

The need of the elderly for nursing and social services in the community of Kaunas district

Lina Hitaitė, Lina Spirgienė¹

Garliava Hospital, the branch of Kaunas District Hospital,
¹Department of Geriatrics, Kaunas University of Medicine, Lithuania

Key words: need for nursing services; need for social services; the elderly.

Summary. The aim of this study was to evaluate the need of the elderly for outpatient nursing and social services in Kaunas district.

Material and methods. The object of the study was elderly people (aged 65 years and more) living in Kaunas district. A questionnaire was used for interviewing. The sample was randomly selected from the lists of people registered at the primary health care centers (including outpatient departments and medical aid centers). A total of 390 inhabitants were investigated who represent all the elderly of Kaunas district. The independence of the respondents was evaluated by the standard tests (the Barthel Index and Mini-Mental State Examination).

Results. The respondents reported that 71.3% of them needed nursing and 58.2% social services. The need for the services was higher in older age group. The rural elderly reported higher need for social services (64.3%) than the urban elderly (49.6%). Less than half (45.9%) of respondents referred having problems visiting the general practitioner. Majority of the respondents (86.4%) pointed out that those who took care of them had no special medical training. Totally or almost totally dependent respondents (groups by Barthel Index) needed social (88.0%) and nursing (96.0%) services. Majority of respondents (79.2%) preferred to be cared at home.

Conclusions. More than half of the elderly needed both nursing and social services. The need for social services differently from nursing services was influenced by the living place of the respondents; the rural elderly needed services more than the urban elderly.

Introduction

Lithuania has an aging population (1). The percentage of Lithuanians aged 65 years and more was 15.1% of total population (2) in 2005, 15.3% in 2006, while there were 12.4% of the elderly people in 1997 (3). It is estimated that every third inhabitant of Lithuania will be an elderly person in 2050 (3).

Both home health care and social services are required due to increasing percentage of the elderly. In 2004, assistance and home nursing were provided to 7400 retired persons, i.e. 512 persons more than in 2003. Additionally 806 persons (in 2003, 821) who had organized the services by themselves due to objective reasons received care benefits (4).

The experience of the European Union member states shows that in order to ensure conditions for

elderly people to live as long as possible in their homes, the services must be integrated (home care, home nursing, medical services, and meals on wheels) (5). The system of community nursing has not been sufficiently developed in our country.

Recently, the Ministry of Health of the Republic of Lithuania has started to pay more attention to the development of home care services, strengthening the role of general practitioners and community nurses. The elderly prefer staying at home with family in familiar surroundings with high-quality health care services. However, it is recognized that social factors make important contributions to the development of home care services. Because of lack of home comforts, poor health condition, dependency on other persons, and lack of com-

munity services, the elderly are forced to seek medical assistance in nursing institutions.

To ensure good community health, social services must accompany the services of primary health care. Social services are intended to satisfy various social needs of people of different age groups. The aim of social services is to integrate a person into community and to enable a person to take care of himself/herself.

Interdisciplinary team – physicians, teachers, psychologists, social workers, nurses, etc – can positively improve the social and nursing needs of people. Thus, social activities of the community are in close relation with health care, education, social security, and labor market.

Effective assistance of the community can be established by creating integral network of social and health care. Various home care services can improve quality of life of the elderly (6).

The needs for nursing and social services at home were not analyzed in Kaunas district. The established needs would allow planning for services and recourses in health and social care.

The aim of this article was to evaluate the need of the elderly people for nursing and social services in the community of Kaunas district.

Material and methods

Object of study. Elderly people of Kaunas district, aged 65 years and more.

Sampling. Sample size was calculated by using a statistical table by Jadov (7) with a 5% error. The number of participants needed to survey is presented in Table 1.

The urban elderly made up 22.5% of all inhabitants in Kaunas district, thus number of the urban elderly needed to be included in the study was $22.5 \times 390 / 100 = 88$. Number of the rural respondents was calculated in the same way.

The respondents were selected randomly from the records of registered people at the primary health care centers (including outpatient departments and medical aid centers) in Garliava, Vilkija, and Pakaunė.

In order to ensure necessary number of the respondents, every 18th person was selected from the list of 6993 persons registered in medical institutions (1662 were the urban and 5331 were the rural elderly). This number was obtained dividing the planned number of selected people by total number of persons in patients' records ($390:6993=0.056$). It made up 5.6% of all elderly from the records or 1/18 of the respondents. Six percent of respondents refused to take part in the investigation because of such reasons as fear of stealing, reluctance to communicate with unfamiliar researches; 4% were not found at home. In order to get more precise data, every 18th elderly person was selected from the existing records repeatedly (excluding those who already answered the questions). Other persons from the records replaced those who refused to take part in the investigation.

