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Nurse educators' professional practice attributes and its determinants

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Abstract:

BACKGROUND: Professional practice attributes of nurses help to promote nursing as a profession and advance nursing education. Nursing professionals need to demonstrate a high level of professional commitment to their practices and must be professionally competent to perform their roles.

MATERIAL AND METHODS: Descriptive survey was conducted at the nursing educational institutes affiliated with the Indian Nursing Council and situated in the selected Northern Indian states. The sample included 343 nurse educators who were selected using simple random sampling. The self-reported method was adopted to collect data where three questionnaires including socio-demographic information, organizational characteristics of current place of work, and professional practice attributes assessment criteria were used. Descriptive and inferential statistics were used for data analysis.

RESULTS: Overall, the study's participants scored poorly on professional practice attributes (Mean, SD: 1.98, 2.03), which were linked to their personal (age and gender), professional (educational background, professional qualification, current designation), and organizational (duration of organization's establishment, courses provided, college management) characteristics.

CONCLUSION: The findings highlighted the need for nurse educators to be more competent and dedicated in their respective fields. The study also suggests that in order to raise the standard of nursing education, nursing regulatory bodies like nursing councils, universities, and governments must take the necessary steps to foster the professional development of nurse educators.

Keywords:

India, nurse educators, professional commitment, professional practice attributes, professionalism

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Introduction

Competencies are the skills, knowledge, behavior, and individual characteristics that are necessary for performing jobs.^[1] Elements that constitute professional competency in academic among nurse educators include the five major domains i.e., facilitating active learning, engaging in research activities, participating in academic management, self-directed learning, and "practicing education autonomously."^[2]

Professional practice attributes include the knowledge, attitude, skills, values, and capabilities that result in high occupational and professional performance.^[3] In other

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words, These are the professional skills, clinical judgment, communication, emotions, and ethics intended to provide high-quality professional services to individuals and to society.^[4] Nurse educators with high professional competencies are required, and the level of nursing education for nurse educators needs to be improved.^[5-7]

According to research, nurses have limited training, less support, and are ill-equipped to handle workplace violence. Violence in the workplace can be reduced with continuing nursing education where nurse educators play a vital role in this.^[8] Spirituality and spiritual care are critical to giving patients more effective care, and they have become significant practice attributes for nurses. More training is required for nurses in this field.^[9]

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Nurse educators must have high professional attributes in teaching, research, clinical practice, management, communication, and ethics.^[10,11] They should have multiple professional competencies to produce high-quality professional nurses.^[12]

Professional attributes are multidimensional and constantly changing according to national and international standard.^[5] The nursing education system differs from country to country, so the professional abilities they receive also vary.^[13] Globally, the fundamental professional competencies of nurse educators are structured into eight domains by the world health organization i.e., theories and principles of learning; curriculum execution; nursing practice; research and evidence-based practice; communication, collaboration, and partnership; ethical/legal principles and professionalism; monitoring and evaluation; and management, leadership, and advocacy.^[14]

Having good professional competencies helps to promote nursing as a profession and advance nursing education.^[15] Nursing professionals need to demonstrate a high level of professionalism in their practices and must be professionally competent to perform their roles.^[16] Lack of consideration for professional attributes among nurses may lead to substandard practices and increases frustration, job dissatisfaction, and attrition among them.^[17] Professional practice attributes, skills, and competencies also have a significant impact on job attitudes including organizational obligation and professional relationships.^[18]

In the current dynamic world, developing good pupils requires a well-developed educational system and possibilities for lifelong learning. It's critical to realize that teachers' professional values and preparedness have a big impact on students' professional practice attributes^[19]

The need for constant learning and upgrading knowledge and skills is time-consuming but very important for nursing professionals, who are under more pressure than ever before due to the rapid evolution of medical knowledge and technology. The health care system's modifications have produced a competitive atmosphere with new stressors that are perceived to be having the negative influence on nurse educator's professional practice attributes.^[20]

Higher levels of professional qualities among nurses have been linked to greater scholarship, participation in research activities, and greater job satisfaction.^[21] On the other hand, it has been proposed that a lack of professionalism traits might have detrimental effects, such as greater turnover and attrition.^[22]

A nurse educator has an important role in fostering students' learning and professional development. Literature suggests that not many research have been done on nurse educators' work. For this reason, in our study, we assess the nurse educator's professional practice attributes and their determinants from an Indian perspective. The results of this study will likely expand the body of knowledge required for nurse educators, to implement actions that improve professional practice qualities among themselves.

