Community nursing care of the elderly during transformation of the primary health care system

Doroszkiewicz H, Bień B

Department of Geriatrics, Medical University of Białystok, Poland

Abstract

Purpose: Worsening of health as well as raising disability in course of aging lead to the increase in the needs for medical and nursing services. The on-going reforms of the primary health care system has brought the organizational transformation in community nursing care into the forms of non-public community nursing units. The aim of the study was to describe the characteristics of community nursing care provided to older people with regard to the differences between a traditional model of the public (SPZOZ) and new model of non-public units (NZOZ).

Material and methods: The study was carried out in all 113-community nurses employed in Białystok, regardless of the form of employment. The questionnaire was answered by 101 nurses, from which one was excluded due to double employment in public (SPZOZ) and non-public (NZOZ) settings. From among of the remaining 100, 76 were employed in SPZOZ and 24 in NZOZ. As the research tool was used the questionnaire.

Results: The data obtained show the predominance of the therapeutic (95%) and diagnostic (78%) services which were more frequently provided by nurses employed in public sector (SPZOZ). Assessment of social situation as well as a caring process, education was rarely provided in both groups of nurses.

Conclusions: Mostly instrumental and therapeutic activities predominated in the community nursing. Generally, any significant differences between two settings of nursing care there were not found. The traditional model of community nursing care enables the realization the full professional competence of nurse in the primary health care system.

Key words: elderly people, community nursing care.

Introduction

The deterioration in health and ability, which comes with age, causes an increasing need for medical and nursing aid. In recent years, reforms introducing the institution of family doctors into the Polish health care system forced organizational changes in community nursing. The traditional nursing care model based on assigning public health care units (Samodzielny Publiczny Zespół Opieki Zdrowotnej – SPZOZ) to particular districts is replaced by various non-public health care units (Niepubliczny Zespół Opieki Zdrowotnej – NZOZ), which provide nursing care for patients of a particular GP or independently [1]. In the new health care system the assumption is that a community nurse takes part in medical treatment not only by doing assignments for the GP, but also takes her own professional actions, therefore realising a complete and continuous nursing process for a family and its members in their home environment, be they healthy, sick, terminally ill, disabled or bedridden [2].

The aim of the study was to get to know the character of community nursing care provided for elderly including the differences between traditional (SPZOZ) and new (NZOZ) model.

Material and methods

The research was conducted in Białystok among all 113 community nurses, regardless of the form of employment. 101 nurses responded to the questionnaire, one of which was

ADDRESS FOR CORRESPONDENCE:
Halina Doroszkiewicz
Department of Geriatrics, Medical University of Białystok
ul. Fabryczna 27, 15-471 Białystok, Poland
Tel/Fax: 48 85 869 49 74
e-mail: halinad@amb.edu.pl

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Table 1. **The demographic characteristics of community nurses in Białystok and their professional activities for the elderly (in %)**

	SPZOZ (N=76)	NZOZ (N=24)	Total (N=100)
	(%)	(%)	(%)
The age structure of community nurses [p<0,01]*			
Below 30 (n=4)	-	16.7	4.0
31-40 years old (n=16)	15.8	16.7	16.0
Over 41 (n=80)	x84.2	66.6	80.0
Total	100.0	100.0	100.0
Average work experience in community nursing (in years)			
	15.2 +_6.7	10.1+_7.1	
Categories of nursing services performed for elderly within the last two weeks			
Medical treatment [p=0.003]	98.7	83.3	95.0
Diagnostic services [p NZ]	77.6	79.2	78.0
Nursing care services [p NZ]	52.6	54.2	53.0
Assessment of needs [p NZ]	46.1	29.2	42.0

* the p value applies to the comparison between forms of employment (SPZOZ and NZOZ)

excluded because she was employed in both kinds of health care units. 76 of the nurses worked in public units and 24 in non-public units. The response rate was 89.4% and is highly representative of Białystok. The research was conducted through an anonymous questionnaire. A quantitative-percentage distribution of qualitative data was used in statistical analysis. To evaluate the difference between groups a Chi^2 Pearson independence test or accurate Fischer test were used. The significant level was assumed to be $p<0.05$. The statistical analysis was done with the Statistica 6.0 software.

