

Research Article

Measurement of Bachularate Nursing Students' Professional Behavior

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Abstract

A profession is an indicator by which professional behavior can be regulated through various means because professional behaviour is necessary to maintain consistency in achieving desired outcomes of the profession. This research is conducted to measure professional behavior of the students as they have to be part of this challenging behavior in the future. This cross sectional study included students of Bachelor of Science in Nursing at a Health Science University of Sindh, Pakistan during November-December, 2021. Stratified sampling method was applied for sample selection. A structured 15-item research questionnaire was utilized for data collection. The data were evaluated through Statistical Package for Social Sciences 20 version. The response rate for the study was 96% as 164 participants returned the completed forms. The results revealed that 34.4% participants had selected nursing on their own choice. The results also show that participants possessed a moderate professional behavior. The reason could have been their unwillingness to join nursing as their future profession. The participants possessed moderate behavior towards patient centered care, professional practice, nursing ethics and professional growth. The faculties and nursing institutes must not ignore the grave situation. They must try to cultivate caring behavior among new nurse population. Besides, completing

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curriculum related activities; students must be exposed to extra-curriculum activities as they can enhance their critical thinking skills and reflective practice. By improving their confidence, and motivation, a competent workforce can be developed to face the challenges of future.

Keywords: Nursing students; Professional behavior; Professional practice; Patient centered care; Professional growth

Introduction

According to Saks M, the deliberation about defining the basic concept of 'profession' is a healthy one exercise as it determines the unique and positive traits of a specific profession. The exercise of defining a profession encompasses the particular characteristics, the nature of these characters and how they operate. The 'professionals' is a group of distinctive individuals who perform some specific activities and are known as 'a force of the society' [1]. The word, 'professionalism' is an extension of 'profession' which is supposed to be easy to identify and tough to outline. Simply saying, the professionalism is the reflection of the attributes that are set by the discipline to qualify and those attributes must be delivered to the recipients (in the settings) [2]. There are various elements discussed in context of professionalism. Van, et al., identified three types of professionalism. 'Interpersonal professionalism' is defined as 'prerequisites which encompasses effective contact and communication' domain. This area of professionalism deals with nurse-patient and nurse-coworkers interaction process. The 'public professionalism' covers areas of demands the society places on the profession. This professional standard is maintained through trusting relationships between the society and professionals. The 'interpersonal professionalism' deals with the requirements necessary to function in the profession as an individual. It was further elaborated that the aforementioned three types of professionalism entails four basic elements as being the part of it, such as altruism, accountability, respect and integrity [3].

Professionalism is yardstick to regulator the professionals' behavior through approval, constraint, or prohibition. The demonstration of approved behaviors by the professionals helps professions to maintain its integrity and accountability. It means that the showoff of the desired behaviors block the negative consequences for the profession. Negative consequences damages image of the profession. Therefore, the professionals' behavior is imperative for attracting and retaining the workforce [4]. The influence of role models in both academic and clinical fields plays an important role in creating and maintaining professionalism. It enhances the quality of nursing care, resulting in nurses' increased job satisfaction and inhibiting burnout syndrome [5]. Ghadirian F, et al., identified three dimensions of professionalism. The first dimension of 'professionalism' is identified as cognitive. It emphasizes professional individuals to seek and master the professional knowledge through basic, advanced and continuous professional education. The basic and fundamental understanding of the principles of profession helps individual professionals to appropriate conduct and reasons for that specific conduct. With the help of knowledge, professionals will be able to prioritize decisions related to

care and communication. This is called clinical judgment. The second professional dimension was named as *attitudinal dimension*. This dimension elaborates the values, ideas and beliefs, a professional holds. The nature of the value, ideas and beliefs motivates and directs professionals for specific conduct. The last dimension '*psycho-motor dimension*' expounds the clinical skills of professionals. This dimension exemplifies the clinical role and therapeutic interventions performed by the professionals in discharging patients' care related activities [6].