Objectives

To assess the professional practice attributes among nurse educators and determine their association with their Personal, professional and organizational characteristics

Materials and Methods

Study design and setting

A cross-sectional descriptive survey was conducted at the nursing educational institutes affiliated with the Indian Nursing Council and situated in the selected Northern Indian states i.e., Punjab, Haryana, and Rajasthan. The study was carried out in the 37 nursing educational institutions running graduate/postgraduate programs and provided administrative permission for data collection were selected using purposive sampling.

Study participants and sampling

The target population of the present study included nurse educators working at the selected nursing educational institutes at the time of data collection (n = 343). Subjects include both males and females, who have graduate or post-graduate degrees in nursing with at least six months of teaching experience in the present institute and are willing to participate were selected using simple random sampling. Incomplete questionnaires were considered as the exclusion criteria. The sample size was calculated based on precision rate (0.8), α (0.05), confidence level i.e., at 95% (.Z = 1.96) and standard deviation of 7.54 (roughly estimated based on pilot study). A minimum sample of 341 individuals was needed.

Instruments and data collection

Self-reported methods were used to collect the data using three questionnaires. Three tools were used for data collection. The first part was a demographic and professional profile sheet. The second tool is the organization's profile sheet of the participant's current place of work. The third tool included the six domains of professional practice attributes based on Flexner^[23] criteria i.e., conference/workshop participation, authored publications, membership of professional organization/s, participation in continuous nursing education program/s,

subscription of professional journals, and advanced course in nursing skills. A dichotomous response (yes/no) for each criterion (except authored publication) was framed where scores were 0 (zero) for response No and 1 (one) for yes for all the items except publication where each authored publication was provided a score of 1. The content validity index of the professional attributes questionnaire calculated by experts was 100% whereas Cronbach’s alpha coefficient and test-retest were used to determine its reliability and were found to be 0.92 and 1 respectively.

Data analysis

The statistical analysis software SPSS Version 26 was used to analyze the data. Data were checked for outliers, wild codes, irregularities, and missing values. In total, 360 nurses were recruited by considering the probability of participant loss. Finally, 17 questionnaires were excluded from the study due to their incompleteness, and final data analysis was performed on 343 samples (the response rate was 95.27%). Descriptive (mean, median, and standard deviation) and inferential statistics (Chi-Square) were used to analyze the data. Two-sided significance tests were used throughout and the level of significance was set at <0.05.

Ethical consideration

The research was approved by the Institutional Ethics Committee (IEC) of Saraswati Nursing Institute, Punjab dated 26 March 2020 with registration No of 11XN26 Implied consent was obtained from the subjects, and anonymity and confidentiality of data were ensured.

Results

Sample characteristics

Participants in the study include nursing educators with varying levels of education and experience who work

in public and private educational institutions. Table 1 shows the personal and professional characteristics of the study participants.

Organizational characteristics of study participant’s current place of work

The study included nursing educational institutions that are older as well as newly established, run by different management (government, private, missionary, and deemed university), and that offer undergraduate, post-graduate, and Ph.D. nursing programs. The organizational characteristics of the study participant’s current place of work are described in Table 2.

Assessment of professional practice attributes

The overall mean ± SD score of professional attributes was 1.98 ± 2.03 (range 0-18). The highest mean score was related to Workshops/conferences attended (\bar{x} , ± SD, 0.58 ± 0.49, range: 0.00–1.00) and the lowest mean score was observed in the domain of enrolment for continuous education programs (\bar{x} , ± SD, 0.04 ± 0.21, range: 0.00–1.00) [Table 3].

