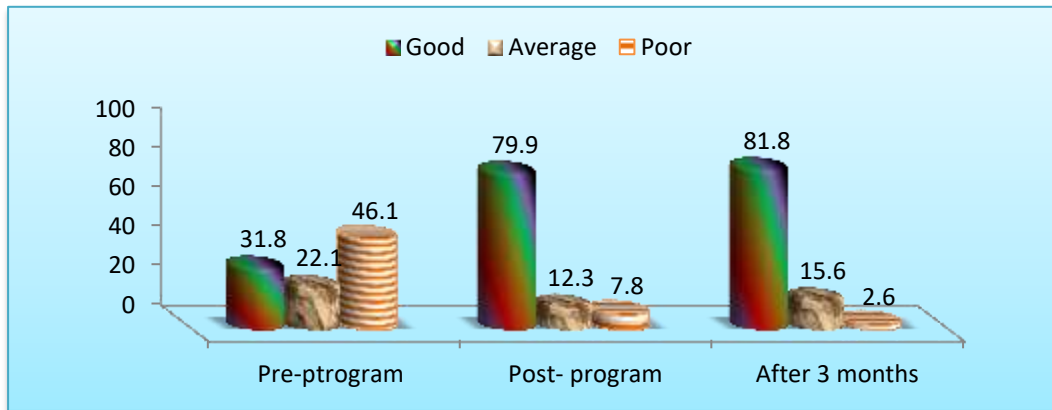


Figure (3): Percentage distribution of intern-nurse regarding total Professional value level through the program phases.

Table (4): Mean and stander deviation of nurse-interns regarding total professional values through the program phases

Professional Values Dimensions	Max score	Pre		Post		Follow-up		t1	p-value	t2	p-value	t3	p-value
		\bar{X}	$\pm S D$	\bar{X}	$\pm S D$	\bar{X}	$\pm S D$						
Altruism	2	15.	3.7	20.8	4.4	20.	3.4	11.	.00	0.1	.92	13.6	.000
	4	26	74	57	57	90	98	89	0**	00	1	09	**
Autonomy	1	11.	3.0	14.7	3.4	15.	2.4	9.0	.000	1.2	.19	11.9	.000
	8	40	60	40	03	18	53	7	**	87	9	59	**
Human dignity	3	19.	3.8	25.7	5.0	26.	4.0	11.	.000	0.6	.51	13.6	.000
	0	94	57	60	32	10	63	39	**	48	8	36	**
Integrity	3	19.	4.8	25.2	5.9	25.	4.4	9.5	.000	0.6	.52	11.8	.000
	0	29	46	14	46	60	74	9	**	39	3	75	**
Social Justice	3	26.	4.7	33.1	6.2	33.	5.5	11.	.000	0.0	.93	11.7	.000
	9	14	50	17	70	06	38	01	**	87	1	74	**
Total professional values	1	92.	15.	119.	20.	120	16.	13.	.000	0.5	.59	15.8	.000
	4	02	80	689	91	.8	01	11	**	39	1	98	**

* Statistically significance $p < 0.05$
 $p < 0.001$

** highly statistically significance

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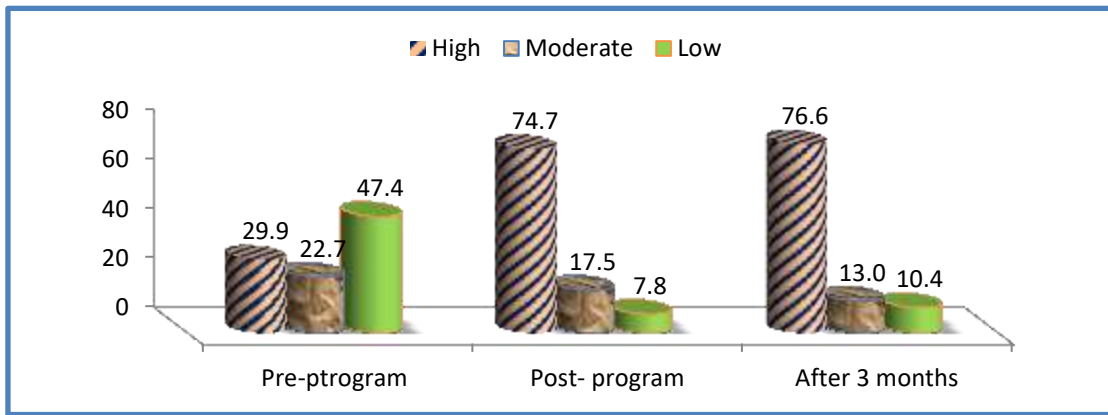


