

ATTITUDES OF NURSING AND MEDICINE STUDENTS TOWARDS THE NURSE'S ROLE IN THERAPEUTIC TEAM

POSTAWY STUDENTÓW PIELĘGNIARSTWA I MEDYCYNY NA TEMAT ROLI PIELĘGNIARKI W ZESPOLE TERAPEUTYCZNYM

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ABSTRACT

Introduction. The system of healthcare has been based on predominant power of doctors for a long time. Nowadays it is changing into a new model with an interdisciplinary team.

Aim. To analyze attitudes of nursing and medicine students towards the nurse's role in the therapeutic team.

Material and methods. The study sample consisted of 50 nursing students and 50 medicine students of the University of Medical Sciences. Data were collected with the help of the Jefferson Scale. The data were analyzed with the Mann-Whitney U test and Spearman's correlation coefficient.

Results and conclusions. The study showed that the nursing students expressed more positive attitudes toward interdisciplinary collaboration than medicine students. There is a need to change the education curriculum in order to improve collaboration between future professional nurses and doctors.

KEYWORDS: nurse role, relationship, medical education.

STRESZCZENIE

Wstęp. System opieki zdrowotnej przez wiele lat opierał się na dominującej roli lekarzy. Obecnie model opieki zdrowotnej ulega modyfikacji, zakładając istnienie interdyscyplinarnych zespołów.

Cel. Analiza postaw studentów pielęgniarstwa i medycyny wobec roli pielęgniarki/pielęgniarza w zespole terapeutycznym.

Materiał i metody. Grupa badana składała się z 50 studentów pielęgniarstwa i 50 studentów medycyny Uniwersytetu Medycznego w Poznaniu. Do zebrania danych posłużono się skalą Jeffersona. Analiza wyników przeprowadzona została za pomocą testu Manna-Whitneya i współczynnika korelacji Spearmana.

Wyniki i wnioski. Badanie wykazało, że w stosunku do studentów medycyny studenci pielęgniarstwa przejawiają bardziej pozytywne postawy wobec współpracy interdyscyplinarnej. Istnieje potrzeba zmiany programu nauczania w kierunku większej współpracy pielęgniarek/pielęgniarzy i lekarzy.

SŁOWA KLUCZOWE: rola pielęgniarki, współpraca interdyscyplinarna, edukacja medyczna.

Introduction

Over the centuries, the profession of the nurse has undergone various transformations. The first model of the nurse appeared in the age of Nightingale as the Victorian model of a "good woman", serving for God and people [1]. The role of the nurse was perceived from the context of nurturing, care of the patient and execution of physician's recommendations. This type of the definition has served as the foundation for noticing a nurturing aspect in the healthcare system. Similarly, nowadays, nursing the patient as well as conducting physician's recommendations constitute main obligations of the nurse. The code of ethics as well as the Act on the execution of the profession of nurses and midwives explicitly demonstrate that aspect. "A nurse fulfilling a professional role shall be obliged to ensure an attentive care for all the patients. In the approach to the patient, the nurse shall

demonstrate kindness, understanding, and patience establishing atmosphere of mutual trust [2]. The nurse shall always act in the interest of her patients especially if their life or health may be endangered. The nurse conducts her professional care over lives and health of people. To her best knowledge, she counteracts suffering and prevents diseases. She always provides assistance for each individual irrespective of their race, religion, nationality, political opinions, property or other differences" [2]. One of the basic duties of the nurse refers to the execution of physician's recommendations in the process of diagnostics, curing, and rehabilitation [3]. In 2004 Poland joined the European Union and since then the nurses' education system has changed according to EU standards and law [4]. Simultaneously, a slow process of changes in professional relationships between nurses and physicians was instigated. For

a long time that interaction has been perceived as the relationship of “subordinate entity – dominating entity” [5, 6]. The nurse – usually a female, caring, nurturing and taking care of a good atmosphere, totally subordinate, used to fulfill the role of the assistant to the physician – a strong man, giving orders and instructions. That relation was determined by numerous factors such as culture, social status, education, etc. However, at the times of constantly occurring social and cultural changes, activities of feminist organizations and movements as well as education, the manner of perceiving the position of nurses, their role and relationships with physicians also undergo transformation. Nurses are better and better educated and they demonstrate more and more competence. They achieved not only autonomy of the profession but also of the scientific activity. Currently, nurses constitute a significant element of a therapeutic and reference model of treatment [6, 7]. That team consists of several various medical professions (the basic ones refer to the nurse and physician) as well as the patient. The principles of partnership are adopted. Each member of the team is responsible for his/her field and enjoys autonomy within that field being the best expert within a given scope. All members of the team work for a common goal referring to the patient’s welfare. An inter-disciplinary team, as studies have revealed, constitutes the most effective form of running a therapeutic treatment [7]. This situation has effected a change in mutual relations between nurses and physicians. This is no longer the above mentioned relation between a subordinate entity and a dominating one. It has a “partner to partner” nature. At least such are theoretical assumptions. In practical terms the situation is diversified, which may be partially caused by models shaped in the course of studies. Within the scope of education individuals acquire attitudes towards their own profession as well as professions of other members of a therapeutic team. In relation to the above mentioned, we decided to verify the basis referring to the role of the nurse in a therapeutic team among students at the faculty of nursing and medicine.