Results

1. The demographic characteristics of community nurses in Białystok

The research included a 100 of all 113 community nurses working in Białystok, who answered the anonymous questionnaire. The comparison showed that 76% of the respondents were employed in the public health care units (SPZOZ), while the remaining 24% claimed to work in private institutions (NZOZ).

Nurses over 40 years old formed a majority of respondents as large as 80%. Only four nurses were below 30 (*Tab. 1*). The age structure comparison depending on form of employment shows statistically significant differences ($p<0.01$) – younger nurses tend to work in non-public units more often. Work experience analysis shows that nurses who have worked in community nursing for longer (i.e. are more experienced) form the largest group. 67% of the respondents had over 10 years experience, while the remaining 33% had less. The average work experience in public institutions was 15.2 years and in non-public 10.1 years.

2. The range and character of community nursing among elderly

It was interesting to compare the character of community nursing in the traditional and new model. To achieve this, the range of services performed for the elderly within the last two weeks was analised. It showed that the majority (95%) of nurces focused on medical treatment of the elderly (*Tab. 1*). Much more often were these services performed among elderly in public health centres (SPZOZ). These outcomes can be explained by a far larger number of patients per one nurse in public units.

Over three quarters (78%) of the nurses' tasks in caring over an elderly were diagnostic services. In this category there do not seem to be any difference between the two kinds of health centres. Caring tasks formed a little more than a half (53%) of all the tasks performed by the nurse. No statistically significant difference was noticed here. In nursing the ability to distinguish and realise independent tasks, while sustaining and improving cooperation with a physician is strongly stressed. Assessment the needs, which are the basis of a nurse's intervention, made up a definite minority among the tasks performed by nurses – a 42%.

Another interesting question was about the character of home visits. A detailed analysis was conducted on the basis of the current range of competences of a community/family nurse. Every nurse was asked to indicate the services she had performed most often in house of an elderly within the last 12 months. There were three categories to choose from – education and promotion of health, nursing and care, and taking part in medical treatment and diagnostic tasks.

The modern approach in nursing stresses the complimentarity of caring over both the healthy and sick. A great value is put to promoting health, health education and advising by nurses. Research has shown that almost all community nurses educated their elderly patients at home within the last 12 months. The subject of this education was usually diet and physical activity. A little less attention was given to the problems of health hazards and lifestyle during sickness.

As far as diagnostic services are concerned the most frequent activities of nurses were: measuring the pressure and collecting blood samples (*Tab. 2*). Significant differences connected with the form of employment were observed – these services were declared almost twice more often by nurses from public health care units. Over three quarters of diagnostic services performed in the homes of the elderly included monitor-

Table 2. Diagnostic and medical services performed by nurses within the last 12 months

Categories of home nursing services offered to the elderly	SPZOZ N=76	NZOZ N=(24)	Together N=100	P value
	(%)	(%)	(%)	(%)
Diagnostic services				
1. Measuring the pressure, pulse rate	98.7	95.8	98.0	NZ
2. Taking blood samples	98.7	58.3	89.0	p=0.00000
3. Monitoring glucose level in blood	84.2	83.3	84.0	NZ
4. Taking urine samples for analysis	90.8	45.8	80.0	p=0.00001
5. Hearing monitoring	5.3	29.2	11.0	P<0.01
6. Weight monitoring	6.6	20.8	10.0	NZ
7. Sight monitoring	4.0	20.8	8.0	P=0.01
Medical services				
1. Injections	100.0	83.3	96.0	p=0.001
2. Bladder catheterizing	79.0	25.0	66.0	p=0.00000
3. Intravenous drip infusions	67.1	37.5	60.0	p=0.001
4. Cupping-glasses and ointments applying	32.9	-	25.0	p=0.001

