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CLINICAL COMPETENCIES OF NURSES AND FORMS OF POSTGRADUATE EDUCATION

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Introduction

Over the last few years, the health care system has been transforming. The qualifications of medical staff are systematically improving due to the increasing pressure to raise the level of competence in line with the development of medicine and the expectations of healthcare recipients.

Aim

The aim of the study is the comparison of the clinical competence of the nurses whilst taking into the account the forms of postgraduate education.

Material and research methods

The study included 120 nurses aged 24-53 years, working in paediatric wards in Antoni Gębala University Hospital for Children in Lublin. The research tool was a questionnaire Belimage which contains 38 questions covering five areas: demographics, competence, nursing care, teamwork and care environment.

Results

The research demonstrates that the professional competence level of the respondents was the most significantly influenced by: practical experience and own reflections (85.00%), introduction in the current workplace (52.50%), sharing competence and experience with colleagues-nurses (tutorial guidance, working meetings, conversations) (51.67%). In the surveyed group, 100% of the respondents claimed that it was necessary to invest in various fields in order to optimize the level of nursing competence. The nurses who completed a specialization (43.48%) and higher education (79.17%) also evaluated the quality of care as excellent. Instrumental and technical competencies (4.50), as well as social and communication skills (4.20) are important for the nurses with Master's degree.

Conclusions

It has been proven that practical experience and own perspectives have the biggest influence on the respondents' professional competence level. Investing in various forms of postgraduate education and training, such as specialist courses and training, and university education, will optimize the level of nursing proficiency. Education, work experience and the time elapsed since graduation do not affect the assessment of the level of respondents' competence. The survey participants with higher education, specialization and certificates of completed training, felt slightly more often that the quality of patient care on the ward is excellent.

Key words

nurses' competence, clinical competence of paediatric nurses, nurses' education, postgraduate education of nurses

Introduction

It is possible to indicate various periods in the development of the nursing profession throughout the years. Owing to the charitable and social character of care and due to economic reasons, nursing duties used to be entrusted to religious congregations. Nursing fulfilled an auxiliary function for many years and its significance as an element of therapy and treatment started to be noticed in the course of time. The development of the theoretical basis of nursing was initiated in the 1830s. In 1860 Florence Nightingale founded a secular nursing school in London, and at the turn of the 19th/20th c professional education of nurses was commenced in the USA [1]. In Poland the first nursing school was established in 1911 in Cracow. The subjects taught, one-year practical training and diploma examination at the end of the study enhanced significantly the prestige of the profession. Urbanek emphasizes that the nursing profession emerging in Poland became quite homogeneous due to the fact that it was mostly based on women and owing to the attachment to the Polish tradition and the old formula of caring for the sick [2].

The permanent transformation of the health care system constantly inspires the medical personnel to improve their professional qualifications and competencies on a regular basis. This process is effectively stimulated by a number of factors, the most important of which are: the emergence of new technologies in medicine and the patients' growing awareness and expectations about the quality of medical services. According to E. Zdźalik, the nursing practice is aiming at a model orientated towards the real needs and expectations of a patient and adjusted to his or her health status. The significant elements of this model are: professionalism, effectiveness of actions and a creative combination of theory and practice [3]. The society expects that nurses will coordinate care of a client/patient and the family and will act as their advocates in contact with the health care system [4]. Tomaszewska claims that a nurse who fulfils her functions responsibly should regard the goal to raise her education level as her personal need. However, personal intentions, wishes and needs can quickly become unattainable without motivation provided by the managerial staff. Moreover, lack of positive effects of the actions aimed at further development can result in occupational burnout, low prestige of the occupation, undesirable mistakes in the nursing practice and, as a consequence, a tarnished image of the profession in the media [5].

Ciechaniewicz points to the fact that professionals are aware that it is necessary to acquire knowledge indispensable to practise the profession. They emphasize that each

discipline should be viewed from the perspective of continuous development, familiarity with the rules and acquisition of specific skills in practice, whereas “the rules are generalizations of earlier experiences and accumulation of knowledge makes sense when it is applied to practical problem solving.” [6]

For many years, endeavours have been made to define and specify in detail professional competencies in order to enable nurses to perform their occupational duties in accordance with the commonly acknowledged standards. The World Health Organization regards professional competence of a nurse as: “a broad composite statement, derived from practice, which describes a framework of skills reflecting knowledge, attitudes and psychomotor elements.” The notion of competence means “a scope of qualifications” or “a disposition to perform specific tasks,” while a competent person is the one who has knowledge, skills and qualifications to carry out particular professional acts and tasks, and to issue judgments and opinions concerning such professional acts. [7]

Aim of the study

The analysis of nurses’ clinical competence taking into the account the criterion of postgraduate education forms.