Aim of the study

The aim of the study is the analysis of attitudes of nursing and medicine students with regard to mutual relations between physicians and nursing personnel as well as the cooperation between physicians and nurses in a therapeutic team. There have been three initial hypotheses set in this study:

Hypothesis 1. There are differences in attitudes towards the cooperation between physicians and nurses depending on the faculty of studies.

Hypothesis 2. Students’ opinions on the cooperation between physicians and nurses depend on their sex. Women more often demonstrate more positive attitudes than men.

Hypothesis 3. There is a dependency between the length of education and the manner of perceiving the cooperation between doctors and nurses.

Material and methods of the study

The study has been conducted among students of the Poznań University of Medical Sciences. 100 students took part in the research with the distribution into 50 students of nursing and 50 students of medicine at all years of studies. Women accounted for 66% of examined students. 66.7% of them studied nursing and 33.3% of them studied medicine. Men accounted for 34% of examined students. 82.4% of them studied at the faculty of medicine and 17.6% of them at the faculty of nursing (**Table 1**) the age of respondents ranged from 19 to 28, the average age was 22.5 (SD=2.1) in case of students of nursing and 23 (SD=2.6) in case if students of medicine.

Table 1. The study sample according to faculties (n=100)

	Faculty				In total	
	Nursing		Medicine		n	%
	n	%	N	%		
Sex:						
Female	44	88	22	44	66	66
Male	6	12	28	56	34	34
Year of studies:						
I						
II	10	20	9	18	19	19
III	10	20	7	14	17	17
IV	10	20	8	16	18	18
V	10	20	7	14	17	17
VI	10	20	9	18	19	19
	-	-	10	20	10	10

The study was conducted with the questionnaire method. The main research tool referred to the Jefferson Scale intended for the assessment of cooperation between physicians and nurses, for the use of which authors’ consent was granted. The Jefferson Scale was for the first time implemented in 1985 at Jefferson Medical College in Philadelphia [8, 9]. It consists of 15 items based on 7-point Likert’s scale, presented in 4 categories:

1. Partnership relations together with the need of common education – covering 7 statements (items 1, 3, 6, 9, 12, 14, 15).
2. Differentiating between notions of “caring and curing” – covering 3 statements (items 2, 4, 7).
3. Nurse’s autonomy – covering 3 statements (items 5, 11, 13).
4. Physician’s authority – covering 2 statements (items 8, 10).

The range of points for category 1 is from 7 to 28, for category 2 from 3 to 12, for category 3 from 3 to 12 and for category 4 from 2 to 14.

The study adopts the cut-off point of 2 which means that points 1–2 mean a negative answer, and 3 and more points – a positive answer [9]. For the entire scale possible scoring ranges from 15 to 60. For statistical analyses non-parametric Mann–Whitney tests as well as Spearman's correlation coefficient have been implemented. The level of $\alpha = 0.05$ has been adopted.

Results

Results referring to individual statements of the scale have been presented in **Table 2**. The table depicts the percentage of students examined who gave positive answers to individual items.

Table 2. Distribution of positive answers on Jefferson Scale according to faculties

Jefferson's Scale	Nursing n=50			Medicine n=50			In total n=100 n(%)
	%	n	Me*	%	n	Me*	
1. A nurse should be view as a collaborator and colleague with a physician rather than his/her assistant	98	49	4	92	46	4	95 (95)
2. Nurses are qualified to assess and respond to psychological aspects of patients' needs	98	49	4	80	40	3	89 (89)
3. During their education, medical and nursing students should be involved in teamwork in order to understand their respective roles	100	50	4	88	44	4	94 (94)
4. Nurses should be involved in making policy decisions affecting their working conditions	100	50	4	94	47	3	97 (97)
5. Nurses should be accountable to patients for the nursing care they provide	100	50	4	100	50	4	100 (100)
6. There are many overlapping areas of responsibility between physicians and nurses	78	39	3	70	35	3	74 (74)

