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## A STUDY OF THE UNMET NEEDS OF ELDERLY PEOPLE IN THE CITY OF ALMATY

**Resume**

**Background:** The problem of population ageing is becoming more and more urgent all over the world, including Kazakhstan. As the number of older people increases, the need for health and social support increases. Older people face a number of physical, psychological and social problems, which requires a comprehensive assessment of their needs in order to develop appropriate intervention strategies.

**Purpose of study:** to examine the unmet needs of older people living in the Social Services Centre.

**Materials and methods of study:** The study included 100 people aged 65 and older living in the Social Services Center in Almaty. A CANE-based questionnaire was developed for the study, translated into Russian and Kazakh with input from physicians. The final versions were adapted to local conditions, keeping the division into 4 areas: basic, physical, psychological and social needs. Data were analysed using descriptive statistics and non-parametric methods.

**Results:** The results of the study showed that the mean age of the respondents was 74 years, of which 54% were female and 46% were male. With age, dissatisfaction in various areas of needs increases significantly among the elderly. In the group of 75 years and above, compared to the group of 65-74 years, there was an increase in unmet needs for useful activities (contribution to society) from 40.7% to 63%,  $p=0.035$ , improving physical health from 40.7% to 65.2%,  $p=0.008$ , increasing physical activity from 35.2% to 63%,  $p=0.020$ , and safety from accidental injuries from 42.6% to 69.6%,  $p=0.005$  and communication (35.2% to 58.7%,  $p=0.025$ ).

**Conclusions:** Challenges related to loss of sense of self worth, physical health, physical activity, safety from accidental injury and social isolation increase with age.

**Keywords:** Keywords: elderly people, aging, CANE questionnaire, needs, population

## АЛМАТЫ ҚАЛАСЫНЫҢ ҚАРТ АДАМДАРЫНЫҢ ҚАНАҒАТТАНДЫРЫЛМАҒАН ҚАЖЕТТІЛІКТЕРІН ЗЕРТТЕУ

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**Түйін**

**Кіріспе.** Халықтың қартаю проблемасы бүкіл әлемде, соның ішінде Қазақстанда да өзекті бола түсуде. Егде жастағы адамдар санының артуымен Медициналық және әлеуметтік қолдауға деген қажеттілік артады. Егде жастағы адамдар физикалық, психологиялық және әлеуметтік сипаттағы бірқатар қиындықтарға тап болады, бұл тиісті араласу стратегияларын әзірлеу үшін олардың қажеттіліктерін жан-жақты бағалауды талап етеді.

**Зерттеудің мақсаты:** Әлеуметтік қызмет көрсету орталығында тұратын қарттардың қанағаттандырылмаған қажеттіліктерін зерттеу.

**Материалдар мен әдістер:** зерттеуге Алматының 65 жастан асқан әлеуметтік қызметтер орталығында тұратын 100 адам қатысты. Зерттеу үшін сапе негізінде сауалнама әзірленіп, оны дәрігерлердің қатысуымен орыс және қазақ тілдеріне аударды. Соңғы нұсқалар жергілікті жағдайларға бейімделді, 4 салаға бөліну сақталды: негізгі, физикалық, психологиялық және әлеуметтік қажеттіліктер. Деректерді талдау сипаттамалық статистика мен параметрлік емес әдістерді қолдану арқылы жүргізілді.

**Нәтижесі:** зерттеу нәтижелері респонденттердің орташа жасы 74 жасты құрағанын көрсетті, оның 54% - ы әйелдер, 46% - ы ер адамдар. Жасы ұлғайған сайын егде жастағы адамдарда қажеттіліктердің әртүрлі салаларында қанағаттанбау айтарлықтай артады. 75 және одан жоғары топта 65-74 жас аралығындағы топпен салыстырғанда пайдалы қызметке (қоғамға салымға) қанағаттандырылмаған қажеттіліктердің 40,7% - дан 63% - ға дейін өсуі байқалады,  $p=0,035$ , физикалық денсаулықты 40,7% - дан 65,2% - ға дейін жақсарту,  $p=0,008$ , физикалық белсенділікті 35,2% - дан 63% - ға дейін арттыру,  $p=0,020$ , сондай-ақ кездейсоқ жарақаттардан қауіпсіздікті қамтамасыз етуде 42,6% - дан 69,6% - ға дейін,  $p=0,005$  және байланыс (35,2% - дан 58,7% - ға дейін,  $p=0,025$ ).