Description of the surveyed respondents

The research covered a group of 120 nurses aged 24-53, working in eight randomly selected wards of the Antoni Gębala University Hospital for Children in Lublin (General Paediatrics, Neurology, Endocrinology, Surgery, Cardiology, Allergology, Pulmonology, ENT).

The average age of the respondents was 39.58 ± 8.62 . Among the respondents, 30.83% (n=37) were up to 35 years old, while 36.67% (n=44) were 36-45 years old and 32.50% (n=39) were over 45. In the surveyed group, 39.17% (n=47) had secondary education, whereas 40.83% (n=49) had Bachelor’s degree and 20.00% (n=24) had Master’s degree in nursing. The respondents working in wards fulfilled the function of ward nurses. Among the respondents, 17.50% worked in the Endocrinology Ward, 16.67% in Neurology Ward, 15.00% in Surgical Ward or Cardiology Ward, 14.16% in ENT Ward, 13.33% in Allergology Ward, 11.67% in Pulmonology Ward and General Paediatric Ward.

Among the surveyed respondents, 74.17% (n=89) had previously worked in other wards. The average work experience was 11.71 ± 7.49 years (ranging from 1 to 30 years). Most

of the respondents completed higher education studies for Bachelor's degree (42.50%) or finished a medical secondary school (37.50%), while 18.33% of the respondents completed higher education studies for Master's degree in nursing, and 1.67% finished a medical postsecondary school.

Research methods

The research used a diagnostic survey method and a survey technique. Participation in the research was voluntary and anonymous. The research tool was a standardized survey questionnaire Belimage, authored by Kristel De Vlieghe, comprising 38 questions about general data, education and professional competence, nursing care, therapeutic team and the context of nursing care. The Belgian tool was adapted to the Polish conditions. The author's consent was obtained and the tool was translated by three independent translators with experience in working with scientific texts. The translation was evaluated by five independent competent arbiters and supplemented, whenever needed, with additional questions necessary for the sociodemographic description of the respondents. Cronbach's alpha reliability indicator is 0.52.

The database was compiled and the statistical analyses were carried out on the basis of Statistica 9.1. software (StatSoft Poland).

Results

The research demonstrates that the professional competence level of the respondents was the most significantly influenced by: practical experience and own reflections (85.00%), introduction in the current workplace (52.50%), sharing competence and experience with colleagues-nurses (tutorial guidance, working meetings, conversations) (51.67%), whereas it was considerably influenced by such factors as: specialized education in nursing or midwifery (57.50%), sharing competence and experience with the superior (case studies, information meetings etc.) (54.17%), nursing specialization (paediatrics, geriatrics, psychiatry, etc.) (43.33%), sharing competence and experience with colleagues from other fields (meetings of interdisciplinary teams, meetings of employees, etc.) (42.50%), and moderately influenced by such factors as: professional literature (magazines, studies, books etc.) (77.50%), continuing education (training courses in hospital and outside, congresses, etc.) (57.50%), additional training courses completed with a certificate (e.g. pain

relief specialist, diabetology, palliative care etc.) (46.67%), university education (Bachelor's degree in Public Health, etc.) (43.33%), and sharing competence and experience with students of nursing (25.83%) (Table 1).

Factors affecting at professional competence level	None		Small		Mid		Big		Huge
	n	%	n	%	n	%	n	%	n
Practical experience and own reflections	0	0,00	0	0,00	2	1,67	16	13,33	102
Introduction in the current workplace	0	0,00	2	1,67	21	17,50	34	28,33	63
Sharing competence and experience with colleagues-nurses (tutorial guidance, working meetings, conversations)	0	0,00	1	0,83	11	9,17	46	38,33	62
Specialized education in nursing or midwifery	0	0,00	9	7,50	26	21,67	69	57,50	16
Sharing competence and experience with the superior (case studies, information meetings etc.)	0	0,00	3	2,50	19	15,83	65	54,17	33
Nursing specialization (paediatrics, geriatrics, psychiatry, etc.)	3	2,50	14	11,67	27	22,50	52	43,33	21
Sharing competence and experience with colleagues from other fields (meetings of interdisciplinary teams, meetings of employees, etc.)	0	0,00	0	0,00	34	28,33	51	42,50	35
Professional literature (magazines, studies, books etc.)	0	0,00	0	0,00	93	77,50	25	20,83	2
Continuing education (training courses in hospital and outside, congresses, etc.)	1	0,83	13	10,83	69	57,50	35	29,17	2
Additional training courses completed with acertificate (e.g. pain relief specialist, diabetology, palliative care etc.)	0	0,00	12	10,00	56	46,67	51	42,50	1
University education (Bachelor's degree in Public Health, etc.)	1	0,83	0	0,00	52	43,33	49	40,83	18
Sharing competence and experience with students of nursing	21	17,50	24	20,00	31	25,83	24	20,00	13