Determinants of professional practice attributes
Socio-demographic determinants of professional practice attributes

Professional practice attributes score was higher among the subjects with increased age ($P = .008^*$) and had a medical background ($P = .019^*$) [Table 4].

Professional determinants of professional practice attributes

Nurse educators who attained their degree from government organizations have post-graduation or Ph.D. qualification), occupy superior positions (designation) in their organization, and with work experience over 9 years had a higher scores on professional practice attributes s than other nurse educators [Table 5].

Table 1: Sociodemographic and professional characteristics of nurse educators (n=343)

Demographic variables		f (%)	Demographic variables		f (%)	
Gender	Male	110 (32.1)	Professional Qualification	Graduate	164 (47.81)	
	Female	233 (67.9)		Postgraduate or PhD	179 (52.18)	
Age in completing years	Up to 30	244 (71.13)	College of final degree	Private	260 (76)	
	31-35	63 (18.36)		Government	82 (24)	
	36-40	15 (4.37)		Professional Experience (in years)	Up to 5	246 (71.72)
	41-45	07 (2.04)			6-8	42 (12.2)
	Above 45	14 (4.08)			9-12	32 (9.3)
Marital status	Unmarried	188 (55.0)	Above 12	23 (6.7)		
	Married	152 (44.4)	Current Designation	Clinical instructor	168 (49.3)	
	Widow	02 (0.6)		Lecturer	138 (40.5)	
10+2 background	Medical	297 (86.8)		Associate Professor	21 (6.2)	
	Non-medical	19 (5.6)		Professor	08 (2.3)	
	Art	23 (6.7)		Principal	06 (1.8)	
	Other	03 (0.9)				

Professional determinants of professional practice attributes

Professional practice attributes score was higher among the educators those working with the government, missionary, or deemed universities ($\chi^2 = 35.88, P \leq .001^{**}$), having an older duration of organization’s establishment ($\chi^2 = 12.31, P = .015^*$) and working with

medical college associated nursing institution ($\chi^2 = 12.00, p. =001^{**}$) [Table 6].

Determinants of specific professional practice attributes

Determinants of advance course certification among nurse educators

Nurse educators with increased age ($\chi^2 = 15.16, P = 010^*$) higher qualification ($\chi^2 = 12.63, P = .00 * 5$) and designation ($\chi^2 = 15.131, P = .004^*$), attained a professional degree from the government institutions ($\chi^2 = 4.16, P = .041^*$), having experience over 12 years ($\chi^2 = 14.66, P = .005^*$), employed with post-graduate institutions ($\chi^2 = 6.45, P = .040^*$) and associated with medical college ($\chi^2 = 9.80, P = .002^*$) are more likely to join advance courses certifications programs as compared to the others educators.

Determinants of conference/workshop participation among nurse educators

Nurse educators having a medical background ($\chi^2 = 8.59, P = .035^*$) higher qualification ($\chi^2 = 27.98, P \leq .001^{**}$), designated as professors ($\chi^2 = 10.14, P = .038^*$), having experience over 6 years ($\chi^2 = 10.60, P = .031^*$), employed with post-graduate institutions ($\chi^2 = 19.46, p. \leq .001^{**}$), associated with medical college ($\chi^2 = 10.94, P = .001^{**}$) and working in missionary institutes ($\chi^2 = 13.72,$

Table 2: Organizational characteristics of study participant’s current place of work (n=343)

Organizational characteristics		Total f (%)
Nature of College Management	Private	241 (70.3)
	Government	65 (19)
	Missionary	11 (3.2)
	Deemed University	26 (7.6)
Duration of Establishment (in years)	Less than 5	107 (31.2)
	6-10	107 (31.2)
	11-15	73 (21.3)
	16-20	40 (11.7)
	Above 20	16 (4.7)
Nursing courses offered	B.Sc./Post Basic	178 (51.9)
	M.Sc. & B.Sc./Post basic	132 (38.5)
	PhD, M.Sc. B.Sc./Post Basic	33 (9.6)
Parental Hospital	Yes	249 (72.6)
	No	94 (27.4)
Medical college	Yes	102 (29.7)
	No	241 (70.3)