Ethical approval. The Bioethics Committee of Kaunas University of Medicine approved the study protocol. The participants were informed about the aim of the study and signed informed consent before the interview.

Questionnaire. The method of information collection was a questionnaire. The need for social and nursing services was analyzed by asking respondents if these services were required, if respondents could pay for it, who took care of them, and if caregivers had medical education.

The Barthel Index was used to assess respondents' independence (8). Independence was defined as follows: 100 scores, independent; 91–99 scores, slightly dependent; 62–90 scores, moderately dependent; 21–61 scores, almost to-

Table 1. The number of the urban and rural elderly in Kaunas district invited to participate in the study (7)

Place of living	Number of elderly people in Kaunas district (at the beginning of 2004)		Number of invited persons
	absolute number	%	
Urban	2536	22,5	88
Rural	8739	77,5	302
Total	11275	100,0	390*

*Sample size calculated by using a statistical table by Jadov.

tally dependent; and 0–20 scores, totally dependent. In order to get more objective results of the study, some groups were jointed: slightly dependent and dependent, and totally dependent and almost totally dependent.

Mini-Mental State Examination (MMSE) was used to assess the cognitive status (9). The results of the test were grouped as follows: 25–30 scores, no cognitive impairment; 21–24 scores, mild; 11–20 scores, moderate; and 0–10, severe cognitive impairment.

Organization and performance. Trained nurses of community performed the interview. The necessary data were obtained from the family members, relatives, general practitioners, and community nurses if the contact with respondents was difficult due to physical health and/or cognitive status. The researchers assisted elderly persons to fill in questionnaires. The interviews were performed in participants' homes.

Statistical analysis. The analysis was carried out using SPSS for Window, version 10.0. Quantitative analysis of data was used. The statistical analysis was carried out using χ^2 test.

Results

The elderly aged 65–69 made up 26.0% of all respondents; aged 70–74 years, 20.0%; aged 75–79 years, 22.0%; aged 80–84 years, 15.4%; and older than 90 years, 9.2%. More than half of respondents (58.2%) reported the need for social services and even 71.3% – the need for nursing services (Fig. 1). The oldest respondents needed more nursing and social services comparing with other age groups. More than one-third (37.5%) of the elderly aged 65–69 years reported the need for social services and 55.7% of them – for nursing

services. Even 70.7% of the elderly aged 75 years and more reported needs for social services and 85.2% – for nursing services.

The need for social services statistically significantly depended on their living place. The rural elderly needed more social services (64.3%) than the urban elderly (49.6%) ($\chi^2=7.985$, $P=0.018$).

Only 10.5% of all respondents could afford to pay for social services (farm work, buying food, cooking, paying taxes, etc.) and 12.8% of all respondents – for nursing services. Less than half of all respondents (40.5%) could partly afford to pay for social services and 39.0% for nursing services; 47.7% could not afford services.

Even 45.9% of respondents reported difficulties when they wanted to visit their general practitioner. The main reasons were weak health (79.9% of all respondents), fear to get lost (15.1%), and other (lack of self-confidence, difficulty to go up and downstairs, moving with a wheelchair, long queues in the institutions).

When the respondents needed home nursing, they were cared for by family members (69.7%), neighbors (10%), community nurses (7.7%), and persons who were paid (3.8%). Only 22.6% of the respondents did not need nursing.

Majority of the respondents (86.4%) reported that the persons who cared for them did not have any special medical education (the same was in the investigation in 2003) (10). Only 9.9% of the respondents reported that caregivers had medical education, 2.6% did not know about caregivers' education, and 1% of the respondents did not answer.

The study revealed that the majority of the respondents (87.4%) were cared for by family

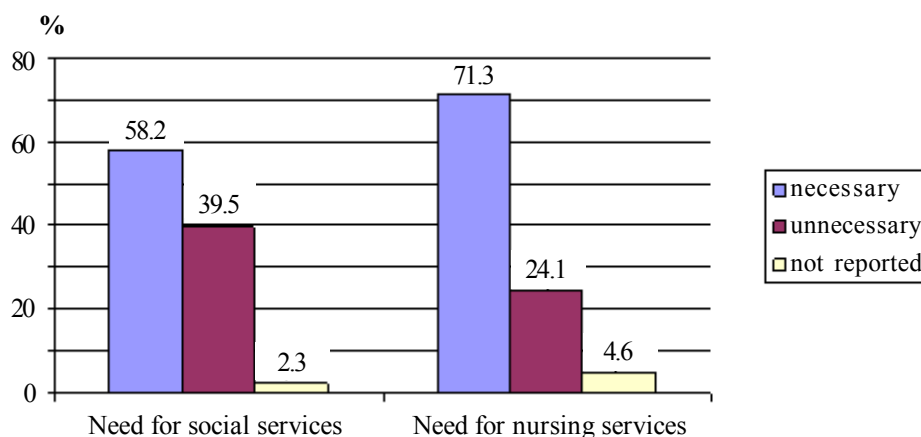


Fig. 1. The need of the elderly for social and nursing services in Kaunas district