Figure (4): Percentage distribution of nurse-interns total satisfaction level through the program phases

Table (5): Mean and stander deviation of nurse-interns satisfaction level through the program phases

Nurse-interns' Satisfaction Dimensions	Max score	Pre		Post		Follow-up		t1	p-value	t2	p-value	t3	p-value
		\bar{X}	\pm SD	\bar{X}	\pm SD	\bar{X}	\pm SD						
Satisfaction toward nursing profession	24	14.85	3.15	20.28	3.56	19.88	2.14	11.56	0.000**	1.81	0.072	16.40	0.000**
Satisfaction related to clinical setting	30	19.10	3.38	28.01	2.72	28.13	2.02	19.78	0.000**	0.45	0.651	22.17	0.000**
Satisfaction related to communication in the work place	21	13.75	2.70	20.04	1.98	20.07	1.50	15.91	0.000**	0.13	0.897	17.34	0.000**
Total Satisfaction	75	47.70	6.93	70.33	5.92	68.08	3.93	21.29	0.000**	1.32	0.189	25.52	0.000**

t1 between pre and post program after 3 month

t2 between post and after 3 months

t3 between pre and after 3 month

* Statistically significance $p < 0.05$
 $p < 0.001$

** highly statistically significance

t1 between pre and post program after 3 months

t2 between post and after 3 months

t3 between pre and after 3 months

Table (6): Correlation matrix among various study variables thorough program phases

Study variables			Total knowledge	Total professional identity	Total values	Total satisfaction
Pre	Total knowledge	r	1	.447**	.356**	.128
		p-value		.000	.000	.114
	Total professional identity	r	.447**	1	.302**	.242**
		p-value	.000		.000	.003
	Total value	r	.356**	.302**	1	.527**
		p-value	.000	.000		.000
Total satisfaction	r	.128	.242**	.527**	1	
	p-value	.114	.003	.000		
Post	Total knowledge	r	1	.331**	.438**	.324**
		p-value		.000	.000	.000
	Total professional identity	r	.331**	1	.277**	.249**
		p-value	.000		.001	.002
	Total value	r	.438**	.277**	1	.782**
		p-value	.000	.001		.000
Total satisfaction	r	.324**	.249**	.782**	1	
	p-value	.000	.002	.000		
Follow-up	Total knowledge	r	1	.095	.040	.086
		p-value		.243	.624	.286
	Total professional identity	r	.095	1	.455**	.380**
		p-value	.243		.000	.000
	Total value	r	.040	.455**	1	.776**
		p-value	.624	.000		.000
Total satisfaction	r	.086	.380**	.776**	1	
	p-value	.286	.000	.000		

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Discussion

Professional identity (PI) is the self-conception of requirements, values, tributes, norms concerning a profession or a vocation. Formation of PI is the result of professional socialization, a process in which the individuals learn and internalize profession-related knowledge, skills, norms, and values (Mao et al., 2020).

Regarding personal characteristics of nurse-interns; the study findings revealed that; approximately two thirds of nurse-interns were females, unmarried and complete a previous professional identity course. the majority had general secondary school and approximately three quarters of them from rural. approximately One third of nurse-interns aged 23 years.

From the investigator's point of view, this findings could be due to the feminine nature of the nursing profession, the study participants from the same academic year so there was no obvious variation in their age and majority of them graduated from general secondary as it is the main source of faculty of nursing students.

In the same line, **Wu & Wu, (2020)**, who reported on their study on nursing students in China that their age group ranged from twenty one to twenty three years old, the majority of them were females and the majority of them were single. Also **Atay & Karabacak, (2012)**, who conduct a study in turkey on nursing students, they revealed that most participants were females.

The findings of the present study showed that there was a highly statistically significant improvement in intern nurses knowledge regarding all dimensions of professional identity knowledge except self-concept dimension and self-esteem dimension

between pre and post program phases and total professional identity knowledge between pre and post program phases. there was a statistically significant improvement in intern nurses knowledge regarding all dimensions of professional identity between pre-program and follow up phases.

From the investigator point of view the educational program has an effect on improving of nurse-interns knowledge regards to professional identity. professional identity is the main target of every nurse related to nursing profession and all nurses seek to have a unique and strong professional identity. Also, the utilizing of teaching approaches can facilitate the interactions and collaboration in the learning process.

