Factors Related to Clinical Performance of Nursing Students in Nursing Colleges, Kathmandu, Nepal

ปัจจัยที่เกี่ยวข้องกับการปฏิบัติงานในคลินิกของนักศึกษาพยาบาล วิทยาลัยพยาบาล เมืองกาฐมาณฑุ ประเทศเนปาล

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บทคัดย่อ

การประเมินการปฏิบัติงานในคลินิกของนักศึกษาพยาบาลเป็นสิ่งจำเป็นเพื่อที่จะได้มั่นใจว่านักศึกษาพยาบาลจะเป็นผู้สำเร็จการศึกษาที่มีคุณสมบัติเหมาะสม การศึกษาพบว่ามีปัจจัยหลายอย่างเกี่ยวข้องกับการปฏิบัติงานในคลินิก การวิจัยเชิงพรรณาหาความสัมพันธ์ครั้งนี้มีวัตถุประสงค์เพื่ออธิบายการปฏิบัติงานในคลินิกและเพื่อระบุความสัมพันธ์ระหว่างการปฏิบัติงานในคลินิกกับปัจจัยที่เกี่ยวข้อง ได้แก่ อัตตมโนทัศน์และผลสัมฤทธิ์ทางการเรียนของนักศึกษาพยาบาลในวิทยาลัยพยาบาล กรุงกาฐมาณฑุ ประเทศเนปาล กลุ่มตัวอย่างประกอบด้วยนักศึกษาพยาบาลจำนวน 185 ราย จากวิทยาลัยพยาบาล 12 แห่ง เครื่องมือที่ใช้ในการวิจัยประกอบด้วยแบบวัดการปฏิบัติงานของพยาบาล 6 มิติ (6-D Scale) และเครื่องมือวัดอัตตมโนทัศน์ของวิชาชีพพยาบาล (PSCNI) ซึ่งมีค่าสัมประสิทธิ์สหสัมพันธ์ครอนบาคของแบบวัด 6-D Scale และ PSCNI เท่ากับ .96 และ .84 ตามลำดับ วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนาและค่าสัมประสิทธิ์สหสัมพันธ์แบบลำดับที่ของสเปียร์แมน

ผลการวิจัยพบว่า

1. อัตตมโนทัศน์ตามรับรู้โดยนักศึกษาพยาบาลอยู่ในระดับปานกลาง
2. การปฏิบัติงานในคลินิกตามรับรู้โดยนักศึกษาพยาบาลอยู่ในระดับสูง
3. อัตตมโนทัศน์มีความสัมพันธ์เชิงบวกในระดับปานกลางกับการปฏิบัติงานในคลินิกอย่างมีนัยสำคัญทางสถิติ
4. ผลสัมฤทธิ์ทางการเรียนมีความสัมพันธ์เชิงบวกในระดับต่ำกับการปฏิบัติงานในคลินิกอย่างมีนัยสำคัญทางสถิติ

ผลการศึกษาครั้งนี้สามารถใช้เป็นข้อมูลพื้นฐานสำหรับผู้บริหารสถาบันการศึกษาพยาบาล ในการพัฒนากลยุทธ์เพื่อเพิ่มพูนการปฏิบัติงานในคลินิกของนักศึกษาพยาบาลโดยคำนึงถึงปัจจัยที่เกี่ยวข้อง

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คำสำคัญ : ผลสัมฤทธิ์ทางการเรียน อัตตมโนทัศน์ การปฏิบัติงานในคลินิก นักศึกษาพยาบาล

Abstract

Clinical performance appraisal of nursing students is essential for ensuring that they will be qualified nurse graduates. Several factors were found to be related to clinical performance. This descriptive correlation study aimed to explore clinical performance and to identify the relationship between clinical performance and its related factors, including self concept and academic achievement of nursing students in nursing colleges of Kathmandu, Nepal. The sample consists of 185 nursing students from 12 nursing colleges. Research instruments were the Six Dimension of Nursing Performance Scale (6-D Scale) and the Professional Self Concept Nurse Instrument (PSCNI). The Cronbach's alpha coefficient of the 6-D Scale and the PSCNI were .96 and .84 respectively. Data were analyzed using descriptive statistics and Spearman's Rank-Order correlation coefficient.