Table 3. **Care services within the last 12 months**

Categories of home nursing services offered to the elderly Care and protective activities	SPZOZ N=76	NZOZ N=24	Together N=100	P value
	(%)	(%)	(%)	
1. Comforting and psychological support	98.7	95.8	98.0	NZ
2. Help in contacting GPs	96.1	91.7	95.0	NZ
3. Instructing on self-care	92.1	83.3	90.0	NZ
4. Treatment of bedsores	82.9	54.2	76.0	p<0.01
5. Help in receiving a prescription	67.1	62.5	66.0	NZ
6. Dressing difficult to heel wounds such as ulceration of shanks	65.8	58.3	64.0	NZ
7. Patting	69.7	41.7	63.0	p<0.01
8. Helping bedridden patients to change their body position	67.1	41.7	61.0	p=0.01
9. Embrocating	65.8	37.5	59.0	p<0.05
10. Help in dosing and taking oral medicines	56.6	50.0	55.0	NZ
11. Whole body toilet	35.5	37.5	36.0	NZ
12. Toilet in the case of problems with keeping up urine	27.6	25.0	27.0	NZ
13. Feeding and drinking	21.1	25.0	22.0	NZ
14. Toilet in the case of problems with keeping up stool	14.5	33.3	19.0	NZ

ing glucose level in blood and taking urine samples for analysis. These two were most frequently offered to patients of public health care units. Community nurses, while taking care of their elderly patients, most frequently monitored their hearing, sight and weight. These tasks were more frequently undertaken by nurses from non-public units. Statistically significant differences were observed.

Medical services were the next examined category. Injections, as the most frequent service, were placed in the first position (*Tab. 2*). Nurses from public health care units offered these services slightly more frequently than nurses from non-public ones. Bladder catheterizing was found in the second position. It was done significantly more frequently among patients being under the care of public health care units. Intravenous drip infusions covered a lesser percentage of medical services. They were done twice more often by nurses from public health care units than by those from non-public ones. Every fourth nurse applied cupping-glasses and ointments.

Independent nursing and care services were the next category examined in the research (*Tab. 3*). Most frequently, nurses comforted their elderly patients and provided them with psychological support. They also helped in contacting GP and instructed people on self-care. Over three quarters of nurses (more frequently from public health care units) said that they treated bedsores. Over half of the community nurses offered such services as help in receiving a prescription, treating poorly healing wounds such as for example ulceration of shanks. Nurses also helped bedridden patients change their body position and made other improvements. The latter activities were done significantly more frequently by nurses from public health care units. Equally frequently, nurses embrocated diseased body parts, did some patting helped to dose and take medica-

ments, and to contact social workers. The latter activities were performed significantly more frequently by nurses from public health care units. Community nurses devoted the least care to problems connected with keeping urine and stool. Only every fourth community nurse declared help with these problems. As many nurses took part in feeding and drinking elderly people at home (*Tab. 3*).

Discussion

The study was conducted in the period of structural employment changes in primary health care aimed at making health care units independent and it is probable that the results are influenced by this fact. The reforms, which have been in progress for a few years now, based on the new Family Doctor institution, forced certain organizational and competence changes in community nursing [1-3]. The traditional nursing care model based on assigning public health care units (Samodzielny Publiczny Zespół Opieki Zdrowotnej – SPZOZ) to particular districts is supplemented by various non-public health care units (Niepubliczny Zespół Opieki Zdrowotnej – NZOZ), which provide nursing care for patients of a particular GP or independently. Even though health care units are no longer assigned to particular districts most elderly still use the services of "their GP", which is the one situated nearest to where they live, usually where the old district unit used to be. This is only natural, an elderly patient, often with limited mobility, should have his GP and community nurse close by. Still, does this necessarily mean that their services are accessible?