**Қорытынды:** жасы ұлғайған сайын өзіндік маңыздылық сезімін жоғалту, физикалық денсаулық, физикалық белсенділік, кездейсоқ жарақаттанудан қауіпсіздікті қамтамасыз ету және әлеуметтік оқшауланумен байланысты проблемалар күшейе түседі.

**Түйінді сөздер:** қарттар, қартаю, CANE сауалнамасы, қажеттіліктер, халық.

## ИЗУЧЕНИЕ НЕУДОВЛЕТВОРЕННЫХ ПОТРЕБНОСТЕЙ ПОЖИЛЫХ ЛЮДЕЙ ГОРОДА АЛМАТЫ

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**Резюме**

**Введение:** Проблема старения населения становится все более актуальной во всем мире, включая Казахстан. С увеличением численности пожилых людей возрастает потребность в медицинской и социальной поддержке. Пожилые люди сталкиваются с рядом проблем физического, психологического и социального характера, что требует всесторонней оценки их потребностей для разработки соответствующих стратегий вмешательства.

**Цель исследования:** изучение неудовлетворенных потребностей пожилых людей, проживающих в Центре социальных услуг.

**Материалы и методы исследования:** В исследование включили 100 человек, проживающих в Центре социальных услуг Алматы, возрастом от 65 лет и старше. Для исследования разработали опросник на основе CANE, переведя его на русский и казахский языки с участием врачей. Окончательные версии были адаптированы под местные условия, с сохранением деления на 4 области: основные, физические, психологические и социальные потребности. Анализ данных проводился с применением описательной статистики и непараметрических методов.

**Результаты:** Результаты исследования показали, что средний возраст респондентов составил 74 года, из них 54% женщины и 46% мужчины. С возрастом у пожилых людей значительно увеличивается неудовлетворенность в различных областях потребностей. В группе 75 лет и старше, по сравнению с группой 65-74 лет, наблюдается рост неудовлетворенных потребностей в полезной деятельности (вкладе в общество) с 40,7% до 63%,  $p=0,035$ , улучшении физического здоровья с 40,7% до 65,2%,  $p=0,008$ , увеличении физической активности с 35,2% до 63%,  $p=0,020$ , а также в обеспечении безопасности от случайных травм с 42,6% до 69,6%,  $p=0,005$  и общении (35,2% до 58,7%,  $p=0,025$ ).

**Выводы:** С возрастом усиливаются проблемы, связанные с утратой чувства собственной значимости, физическим здоровьем, физической активностью, обеспечением безопасности от случайных травм и социальной изоляцией.

**Ключевые слова:** пожилые люди, старение, опросник CANE, потребности, население

**Background.** According to WHO, people around the world are living longer and, according to forecasts, the proportion of the world's population over 60 years of age will almost double between 2015 and 2050. This trend has also affected Kazakhstan, since between 1990 and 2023, the proportion of people over 60 years of age increased from 9% to 12.9% and is projected to be 17.1% in 2050 [1]. The increase in the number of elderly people is a challenge for the healthcare systems of countries around the world. The demand for long-term care is expected to increase significantly due to the aging population [2]. In addition to physical problems, elderly people face a range of psychological, social, economic, and care problems [3-5]. Thus, social isolation, low social support, and loneliness adversely affect the quality of life of the aging population [4,5]. The assessment of needs of older people should be comprehensive and systematic to ensure that unmet needs are identified to develop appropriate interventions to meet them and improve the quality of life of older people [6,7].

Special organizations providing long-term care are becoming the first choice for assessing the met and unmet needs of older people [8,9]. Organizations of this type have several advantages, such as high quality of care aimed at meeting the needs and improving the quality of life of older people, while using fewer resources, since care is aimed at needs that can be met [8].

The Camberwell Assessment of Need for the Elderly (CANE) questionnaire has become widely used for assessing met and unmet needs of older people [10-14]. The CANE questionnaire was developed in 2000 to assess the needs of older people with mental disorders and is easy to use and has good reliability [15]. In addition, the questionnaire has shown good results when used with older adults without mental disorders [11,13,14]. CANE can be used to interview both patients and relatives of patients, as well as caregivers, which allows identifying areas of discrepancy in perceptions of needs between these groups [16]. CANE provides a holistic approach to identifying the met and unmet needs of older adults, as it includes both medical and socioeconomic needs [15]. CANE is quite reliable in identifying unmet needs across a variety of samples and settings [17].