The results of the study revealed that:

1. Self concept as perceived by nursing students was at a moderate level.
2. Clinical performance as perceived by nursing students was at a high level.
3. There was a statistically significant positive moderate correlation between self concept and clinical performance.
4. There was a statistically significant positive weak correlation between academic achievement and clinical performance.

Results from this study could be used as baseline information for administrators of nursing institutions in developing strategies to enhance clinical performance of nursing students by considering its related factors.

Key words: Academic achievement, Self concept, Clinical performance, Nursing students

Background and significance of the research problem

Health care organizations today are competing globally. Globalization has created various opportunities along with challenges for local as well as transnational firms (Bureau of Labor Statistics, 2010). Nursing education, as many other fields, has also been undergoing fundamental changes in order to meet the needs of a rapidly changing society in the last decades (Slevin & Lavery, 1991). Nursing education is concerned with the production of skilled practitioners for the health care arena (While, 1991). Clinical education is an essential part of nursing education, which aims at training competent professional nurses and makes up half of the nurses educational period in the training program (as cited in Jahanbin, Badiyepeyma, Sharif, Ghodsbin & Keshavarzi, 2012). For the production of competent nurses,

mastering the skills and knowledge in clinical performance plays an important role (Chan, 2004). Therefore, assessment of nursing students' clinical performance is essential to achieve safe, high-quality, and efficient health care delivery (Mahara, 1998).

Clinical performance and job performance are interchangeable terms. The term was defined as behaviors perceived by nurses of their effectiveness in carrying out their roles and responsibilities related to direct patient care in the clinical setting (Schwirian, 1978). Schiwirian (1978) described six dimensions of clinical performance. Firstly, leadership is defined as the activities in which the individual engages in executing leadership functions regardless of one's specific job title. Secondly, critical care refers to nursing activities associated with the care of very critically ill individuals including the ones that potentially die. Teaching/collaboration, the third dimension, describes behaviors in which nurses teach clients and families as well as those collaborative efforts that involve patients' families and other health professionals who contribute to the client's well-being. Fourth, planning/evaluation refer to the behaviors nurses should have regarding the ability to plan and evaluate nursing care for patients holistically. Interpersonal relationship refers to the nurses' behaviors in the areas of maintaining relationships with clients and colleagues in the health care settings. The sixth dimension is professional development. It refers to the behaviors that are responsible for professional growth and, updating the knowledge and skills that contribute to professional nursing activities.

Based on Schwirian's explanatory model of nursing performance, identification of factors that contribute to the clinical performance of nursing students and nurses is a major concern of those who educate nurses and hire them (Schwirian, 1981). Previous studies found academic achievement, personal characteristics including self concept (Sung & Choi, 2012), educational level (Gede & Lawanson, 2009), and years of experience (Mrayyan & Al-Faouri, 2008) to be some of the factors related to clinical performance of nursing students and nurses. Among these, factors like academic achievement and self concept can possibly affect the clinical performance of nursing students whereas educational level and years of experience are not applicable for a study among nursing students. Schwirian (1981) states that individuals who show higher levels of academic performance also demonstrate better on-the-job performance. Literature review has also shown a relationship between clinical performance and self concept concluding to the assumption that nurses who perceive themselves as having high self concept are likely to perceive a high level of clinical performance (Sung & Choi, 2012). Self concept refers to nurses' perceptions of self-adequacy in their role (Arthur, 1992). Based on the psychology and education model of belief, Arthur (1992) proposed three dimensions of self concept including professional practice, satisfaction, and communication.