Table 3: Professional practice attributes of study subjects (n=343)

Professional practice attributes	Dimensions	Minimum	Maximum	Mean±SD
Competency	Any advance Courses in Nursing Skills	0.00	1.00	0.23±0.42
Continuous learning	Workshops/conference attended in last one year	0.00	1.00	0.58±0.49
Research aptitude	Research publication(s)	0.00	14.00	0.48±1.32
Professional engagement	Membership of professional organization/organizations	0.00	1.00	0.50±0.50
Continuous learning	Enrolled with any continuous education program or CNE	0.00	1.00	0.04±0.21
Knowledge upgradation	Subscriber of any nursing/other journals	0.00	1.00	0.12±0.33
Score (Total)		0.00	18.00	1.98±2.03

Table 4: Socio-demographic determinants of professional practice attributes (n=343)

Participants characteristics		Professional practice attributes score f (%)		Chi-Square	P
		<median	>=median		
Gender	Male	55 (50)	055 (50)	0.112	0.738
	Female	112 (48.1)	121 (51.9)		
Age in years	21-25	73 (62.9)	43 (37.1)	15.52	0.008*
	26-30	55 (43)	73 (57)		
	31-35	25 (39.7)	38 (60.3)		
	36-40	07 (46.7)	08 (53.3)		
	41-45	03 (42.9)	04 (57.1)		
	Above 45	04 (28.6)	10 (71.4)		
Marital Status	Unmarried	83 (44.1)	105 (55.9)	4.94	0.084
	Married	81 (53.3)	71 (46.7)		
	Widow	02 (100.0)	0		
Educational Background	Medical	135 (45.5)	162 (54.5)	9.95	0.019*
	Non- Medical	15 (78.9)	04 (21.1)		
	Art	14 (60.9)	09 (39.1)		
	Other	02 (66.7)	01 (33.3)		

*Significant at 0.05, **Significant at 0.01 (Median=2)

Table 5: Professional determinants of professional practice attributes n=343

Participants characteristics		Professional practice attributes score f (%)		Chi-Square/ Fisher	P
		<median	>=median		
College of final degree attainment	Private	137 (52.7)	123 (47.3)	6.47	0.011*
	Government	30 (36.6)	52 (63.4)		
Professional Qualification	B.Sc. Nursing	86 (66.7)	43 (33.3)	46.47	≤0.001**
	Post Basic Nursing	25 (71.4)	10 (28.6)		
	M.Sc. Nursing	55 (32.0)	117 (68)		
	PhD in Nursing	01 (14.3)	06 (85.7)		
Professional Experience (in years)	6 months -1	67 (62.6)	40 (37.4)	16.46	0.002*
	2-5	62 (44.6)	77 (55.4)		
	6-8	21 (50.0)	21 (50.0)		
	9-12	09 (28.1)	23 (71.9)		
	Above 12	08 (34.8)	15 (65.2)		
Current Designation	Clinical instructor	97 (57.7)	71 (42.3)	12.00	0.017*
	Lecturer	54 (39.1)	84 (60.9)		
	Associate Professor	09 (42.9)	12 (57.1)		
	Professor	03 (37.5)	05 (62.5)		
	Principal	04 (66.7)	02 (33.3)		

*Significant at 0.05, **Significant at 0.01 (Median=2)

Table 6: Professional determinants of professional practice attributes (n=343)

Participants characteristics		Professional practice attributes score f (%)		Chi-Square	P
		<median	>=median		
College management	Private	142 (58.9)	99 (41.1)	35.88	≤0.001**
	Government	19 (29.2)	46 (70.8)		
	Missionary	01 (9.1)	10 (90.9)		
	Deemed University	05 (19.2)	21 (80.8)		
Duration of Establishment in years	0-5	56 (52.3)	51 (47.7)	12.31	0.015*
	6-10	63 (58.9)	44 (41.1)		
	11-15	29 (39.7)	44 (60.3)		
	16-20	14 (35)	26 (65.0)		
	Above 20	05 (31.3)	11 (68.8)		
Courses offered	B.Sc./Post Basic	110 (61.8)	68 (38.2)	27.20	≤0.001**
	M.Sc. & B.Sc./Post basic	49 (37.1)	83 (62.9)		
	PhD, M.Sc. & B.Sc./post basic	08 (24.2)	25 (75.8)		
Parental hospital	Yes	125 (50.2)	124 (49.8)	0.83	0.362
	No	42 (44.7)	52 (55.3)		
Medical College	Yes	35 (34.3)	67 (65.7)	12.00	0.001**
	No	132 (54.8)	109 (45.2)		