The result of current study was congruent with **Yakov, Riskin & Flugelman, (2021)**, who conducted a study about " Mechanisms involved in the formation of professional identity by medical students" and concluded that "comparing different types or aspects of knowledge" identified as one of mechanisms of medical students professional identity formation.

Also, the current study was agreed with **Maginnis, (2018)**, Who conducted a study about "A discussion of professional identity development in nursing students" He concluded that the overriding goal of the pre-registration program is to teach nursing students to think and act as nurses, through developing the professional identity.

Concerning Nurse-interns professional identity skills thorough program phases, the findings of the present study showed that there was a highly statistical significant improvement of intern nurses related to professional identity skills between pre and

post program and between preprogram and follow up phase.

From the investigator point of view a sense of belonging to a profession requires acquiring a body of knowledge as well as appreciation of the history of the profession and the practices and skills that form the profession. This indicates the value of professional identity skills as it considered the outcome of professional nurses to the community they are caring for.

The improvement in nurse interns' professional identity skills that occur, due to the use of attractive and different teaching methods and activities throughout the educational program.

In the same line the result was supported by **Sabanciogullari & Dogan, (2015)**, who reported that the program significantly improved the professional identity skills of the nurses in the study group compared to that of the control group.

Moreover, this result was in agreement with **Elhanafy & Saleh, (2018)** who conducted a study on " professional identity among nurses" they emphasized that the highest percentage of staff nurses have low professional identity skills level. Also, This finding came in the line with the work conducted by **Al Jarrah (2013)** about "Perceptions of associate Nursing Students towards Nursing Profession in Balqa Applied University, Jordan", he observed that the associate nursing students had a significant favorable understanding about the image of the nursing profession.

The results of the present study revealed that there was a highly statistically significant improvement of intern nurses' related to professional values dimensions between pre and post program and between preprogram and follow up phase related to

altruism, autonomy, human dignity, integrity and social justice.

From the investigator point of view improvement of nurse-interns' professional values could be explained in the light of improvement of nurse-interns professional identity and ethics as a result of educational program as professional values and ethics interrelated with each other Nurse-interns' professional values can greatly influence their performance and enhance their code of ethics, this result in improvement of quality of patient care. Professional nursing values affect the quality of nurse-interns' professional life and play an important role in nurse-interns' degree of burnout and their decision upon staying in or leaving their jobs or even the profession.

These results was similar to **Feller, (2014)**, who conducted a study on "development of professional nursing values" he revealed that the nursing students report high levels of professional nursing values. In the same respect **Al-Banna, (2017)** who conducted a study on " Core professional and personal values of nurses about nursing in Erbil city hospitals " he reported that most of the nurses have adequate value about their profession.

Concerning to nurse-interns' satisfaction levels throughout program phases the results of the present study revealed that there was a highly statistical significant improvement of nurse-interns' satisfaction dimensions between pre and post program and between preprogram and follow up phase related to satisfaction toward nursing profession, satisfaction related to clinical setting and satisfaction related to communication in the work place. Also, more than two thirds of nurse-interns had high satisfaction level at post program and follow

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up phases respectively as compared to preprogram phase

From the investigator point of view nurse-interns' satisfaction about nursing profession considered a result of professional identity as nurses with low professional identity will be dissatisfied with the profession and vice versa. With the education of nurse interns about nursing profession they became satisfied with it as they know their role in the community. Satisfaction related clinical setting and communication in the workplace due to nurse interns act as a professional nurse with an identified identity.

These results were consistent with **Sharbaugh, (2009)**, who conducted a study on "relationships among nurses' professional identity, career satisfaction, occupational commitment, and intent to stay" he revealed that the nurses in had high career satisfaction. In contrast with current study results **Hakim, (2014)**, who conducted a study about "nursing students' satisfaction" he concluded that majority of students were little satisfied.

Concerning relations among nurse-interns' knowledge regarding professional identity and personal characteristics thorough the program phases the current study findings revealed that there were statistically significant relations between nurse-interns total knowledge and their personal characteristics regarding taking previous courses about professional identity at pre-program phase, and there were statistically significant relations between nurse-interns total knowledge and their personal characteristics regarding age, previous education and residence at post program phase. Also, there were statistically significant relations between nurse-interns total knowledge and their personal characteristics at follow-up phase.

This result be explained that taking courses regarding professional identity result in improvement of knowledge, skills related to professional identity. This may be due to nurse-interns with previous education general secondary school have a higher commitment and self-discipline. Also, with increased age nurse-interns become mature and more responsible regarding to their career and duties.