In Nepal, there are several challenges in nursing education. According to the_Campus Chief of Lalitpur Nursing Campus (LNC) in Kathmandu, Nepal, there is a significant lack of resources and multimedia equipment in the

nursing schools (Niemczura, 2011b). Also a videoed tour of the "demonstration" rooms within LNC confirmed the need for more up-to-date equipment, mannequins and teaching resources (Niemczura, 2011a; 2011b). Regardless, most of the authoritative power concentrates on other professionals rather than nurses in the medical university and hospitals in Nepal. This has added to the negligence for adequate supply of resources required for providing nursing care (Maxwell & Sinha, 2004). This has barred the students from studying and practicing in those universities and hospitals in performing different nursing procedures.

In a study by Mahat (1998), 48% of the students reported that they experienced stress in performing their assigned roles because of inadequate preparation before the posting, with 20% stating that they had fear of failing and, 8% having fear of harming the patient. It is being reported that despite hard work and better achievements in performance, nurses who graduate from BScN programs encounter other hindering factors that affect their performance while they work as a nurse (Shaehon, 2013). Evidencing to this, a preliminary survey was done by the researcher, among 30 graduates of a BScN program to assess the status of their employment, which reported that most of them had spent three months without any job after their graduation. According to a hospital administrator in Nepal, diploma graduates are preferred to BScN graduates.

This shows that the nursing students are faced difficulties in performing their assigned roles for their fulfillment of their coursework. The sociocultural context, the differences in curriculum, and the environment under which learning is taking place may not be the same in developing countries like Nepal. In this study, the nursing colleges involved were all private institutions of Kathmandu, Nepal. The issues in the private colleges included inadequate clinical learning resources, difficulties in performing assigned roles, and inadequate preparation before the posting (Adhikari, 2008). There are no published studies found in Nepal that examined the factors related to clinical performance of nursing students. Therefore, this study aimed to determine the levels of self concept and clinical performance. It also examined the relationships between self concept, academic achievement, and clinical performance among nursing students in nursing colleges in Kathmandu, Nepal.

Research Objectives

This study aimed to describe self concept and clinical performance, and to explore the relationship between self concept and clinical performance and the relationship between academic achievement and clinical performance of nursing students in nursing colleges, Kathmandu, Nepal.

Conceptual framework

The conceptual framework of the study is based on the concept of job performance, developed by Schwirian (1978) and literature review. Job performance or clinical performance was defined as behaviors perceived by nursing students of their effectiveness in carrying out their roles and responsibilities related to direct patient care in the clinical setting. Factors

related to clinical performance included 1) academic achievement and 2) self concept. Individuals who showed higher levels of academic performance also demonstrated better job performance. Moreover, when perception of self concept was high, the level of clinical performance was also high. The relationships between these two factors and clinical performance were explored in this study.

Methodology

Population and sample

This descriptive correlational study was designed to study a population of 300 nursing students who were studying in twelve nursing colleges in Kathmandu. The sample size was 185 nursing students which was based on Yamane (1973). Proportional random sampling was used to determine number of nursing students from each nursing college, but subjects were selected by simple random sampling from each college using a sampling frame. The inclusion criteria were nursing students who were studying in those nursing colleges, present at the time of data collection, and willing to participate in the study.