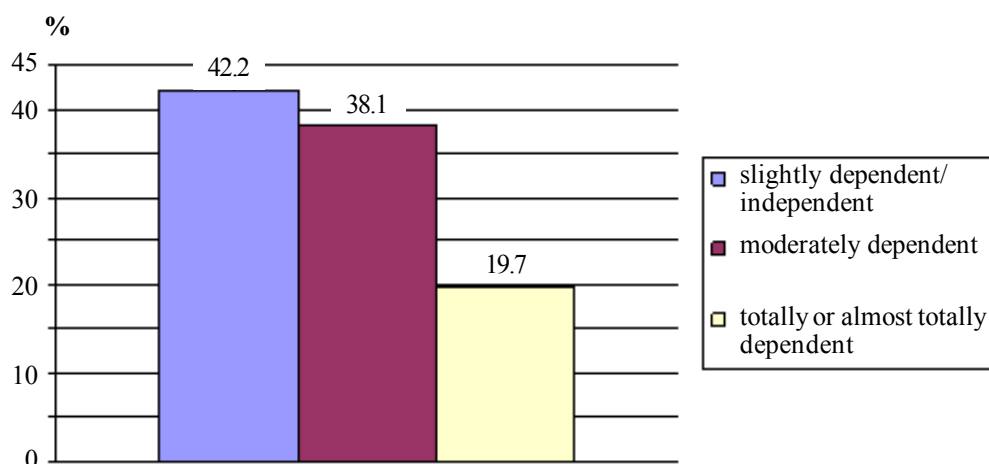


Fig. 2. Distribution of respondents by their independence evaluated using Barthel index

members who were employed; however, some of the respondents (11.9%) were cared for by unemployed family members, and 0.7% of respondents did not answer.

According to the Barthel Index, 19.7% of the respondents were totally or almost totally dependent. These respondents required assistance in following activities of daily living: sitting, dressing, feeding, washing, etc. More than one-third (38.1%) of the respondents were moderately dependent; they could perform some physical activities such as to eat, to ask for help with toilet use, to sit, and even to walk with a little help of others. Less than half (42.2%) of the respondents belonged to the group of slightly dependent or independent persons (Fig. 2).

Assessing the independence of the respondents by Barthel Index and MMSE, in the group of totally or almost totally dependent respondents 46.1% had serious, 31.6% moderate, and 15.8% mild cognitive impairment. Only 6.6% of the respondents did not have cognitive impairments (Table 2).

Both social and nursing needs were related to the impaired activities of daily living and cognitive impairment. The more respondents were physically and/or cognitively impaired, the more they needed social and nursing services. The majority (88%) of the respondents belonging to the group of totally or almost totally dependent persons needed social services¹ and 96% needed nursing services². In the group of moderately dependent persons, 76.4% of the respondents needed social services and 85.8% –

Table 2. Distribution of respondents by the Barthel index and the Mini-Mental State Examination

Cognitive impairment by MMSE	Categories of the Barthel index							
	totally or almost totally dependent		moderately dependent		slightly dependent/independent		Total	
	n	%	n	%	n	%	n	%
No	5	6.6	73	49.7	126	77.3	204	52.8
Mild	12	15.8	26	17.7	28	17.2	66	17.1
Moderate	24	31.6	48	32.7	9	5.5	81	21.0
Severe	35	46.1	0	0.0	0	0.0	35	9.1
Total	76	100.0	147	100.0	163	100.0	386	100.0

$\chi^2=224.556$, $P<0.001$, MMSE – Mini Mental State Examination.

¹The need for social services, according to respondents' opinion, depending on psychical and mental independency of elderly, $\chi^2=94.196$, $P=0.001$ ($P<0.05$).

²The need for nursing services, according to respondents' opinion, depending on psychical and mental independency of elderly $\chi^2=67.216$, $P=0.001$ ($P<0.05$).

nursing services. Only 31.6% and 53.3% of the respondents in the group of independent/slightly dependent persons requested social and/or nursing services, respectively.

