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*Health care system reform and the scope of independence  
in decision making by environmental/family nurses. I. Conditions  
for bearing responsibility for work results*

The effect of health system reform on the functioning of medical staff in the system is a reality (2). However, there are few studies which answer the question whether any changes have taken place with respect to the scope of work, especially that of nurses. Independence in decision making at various workplaces is determined by many factors. Study reports most often mention: unequivocal work schedules with clearly defined tasks, competence and responsibilities; provision of equipment at workplaces which are adequate to the tasks; constant improvement of knowledge and skills; introduction of new solutions into the practice; widening the range of services offered and financial independence of staff members (8, 9).

Health protection is organized on several levels. According to the name, its basis is primary health care (PHC). Prior to the restructuring of health care system the balance was disturbed between the inpatient health service and services provided by PHC (4). The contribution of PHC in satisfying health needs of the population of West European countries and the United States is estimated to be over 80% (3,11). Hence, in the reformed national health care system, the greatest number of organizational changes were prepared and then introduced within PHC.

The reform of PHC units is closely associated with the dynamic development of environmental/family nursing. This was affected by: significant changes in the demographic structure of society, increase in morbidity due to chronic diseases, changes in the organization and financing of care with the shift in emphasis towards long-term and home care services, changes of legal regulations concerning the tasks independently performed by nurses, as well as a different way of occupational training of nurses and midwives according to the requirements of the European Union (6). The 1 January 1999 introduction of the possibility to contract medical services was an opportunity for an increase in occupational independence of environmental/family nurses. Therefore, the following two questions were posed: 1. Have the systemic changes in health care and PHC resulted in the reformulation of the contents of work schedules of environmental/family nurses? 2. Are the nursing workplaces provided with the indispensable material resources and equipment?

MATERIAL AND METHODS

The study was conducted during the period September–December 2000 in the Białystok Region and covered 110 environmental/family nurses, 50 of whom were employed in new

organizational forms of PHC, i.e. non-public health care units (experimental group), and 60 – in public units (control group). Younger staff members decided to change the type of employment. They performed their occupational tasks within the team of a family physician (40%), in an independent health care unit (20%), on a collective contract basis (16%) and individual contact (4%). The mean age was 38.8, while the remaining respondents were aged 45 on average. The difference in the mean age between the samples examined was significant, being on the level of  $p < 0.001$ . The vast majority of nurses had secondary education. The greatest number of people from the experimental and control groups (46% and 63.34%) completed the proficiency course for environmental/family nurses. Specialisation in this area was possessed by 18% of respondents employed in non-public health units and 31.61% of those working in public units.

The study was conducted by means of a diagnostic survey; the technique was a questionnaire form containing 32 questions devised by the author. The significance of differences between the experimental and the control groups was established by means of Student *t* test, and the values characteristic of each group were compared by “*u*” test of significance.

## RESULTS

A significantly greater number of respondents employed in non-public units confirmed that they knew the scope of tasks and responsibilities within the work schedule (96%, compared to the staff of public units (83.33%). A smaller difference between the two groups ( $p < 0.1$ ) was noted with respect to delegating occupational competence, 92% and 80% respectively.

In the opinions of the respondents, the work schedules in operation at their workplaces to a similar degree consider the tasks of health promotion and prevention of diseases (experimental group – 98%, control group – 93.33%). Moreover, both groups, experimental and control, were obliged to nurse their patients (100% and 96.67%), including the provision of terminal care (96% and 90%).

Results of the study allowed us to presume that the operating work schedules, with no significant differences noted between the experimental and control groups, covered the contribution of nurses in making diagnosis (82% and 83.33%), treatment (90% and 86.66%), rehabilitation (88% and 78.33%) and obliged them to widen their occupational activities by family and local community (94% and 86.67%). The responsibility for the organization of care was formally regulated (86% and 91.66%), the same as responsibility for carrying out the nursing process (80% and 83.33%) and for the quality of services provided (96% and 91.66%). According to the respondents they gained access to medical information concerning the state of patients' health (86% and 86.66%), diagnosis (72% and 86.66%), the diagnostic methods applied (54% and 51.66%), treatment (66% and 73.33%), rehabilitation (58% and 61.67%), as well as anticipated effects of therapy (54% and 48.34%). The greatest number of respondents (70% and 73.33%) confirmed that the scope and type of health services which nurses can perform independently according to the legal regulations was manifested by their work schedules (10).

