Carees Trends of Nursing Students in the Context of Career Preference planning

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Abstract:

Objective: To find the career preferences of the selected group of students - nurses of the Master's study program Nursing.
Respondents and methodology: The data were collected in the months of September-October 2022. The selection of respondents was intentional, the conditions for inclusion in the study were consent to anonymous filling in of the questionnaire, performance of the profession of a nurse, current study in the Master's degree Nursing program. A total number of 155 respondents took part in the survey. The collected data were processed with the aid of non-parametric statistical tests.
Results: The average age of the nurses in our group was 27.7 years, and the average number of years of experience was 4.8

years. Almost 43.2% of nurses want to stay working in clinical practice; 38.7% of nurses are interested in a managerial position; 18% want to work as a teacher. Nurses are not interested in research in nursing. Within the career trends in nursing, the most preferred post was the school nurse. There was no statistically significant difference in the age of the respondents according to their field of career (p=0.41) or according to their preference of application (p=0.36). The perception of managerial and pedagogical skills of the respondents did not correlate with age or length of experience.

Conclusion: Nursing students' career preferences change as they progress through their training: nursing career planning and management; career growth increase job satisfaction; provision of quality and safe nursing care. The students of the study program Nursing show great ambivalence in their ideas about their future career. This opens wide possibilities for educators, managers, mentors, and nurses in practice to significantly positively influence and formation the career preferences of students.

Introduction

Depending heavily on information and knowledge, the organizations of today are required to have sound human resource management systems in place. Organizations need to invest in employee training and development for a multitude of reasons. First, the workforce needs to be trained and developed because of new knowledge. Second, the rapid pace of innovation is making employees' knowledge and skills obsolete. Next, healthcare facilities undergo frequent organizational changes and/or technological enhancements. In addition, their external and internal environments are changing and so is the nature of work. Last but not least, more focus is placed on customers, efficiency, economy, and flexibility (1). A career can be defined as a person's professional path, during which s/he gains experience, develops his or her competences and potential. One's career can go up, down or stagnating. Individuals gain experience over their time at work. Career management in nursing is to enable employees to grow with respect to their potential and the needs of the organization (2;3). In the context of a global shortage of nurses, it will be necessary to know the future career choices of nursing students to: modify curricula; educational content; strategic human resource planning; recruitment; rotations; promotions (4). Career management is a system to: improve performance; professionalism; field-based compe-

tency and job satisfaction. The success of a career depends on the nurse's participation in clinical decision making; the ability to define short-term and long-term goals; the ability to manage proactively his or her nursing career (5). Hefferin, Kleinecht developed the Nursing Career Preference Inventory (NCPI) as early as 1986 to assist nurses in determining which of the 4 nursing practice areas - clinical, administration, research, or education – are most reflective of their personal interests and preferences, and which of the 14 nursing role positions (e.g. bedside nurses, nursing managers, community nurses, etc.) most often encompass the preferred work activity pattern. The authors recommend that the NCPI tool be used to place new as well as experienced nurses by job-related activities, into a wide range of nursing positions and to assist nurses in planning their goal-oriented career paths (6).

"Training and developing employees are among the key functions of human resource management"

(1, p. 279). Employee development focuses on the employee's job-related future potential and career growth. In addition to career and succession planning Organizations must also focus on developing future leaders as part of career and succession planning; select employees with the potential to make a significant impact on the future of the organization. Career management in nursing can-

not be performed successfully without being aware of the personnel management trends. Nursing career managers bring many benefits to organizations: such as a better use of nurses' potential; higher motivation; engagement; loyalty; and/or focus on further development. Thus, healthcare facilities are turning into organizations which are more appealing to prospective employees, with lower turnover and absenteeism rates, and more attractive employer's brand and image (1).

Aim of the research

To find career preferences of student nurses in the Master's Nursing program.

