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## Charakterystyka postrzegania zawodu pielęgniarki przez polskich studentów medycyny

## Characteristics of the perception of the nursing profession by Polish students of medicine

### Streszczenie

**Wstęp.** Relacje pomiędzy lekarzami i pielęgniarkami wynikają z pełnionych ról społecznych i norm kulturowych.

**Cel.** Celem pracy jest przedstawienie opinii studentów medycyny dotyczącej postrzegania pracy pielęgniarki i próba określenia uwarunkowań takiej percepcji.

**Materiał i metoda.** Badania o charakterze opisowo-wyjaśniającym zostały prowadzone z wykorzystaniem Professional Nursing Image Survey. W badaniach uczestniczyła grupa 900 studentów medycyny z trzech uczelni wyższych w Polsce. Wyniki poddano analizie matematycznej z wykorzystaniem podstawowego oprogramowania.

**Wyniki.** Analiza statystyczna wyników badań potwierdza wcześniejsze uwarunkowania postrzegania roli zawodowej pielęgniarki przez lekarzy, tzn. kwestii płci, a w mniejszym stopniu, stażu studenckiego (roku studiów).

**Wnioski.** Studenci medycyny uważają, że sposoby działania terapeutycznego polskich pielęgniarek ograniczają im drogę do praktyk pielęgniarskich bardziej niezależnych. Analiza opinii studentów medycyny dotyczącej profesji pielęgniarskiej może przyczynić się do większej autonomii zawodowej pielęgniarki.

**Implikacje praktyczne.** Postrzeganie roli zawodowej pielęgniarek może być określone przez czynniki społeczne i kulturowe, ale także być może poprzez współpracę w procesie edukacji studentów medycyny i pielęgniarstwa.

### Abstract

**Introduction.** The extent of mutual collaboration between physicians and nurses can be influenced by ascribed social roles and cultural standards.

**Aim.** The objective of the study is the presentation of medical students' opinions concerning the perception of the nursing profession, and an attempt to determine the factors conditioning this perception.

**Material and methods.** The studies of a descriptive-explanatory character were conducted with the use of the Professional Nursing Image Survey, and covered a group of 900 medical students from three universities in Poland. The results were subject to mathematical analysis with the use of basic software.

**Results.** The statistical analysis of the results of studies confirm previously observed determinants of the perception of the professional role of a nurse by physicians, i.e. gender and, to a smaller degree, student's period of training (year of study).

**Conclusion.** Medical students in Poland believe that the Polish nurses' ways of therapeutic performance restrict their way to more independent practice. Analysis of the opinion of medical students on the nursing profession can contribute to the greater autonomy of professional nurses.

**Practice implications.** The perception of nurses' professional role may be determined by social and cultural factors but also through cooperation in education of medical and nursing students.

**Słowa kluczowe:** studenci medycyny, praca pielęgniarki, role zawodowe, kwestionariusz PNIS.

**Keywords:** medical students, nurses job, professional roles, PNIS questionnaires.

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## INTRODUCTION

Over the last decades, important economic, political and social changes have resulted from Poland's adjusting to the requirements of the European Union countries. In 1990 Polish government introduced a package of reforms to change the centrally planned Communist system into a free market economy. Many fundamental changes in organization and financing of health care were introduced [1]. The transformation from a traditional to a post-modern pluralistic society involves changes in many spheres of social life, including the functioning of an occupation of a nurse.

One of the fields of change was nursing care and the education systems of nurses and midwives [2].

These changes have created a need for improvement of the quality of care provided for patients in Poland. Effective health care depends on multidisciplinary collaboration and teamwork in patient care. The two principal members of the health care team – physicians and nurses – should work together, through mutual understanding of distinguished but complementary roles and responsibilities. There are many literature reports which indicate a partial mutual dissatisfaction of physicians and nurses with their occupational relations [3]. Physician - nurse collaboration was described as nurses and physicians cooperatively working together, sharing responsibilities for solving problems and making decisions to formulate and carry out plans for patients [4].

The extent of mutual collaboration between physicians and nurses can be influenced by the ascribed social roles and cultural standards. The creation of the dynamically changing role of a nurse is stimulated by human social and moral values of the contemporary society, and demands of individual recipients of nursing services [5].

However, the process of obtaining autonomy in nursing occupational activities/nurses' job is relatively complex and determined by many factors, i.e.:

- different gender of physicians and nurses [6,7],
- tradition of these two occupations shaped by the history of their development [8,9],
- different course of education and socialization processes [10],
- model of health care functioning [11],
- social origin of people performing the occupation of a nurse and physician [5].