The majority (79.2%) of the respondents living in Kaunas district preferred to be cared for at their own home, and 17.4% of the respondents preferred to be cared for in a nursing hospital. Only 2.8% of the respondents wanted to be cared for in a long-term care facility; 0.5% of the respondents did not answer.

Discussion

Social and nursing services are closely related. More than half of the elderly of Kaunas district who participated in this study requested for the services. The need for nursing services as well as the need for social services increases. While providing social and nursing services, attention should be paid to person's physical and mental independency, social status, living conditions, *etc.*

In the study carried out by primary health care centers and inpatient departments (Lithuania) where medical doctors and nurses took part, the need for home nursing was evaluated by 3.94 scores in a 5-point system (11). In other countries, for example in Finland, even 91% of the elderly aged 75 years and more received help at home (12).

Only comprehensive assessment of person's abilities and needs can reveal what kind of services supporting independence is needed by a person (13). Before providing nursing services, it is necessary to establish criteria according to which we would select the patients for home nursing. For example, persons belonging to the group of moderately dependent patients (according to the Barthel Index) without need for constant care, with a known diagnosis, living in 3–4 km from the institution providing nursing services, having good living conditions (water supply, central heating, *etc.*) *etc.* could be provided with nursing and/or social services at home. The elderly belonging to a group of totally or almost totally dependent patients according to the Barthel Index could be cared for in a nursing hospital. Also moderately dependent patients living too far away from institutions providing nursing services and/or having poor living conditions in their own home could be nursed in nursing hospitals.

Thus in order to know the need for home nursing, it is necessary to pay attention not only to the degree of patient's independence and diagnosis but also to his/her living conditions. This situation shows that a

social worker is a member inseparable from a team consisting of a general practitioner and a nurse.

The majority of elderly in the study were not able to pay themselves for social and nursing services. In order to provide such services for people at home, it would be necessary to look for other payment sources. Perhaps financing should be allocated not only for the outpatient treatment of elderly people, but also for nursing services.

It is important to consider the fact that nursing services should be provided by a qualified person with medical education who is able to provide high-quality services. The majority of respondents' family members (86.4%) did not have any special medical knowledge, so high-quality services on time cannot be provided.

Collaboration between nursing and social services is essential in order to improve the quality of life of the elderly living in their own home. Referring to the principle "to live as long as possible in own home," it is necessary to assess individual needs of each elderly person and considering this to provide the needed services.

Conclusions

1. More than half of elderly needed both nursing and social services (71.3% and 58.2%, respectively). The elder respondents needed more services. The need for social services differently from nursing services was influenced by the living place of the respondents; the rural elderly needed services more (64.3%) than urban (49.6%).

2. Assessing the needs for outpatient nursing and social services according to the Barthel index, more than half (57.8%) of inhabitants in Kaunas district needed nursing and/or social services; 19.7% of them were totally or almost totally dependent and 38.1% of them were moderately dependent.

Acknowledgements

We would like to thank Prof. A. Šeškevičius, MD, PhD, and Prof. J. Petrauskienė, MD, PhD, for information, useful suggestions, and advices.

We thank Kaunas County Institution of Local Administration, Garliava Hospital's director R. L. Žilinskas, heads of Garliava, Pakaunė, and Vilkija primary health care centers, and community nurses who helped to carry out the study. We also thank the inhabitants of Kaunas county who took part in the investigation and helped to find out the need for social and nursing services in the community.

Pagyvenusių žmonių slaugos bei socialinių paslaugų poreikis Kauno rajono bendruomenėje

Lina Hitaitė, Lina Spirgienė¹

Kauno apskrities ligoninės filialas Garliavos ligoninė, Kauno medicinos universiteto Geriatrijos klinika

Raktažodžiai: slaugos paslaugų poreikis, socialinių paslaugų poreikis, pagyvenusio amžiaus žmonės.

Santrauka. Tyrimo tikslas. Įvertinti pagyvenusių žmonių ambulatorinės slaugos bei socialinių paslaugų poreikį Kauno rajone.

Tiriamųjų kontingentas ir tyrimo metodai. Tirti Kauno rajono pagyvenę (65 metų ir vyresni) žmonės. Tyrimo metodai. Atsitiktinės atrankos būdu iš pirminės sveikatos priežiūros centrų registruotų asmenų sąrašų (įskaitant ambulatorijas ir medicinos punktus) atrinktų tiriamųjų anketinė apklausa. Ištirta 390 Kauno rajono pagyvenusio amžiaus žmonių. Respondentų savarankiškumas vertintas standartiniais fizinio savarankiškumo ir protinės būklės mini tyrimo testais.