Table 1 Relationship between age & nursing practice area

Nursing Practice Area	N	$\overline{x}$	Sd	x_m	min.	max.	p
Clinical	67	26.4	6.7	23.0	20	46	0.41
Administration	60	28.9	10.0	24.0	21	59	
Education	28	28.4	8.6	24.0	22	53	
Total age*	155	27.7	8.5	24	20	59	-

Legend: n – number, $\overline{x}$ – mean, sd – standard deviation, x_m – median, min. – minimum value, max. – maximum value, p – probability value of the Kruskal-Wallis test. * - information to complement age-related basic parameters in the sample

Table 2 Relationship between the years of experience & the preferred nursing area

Nursing Practice Area	N	$\overline{x}$	Sd	xm	min.	max.	p
Clinical	66**	3.2	5.1	1.0	0	27	
Administration	60	6.6	10.3	2	0	40	0.36
Education	28	5.1	8.1	1	0	35	
Years of Experience*	154**	4.9	8.1	1.5	0	40	-

Legend: n – number, $\overline{x}$ – mean, sd – standard deviation, xm – median, min. – minimum value, max. – maximum value, p – probability value of the Kruskal-Wallis test. * - information to complement basic parameters related to the years of experience in the entire set of data, **- no answer by one respondent.

Table 3 Correlation between the self-perception of one's managerial/teaching skills & age

Age versus	N	R	95% C.I.	p
Managerial skills	155	0.11	-0.06 – 0.27	0.18
Teaching skills	154*	-0.02	-0.18 – 0.14	0.78

Legend: n – number, R – Spearman correlation coefficient, C.I. – 95% confidence interval of the correlation coefficient, p – probability value of significance of the correlation coefficient difference from zero, *- no answer by one respondent.

Table 4 Correlation between the self-perception of one's managerial/teaching skills & years of experience

Years of experience versus	n	R	95% C.I.	p
Managerial skills	154	0.15	-0.01 – 0.31	0.06
Teaching skills	153	-0.04	-0.20 – 0.12	0.58

Legend: n – number, R – Spearman correlation coefficient, C.I. – 95% confidence interval of the correlation coefficient, p – probability value of significance of the correlation coefficient difference from zero, *- missing answers from respondents.

Sample and Methods

A questionnaire designed by the authors was employed to collect data. The respondents were 155 Master's degree students in Nursing at TnUAD Trenčín and the University of Prešov. A selective sampling technique was used to collect the data. The data were gathered in the months of September/October 2022. The respondents were those who gave a consent to fill in an anonymous questionnaire, work as nurses, and are currently studying the Master's degree program in Nursing. Statistical analyses were conducted using InStat, ver. 3.02 (GraphPad Software, Inc., 1992-1998).

To describe the characteristics of the data set, descriptive statistics was used, such as number, measures of central tendency (mean, median), standard deviation, and range given by the minimum and maximum values observed. The Kruskal-Wallis non-parametric test was used to compare variables between more than 2 categories. If the p-value of the test criterion was less than 0.05, the differences found were not considered to be causally related to the phenomenon observed. The strength of association between variables was tested using the non-parametric Spearman's rank correlation coefficient, while providing 95% confidence intervals and the p-value of the test criterion for the difference of the observed coefficient from the null value.

Results

Mean age of the sample was 27.74 years with 4.8 mean number of years of experience. 77.2% of nurses work in inpatient: 22.8% work in outpatient health facilities. The nurses who participated in the study reported their current nursing role by the Nursing Career Preference Inventory (NCPI).

The study attempted to find whether there is a relationship between the nurses' age, years of experience and their preferred area of practice (Table 1, Table 2). The results indicate there is no significant relationship between age, years of experience and the choice of the nursing practice area.

In the next 2 questionnaire items, respondents were asked to rate their managerial and teaching skills on a scale of 1 (very weak) to 10 (very strong) skills. The average value of managerial skills was $\bar{x} = 5.89$; the average value of teaching skills was $\bar{x} = 5.92$. The latter may imply nurses over rating their teaching skills. Given the nature of the data (ten-point ordinal scale, absence of continuous data), however, it must be asserted that the medians of the 2 parameters were almost identical ($x_m = 6,00$). Therefore, from a mathematical point of view, this assumption cannot be hard and fast verified. Next, the level of skills was correlated with nurses' age and number of years of experience (Table 3, Table 4).