In the further part of the study the respondents were asked to evaluate the currently performed scope of occupational activities. The majority of people employed in new organizational structures (76%), similar to the staff of units functioning on a traditional basis (75%), mentioned that the introduction of the reform contributed to the widening of their scope of tasks, whereas, according to 10% and 16.7% of respondents respectively, this scope did not change. A greater number of members of the experimental group chose the response ‘I have no opinion’, compared to the control group – 14% and 5% respectively,  $p < 0.01$ . Table 1 contains information concerning changes with respect to the scope of work of environmental/family nurses.

Table 1. Changes in the scope of occupational tasks according to environmental/family nurses employed in non-public and public health care units\*

No.	Response	Experimental group		Control group		Level of significance
		N=50	%	N	%	
1	Considerably more work	8	16.00	18	30.00	p<0.1
2	Greater independence and responsibility	9	18.00	2	3.33	p<0.02
3	Shorter working time in a community	8	16.00	-	-	-
4	Greater demand for health promotion, prophylaxis and education	7	14.00	2	3.33	p<0.05
5	Performing work activities other than previously	6	12.00	-	-	-
6	More varied occupational tasks	3	6.00	-	-	-
7	Greater demand for therapeutic-treatment services and care of patients at home	5	10.00	2	3.33	
8	Provision of 24 h services	-	-	4	6.67	-
9	Keeping a large number of records and performing office work	3	6.00	7	11.67	-
10	Managing own practice	1	2.00	-	-	-
11	Others	4	8.00	3	5.00	
12	Nothing has changed	4	8.00	-	-	-
13	Lack of response	2	4.00	22	36.67	-

\* The percentages do not sum up to 100.00 because the respondents could choose more than one answer

The analysis of results showed only three statistically significant differences. The first difference – on the level of significance  $p<0.02$  – confirmed that the staff of non-public health care units had a greater independence and responsibility (18%), compared to people employed in public units (3.33%). The significant difference ( $p<0.05$ ) resulted from more frequent demand for health promotion, prophylaxis and education in the study group (14%), compared to the control group (3.33%). Respondents working in public health care units mentioned that they had considerably more work ( $p<0.01$ , compared to the staff of non-public units (30% and 16% respectively)). The remaining differences in the scope of work activities performed between the examined groups were insignificant.

The second issue was the state of the provision of equipment at workplaces. With respect to the material resources it was observed that both groups in the study had standard equipment at their disposal. However, in two cases, a smaller percentage of nurses of the experimental group reported the shortage of material and equipment, compared to the control group. Table 2 presents a compilation of detailed data concerning this problem. The differences on the same level of significance ( $p<0.02$ ) were noted with respect to the shortage of equipment and dressing materials, as well as shock-controlling sets at workplaces in both groups. These shortages were less often reported by the staff of non-public health units (2% each), compared to that of public units (15% each). Nurses employed in public health care units mentioned slightly more often an insufficient provision of equipment at workplaces, such as: equipment for performing surgical procedures, tests for the determination of glucose level, liquid

disinfectants and nursing equipment. These differences were not significant statistically, compared to the staff of non-public units. A few people of the control group expressed the opinion that while performing everyday tasks they encountered certain difficulties, such as time-consuming commuting to the patients' places of residence or limitations in the usage of materials.

Nurses employed on contract basis admitted that at their workplaces they had equipment of a higher standard at their disposal (4%), i.e. a portable ECG unit, a unit for the measurement of the level of cholesterol, rehabilitation equipment, anti-bedsores mattresses, cars, cellular phones, and 2% of nurses had the possibility to make inhalators available for use by their patients.

Table 2. Shortages in provision of equipment at workplaces of environmental/family nurses\*

No.	Shortages	Experimental group		Control group		Total		Level of significance
		N	%	N	%	N	%	
1	Equipment for performing procedures	-	-	1	1.67	1	0.91	-
2	Dressing materials and equipment	1	2.00	9	15.00	10	9.09	p<0.02
3	Incomplete shock-controlling units	1	2.00	9	15.00	10	9.09	p<0.02
4	Sets for determination of glucose level	-	-	10	16.67	10	9.09	-
5	Liquid disinfectants	-	-	3	5.00	3	2.73	-
6	Medical equipment and nursing means	4	8.00	8	13.33	12	10.91	-
7	Units for RR measurement	-	-	4	6.67	4	3.64	-
8	Environmental bags	-	-	1	1.67	1	0.91	-
9	Protective clothes	-	-	3	5.00	3	2.73	-

\* The data contain information only from respondents who evaluated the provision of equipment at their workplace as non-standard

## DISCUSSION

Lewin noticed that individual people often do not want or are not able to change attitudes and behaviours which have been fixed for a long time (8). The characteristics of the population examined confirmed this fact. Younger nurses were more open to changes and decided to perform their job within new organizational forms. The youngest age interval (20–30) covered only the staff of the experimental group. Simultaneously, it cannot be stated that non-public units employed staff with short occupational experience. The mean values of the period of employment in general, and at a workplace of environmental/family nurse, were 18 and 8 years, respectively.