Professionals' behavior is crucial because it defines a professional's cognitive, attitudinal and psycho-motor dimensions. College life is an important time when those crucial professional behaviors develop, mature and molded. This period helps nursing students to discover professional demands and means to behave accordingly. Acquisition of professional demands is influenced by the college environment, curriculum, teachers' professional capabilities and educational practices. Students' experiences determine their approach to professional behavior. Students having positive experiences could behave professionally whereas negative experiences might deviate students from desired behaviors [7]. This position warrants to measure students' professional behavior during their learning period.

Students remained confused about the way to behave professionally. The very first question which aroused among students was their inability to understand the meaning of professionalism. Students faced conflicting situation in this regard. Students noticed the difference in seniors' wording and conduct. One of the example of unprofessional behavior was elaborated as seniors humiliating and disrespecting behavior towards students [8]. The students' negative perception towards their seniors inhabits students' professional growth. At this critical juncture, students need support, encouragement and a healthy learning environment to instill among them confidence through caring. It was noted that seniors' caring behaviors were closely associated with development of professional behaviors among student nurses [9]. This indicates that students' professional behavior is linked to professionalism. It starts during academic years and continues to develop during job period. This makes more important to identify student nurses' behaviors towards professionalism. The identification will help to correct, modify or sustain behaviors in right direction [10]. This study was conceptualized and carried out to describe nursing students' professional behavior. The personal knowledge of the authors confirmed that such studies are lacking in the public sector universities of Sindh, Pakistan. Through this study, investigators intended to discover nursing students' professional behaviors and the results will pave the way for policy makers and faculties to adopt measures to sustain or improve students' professional behaviors [11].

Materials and Methods

This *cross sectional, descriptive study* was conducted in two nursing institutes of a Medical University in Sindh, Pakistan. One institute was a female nursing institute of the same university and second, a private (co-education) one, associated with the University. The universe for the study constituted nursing students enrolled in Bachelors' of Science (Generic) - (BSNG) a four-year degree program. The study duration was November-December, 2021. The Directors of the both institutions accepted our application to conduct the research. An unwritten consent was settled with the students to contribute in the study after elucidation them the purpose of the research.

The sampling method for the study was stratified random sampling. There were 298 [218(73%)] and [80 (27%)] in University and

Private Institute respectively) students enrolled in both institutions. The sample size was calculated by the formula $n = N / 1 + N(e)^2$. n = sample size, N = population, and (e) = margin of error. Therefore, we put values in the formula and get

$$n = 298 / 1 + 298(0.05)^2$$

$$n = 298 / 1 + 299(0.0025)$$

$$n = 298 / 1 + 0.745$$

$$n = 298 / 1.745$$

$$n = 171$$

An organized data collection form titled as, "*Nurse professional behavior scale (NSPB-)*" was cycled for data collection. It confined two parts. The first part, 'introductory information sheet', was for the discrete characteristics (age, sex, program, year of the study) and the second part contained 15-closed ended questions related to concepts of patient centered care (item#1,4,5&8), professional practice (item #3,9,14,15), nursing ethics (item #7,10,11,12,13), and professional growth (item #2,6). Each item is scored for 1, 2,3,4,5 to don't correspond at all, correspond a little, correspond moderately, correspond a lot and correspond exactly, respectively. The range of the score is 15 as the lowest and 75 as the highest. This is named as five-point likert scale NSPB. The total score of less than 20 is considered as corresponds a little whereas score of 21-39 is corresponds moderately and score of more than 40 is corresponds exactly.

The data was evaluated in SPSS 20. Statistical Package program. The arithmetic mean, Standard Deviation (SD), minimum, maximum, range, variance, frequency and percentage parameters were used in the analyses of the data. Students' independent t-test was applied to observe and measure the group differences.

Results

The aim of the current research was to describe student nurses' professional behavior. The students' response rate was 96% as 164 participants returned completed questionnaire forms. There were 129 (79.1%) females and 34 (20.9%) male participants. The age ranged between 18-28 years. The 22.20 The variance was 4.307. Depicts demographic information of the research participants (Table 1)

Variable	Male	Female
Gender	34 (20.7%)	130 (79.3%)
University	121 (74.3%)
Private Institute	35 (21.3%)	08 (4.4%)
First year	18 (11%)	41 (25%)
Second year	19 (11.6%)	38 (23.17%)
Third year	23 (14%)
Fourth	25 (15%)

Table 1: Demographic Information.