Research instruments

The questionnaire included four parts. The first part was a demographic questionnaire which consisted of five items including age, gender, residence, occupation of father, and occupation of mother. Second, the Academic Score Record Form consisted of the summative academic scores in percentage of their 3rd year course. Third, the Professional Self Concept Nurse Instrument (PSCNI) developed by Arthur (1992) was composed of 27 items in three subscales. The subscales were applied to each item by agreeing or disagreeing on a 4-point Likert scale rated from '1= disagree' to '4= agree'. Items 19, 35, 42, and 49 were reverse coded. The mean overall score was interpreted as 1.00-2.00 (low self concept), 2.01-3.00 (moderate self concept), and 3.01-4.00 (high self concept) (Arthur, 1992). The results were interpreted such that higher scores implied a higher level of perception of self adequacy in their role, which causes positive self concept. On the other hand, low scores indicated a lower level of perception of self adequacy in the role, which may have a perception of negative self concept. Fourth, the Six Dimension Scale of Nursing Performance (6-D scale) by Schwirian (1978) was used. It consisted of six dimensions with 52 items. The scale used a 4-point likert scale rated as follows: 1 = not very well, 2 = satisfactory, 3 = well and 4 = very well. The overall scoring and interpretation of the level of clinical performance was classified as follows: 52.00-104.00 (low level), 104.01-156.00 (moderate level), and 156.01-208.00 (high level). Higher scores indicated stronger perceptions of behaviors of their effectiveness in carrying out their roles and responsibilities related to direct patient care in the clinical setting. The reliability of the PSCNI and the 6-D scale were .84 and .96, respectively.

Ethical considerations

The study was approved by the Research Ethics Review Committee, the Faculty of Nursing, Chiang Mai University and the respective principals of the nursing colleges in the study. The participants were informed of the purpose

of the study and methods of data collection. They were given a consent form to sign to ensure human rights protection. The participants were also informed that they were free to withdraw from the study without any consequences. Their anonymity and confidentiality were maintained throughout, and the information they provided were used only in the study.

Data collection

After ethical approval was obtained from the hospitals, the researcher met the principals of the nursing colleges, who were also requested to officially inform all the nursing students about the study. The questionnaires were distributed by the coordinator in each nursing college appointed by the principal. The subjects were asked to return the sealed envelopes with questionnaires within two weeks. Data were collected between February, 2014 and March, 2014.

Data analysis

Data were analyzed by computer program SPSS13.0. Descriptive statistics were used to describe the sample characteristics. The analysis of self concept, academic achievement and clinical performance were conducted in terms of frequency, percentage, mean, and standard deviation. Normality testing by Kolmogorov-Smirnov showed the data for clinical performance were not normally distributed; therefore the Spearman rank-order correlation test was used to examine the relationships between clinical performance and self concept as well as between clinical performance and academic achievement among nursing students.

Results

Demographic characteristics

The subjects were 185 nursing students from twelve nursing colleges in Kathmandu. Demographic characteristics of the subjects are shown in Table 1. All of the subjects were female (100%) and the range of age of the subjects was 20-25, ($\bar{x}$ = 21.56 years, S.D. =1.39). The majority of the respondents (64.86%) resided outside the campus area. Most of the subjects' fathers (38.94%) were involved in business whereas most of their mothers (40.24%) held government jobs. Majority of the respondents (37.30%) had academic scores between 60% to 70%.

Self concept of the subjects

The level of overall self concept as perceived by the nursing students was at a moderate level ($\bar{x}$= 2.33; S.D. = 0.52). Two dimensions of self concept including professional practice and satisfaction were at moderate levels whereas the dimension of communication was at a low level (Table 2).

Table 1 Frequency and Percentage of the Subjects Categorized by Demographic Characteristics (n=185)

Characteristics	Frequency	Percantage(%)
Age(years) ($\bar{x}$= 21.56, S.D.= 1.39; Range =20-25 years)		
20-22	143	77.29
23-25	42	22.71
Gender		
Female	185	100
Residence		
College hostel	65	35.14
Outside college area	120	64.86
Occupation of father		
Business	72	38.94
Government officer	49	26.48
Farmer	17	9.18
Others (teacher, army, medical personnel)	47	25.40
Occupation of mother		
Business	21	32.67
Government officer	19	40.24
Housewife	122	14.66
Others (teacher, beautician)	23	12.43
Academic achievement (Range =60.00-88.00%)		
50.01-60.00%	9	4.90
60.01-70.00%	69	37.30
70.01-80.00%	68	36.80
80.01-90.00%	39	21.00