*Significant at 0.05, **Significant at 0.01 (Median=2)

P = .003*) are more likely to participate in conferences/ workshops as compared to the others educators.

Determinants of research publications among nurse educators

Nurse educators aged between 26-35 years ($\chi^2 = 67.68$, $P = .016^*$), have higher qualifications ($\chi^2 = 92.82$, $P \leq .001^{**}$), have professional experience between 9-12 years ($\chi^2 = 54.12$, $P = .027^*$), employed with post-graduate institutions ($\chi^2 = 63.97$, $P \leq .001^{**}$), working with institute having a duration of establishment between 11-15 years ($\chi^2 = 76.02$, $P \leq .001^{**}$) and employed in missionary institutes/ deemed universities ($\chi^2 = 89.26$, $P \leq .001^{**}$) are more likely to publish research articles as compared to the others educators.

Determinants of membership of professional organization among nurse educators

Nurse educators with age over 35 years ($\chi^2 = 30.99$, $P \leq .001^{**}$), have a medical background ($\chi^2 = 9.85$, $P = .020^*$), higher qualification ($\chi^2 = 51.08$, $P \leq .001^{**}$), professional experience over 9 years ($\chi^2 = 34.35$, $P = \leq .001^{**}$), designated as the professor ($\chi^2 = 23.02$, $P \leq .001^{**}$), employed in post-graduate institutions ($\chi^2 = 28.37$, $P \leq .001^{**}$), associated with medical college ($\chi^2 = 17.20$, $P \leq .001^{**}$), employed in missionary institutes/ deemed universities ($\chi^2 = 31.48$, $P \leq .001^{**}$) and working with institute having a duration of establishment over 15 years ($\chi^2 = 17.564$, $P \leq .001^{**}$) are more likely to have membership of professional organization/s as compared to the others educators.

Determinants of subscriptions of journal/s among nurse educators

Nurse educators with age over 45 years ($\chi^2 = 17.25$, $P = .004^*$), being male ($\chi^2 = 4.70$, $P = .030^*$), and higher qualification (PhD) ($\chi^2 = 35.64$, $P \leq .001^{**}$) are more likely to have subscriptions of research journal/s as compared to the others educators.

Discussion

The present study aimed to assess the nurse educator's professional practice attributes and their association with their personal and organizational characteristics. The results showed that the overall score among nurse educators was low and found statistically significant with most of their personal, professional, and organizational characteristics included in the present study.

The present study used the six criteria to evaluate professional practice attributes among nurse educators i.e., Advance Courses in Nursing Skills (competency), Workshops/conference participation (continuous learning), Research publication(s) (Research aptitude), Membership of professional organization/organizations (citizenship and professional engagement), participation in a continuous education program or CNE (continuous learning) and subscription of nursing/other journals (knowledge upgradation) as these seemed to reflect the criteria of professionalism described by Flexner (1915). In line with these criteria, Hungler BP^[23] also used similar criteria to assess professional attributes of nursing master's graduates where enrolment in a formal program, subscription to professional journals, attendance at non-formal educational programs, authored publications, membership in professional organizations and employment in the prepared area were used.

World Health Organization^[14] described eight essential professional competencies for nurse educators i.e., theories and principles of learning; curriculum execution; nursing practice; research and evidence-based practice; communication, collaboration, and partnership; ethical/legal principles and professionalism; monitoring and evaluation; and management, leadership, and advocacy. Similarly, another study^[5] also described eight main categories of nurse educators' competence similar to the competencies used in the present study.