The results of the study show that 57 (34.4%) students have selected the nursing profession freely on his/her choice. Whereas, 44 (27%) and 63(38.7%) had selected the profession on his/her parent's insistence and due to need a job, respectively. In the response of the statement, you will continue, the nursing as your future profession, 107 (65.6%) replied as sure. On the other hand, 36 (22%) and 20 (12.2%) answered not sure and depends on the time, respectively.

The total score of the NSPB for the participants in the study came out as 36.29 with mean \pm SD of 3.32 ± 0.4193 . The mean scores of NSPB scale of male and female students were 3.3471 ± 0.41154 and 3.312 ± 0.41333 , respectively. The NSPB mean scores of University College students was 3.361 ± 0.40801 and private college students was 3.2756 ± 0.42442 . The NSPB means score of first year, second year, third year and fourth year students stood as 3.3141 ± 0.30627 , 3.3821 ± 0.45845 , 3.1797 ± 0.47924 and 3.3251 ± 0.44424 , respectively (Table 2).

Variables	Patient centered care	Professional practice
Male	2.9926 \pm 0.73727	3.4191 \pm 0.6207
Female	3.1808 \pm 0.63796	3.6762 \pm 0.7488
Uni College	3.2066 \pm 0.64765	3.7314 \pm 0.7368
Private College	2.9593 \pm 0.67465	3.3178 \pm 0.6223
1st Y	3.26271 \pm 0.6389	3.5550 \pm 0.6124
2nd Y	3.138393 \pm 0.7656	3.7678 \pm 0.7068
3rd Y	2.869565 \pm 0.4451	3.5326 \pm 0.9720
4th Y	3.115385 \pm 0.5840	3.5448 \pm 0.7750
Variables	Nursing Ethics	Professional growth
Male	3.5000 \pm 0.6443	3.5294 \pm 1.0071
Female	3.0092 \pm 0.6981	3.6115 \pm 0.8265
Uni College	3.0016 \pm 0.6833	3.6404 \pm 0.8297
Private College	3.4186 \pm 0.7155	3.4651 \pm 0.9536
1st Y	2.9694 \pm 0.6134	3.7966 \pm 0.7138
2nd Y	3.1500 \pm 0.8047	3.6785 \pm 0.9265
3rd Y	3.1130 \pm 0.6461	3.2608 \pm 0.9398
4th Y	3.3461 \pm 0.7409	3.2500 \pm 0.8276

Table 2: Presents the means scores of sub-scales of patient centered care, professional practice, nursing ethics and professional growth in relation to sex, college and year of the study.

The nurses' professional behavior scale is divided into four sub-scales of patient centered care, professional practice, nursing ethics and professional growth. We analyzed those scales and got the mean \pm SD scores of 3.141768 ± 0.661804 for patient centered care, 3.621951 ± 0.731357 for professional practice, 3.110976 ± 0.713843 for nursing ethics and 3.594512 ± 0.864377 for professional growth.

The results of the students' independent t test determined that the difference of the mean scores of NSPB on the basis of gender is not significant. There was no significant relationship between NSPB sub-scales and gender, college type and year of the study.

Discussion

Professionalism is a foundational and verifiable ingredient for professional, ethical practice and professional growth. Professional behavior is guide for bringing a change in the value and belief system of the society through positive philosophical underpinnings. A commitment to grow professionally is directly linked to strong professional attire [12]. This study employed nursing students of BSN degree program as its universe. In this study, the mean age is 22.20 ± 2.075 . This is in the line with the results of [13] study as mean \pm SD of the student nurses was 21.9 ± 1.26 years. The results of our study revealed a moderate (36.29 with mean \pm SD of 3.32 ± 0.4193) professional behavior score [13]. The results are again supported by the study [12] that mean \pm SD score was 43.58 ± 13.36 [12]. Pakistan,

like other nations of the world, faces the shortage of clinical nurses [14]. Both situations (shortage of clinical nurses and low professional behavior) are critical. Low professional behavior is a hindrance towards accepting clinical nurses' role in the future. Therefore, a urgent need is required to improve and enhance students professional behavior. One way to achieve this objective is to enhance nurse faculties' caring behavior towards novice students. By ingraining sureness, and providing accessory learning surroundings, this objective could be accomplished [15]. There is no difference noted between male and female mean scores of NSPB in our study. The result are duly backed by the [12] study results as no significant variation was noted NSPB scores on the basis of age, gender and type of the institute [12]. The research has demonstrated that nurse students professional behavior can be enhanced through formal teaching, arranging workshops for professional enhancement and providing effective feedback on the issues faced by the students, irrespective of their gender [13].