Many studies showed that the main difference in the domination of a physician over a nurse is the difference in gender; however, this situation is subject to gradual changes due to an increasingly greater variation in the undertaking of the role of a nurse by males, while females relatively often become physicians.

The study described in this article explored the perception of the nursing profession by medical students in Poland.

## AIM

The aim of the study was to answer the following research questions:

Do medical students have a positive view of nursing job?

What independent variables determine the indicators of students' opinions adopted in the study and reflect the perception of an occupational role with the level of significance of  $p \leq 0.05$ ?

## MATERIAL AND METHODS

### Study measures

We used the Professional Nursing Image Survey (PNIS) in our study. In brief, it comprises three separate scales. Using a 5-score Likert scale, participants indicated how strongly they agreed or disagreed with the statements. Space was provided at the end of the survey for participants' comments. Reliability for the versions scales was determined statistically, based on the responses from the 1993 and 1994 cohorts (Fagin, 1992).

### Study design and participants

The study was carried out in three cities from different regions in Poland (Białystok, Bydgoszcz and Kraków). Data were collected from medical students of the first, third and sixth-year in 2006/2007. The students completed the questionnaires in their classrooms. In a cover letter, the respondents were made familiar with the purpose of the study, and an instruction was enclosed concerning the completion of the questionnaires, and the voluntary and anonymous participation in the study. The survey return rate was 100%.

### Data analysis

The collected data were statistically analysed by the use of the Statistica v.7.1.PL. Cronbach's alpha test was implemented to calculate the internal consistency of the scales for each of the used scale. The following alpha values for the scales were assumed: "skills and abilities" – 0.78, "functions and duties" – 0.72 and "opinions about nursing" – 0.57. The reliability in the last scale was a little bit lower than in the version of the original, but tolerable for accuracy of the study.

### Ethical considerations

The Ethics Committee of Medical University of Białystok, after familiarizing with the study protocol and the students consent form, expressed a positive opinion concerning the concept of the studies. During the realization of the studies, the principles of ethics were obeyed consistent with the Helsinki Declaration.

## RESULTS

### Characteristics of the study group

Generally, 900 medical students participated in the study: 300 in Białystok, 300 in Bydgoszcz and 300 in Kraków. The gender layout of the respondents outlined as follows: 333 male students (37%) and 567 female students (63%) from year 1, 3 and 6 of medical study course. A great majority of participants were female students (63%) at the age between 20 and 24 (62.2%).

### Opinions of medical students about the nursing profession

The opinions of medical students about the profession of a nurse are shown in Table 1. The differences of statistical significance depend on the year of study and are represented in the following students' expressions: "nurses are paid fairly for their work"; "nurses have the possibility of being promoted within the nursing field"; "it is easy to find a job in the nursing profession"; "it is important to have good knowledge of diseases"; and "there are a number of specialities for nurses." Respondents' opinions were different depending

**TABLE 1. Opinions about the nursing profession. Ranked from agree strongly (1.0) to disagree strongly (4.0).**

Year	First year		Third year		Sixth year	
	Mean	SD	Mean	SD	Mean	SD
Generally, nurses are fairly	3.34	0.65	3.39	0.70	3.48	0.62
Nurses usually work	1.95	0.61	1.99	0.63	1.96	0.69
Nurses have a flexible	2.74	0.61	2.62	0.63	2.67	0.69
It is important for nurses	1.93	0.69	1.98	0.65	2.05	0.59
Nurses have the possibility	2.01	0.64	2.02	0.69	2.18	0.70
Admission to the school	1.89	0.63	1.84	0.62	1.87	0.56
Nursing is an emotionally	2.13	0.71	2.08	0.68	2.16	0.70
Becoming a nurses requires	2.32	0.61	2.31	0.65	2.37	0.63
It is easy to find a job	2.61	0.79	2.36	0.76	2.31	0.78
Nursing is a challenging	1.92	0.69	1.86	0.60	1.92	0.56
It is important for nurses to have	1.95	0.60	2.06	0.55	2.14	0.58
There are a number	2.29	0.71	2.19	0.64	2.08	0.59
Anybody taking care of people	3.17	0.58	3.13	0.60	3.21	0.50
Nurses require good technical	1.89	0.65	1.85	0.63	1.86	0.65

on the year of study for the following statements: fair pay for their work, promotion possibilities for nurses; and having good knowledge of disease. However, with regard to ease of finding a job within the nursing profession, and number of specialities in nursing, opinions moved towards stronger agreement with advancing years of medical study.