7. Nurses have special expertise in patient education and psychological counseling

78	39	3	48	24	2	63 (63)
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8. Physicians should be the dominant authority in all health care matters

34	17	2	20	10	1	27 (27)
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9. Physicians and nurses should contribute to decisions regarding the hospital discharge of patients

88	44	3.5	54	27	3	71 (71)
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10. The primary function of the nurse is to carry out the physician's orders

62	30	3	20	10	2	40 (40)
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11. Nurses should be involved in making policy decisions concerning the hospital support services upon which their work depend

96	48	4	68	34	3	82 (82)
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12. Nurses should also have responsibility for monitoring the effects of medical treatment

92	46	3.5	68	34	3	80 (80)
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13. Nurses should clarify a physician's order when they feel that it might have the potential for detrimental effects on the patient

84	42	4	90	45	4	87 (87)
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14. Physicians should be educated to establish collaborative relationships with nurses

98	49	4	82	41	3	90 (90)
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15. Inter-professional relationships between physicians and nurses should be included in their educational programs

100	50	4	80	40	3.5	90 (90)
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Me* – median

As it is evident from the table both nursing as well as medicine students gave positive answers to most of the questions. Most positive answers were given to statement number 5. "Nurses should be accountable to patients for the nursing care they provide" (100%); statement number 4. "Nurses should be involved in

making policy decisions affecting their working conditions" (97%) as well as statement 1. "A nurse should be viewed as a collaborator and colleague with a physician rather than his/her assistant". The lowest number of positive answers were referred to statement number 8. "Physicians should be the dominant authority in all health care matters" (27%); and statement number 10. "The primary function of the nurse is to carry out the physician's orders" (40%).

Verification of tested hypotheses

Hypothesis 1. There are differences in attitudes towards the cooperation between physicians and nurses depending on the faculty of studies.

The results of the analysis have been presented in **Table 3**. Considerable differences were revealed in groups compared. Nursing students obtained higher scores of the Jefferson Scale than students of medicine. They obtained the average of 51.8 vs. 44.7 both in case of the general scores as well as in individual categories. Simultaneously, hypothesis 1 has been confirmed.

Table 3. Scores of the Jefferson Scale among students of nursing and medicine

Categories of the Jefferson Scale	Students of nursing n=50		Students of medicine n=50		The Mann-Whitney U test	p
	Mean	SD	Mean	SD		
1. Teamwork and education for future cooperation	25.4	2.1	22.0	2.5	368.0	<0.01
2. <i>Caring versus curing</i>	10.7	1.1	8.9	1.6	458.0	<0.01
3. Nurses' autonomy	10.8	1.1	10.1	1.4	907.0	0.02
4. Physician's authority	4.9	1.5	3.7	1.3	813.0	<0.01
Total n=100	51.8	3.9	44.6	4.1	678.0	<0.01

Hypothesis 2. Students' opinions on cooperation between physicians and nurses depend on their sex. Women more often demonstrate more positive attitudes than men.

The analysis of attitudes referring to cooperation between physicians and nurses with consideration of their sex was conducted initially without the division of respondents with regard to their faculty of studies (**Table 4**), and subsequently with consideration of that factor. Consequently, it has been reported that sex of respondents determinates their attitude to cooperation between physicians and nurses in a statistically considerable manner in categories 1. ($p<0.01$) and 2. ($p=0.01$). Categories 3. and 4. did not demonstrate significant differences between the groups of females and males. However, females obtained higher scores than males at each category (**Table 4**).

Table 4. Scores of the Jefferson Scale among men and women

Categories of the Jefferson Scale	Students of nursing n=50		Students of medicine n=50		The Mann-Whitney U test	p
	Mean	SD	Mean	SD		
1. Teamwork and education for future cooperation	24.5	2.7	22.1	2.5	568.5	<0.01
2. <i>Caring versus curing</i>	10.0	1.7	9.4	1.5	840.5	0.04
3. Nurses' autonomy	10.5	1.2	10.4	1.4	1105.0	0.90
4. Physician's authority	4.4	1.5	4.1	1.5	978.5	0.29
Total n=100	49.4	5.5	45.9	4.5	788.5	<0.01

The verification of hypothesis 2. with the division according to the faculty of studies has not presented a considerable statistical difference. One shall still remember, however, about a significant disproportion in the number of females and males studying at analyzed faculties which might have exerted an influence on results obtained.