The results of current study showed that mean \pm SD of sub-scales (Table 2) on the basis of gender, institute type, year of the study are slightly variable except the mean \pm SD of patient centered care (on the basis of gender) and nursing ethics (on the basis of year of the study: 1st year and 2nd year). The mean \pm SD of patient centered care is slightly greater for females than males. The mean \pm SD of nursing ethics is slightly greater for 2nd year than 1st year students. There is no significant statistical difference between groups ($p < 0.05$). The nursing profession is traditionally linked with female image and they have dominated it for years. Entry of male nurses in the field has recently changed the scenario. Still, the feminist image of nurses has created a challenge that requires a quick intervention to be addressed [16]. Male nurses are being considered as supporters of the professional standard through qualities of listening attentively to patients calls, providing quality care, improved interpersonal skills, spending time with patients (along with busy schedule) and respecting their autonomy [17].

The results of the study directs to promote nurse students conceptual and practical understanding of patient centered care, professional practice, nursing ethics, and professional growth domains because their score in this direction is also moderate in context of professional behavior scale. The patient centered care is 'a personalized care activity by a nurse through interpersonal relationship or a holistic approach'. To achieve this goal, students have to develop empathetic and interpersonal competence. Both qualities are foundational stone for patient centered care. The students have joined nursing profession willingly and are motivated and determined to continue it as their future profession, are in a relatively strong position to develop both aforementioned competencies than the students who joined nursing profession due to a pressure [18]. The results of our study show that majority of the participants [107 (65%)] have selected the nursing profession on the insistence of someone (may be their parents) or due to need of a job. Moreover, 56 (35%) were unsure about their future prospects as nurse professionals. This is an alarming indication. Because, the finding indicates that empathetic nursing competency is difficult to hone in such situations. They will need careful supervision and guidance to be advocates of patient centered care [18].

The concept of professional practice escort nurses how to acquire exercise, transmit knowledge and skills and develop professionally [1]. There are many ways. Professional practice arena requires nurses to experience caring behaviors. They provide support and comfort, respect patients autonomy, privacy and confidentiality and are ready to

provide logical, accurate and factual information to patient or his/her family [17]. Students' awareness in this regard is crucial step. They must be sensitized for the task in advance, most probably in their formative age [18]. This will help them ease their transitional phase from student to practice nurse [2]. The third ingredient of professional behavior scale is nursing ethics and ethical consideration in practice arena. Nurses always struggle for professional autonomy and empowerment. Professional autonomy is enhanced when nurses assume the responsibility to complete the diverse patients' needs. For this, they need to be competent enough to assess and investigate actual and potential problems on scientific reasoning. They must adopt up to date strategies to master their decision making capability. Technological advancement and improved patients awareness in this regard have provided nurses an opportunity to develop their ethically sound skills to deal the problems effectively. Therefore, self-aware and conscious nurse is the best role model [17]. The moderate score of nursing ethics sub-scale (in our study) is an indication that nurses' professional as well as ethical consciousness is warranted.

The last sub-scale, 'professional growth' stands for, 'a conveyance to attain a higher accolade of professionalism through round-the-clock endeavor and self-evaluation for self-regulation.' This is travail to defeat the *status quo* and take over the dynamic roles and responsibilities, with success. This will lead nurses to disclaim the traditional image of nursing and march for behaviors engendered for contemporary professionalism [19]. Professional growth is learning experiences and self-awareness [20]. The results of the study highlight a strong need to focus on students' professional growth. They must be told that change is an inevitable phenomenon so expect, welcome and accept it. Learn to prioritize, learn from failures, never ceases to work hard and focus on conflict resolution [20].