In market economy the boundaries of the hierarchical organizational scheme gradually become obscured, therefore, regulations and orders no longer dominate. The anticipation of assuming full responsibility for own activities is intensified (5). Unfortunately, the studies indicated that nurses infrequently enter into individual or collective contracts. The greatest number of respondents (60%) signed civil-law agreements with physicians – owners of partnerships. Thus, they chose the status of an employee of health services. It should be stressed that this not always resulted from fear of independence, but often from the

monopolistic practices of the Health Insurance Agency, which preferred to pay a family physician also for the nursing services (12).

A principle was formulated in the theory of organization that tasks, responsibilities and competence of the staff should be correlated. The data indicate that this principle is observed neither in public nor in non-public health units. The indicators typical of the three work schedule components gradually decrease, both in the experimental group (100% – 96% – 92%) and in the control (95% – 83.33% – 80%). It is currently considered that there is no way to encourage patients to cope in complex situations of health and illness if the nurses are not delegated the competence (1, 7).

It is an alarming fact that not all respondents had a basic (standard) resource base at their disposal. Hence, requiring them to bear full responsibility for the activities undertaken is often illusive.

### CONCLUSIONS

1. In the new organizational forms of PHC the staff were guaranteed better conditions for bearing responsibility for the job performed.

2. In non-public health units the scope of tasks, responsibilities and competence at workplaces of environmental/family nurses was up-dated considerably more often, compared to public units, and covered occupational tasks consistent with modern health care requirements, also with respect to legal regulations (independent services).

3. In the working process an over-standard resource base and equipment are used exclusively by people employed on contract basis. The staff of public health care units more frequently reported shortages of equipment and materials. This also concerns problems as important as an insufficient provision of anti-shock units.

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## SUMMARY

The reform of health care system, as well as the Act concerning health care units and public health insurance, provided an incentive for gaining independence by health services providers. This also pertains to environmental/family nurses who should decide on the scope of care provided and the results of nursing. Hence, a research problem was posed concerning the effect of health care system reform on the scope of independence in decision making by environmental/family nurses. This problem covered detailed questions with respect to changes in work schedule tasks, competence and responsibilities, as well as the provision of a resource base at workplaces. The study covered a total number of 110 people – 50 employed in non-public health care units and 60 in public institutions. The method of diagnostic survey and two types of statistical tests – Student's t test and 'u' test – were applied in the study. The results of the survey showed that nurses employed in new organizational forms of PHC had better conditions with respect to both their work schedules and provision of equipment at workplaces. This especially concerned a higher standard of resource base and equipment available for the staff employed on contract basis. It was confirmed that the number of nurses employed on independent contracts was small; hence a small area of independence in making decisions by environmental/family nurses.

### Reforma ochrony zdrowia a zakres samodzielności decyzyjnej pielęgniarek środowiskowych/rodzinnych.

#### I. Warunki do ponoszenia odpowiedzialności za wyniki pracy

Reforma systemu ochrony zdrowia, a także ustawa o zakładach opieki zdrowotnej i powszechnym ubezpieczeniu zdrowotnym dały impuls do usamodzielnienia się dostawców świadczeń zdrowotnych. Dotyczy to także pielęgniarek środowiskowych/rodzinnych, które powinny decydować o zakresie sprawowanej opieki i wynikach pielęgnowania. Postawiono zatem pytanie problemowe o wpływ reformy ochrony zdrowia na zakres samodzielności decyzyjnej pielęgniarek środowiskowych/rodzinnych. Uszczegółowiono go o pytania dotyczące zmian w regulaminowych obowiązkach, uprawnieniach i odpowiedzialności oraz zabezpieczeń materiałowych stanowiska pracy. Badaniu poddano ogółem 110 osób – 50 z niepublicznych zakładów opieki zdrowotnej i 60 zatrudnionych w instytucjach publicznych. W badaniach zastosowano metodę sondażu diagnostycznego oraz dwa rodzaje testów statystycznych: test „t”-Studenta oraz test „u”. Wyniki badań wskazują na to, że lepsze warunki regulaminowe i w zakresie wyposażenia stanowisk pracy mają pielęgniarki zatrudnione w nowych formach organizacyjnych poz. Dotyczy to szczególnie ponadstandardowego zaplecza materiałowego i sprzętu osób pracujących w systemie kontraktowym. Stwierdzono, że liczba pielęgniarek zatrudnionych na samodzielnych kontraktach jest niewielka. Stąd mały obszar samodzielności decyzyjnej pielęgniarek środowiskowych/rodzinnych.