Hypothesis 3. There is a dependency between the length of education and the manner of perceiving the cooperation between physicians and nurses.

Conducted analyses demonstrated low and insignificant correlations ($r\leq 0.2$) between the variables. Thus, the relationship between the length of education and less or more positive attitude towards the subject examined has not been reported.

Discussion

According to the literature, one of the main factors determining the attitude to one's own profession and professional relations between collaborators may refer to attitudes shaped in the course of studies. Education develops first models which in a natural manner are transferred to the future work. The phenomenon is named the *socialization of the profession*. This is based on the process adopted to teach students values and conducts characteristic for a given profession [8]. Thus, professional attitudes presented in the course of students may constitute a potential factor influencing future professional relationships between nurses and physicians which is the subject of this study.

Conducted analyses reveal that attitudes of students of both nursing and medicine towards the cooperation between physicians and nurses are in majority positive. However the results of the analyzed group demonstrate higher scores of students of nursing, which proves that future nurses will accept more partner role of nursing personnel in a therapeutic team than students of medicine. Similar findings were reported by Hojat in studies conducted among students of nursing and medicine in

1999 [10]. The above mentioned may result from aspect poorly outlined during the course of medical studies aspects referring to cooperation with other members of a therapeutic team. Additionally, our studies have revealed that students of medicine perceive the nurse as a member of a therapeutic team, however, within a limited scope. According to the majority of respondents of medical faculty (92%), the nurse is the collaborator of the physician; still, only 54% of them accept that the nurse should co-decide about the discharge of the patient from hospital. The above mentioned means that the stage of the caring process execution, at the moment of the discharge of the patient from hospital is of no significant meaning, or that students of medicine have no awareness that apart from the process of diagnostics and curing the process of the patient nursing is executed in parallel. Such a situation demonstrates that the role of the nurse as a fully legitimate member of a therapeutic team is not fully accepted. Similar conclusions were drawn on the basis of the study conducted in Indiana in 2004 where the teamwork of students of medicine and students of nursing was analyzed. As it turned out, 100% of students of medicine reported the patient to be a member of a therapeutic team, and scarcely 45.6% of them considered the nurse to be such a member [11].

As it has been mentioned, students demonstrate positive attitudes towards cooperation between physicians and nurses. Both future nurses and physicians want and see the need for educating themselves with regard to teamwork ability. 94% of respondents notice the need for education in order to understand their role and roles of other members of a therapeutic team better. Additionally, the majority of students are of the opinion that physicians shall undergo trainings within the scope of cooperation with nurses (90%) and they would like their curriculum to cover aspects related to shaping interpersonal relationships between physicians and nurses (90%). Better mutual comprehension of roles and activities of physicians and nurses results in a much more valuable relationships between those professions, which consequently translates the quality of nursing. Sterchi in 2007 while analyzing relationships in medical teams noticed that the length of professional experience of physicians demonstrated a positive impact on their attitude towards cooperation with nurses [12]. This phenomenon may be attributed to better comprehension and understanding of the role of the nurse in practical terms by physicians. The above mentioned proves also that previously they did not have sufficient knowledge on competence of nurses, and only work experience helped them shape a new image of their colleagues [12].

The literature on interactions between professional relationships between nurses and physicians depicts determining role of social and cultural influences. Mainly, a strong influence of a stereotype perception of female and male sexes is presented. The above mentioned means that the nurse – usually a woman assumes a subordinate role towards the physician – identified as a dominating and masterful man [13,14]. Basing on such assumptions as well as conducted by us studies, we may state that the conviction on the dominating role of the physician, often a man, is still maintained. Men of the examined group demonstrated more conservative attitudes than women. Similar conclusions were drawn on the basis of other studies when the attitudes to interactions between the physician and the nurse were analyzed among professionally active nurses and physicians [10,15]. One shall not assume, however, that this tendency is strong and lasting. On the background of social and cultural reforms we may formulate certain forecasts. The profession of the physician is no longer dominated by men. It is becoming more and more feminized which may subvert the theory of the “gender” stereotype on the physician – nurse relationship. Women themselves gain more considerable respect as partners and collaborators. The study conducted in 2006 may serve here as the example: the study presented that male physicians expressed more positive attitudes towards the cooperation with nurses than female physicians [16]. It is worth to continue the instigated studies, in particular in the light of the current debate on sex in cultural and social contexts. Moreover, longitudinal studies, enabling the observation of changes in opinions and attitudes of students who have gained experience in the course of professional work, would also be valuable.

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