In the same line **Sabanciogullari & Dogan, (2017)**, who conduct a study on "Professional Self-Concept in Nurses and Related Factors: A Sample from Turkey" concluded that Professional self concept was significantly higher in the nurses who were older, more experienced, female and master's degree graduates than in the nurses who were younger, less experienced, male and high school graduates.

Moreover, **Elkenany, Abd Ala Adam, & Berma, (2021)**. Who conducted a study about "professional identity among nurses at governmental hospitals in Port-Said city" and revealed that there was a statistical significant relation between age and years of experience of the studied nurses with their overall professional identity dimensions.

Contradictory to these findings a study conducted by **Mohtashami et al., (2015)**, about "A survey of relation between professional identity and clinical competency of psychiatric nurses". they revealed that there was no significant relationship between professional identity and demographical variables.

Conclusion

More than one third of nurse-interns had adequate level of knowledge regarding professional identity at preprogram phase while it increased to more than two thirds at post program and follow up study phases.

Also, there was a highly statistical improvement of nurse-interns' knowledge and skills about professional identity at post program and follow up phases than pre-program phase. Also, there was a highly statistical significant improvement of nurse-interns' professional values and satisfaction at post program and follow up phases than pre-program phase.

Recommendations

1. Nursing educational administrators should organize education programs for refreshing and increasing knowledge and skills about nursing professional identity as well as emphasize professional values of nurses.
2. Nurse-interns need to pay specific attention for expanding their nursing knowledge base to build professional confidence and improve their identity.
3. Nurse-interns should act and behave in the clinical setting as a professional nurse to be a role model for other nurses.
4. Health care facilities should encourage nurse-interns to attend continuing education in the form of workshops and conference related professional identity.
5. Health care facilities should develop nurse-interns professionally through boosting up the assertive behavior.
6. Conduct longitudinal studies that track development of nurses' professional identity throughout academic years to graduation to provide a comprehensive view of facilitators and barriers of professional identity development.

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تأثير برنامج تعليمي عن تطوير الهوية المهنية على القيم المهنية والرضا لدي مرضي الامتياز

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تتطور الهوية المهنية نتيجة لاستيعاب المعارف والمهارات والمواقف والقيم والمعايير المهنية. مرضي الامتياز ذوي الهوية المهنية القوية يعملون بانسجام مع القيم المهنية وهذا الانسجام قد يؤدي إلى تغييرات إيجابية في بيئة العمل وبالتالي قد يزيد من الرضا المهني. لذا هدفت هذه الدراسة الي تقييم تأثير برنامج تعليمي عن تطوير الهوية المهنية لمرضي الامتياز على القيم المهنية والرضا. وقد أجريت الدراسة بمستشفى جامعة بني سويف. على ١٥٤ من ٢٥٠ من مرضي الامتياز المتاحين في وقت تجميع البيانات. وظهرت النتائج أن أكثر من ثلث الممرضات المتدربات (٣٧.٧ %) كان لديهم مستوى كاف من المعرفة في مرحلة ما قبل البرنامج بينما زادت إلى أكثر من الثلثين (٨٣.١ % و ٧٩ %) في مراحل ما بعد البرنامج ومتابعة الدراسة على التوالي. ما يقرب من ثلاثة أرباع (٧٧.٣% و ٧٨.٦%) مرضي الامتياز لديهم مستوى عال من مهارات الهوية المهنية في مرحلتي ما بعد البرنامج والمتابعة على التوالي مقارنة بالمرحلة السابقة للبرنامج (٢٥.٣ %). كان لأكثر من ثلاثة أرباع (٧٩ % و ٨١.٨ %) من مرضي الامتياز قيم مهنية جيدة في مراحل ما بعد البرنامج والمتابعة على التوالي بالمقارنة مع مرحلة ما قبل البرنامج (٣١.٨ %). وكان أكثر من ثلثي (٧٤ % و ٧٦.٦ %) مرضي الامتياز على مستوى عال من الرضا في مرحلة ما بعد البرنامج ومراحل المتابعة على التوالي بالمقارنة مع مرحلة ما قبل البرنامج (٢٩.٩ %). كما اوصت الدراسة بإجراء برامج تعليمية لإنعاش وزيادة المعرفة والمهارات حول الهوية المهنية لمرضي الامتياز وكذلك التأكيد على القيم المهنية لمرضي الامتياز. إعادة تطبيق الدراسة على عينة احتمالية أكبر في بيئات أخرى لتحقيق نتائج قابلة للتعميم.