Results of the present showed that the overall mean score of professional practice attributes was at a low level. Further study also identified the areas with the highest levels of professional behavior i.e., workshop/conference participation (\bar{x} , 0.58), and lowest in the area of enrolment in continuous education programs (\bar{x} , 0.04). A study reported similar findings where the overall professional behavior score was observed at a low level whereas the

areas with the highest levels of professional behavior were competence and continuing education 1.88 (0.34) and lowest in the areas of autonomy 0.06 (0.34), publication 0.10 (0.25), and research 0.25 (0.60).^[24] Tanaka M *et al.*,^[25] Doost *et al.*^[26] Karami A *et al.*^[27] also found that that nurses' professional attributes were at low to moderate levels. Another team of researchers^[28] reported that newly graduated nurses perceived themselves as weak in terms of their clinical competency.^[27]

In contrast with the findings of the present study, numerous studies evaluated nurse educators' overall professional practice attributes as good and at a high level. Mikkonen *et al.*^[10] reported that health science teachers perceived their own competence as high. Studies conducted by Heydari^[17] and Istomina^[29] reported that the majority of nurses rated themselves as "good" and "very good in terms of professional attributes.

The difference in the results of the present study and the cited studies could be associated with the discrepancy in the samples and relevant measurement instruments for professional attributes. Moreover, it would be considered that professional attributes are a multi-dimensional concept, that is associated with various personal, professional, and organizational characteristics.

The present study revealed that nurse educators' professional attributes is associated with their personal, professional and organizational characteristics. These findings are found to be consistent with numerous studies. Results of the present study demonstrated higher professional attributes score among nurse educators with increased age, higher qualification, designation, and professional experience. This result is in agreement with studies by Doost H F *et al.*,^[26] Fantahun A *et al.*,^[30] where nurses' age and their years of experience had a significant correlation with their level of professional attributes ($P < 0.05$).

A research study^[25] identified nurse educators' designation/position, experience, research activities, age, academic degree, and type of organization they work are associated with their overall professional competencies. These findings are in line with the findings of the present study where educational background, working with the government, missionary or deemed universities, having an older duration of organization's establishment, and working with medical college-associated nursing institution were found positively associated with the professional practice attributes score of the nurse educators. Similarly, another study^[31] revealed that professionalism is significantly related to higher educational preparation, current position in nursing, current employment status, work setting, total years of nursing experience, location of final degree attainment, and duration of nursing

education. Heydari *et al.*^[17] found that the educational level of nurses, professional experience and development, work autonomy, and work satisfaction quality assurance are the factors associated with nurse professional competence.

Strength, Limitations and Recommendations

Strength

First, the study chose study participants using the maximum variation sampling technique, and power analysis were utilized to determine in advance how large a sample size was required for the main study. Second, because the data were gathered from nursing institutions that were accredited by the Indian Nursing Council (INC), New Delhi, the results are presumed to be more generalizable.

Limitations and recommendations

This study had three limitations. First, the use of a self-reported scales for the assessment of professional practice attributes that may have resulted in social desirability bias. Future studies can be executed using different methods of evaluating professional attributes such as observational measures. Second professional practice attributes of nurse educators were measured into six domains that may not be exhaustive and there could be other areas of professional attributes. To enhance the reliability of the findings, other measures such as 360-degree evaluation of professional attributes, and Hall's professional inventory can be used. Third, most of the study participants were young, mostly belonged to private organizations and from the selected institutions in the three northern Indian states only thus, it might have limited generalizability. However, the nurse educator's personal, professional and organizational characteristics assumed to be similar in the whole country because of the uniformity of nursing education system in India that is regulated by the Indian Nursing council.

Conclusion

Professional practice attributes are the indicators of the professional competencies of nurse educators. Many personal, professional, and organizational factors were found to be associated with their professional practice attributes. It is recommended that nursing regulatory bodies such as nursing councils, universities and governments must do the necessary measures that nurture the professional development of nurse educators to improve the standard of nursing education.

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Conflict of interest

There are no conflicts of interest.

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