Table 1. Evaluation of the factors affecting at professional competence level

In the surveyed group, 100% of the respondents claimed that it was necessary to invest in various fields in order to optimize the level of nursing competence. According to the

respondents, this should predominantly be investment in specialization courses (70.83%), specialization training (66.67%) and university education (61.67%); slightly less frequently in specialized education in nursing or midwifery (43.33%), and rarely in additional continuous education (training courses in hospital and outside, congresses, conferences, etc.) (25.00%), organized sharing of competence and experience with colleagues-nurses (17.50%), training courses completed with a certificate (e.g. pain relief specialist, diabetology, palliative care, etc.) (11.67%), and organized sharing of competence and experience with the superior (0.83%) (Table 2).

Forms of training	n	%
Specialization courses (e.g. cardiopulmonary resuscitation, protective vaccinations, etc.)	85	70,83
Specialization training (anesthesiological, oncological, psychological, paediatric and gynecological nursing)	80	66,67
University education	74	61,67
Additional continuous education (training courses in hospital and outside, congresses, conferences, etc.)	30	25,00
Organized sharing of competence and experience with colleagues-nurses	21	17,50
Training courses completed with a certificate (e.g. pain relief specialist, diabetology, palliative care, etc.)	14	11,67
Greater involvement in current work	5	4,17
Organized sharing of competence and experience with the superior	1	0,83

Table 2. According to the respondents, worth investing forms of development in professional competence areas in order to optimize their level

The respondents evaluated the level of competence with respect to particular skills, taking into account their education. Instrumental and technical competencies (4.50), as well as social and communication skills (4.20) are important for the nurses with Master's degree. On the other hand, the respondents with Bachelor's degree pointed to intellectual and cognitive competencies (4.28), organizational skills (4.27), as well as behaviour and attitudes (4.11).

A change in a workplace/ward did not have an influence on the competence level in any of the skills (Table 3).

Type of skills	Secondary education			Undergraduate			Graduate			Statistical analysis
	Average	Median	Standard deviation	Average	Median	Standard deviation	Average	Median	Standard deviation	
Instrumental and technical competencies	4,47	4,60	0,30	4,46	4,60	0,30	4,50	4,60	0,20	0,02
Social and communication skills	4,11	4,17	0,28	4,14	4,17	0,25	4,20	4,17	0,27	0,94
Intellectual and cognitive competencies	4,23	4,25	0,27	4,28	4,25	0,25	4,27	4,25	0,28	0,77
Organizational skills	4,25	4,25	0,33	4,27	4,25	0,32	4,25	4,25	0,32	0,29
Behaviour and attitudes	4,00	4,00	0,33	4,11	4,20	0,30	4,02	4,00	0,33	3,10
Overall evaluation	100,96	102,00	3,87	101,86	102,00	4,32	101,88	100,50	3,65	0,71

Table 3. The respondents' evaluation of the level of competence with respect to particular skills, taking into account their education

The research showed that the respondents who claimed that completion of a nursing specialization had a considerable or major influence on professional competence, regarded their quality of care for patients as excellent (43.48%) slightly more often in comparison to the respondents who thought that the specialization completed by them had a moderate influence on professional competence (36.67%) or slight or none at all (33.33%) (Table 4).

Influence of nursing specialization on professional competence	Quality of care				Total	
	Excellent		Good			
	n	%	n	%	n	
None at all/Little	7	33,33%	14	66,67%	21	
Moderate	11	36,67%	19	63,33%	30	
Considerable/Major	30	43,48%	39	56,52%	69	
Total	48	40,00%	72	60,00%	120	
Statistical analysis :Chi²=0,88; p=0,65						
Influence of additional training courses completed with a certificate on professional competences	None at all/Little	9	75,00%	3	25,00%	12
	Moderate	38	67,86%	18	32,14%	56
	Considerable/Major	37	71,15%	15	28,85%	52
	Total	84	70,00%	36	30,00%	120
Statistical analysis: Chi²=0,30; p=0,86						

Table 4. Evaluation of the quality of nursing care provided to patients during the day including the influence of completed nursing specialization and additional training courses completed with a certificate on professional competence

The statistical analysis revealed that the respondents with Master's degree considered the quality of care for patients in the ward to be excellent (79.17%) slightly more often in comparison to the respondents with Bachelor's degree (69.39%) or with secondary education (65.96%).

The research demonstrated that the respondents who claimed that completion of a specialization had a considerable or major influence on professional competence regarded the quality of care for patients in the ward as excellent (75.36%) slightly more often in comparison to the respondents who thought that the specialization completed by them had a moderate influence on professional competence (66.67%) or slight or none at all (57.14%). The differences found were not statistically significant ($p=0.25$) (Table 5).