Table 2 Mean, Standard Deviation and the Level of Overall and Each Dimension of Self Concept as Perceived by the Subjects (n = 185)

Self concept	Range	Mean	S.D.	Level
Overall	1.00-3.00	2.33	0.52	Moderate
Professional practice	1.00-3.00	2.65	0.51	Moderate
Satisfaction	1.00-3.00	2.50	0.60	Moderate
Communication	1.00-3.00	1.67	0.63	Low

Clinical performance of the subjects

The level of overall clinical performance was at a high level ($\bar{x}$ = 162.02; S.D. = 22.60). The levels of its two dimensions leadership and critical care were at moderate levels while the other dimensions teaching, planning/evaluation, interpersonal relationship, and professional development were at high levels (Table 3).

Table 3 Mean, Standard Deviation, and Level of Overall and each Dimension of Clinical Performance as Perceived by Subjects (n = 185)

Clinical Performance	Range	$\bar{x}$	S.D.	Level
Overall	95.00-208.00	162.02	22.60	High
Leadership	8.00-20.00	14.75	2.73	Moderate
Critical care	11.00-28.00	20.7	4.05	Moderate
Teaching	18.00-44.00	34.23	5.50	High
Planning/evaluation	9.00-28.00	22.21	4.02	High
Interpersonal relationship	22.00-48.00	38.98	6.35	High
Professional development	14.00-40.00	31.03	5.19	High

The relationship between self concept and clinical performance; academic achievement and clinical performance

The results of the Spearman rank-order correlation test showed that the relationship between self concept and clinical performance as well as academic achievement and clinical performance were statistically significant (Table 4). There was a moderate positive correlation between self concept and clinical performance (r = .323, $p < 0.01$). There was a low positive correlation between academic achievement and clinical performance (r = .153, $p < 0.05$).

Table 4 Relationships between clinical performance and self concept of the subjects (n = 185)

	Clinical Performance
	r
Self Concept	0.323**
Academic achievement	0.153*

*$p < 0.05$,

** $p < 0.01$

Discussion

Self Concept

This study found that self concept as perceived by the subjects in the nursing colleges, Kathmandu, Nepal was at a moderate level ($\bar{X}$ = 2.33, S.D. = 0.52). The previous study by Sung and Choi (2012) reports the same finding with moderate self concept among nurses. According

to Arthur and Thorne (1998), positive self concept can be obtained by a person who functions at a higher level utilizing their optimal learning experiences. The nursing students perceived a moderate level of self adequacy in their role. They perceived some positive self concept and some negative self concept. A possible explanation for the subjects perceiving a positive self concept in this study could be that they were from a BScN program. In Nepal, this program was started in response to the trends in international nursing education (Adhikari, 2010). The curriculum incorporates four years duration covering a wide spectrum of theoretical and clinical exposures. Nursing students practice and learn nursing skills repeatedly all four years in different areas of theoretical and clinical nursing science. According to Strasen (1989) devoting time and effort in developing skills poses one to develop self confidence, hence leading to positive self concept (as cited in Arthur, 1995). The subjects perceiving some negative self concept may be due to the fact that the hospitals in Nepal paid high respect to the physicians in every aspects but the nursing profession is not given much respect compared to all other health professionals. This culture and structure causes low self esteem among nursing students which is highly prevalent in Nepalese hospitals (Rashmi, 2010).

Two dimensions of self concept including, professional practice and satisfaction, were perceived by the subjects at moderate levels. A possible explanation for the subjects perceiving significant moderate level of self adequacy in their nursing skills, leadership and flexibility might be their continuous clinical practice throughout the duration of their four year program. stated that clinical practice aims to prepare the students to gain professional abilities by expanding their knowledge and improving nursing skills. The students are constantly exposed to clinical practice beginning in the first year of the course (Adhikari, 2010). During clinical postings of the entire four year course, they practice nursing procedures, leadership skills, making the most of all situations, being innovative and adaptable. All of these skills probably develop their self adequacy in these roles. Also the majority of the subjects' responded (51.89%) positively to "Competency is one of my attributes" and 48.64% of the subjects agreed in "I pride myself on my skills as a nurse". These results show that they perceived a significant level of self adequacy in their professional practice (Appendix J1).