It follows from the data that the subjective perception of nurses' managerial and teaching skills does not depend on age and years of experience. Table 5 compares the four positions by career trends and the respective subjective perception of managerial and teaching skills. An interesting piece of finding was the lowest perception

Table 5 Differences between career trend & self-perception of skills

Skills	Category	n	$\bar{x}$	sd	xm	min.	max.	p
Administrative	1	23	6.3	1.3	6.0	5	9	0.06
	2	32	6.3	2.1	7.0	0	10	
	4	53	5.4	2.0	5.0	1	9	
	5	21	6.5	1.5	7.0	3	9	
Teaching	1	23	6.3	1.7	6.0	3	9	0.77
	2	32	5.9	1.9	6.0	1	9	
	4	53	5.9	2.0	6.0	1	9	
	5	21	6.3	1.7	6.0	4	9	

Legend: n – number, $\bar{x}$ – mean, sd – standard deviation, xm – median, min. – minimum value, max. – maximum value, p – probability value of the Kruskal-Wallis test. Categories: 1- nurse – forensic expert in nursing; 2-case manager, 4-school nurse; 5-nurse specialist prescribing drugs and medical aids.

of management skills in those respondents who would like to work as school nurses after they graduate (x_m=5.0, Table 5). At the same time, the level of statistical significance of differences in managerial skills between nurses broken down by the category of interest is in the range of marginal statistical significance (p=0.06), i.e. close to the 0.05 threshold value. Although the difference is not significant in terms of formal statistics, it needs to be verified with more respondents in the future. There is namely no reason for school nurses to have lower perception of their managerial knowledge as there are no selection factors known in this sector that would cause this kind of shift.

Discussion

77.2% of nurses work in inpatient; 22.8% in outpatient health facilities. The mean age of the sample was 27.74 years with 4.8 mean number of years of experience. First, it was found whether the nurses work in the clinical, administration, education or research nursing area of practice and what area they would like to work after getting their Master's degree. 91% of nurses said they were currently working in clinical practice; 7.1% work in administration; 2 respondents were teachers. Nurses are not interested in the area of research. 43.2% of nurses want to remain working in clinical practice; 38.7% would like to work in administration; 18% would like to teach in the future. Similar findings were published by Jyoti et al. (7) who assessed the career preference of 168 final year B.Sc. Nursing students. In their study, 56.5% of students preferred their career as a staff nurse; 38.7% students preferred their career as a clinical instructor; 27.3% mentioned community health nursing; 5.3% mentioned management in nursing; nurse researcher; home nursing; 3.5 % of students mentioned school health nursing. 60.1% of students selected nursing course as per their own choice because they perceived their personality characteristics as suited to this profession and the rest of the students were mainly influenced into starting nursing career by parents and/or relatives rather than personal choice.

Similar outcomes were published in 2 Turkish studies. In their descriptive study, Aydin et al. (8) attempted to define the plans for professional work in the field of nursing in 2,818 senior nursing students from 27 Schools of Nursing from different geographical regions of Turkey. The Questionnaire for Career Planning and Affecting Factors was used to collect the data. 72.7% of students wanted to work as a nurse after graduation. 32.6% of students wanted to work in the operating room and the acute care units (30.4%) after the graduation. 39.6% of students preferred to work as bedside nurses, 34.1% as academicians and 20.6 % as nurse managers. 59.2% of students see themselves as nurses in the next 5 years; 31.7 % of them see themselves as academics in the next 10 years. The aim of the study conducted by Balyaci, Özsov (9) was to describe nursing students' attitudes and knowledge toward career planning in Turkey. Out of 157 respondents, 53.7% want to work as a hospital staff nurse; an education nurse (31.5%); academician at a university (26.2%); head nurse (22.8 %); school nurse (8.7%). Only 44.3% of nursing students had career planning knowledge.

In a cross-sectional study, Ratislavová, Kravcová (10) examined the orientation of 193 nursing students to professional expertise using the Nursing Orientation Tool with 17 statements rated on a Likert scale. 74.6% of the respondents wanted to remain working as nurses. The authors in their sample in the Czech Republic claim: 25% of students in the UK; 45% in Australia; 45% in Canada; 50% in the USA; 25.4% drop out of nursing or opt for a career outside nursing.

Globally, health systems have been facing a shortage of qualified nursing staff at all levels. It is therefore desirable for management to be concerned with career planning and tracking career trends to provide availability and quality nursing care. In addition, Ratislavová, Kravcová (10) assessed the relationship between age and occupational proficiency to find it not to be statistically significant.