Rezultatai. Respondentų nuomone, 71,3 proc. reikalingos slaugos paslaugos, 58,2 proc. – socialinės paslaugos. Kuo tiriamieji vyresni, tuo daugiau šios paslaugos reikalingos. Kaime gyvenantiems žmonėms socialinių paslaugų reikėjo labiau (64,3 proc.) nei gyvenantiems mieste (49,6 proc.). Net 45,9 proc. respondentų nurodė, kad nuvykimas pas šeimos gydytoją jiems sukėlė sunkumų. Dauguma (86,4 proc.) respondentų nurodė, jog juos slaugantys asmenys neturėjo medicininio išsilavinimo. Iš visiškai ar beveik visiškai priklausomų (grupės pagal Bartelio indeksą) 88,0 proc. respondentų nurodė, jog jiems reikalingos socialinės, 96,0 proc. – slaugos paslaugos. Dauguma respondentų (79,2 proc.) norėjo būti slaugomi namie.

Išvados. Daugiau kaip pusė pagyvenusių žmonių buvo reikalingos ir slaugos, ir socialinės paslaugos. Socialinių paslaugų poreikiui, skirtingai nei slaugos paslaugų, įtakos turėjo respondentų gyvenamoji vieta. Kaime gyvenantiems žmonėms paslaugų reikėjo dažniau nei gyvenantiems mieste (49,6 proc.).

Adresas susirašinėti: L. Hitaitė, Kauno apskrities ligoninės filialas Garliavos ligoninė, Vytauto 61, 53258 Garliava
El. paštas: linahitt@yahoo.de

References

1. Kalėdienė R, Petrauskienė J, Rimpelė A. Šiuolaikinio visuomenės sveikatos mokslo teorija ir praktika. (Theory and practice of modern society health science.) Kaunas: Šviesa; 1999.
2. Lietuvos statistikos departamentas prie Lietuvos Respublikos Vyriausybės. Gyventojų skaičius pagal amžių ir lytį. (Department of Statistics at the Government of the Republic of Lithuania. Demographic situation in Lithuania, 1990–2002.) Available from: URL: <http://www.std.lt>
3. Lietuvos statistikos departamentas prie Lietuvos Respublikos Vyriausybės. (Department of Statistics at the Government of the Republic of Lithuania.) Available from: URL: <http://www.stat.gov.lt>
4. Socialinės paslaugos pagyvenusiems žmonėms 2005. (Social services for elderly people, 2005.) Available from: URL: <http://www.std.lt>
5. Dėl nacionalinės gyventojų senėjimo pasekmių įveikimo strategijos patvirtinimo. LR nutarimas. (Concerning the approving the national strategy to overcome aging consequences. Decision of the Republic of Lithuania.) Vilnius 2004 m. birželio 14 d. Nr. 737. Available from: URL: <http://socmin.lt>
6. Renwick D. Caring for older people: community care and social services. BMJ 1996;313:869-72.
7. Kardelis K. Mokslinių tyrimų metodologija ir metodai. (Methods and methodology of scientific research.) Kaunas: Judex; 2002.
8. LR SAM ir socialinės apsaugos ir darbo ministro 1999 m. balandžio 29 d. įsakymas Nr. 196/40. Savarankiškumo įvertinimo Barthel indeksu metodika. (Republic of Lithuania Ministry of Health and Minister's of Social Security and Labour order No. 196/40 of April 29, 1999 "Methodology of independence assessment using the Barthel's index".) Valstybės žinios 1999;1240(39). Available from: URL: <http://sam.lt>
9. Folstein MF, Folstein SE, McHugh PR. Mini-mental state: a practical method for grading the cognitive state of patients for the clinician. J Psychiatr Res 1973;12:189-98.
10. Hitaitė L. Pagyvenusių Kauno rajono pacientų slauga namuose. Slaugos bakalauro baigiamasis darbas. (Home nursing of the elderly of Kaunas district. Bachelor thesis.) Kaunas: KMU; 2004.
11. Kairys J, Žėblienė E, Zokas I. Gydytojų nuomonė apie sveikatos priežiūros paslaugas Lietuvoje. (Doctors viewpoint of health care services in Lithuania.) Sveikatos mokslai 2005;15: 87-92.
12. Social welfare and health services Oulu City Hospital. Services for elderly people, 2003. Available from: URL: <http://ouka.fi>
13. Večkienė N, editor. Socialinė gerontologija: ištakos ir perspektyvos. (Social gerontology: sources and perspectives.) Kaunas: Vytauto Didžiojo universitetas; 2004.

Received 21 December 2006, accepted 12 November 2007