Earlier community research [4] has shown a great disproportion between the relatively small numbers of employed nurses as compared to the number of elderly patients in "demographically old" city districts in comparison to "demographically young" districts. Public units served the "oldest" downtown districts, where there was one nurse for every 300 people aged 75 or more. Non-public units organized mostly in new settlements of the city had one nurse for every 130 people from this age group. This disproportion, caused by neglecting demographic factors in planning employment in health care units, causes community nurses to be overburdened and decreases their ability to perform their professional duties and job satisfaction. In this situation there is a risk of the nurses being unable to perform their caring tasks towards disabled elderly. This made it interesting to know the differences in the functioning of community nursing in the two types of health care units.

Although almost all nurses (95%) declared taking part in treatment of elderly, nurses employed in the traditional public units have indicated this type of services significantly more often. In the next most common group of services – diagnostics (78%) – there are no relevant differences. Typical nursing care-services made up a little over a half (53%) of all services. Again, no relevant difference between the two types of health care units appeared. Recognising and assessment of needs, which are the basis for a nurse's intervention, formed the deffinately smallest group – only 42%. This last category of tasks was indicated almost twice more often by nurses in non-public units.

The results concerning nursing services towards elderly show a wrong structure. In both organizational forms instrumental activities, ordered by the doctor, prevail, while independent actions are almost twice less common.

An analysis of the categories of medical services in the patients' homes showed significant differences in various forms of health care units. Nurses in public units declared performing these services significantly more often. It was similar with diagnostic services such as collecting blood or urine for analysis. These were also performed almost twice more often by nurses working in public units. There are similar results concerning typical nursing services, like treating bedsores, instructing the family on how to care over the patient at home, or help in contacting a social aid worker. Nurses in public units performed these tasks significantly more often. This can be explained by a definitely bigger work-load which is put on nurses in public units, due to larger numbers of patients in their care.

In relation to educational or prophylactic activities no significant differences were noticed between the two forms of employment.

The results of the research prove that community nursing during the reform of the health care system is still traditional in its form – dominated by instrumental services ordered by doctors, which do not allow for the community/family nurses' competences to be fully realised. There is a visible tendency towards low independence and creativity among nurses in performing services such as health education, nursing and care, which lie within a nurse's professional competence. The stereotypes of community nursing are partly caused by administrative and organizational deficiencies in health care units. This is confirmed by the results of earlier research, which indicate, that the efficiency of community nursing varies greatly. So far the policy of employment did not include demographic aspects, which automatically means an unequal access to nursing services in different city districts with different demographic ages. Ignoring this leads to overburdening and inability of nurses in demographically "old" areas, as well as to degeneration of services and frustration among patients and nurses [5].

In the period before the reform of health care it was indicated that community nurses did not utilize their time properly, that they performed too many tasks ordered by doctors and took too little a part in assessing the needs of their patients [6,7]. The results of research concerning primary health care over the elderly in the region of Katowice show, that the role of a community nurse was reduced to making injections, measuring blood pressure and sugar level, changing bandages and collecting blood samples for analysis. The research stressed that the psychoterapeutic role of the community nurse was important, while help in using prescriptions and keeping personal hygiene was rare. Nurses complained about difficulties in cooperation with social and non-governmental organizations, institutions and families [8,9,10]. Regardless of the presuppositions community nursing is far from the expected model of functioning of health care units. Little participation of nurses in active care over an elderly still remains one of the problems of basic health care and the role of community nurses has only theoretically changed. Getting to realise that these problems exist creates a chance of starting positive changes in basic care over elderly and requires further study.

Conclusions

Despite of the reorganization of the community nursing in the primary health system, the new forms of community nursing care do not show modern standards. There are still dominated by instrumental tasks, which make it difficult to utilize the full spectrum of professional competences of community nurses in health care units.

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