The present survey was to find which of the 8 nursing positions preferred were the most appealing to nurses and why. It was found that 31% of the students would like to work as specialist nurses (interest in working in an operating theatre); 22% as nurse managers (they want to change the style of managing people); 18.7% as bedside nurses (the most frequent responses were that they find this job rewarding, enjoy working with people and want to acquire practical skills), 12.2 % as teachers (passing on their knowledge

and experience); 10% would like to work in outpatient care centers (the advantage of not working night shifts).

The respondents found the least appealing the following 3 positions: a licensed independent practice nurse (*n*=6); a community health nurse (*n*=3); a nurse researcher (*n*=1). Career preferences and related factors among nursing students were investigated by Hsu et al. (2022) in a cross-sectional study involving 217 respondents. The most favorite career preferences among nursing students were community health nursing; pediatric nursing; medical surgical nursing.

The least career preferences among nursing students were oncology and hospice nursing; mental health nursing; ER nursing. The authors assessed the correlation between age and career preference. Senior nursing students preferred working in community health nursing and junior female nursing students preferred working in pediatric nursing. Consistent with our results, the study indicated that the students chose to work as hospital nurses after graduation to expand their knowledge and acquire skills. Kubicová, Miklovičová (11) conducted a survey among 96 students of SZU in Bratislava and KU in Ružomberok. The students were mainly interested in working in surgical departments, community care and pediatric wards.

The respondents were given 7 nursing positions under the nursing career trends (12;13;14;15). The ranking of career trends was made after having analyzed the responses; 34.2% of nurses prefer working as a school nurse. The fact may be attributed to the information about the creation of such a position in the media. 20.6% of nurses would like to work as a case manager. The positions of case managers were first set up at Bory Hospital in Bratislava. 15% of nurses would like to work as a forensic nurse examiner. Nursing as an expert discipline is regulated by the Decree of the Ministry of Justice of the Slovak Republic No. 228/2018 Coll. by which Act No. 382/2004 Coll. on Experts, Interpreters and Translators, as amended is implemented (16). 48 27 00 Nursing is listed among expert disciplines and branches. The field deals with averting complications that could arise from the improper provision of nursing care. Focus is placed on a person, family and community in health and sickness. A registered expert in the field evaluates proper delivery of nursing care to patients in a variety of health care disciplines. The next preferred career trend is that of a nurse specialist prescribing drugs and medical aids. 13.5% of respondents would like to work as nurse specialists. The results may be related to a new competence of nurses, which is the competence of indicating and prescribing medical aids related to the provision of nursing care pursuant to Article 119a of the Act No. 362/2011 Coll. on Medicinal Products and Medical Devices. 7.7% of respondents would like to work as a specialist nurse in multicultural nursing. 5% would like to work as a legal nurse. In our opinion, the low interest can be attributed to poor legal awareness of nurses. Only 2 respondents would be interested in working as a nurse specialist in informatics.

Conclusion

Nurses, graduate nurses as well as nursing students, have many career options. Experience shows that some of the nursing fields, departments, positions are more appealing than others. Those preferred ones have enough job applicants and are staffed adequately; less appealing ones have long been struggling to find qualified employees. Career management is an effective strategy for providing nurses with a clear direction and realistic timeline to achieve their career goals. Career development is not only the responsibility of an organization but also the responsibility of individuals to develop themselves and their careers (5). The survey outcomes provide valuable information to educational institutions, teachers, and policymakers. The identified nurses' career trends and preferences can be used: to stimulate interest in studying nursing; to support key strategies; to address gender stigma; to promote career advancement in the nursing profession. Having considered one's own experience and assessed the survey results, it may be concluded that only a small number of nursing students in the Master's degree program have a clear idea of their future career. Therefore, it is advisable to review continuously the curriculum to reflect the needs and preferences of nursing students; make modifications; develop strategies that would provide a realistic guidance for nurses' career plans in the clinical setting while considering generational theories.

Acknowledgement

Research limitations

The limiting factor is the sample size. The findings are considered preliminary results obtained from respondents studying at 2 institutions of higher education. Nevertheless, the results can be considered acceptable and generalizable. The outcomes highlight the need for targeted measures to address the sustainability of staffing in health care institutions in the Slovak Republic.

Conflict of interest

The authors declare no conflict of interest.

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