Conclusion

Nursing students must be prepared to adopt challenging situations successfully. Cultivation and adaptation of professional behaviors is the main vehicle in this direction. The results of the study show that students must have conceptualization of professional behavior and its importance for the practice. The students who join nursing profession unwillingly should be target group in particular and all in general. Inappropriate professional behaviors create stress and are source of suppression of professional growth. Professional growth is sign of self-identity. It improves practice and guides in self-determined clinical judgments. It improves students critical thinking ability which a basic requirement for person centered care. The teaching faculties and institutional policies must address those deficiencies on priority basis. Curriculum and extra-curriculum activities must be incorporated in a fashion that cultivates students' professional behaviors. This will improve image of the profession in larger scale.

References

- Saks M (2012) Defining a profession: The role of knowledge and expertise. *Professions and professionalism* 2.
- Kinsinger S (2005) The set and setting: professionalism defined. *Journal of Chiropractic humanities* 12: 33-37.
- Camp KVD, Dassen MJV, Grol RP, Bottema BJ (2004) How to conceptualize professionalism: a qualitative study. *Medical teacher* 26: 696-702.
- Rowland AW (2016) What is professionalism? The validation of a comprehensive model of professionalism. *Masters Theses & Specialist Projects* 1741.
- Mohamed LK, Dorgham SR, Eid WM (2020) Experiences of Professionalism Attributes among Undergraduates Nursing Students and Nurses. *Evidence-Based Nursing Research* 2: 12.
- Ghadirian F, Salsali M, Cheraghi MA (2014) Nursing professionalism: An evolutionary concept analysis. *Iranian journal of nursing and midwifery research* 19: 1-10.
- Kantek F, Kaya A, Gezer N (2015) The relationship between professional values, student's satisfaction and tendency to leave the school. *International Journal on New Trends in Education and Their Implications* 6: 38-45.
- Julie H, Bimray P, Jooste K (2019) Professionalism experiences of undergraduate learner nurses during their 4-year training programme at a Higher Education Institution in the Western Cape, South Africa. *Curationis* 42:1-8.
- Taylan S, Özkan İ, Çelik GK (2021) Relationship between nursing students' perceptions of clinical instructor caring and their professional behaviors. *Perspectives in Psychiatric Care* 57: 827-835.
- Hisar F, Karadağ A, Kan A (2010) Development of an instrument to measure professional attitudes in nursing students in Turkey. *Nurse Education Today* 30: 726-730.
- Çelik S, Hisar F (2012) The influence of the professionalism behaviour of nurses working in health institutions on job satisfaction. *International journal of nursing practice* 18: 180-187.
- Ciftcioglu G, Alan H, Bekar EO (2019) The Effect of Satisfaction in Implementing Professional Behaviors in Nursing Students. *International Journal of Caring Sciences* 12: 844.
- Poorchangizi B, Borhani F, Abbaszadeh A, Mirzaee M, Farokhzadian J (2019) Professional Values of Nurses and Nursing Students: a comparative study. *BMC medical education* 19: 1-7.
- Parveen S (2016) Acute Shortage of Nursing Professional in Pakistan. *Texila Int J Nurs* 2: 1-6.
- Taylan S, Özkan İ, Çelik GK (2021) Relationship between nursing students' perceptions of clinical instructor caring and their professional behaviors. *Perspectives in Psychiatric Care* 57: 827-835.
- Ozdemir A, Akansel N, Tunk GC (2008) Gender And Career: Female And Male Nursing Students'perceptions Of Male Nursing Role In Turkey. *Health science journal* 2: 153-161.
- Younas A, Sundus A (2018) Experiences of and satisfaction with care provided by male nurses: A convergent mixed-method study of patients in medical surgical units. *Journal of advanced nursing* 74: 2640-2653.
- Kim M (2020) Factors Influencing Nursing Students' Person-Centered Care. *Medicina* 56: 414.
- Takase M, Teraoka S (2011) Development of the holistic nursing competence scale. *Nursing & Health Sciences* 13: 396-403.
- Sortedahl C, Persinger S, Soltzak K, Farrell B, Jaeger N (2017) Essential professional behaviors of nursing students and new nurses: Hospital nurse leader perspectives survey. *Nursing education perspectives* 38: 297-303.



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