On the other hand, in spite of having the knowledge and skills to perform well, the nursing colleges and hospitals where they practice lack most of the equipment for some procedures. Scarcity of resources in the workplace is one of the major obstacles in providing nursing care in Nepal (K.C., 2003). Most of the government hospitals and nursing colleges have poor physical facilities and lack of equipment/ supplies (Ministry of Health and Population, 2012). Although the nursing students prepare and plan for care, they are deprived of implementing it (Mehta & Chaudhary, 2005).

The dimension of satisfaction was at a moderate level. A possible explanation is that the nursing students in these nursing colleges perceived that they enjoyed their work

environment, and felt content with the work they performed. The "Nursing is a rewarding career" item was agreed with by 52.97% of the subjects showing that they felt content in performing the role as a nurse in the ward. Additionally, "I think I will continue in nursing for most of my working life" item with 51.25% agreeing implies that they enjoyed their work environment (Appendix J1). In Nepal, nursing is an attractive profession in regards to demand because of high opportunity for employment compared to other professions for females (Rashmi, 2010). This probably made them feel satisfied and they enjoy their role as a nurse.

On the other hand, Arthur (1991) explained that many people starting their career in nursing have an idealistic vision of life in the hospital. Nursing students generally have expectations about the profession without workloads and are only found considering the easy access for the job and earning at a young age. However, after performing the professional duties of nursing and practicing different nursing procedures, they become dissatisfied. Most of the subjects (52.41%) agreed in the " Nursing is less satisfying than I thought it would be" item and the " I feel trapped as a nurse" item was agreed with by 50.81% showing that they perceived themselves as being not very satisfied by joining nursing (Appendix J1).

A low level of communication was perceived by the subjects. The nursing students studying in the private nursing college practice their clinical subjects mostly in the private hospitals. The patients that are admitted in a private hospital are generally found to be from a well-to-do family, and they aspire for the facilities of the hospital with good nursing care. In order to provide good nursing care, communication with the patient for better understanding of disease condition is very important (Suikkala & Leino-Kilpi, 2005). As they are students they were most likely reluctant to communicate to those patients and felt that they are not skillful and not able to fulfill their expectations so they were found to be practicing communication less. The "I prefer a barrier between me and my patients" item with a majority (56.75%) of subjects agreeing on it clarifies it (Appendix J1).

Clinical Performance

This study found that the clinical performance perceived by the participants in the nursing colleges was at a high level ($\overline{X}$ = 134.05, S.D. = 26.82) (Table 3). This finding is inconsistent with the findings by Beauvais et al, (2011) that found a moderate level among nursing students in the USA. Also the studies by Yuxiu, (2010) in China and Lieu, (2013) in Vietnam in which nurses made up their samples found a moderate level of clinical performance. In this study, the nursing students perceived a high level of effectiveness in carrying out their roles and responsibilities related to direct patient care in the clinical setting.

A reasonable explanation for the nursing students' perception of high level of clinical performance in these nursing colleges is that they are private institutions which necessitate adequate exposure as these institutions are expected to provide high quality educational service; therefore, the clinical hours allocated for students' practice are usually met (Adhikari, 2008). The adequacy in exposure results in

increasing the frequency of the nursing performance of the students. The students frequently perform clinical performance in different wards for various clinical subjects from the first year to the fourth year of the nursing course. It is seen that among fourth year nursing students, about 3035 hours of their clinical skills during their postings are spent in the hospital wards (Nepal Nursing Council, 2011).