As shown in Table 2, when gender is considered, the differences of statistical significance were perceived at the scores of mean for the following domains: male students were more strongly against the opinion that nurses are fair paid for their work (3.47 vs. 3.37;  $p<0.05$ ); female students more strongly thought that having a good knowledge about illnesses is very important for a nurse performance (2.01 vs. 2.13;  $p<0.01$ ); and female students more strongly admitted that well-trained technical skills are important for nurses to handle with a new technological equipment used in medicine (1.83 vs. 1.93;  $p<0.01$ ).

## DISCUSSION

This study was the first of its kind to investigate medical students' perception of the role of professional nurses in Eastern Europe. The results of own studies show that most often medical students perceive the role of a nurse not quite as a whole, and frequently from the aspect of their own decision-making, consisting in ordering the nurses therapeutic or diagnostic tasks. While presenting the results obtained in own studies, a reference should be made to the results obtained by M. Foley within the framework of methodologically similar research procedure, which allow for the comparison of opinions concerning the occupational role of a nurse expressed by the students of nursing from New York and those from Białystok, Kraków, and Bydgoszcz [11].

When analysing the opinions of Polish medical students, it was claimed that the scale "functions and duties

**TABLE 2. Opinions about the nursing profession. Ranked from agree strongly (1.0) to disagree strongly (4.0).**

	Male (n=333)		Female (n=567)	
	Mean	SD	Mean	SD
Generally, nurses are fairly	3.47	0.62	3.37	0.68
Nurses usually work	1.98	0.65	1.96	0.64
Nurses have a flexible	2.67	0.68	2.67	0.64
It is important for nurses to have	2.04	0.65	1.96	0.64
Nurses have the possibility of being	2.09	0.67	2.06	0.69
Admission to the school	1.84	0.61	1.88	0.61
Nursing is an emotionally	2.14	0.74	2.11	0.67
Becoming a nurses requires	2.30	0.61	2.34	0.65
It is easy to find a job in the nursing profession	2.41	0.83	2.44	0.77
Nursing is a challenging	1.91	0.61	1.89	0.62
It is important for nurses to have a good	2.13	0.61	2.01	0.57
There are a number	2.19	0.67	2.17	0.63
Anybody taking care of people	3.14	0.58	3.19	0.55
Nurses require good technical	1.93	0.62	1.83	0.65

\* $p<0.05$ ; \*\* $p<0.01$

of a nurse" understood as the role of a nurse was assessed better and more positive by female students than it was done by male students. Whereas, the category of "opinions about the nursing profession" was more positively evaluated by male students. Comparable results were obtained in the study by Hojat et al [12]. The study of Foley et al. also confirmed that female physicians expressed more positive attitudes towards physician-nurse collaboration than their male counterparts [13].

Other studies indicated that apart from gender, the opinions concerning the occupational role of a nurse were affected by affiliation to national minorities. Thus, female medical students and minority group students reported more positive attitudes toward multiculturalism and gender equality than did white male students [12].

For comparison, physicians from South Wales valued "experience" in nurses and saw experienced nurses as the group which might most legitimately move into a doctor's territory; nurses valued formal education and saw advanced nursing qualifications as the route to role expansion [14].

Comparison of the results of studies within the area "Opinions about the nursing profession" showed that the greatest differences concerned the perception of the number of specialities available for nurses which, in opinions of the native respondents, is sufficient [11]. It is to be regretted, however, that the future Polish physicians, members of multi-disciplinary teams, do not perceive nursing as the essence of the occupational role, for the realization of which the nursing profession was distinguished, and which is clearly emphasized by other researchers [15,16].

## CONCLUSION

The above-presented detailed compilation of selected indicators of the occupational role of a nurse as perceived

by the students of medicine clearly indicates its cultural-developmental variation. The opinions expressed by Polish medical students indicate a relatively small scope of nurses' independence in performing their occupational role, by informing and supporting patients. The statistical analysis of the results of studies confirm previously observed conditionings of the perception of the occupational role of a nurse by physicians, i.e. gender and, to a smaller degree, student's period of training (year of study).

A complex empirical evaluation and comparative analysis of the occupational role of a nurse in a different social and political reality in Poland during the period of transformation shows that, despite considerable changes in the system of education and legally expanded occupational competence, a stagnant situation is observed with respect to the perception of the scope of independence in performing an occupational role by a nurse.

### Practical implications

In the future, it will be possible to expand the presented studies covering the most important creative groups, based on mutual interactions and opinions concerning the scope, as well as the character of the occupational role of a nurse, which is determined by changes resulting from the adjustment of the health care system to the European Union regulations.

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