Completion of a specialization	Ewaluacja jakości opieki				Overall
	Dokonała		Dobra		
	N	%	n	%	
Secondary education	31	65,96%	16	34,04%	47
Undergraduate	34	69,39%	15	30,61%	49
Graduate	19	79,17%	5	20,83%	24
Razem	84	70,00%	36	30,00%	120

Statistical analysis: $\chi^2=1,33$; $p=0,51$

Table 5. Evaluation of the quality of care for patients in the light of completion of a specialization

The research indicated that the respondents who thought that the certificate of a training course had little influence, or none at all, on professional competence considered the quality of care for patients in the ward to be excellent (75.36%) slightly more often in comparison to the respondents who claimed that their completed training courses had a moderate influence (66.67%) or considerable or major influence on professional competence (75.36%) (Table 4).

Discussion

The nursing profession in Poland has become clearly professionalized since the education of nurses began to be provided by higher education institutions. Moreover, the number of various forms of postgraduate education, scientific and educational conferences

and symposiums is increasing. As a result, the scope of independence and professional competence of contemporary nurses is growing. A comprehensive attitude to a patient, based on holism and humanism, leads to a change in the work model and extends the scope of professional roles. In her research, Glińska draws attention to a required dynamic increase in knowledge, openness of nurses and other medical personnel, and the ability to implement new technologies and guidelines in practice. The analysis of the research carried out by the author shows that almost 50% of nurses do not have necessary knowledge about the contemporary role of a nurse. A general conclusion is formed that a considerable share of nurses are not aware of their competence. [8]

On the other hand, the author's own research demonstrates that the level of professional competence of the respondents is strongly influenced by practical experience and own reflections (85.00%). The level of competence in particular skills was similar in a group of the respondents who used to work in other wards and in a group of nurses who did not work previously. A study by Istomina (2011) reveals that the level of competence was evaluated much higher by nurses with longer work experience. [9] Similarly, Meretoja's research (2004) demonstrates that age and length of work experience correlates positively with a competence level [10-13].

Instrumental and technical competencies (4.50), as well as social and communication skills (4.20) are important for the respondents with Master's degree. In a study by Salonen et al, nurses described themselves as more competent in the categories of providing help, coping with situations and fulfilling diagnostic functions. They were the most critical of their own competence in providing the highest quality care.[14] In the research by Adams and Bond (2000) and Dunn et al (2005) nurses considered "quality of care" to be the most important factor increasing satisfaction with their own work [15, 16].

The author's own research shows that the respondents who evaluated the quality of nursing care as excellent claimed that completion of a specialization had a considerable or major influence on professional competence (75.36%). The nurses who completed a specialization (43.48%) and higher education (79.17%) also evaluated the quality of care as excellent. A study by Currie (2005) demonstrates that nurses with higher education who completed selected training courses to improve their skills, were more critical of their own professional competence. [17] Meretoja et al (2004) carried out research on a group of nurses working in an operating theatre who evaluated how their competence was used to fulfil

diagnostic functions. Having completed training courses in “Improvement of clinical skills”, nurses were more critical of their own competence level. On the other hand, having completed training courses in “Nursing ethics,” they evaluated their competence much higher. The education level of a nurse, her professional development and experience can have both a positive and a negative influence on perception of her own competence [10-13].

The author’s own research indicated that the respondents with Master’s degree claimed that the quality of care for patients in the ward was excellent slightly more often in comparison to the respondents with Bachelor’s degree or secondary education. In a study by Salonen et al (2007) the respondents assessed their own competence very highly. However, the skills and tasks concerning quality of care for patients and therapeutic interventions were evaluated as fairly good. According to the author, self-evaluation of the competence level does not differ between nurses after vocational college and nurses with higher education. Earlier studies (Bartlett et al, 2000) gave contradictory results concerning the influence of various types of nursing education on the level of nursing competence. [18]

A review of the literature on the subject clearly emphasizes a need to create a reliable and easy-to-use tool for evaluation of nurses’ competence – from a beginner to an expert. It is important to assess competence of practising nurses, which is significant in the identification of professional areas, developmental and educational needs, and to make sure that this competence is used as effectively as possible in care for patients. Evaluation of competence of practising nurses should be the basic measure in the systems of care quality assurance, care planning and human resource management.

Conclusions

1. The professional competence level of the respondents is influenced primarily by practical experience and own reflections. Investment in various forms of postgraduate education and professional development, that is specialized training courses and university education, results in optimization of the nursing competence level.
2. Education, work experience and the time elapsed since graduation do not affect the respondents’ evaluation of their competence level.

3. The respondents with higher education, completed specialization and certificates of training courses claimed slightly more often that quality of care for patients in the ward was excellent.

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