In addition, family background has a direct effect on nursing performance (Schwirian, 1978). In terms of the occupation of father and mother, as the majority of fathers were in business (38.1%) and in government (26.48%) while 40.24% of the subject's mothers were working in government offices and 32.64% in business. This shows that most of the subjects' parents were educated and employed which contributes to better performance (Table 1). This helped in providing all the necessary resources required for education, which assisted in developing the skills and performance efficiently.

Two dimensions of clinical performance, leadership and critical care, were at moderate levels. The nursing students perceived significant moderate leadership behaviors that they perform in spite of their specific job title. A possible explanation may be that the fourth year nursing students are expected to perform different roles, they should be leaders for the junior students and also team members for the fulfillment of the clinical practicum coursework (Nepal Nursing Council, 2012). The fourth year students bear the responsibility to assign duties to the junior nursing students of first year and second year students practicing in the same ward. During the leadership practicum, they are appointed as the team leaders in which they assign the patients to the fellow students working under them. They also guide their juniors in formulating nursing care plan prior to implementing it. They are responsible in performing evaluations of the nursing activities done in their supervision and provide necessary feedbacks where they praise and encourage the junior nursing students. The items like "Guide other health team members in planning for nursing care with majority (54.5%) of the participants perceive that they perform well illustrates it (Appendix J1).

However, they are nursing students so they are sometimes seen to be lagging behind in executing their leadership roles such as decision making and problem solving. The majority of the subjects (48.64%) were found to perceive a satisfactory performance in the "Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health care personnel" item (Appendix J1).

The critical care dimension was at a moderate level. A reasonable explanation is that, according to a nursing instructor, during the clinical practicum of the nursing students, they were mostly exposed to medical and surgical units. These wards have their high care unit with instruments like suction machines and cardiac monitors for the critically ill patients before they are transferred to the ICU for further treatment. In this context, the students frequently got an opportunity to practice critical care nursing even though they have limited clinical hours for their practice in the intensive care units.However, intensive care units are facilitated with advanced

instruments like ventilators. These units treat critically ill patients with life-threatening conditions, which require advanced nursing skills of a professional nurse (Mehta & Chaudhary, 2005). The nursing students are assigned only a few hours for their practice in such units. Therefore, the students have limited opportunity to use advanced technologies. Possibly because of these limitations they perceive satisfactory level of performance in these activities.

The other dimensions, teaching, planning/ evaluation, interpersonal relationship and professional development, were perceived at a high level. A possible explanation is that there are fifteen clinical subjects in which the nursing students have to meet the criteria of providing teaching to the patients and caregivers. They conduct health teaching in each clinical posting throughout four years. According to nursing principal of a nursing college, the students also performed professional teaching practice for the duration of one month during their practicum course for the educational science course .The "Teaches patient's family members about the patient's needs" item had 45.40% of the subjects responding that they performed it well, and the "Encourage the family to participate in the care of the patient" item with 56.75% shows that because of the private hospitals' provision of room-in facilities for the caregivers, the nursing students were adequately practicing teaching skills (Appendix J1).

Another explanation is that the nursing colleges collaborated with different hospitals for students' clinical practicum (Nepal Nursing Council, 2012). While practicing in these wards, they are supposed to formulate nursing care plans and evaluate for every patients assigned to them following the four steps of nursing process (Adhikari, 2008). The majority of subjects (44.32%) perceived that they performed the planning skills well, which is shown from the response in the "Identify and include immediate patient needs in the plan of nursing care" item and "Develop a plan of nursing care for the patient" item with 48.64% responding that they performed it very well (Appendix J1).

The interpersonal dimension was at a high level. A possible explanation is that the students regarded staff nurses as their mentors while working in the wards (Thakur, 1999). They are also encouraged to participate in the nursing and physician rounds taking place during their shifts. During their clinical, as they practice the laboratory investigations, they also interact with the lab staffs. In addition to this, they performed health teaching to the patients and caregivers (Shaehon, 2013).

A reasonable explanation is that, the curriculum of the fourth year includes a practicum that required the students to provide in-service education to the working staffs and their juniors during their leadership and management practicum in the 4th year as stated by a nursing principal (Scheer Memorial Nursing College). During this practice, they prepare lesson plans about the contents they will be teaching and practice all the principles of professional teaching like encouraging the students for discussion and brainstorming, evaluating the students' performance and receiving feedbacks as well. Along with this, their response in "Demonstrate knowledge of the legal boundaries of nursing with 55.13% item,

and "Demonstrate knowledge in the ethics of nursing" item with 50.27% perceiving that they perform well shows that the students are preparing towards their professional role as they are practicing the theoretical and practicum courses during their coursework itself (Appendix J1).

Relationship between Self Concept and Clinical Performance

The results showed that there was a significant moderate positive correlation between self concept and clinical performance ($r = 0.323$, $p < 0.01$) (Table 6). Based on the explanatory model of nursing performance (Schwirian, 1981), self concept has been found to be one of the factors related to nursing performance. When perception of self concept is high, the level of clinical performance is also high.

The nursing students of the fourth year practice clinical nursing skills from their first year to the fourth year of the nursing course. They perform different nursing procedures in about 15 clinical subjects from the 1st year to the 4th year (Adhikari, 2010). It includes practice and theory in fundamental nursing skills of procedures like oral care, back care, patient teaching and administration of medicines. These procedures are repeatedly conducted during each clinical posting until their 4th year. According to Strasen (1989) devoting time and effort in developing skills poses one to develop self confidence hence leading to positive self concept (as cited in Arthur, 1995). The frequency with which they perform the procedure contributes towards developing self confidence in them. Positive self concept is acquired when the nursing students perceive self adequacy or self confidence in their roles (Arthur, 1992). Consequently, the students develop positive self concept in the roles they perform during their practice. As the perception of high self concept directs to high level of clinical performance, the students gradually develop perceptions of high clinical performance.

4. Relationship between Academic Achievement and Clinical Performance

The results showed that academic achievement had significant low positive correlation with clinical performance ($r = 0.153$, $p < 0.05$). However, no studies were found that studied the relationship between academic achievements, but according to Schwirian (1981), individuals who show higher levels of academic performance also demonstrate better on-the-job performance.

This result can be explained by the fact that during the coursework of the nursing program, the curriculum demands that nursing students obtain the allocated percentage of scores in clinical as well as theoretical subjects in order to be promoted to the succeeding year (Nepal Nursing Council, 2012). The overall score of final achievement of an academic year includes the scores in theoretical and clinical aspects as well, so the student obtaining a higher percentage depicts better scores in clinical performance, as it is also incorporated in the final score.

Conclusion

The level of self concept was at a moderate level while clinical performance as perceived by the nursing students was at a high level. The study revealed statistical significant

relationships between self concept and clinical performance and between academic achievement and clinical performance.

Implications

This study can provide basic information regarding the levels of the clinical performance and related factors including self concept and academic achievement in nursing colleges of Kathmandu, Nepal. Nursing colleges, hospitals, and nursing administrators can use this information to improve the critical care, leadership under clinical performance, and communication under self concept of nursing students. The results have important implications in both nursing education and practice. To improve the students' practice in using advanced technologies for critical care nursing, the college administration should provide more facilities in nursing colleges with well-equipped laboratories and demonstration rooms so that the nursing students can improve their skills before they are exposed to patients and will also have opportunities to practice in their leisure hours. To develop leadership skills, nurse educators should organize workshops and training programs on developing the students more basically and coherently in leadership while they are posted in the hospital. For improving the communication skills, the nurse educators can put effort on managing the clinical postings in government hospitals as the students will have adequate exposure and opportunity to practice. Nurse educators should facilitate nursing curriculum to incorporate self concept to improve the clinical by conducting training and workshops on development of self concept as it has an impact on performance.

Recommendations

Based on the study findings, recommendations are; a study can be conducted to explore other factors related to clinical performance between different levels of nursing education.

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