**The purpose of the study:** to examine the unmet needs of older people living in the Social Services Center.

**Materials and methods.** The study included 100 people aged 65 and older living in the Social Services Center in Almaty. Currently, 280 residents live in the center. The center is divided into 3 blocks. Block 1 houses 80 palliative patients with dementia and terminal diseases who did not participate in the study. The other 2 blocks house 200 active and mentally healthy older people who were given a detailed explanation of the purpose and method of the study and were also asked to participate. As a result, 100 people agreed to participate in the study.

We developed our own questionnaire, which was based on the internationally recognized CANE questionnaire. The process of creating the questionnaire included several stages. First, we translated the original CANE from English into Russian and Kazakh with the involvement of trilingual (English, Russian and Kazakh) physicians. Two versions of the translated questionnaire were obtained in Kazakh and Russian, and the final versions were formed by mutual agreement between the physicians. It is important to note that despite using CANE as a basis for developing our questionnaire, the original CANE was not directly used in our study. Instead, we created a new, adapted instrument that better suits the needs and expectations of the target group in the context of Kazakhstan. In the process of adaptation, we modified some questions from the original CANE, while maintaining the division into 4 areas of basic, physical, psychological and social needs.

The study was approved by the local ethics committee of the S.D. Asfendiyarov Kazakh National Medical University (IRB00011496).

After collecting and systematizing the obtained data in the Microsoft Excel 2016 Professional database, we worked with descriptive statistics tools with the calculation of mean values with standard deviation and the calculation of the p value was carried out in the statistical software IBM SPSS Statistics, version 13. The age variable was distributed asymmetrically, so it is presented as the median  $Me$  [25th; 75th percentile] or  $Me$  [Q1, Q3]. To assess the nature of the distribution in the population according to the sample data, the Kolmogorov-Smirnov test with Lilliefors correction was used. The analysis of the frequency characteristics of qualitative indicators was carried out using nonparametric methods using the Pearson criterion ( $\chi^2$ ). Differences in data were considered statistically significant at  $p < 0.05$ .

**Results.** The average age of respondents was 74.0 [68.2; 81.0], of which 54 (54.0%) were women and 46 (46.0%) were men. The characteristics of the sample are presented in Table 1.

**Table 1** – Characteristics of the sample (N=100)

Parameter	Characteristic	N (%)
Age (years)	65-74	54 (54)
	75 and older	46 (46)
Parameter	Female	54 (54)
	Male	(46)

Table 2 presents the results of the study of satisfied and unsatisfied needs of the elderly. According to the analysis of the basic needs, a high percentage of respondents are satisfied with housing or there is no need for housing, which amounted to 28% and 50%, respectively, and most elderly people either have the need for improved nutrition or do not have it (16% and 75%). On the contrary, among the basic needs, the highest percentage of dissatisfaction falls on the need for useful activity (contribution to society) - 51% of respondents. When analyzing physical needs, we found that 55% of respondents had the need for medications satisfied and 45% did not have this need. The need for improved mobility inside and outside the home is almost absent, since 82% do not need assistance, and all needs are satisfied by the remaining 18%. On the contrary, 52% of respondents note an unmet need for improved physical health. Interesting results of our study were revealed in the psychological needs of the elderly, showing that 99% of respondents do not have a need to improve memory and change behavior (habits), which may indicate a low priority of these aspects or satisfaction with the current state. While the need for safety (accidental injuries) remains unsatisfied with 55% of respondents, which emphasizes the importance of this problem for the elderly.

As for social needs, 46% of respondents noted an unsatisfied need for communication, which indicates high social isolation and lack of communication, which requires further research, given that all respondents live in a social housing building.

**Table 2** – Analysis of satisfied and unsatisfied needs of the elderly

Need area	No need, n (%)	Satisfied needs, n (%)	Unsatisfied needs, n (%)
<b>Basic needs</b>			
Need for housing	50 (50)	28 (28)	22 (22)
Need for better nutrition	75 (75)	16 (16)	9 (9)
Need for financial assistance	22 (22)	42 (42)	36 (36)
Need for useful activity (contribution to society)	18 (18)	31 (31)	51 (51)
Need for caring for others	37 (37)	40 (40)	23 (23)
<b>Physical needs</b>			
Need for improved physical health	22 (22)	26 (26)	52 (52)
Need for medication	45 (45)	55 (55)	0 (0)
Need for improved vision	19 (19)	44 (44)	37 (37)
Need for improved hearing	23 (23)	57 (57)	20 (20)
Need for incontinence assistance	42 (42)	28 (28)	30 (30)
Need for improved mobility inside and outside the home	82 (82)	18 (18)	0 (0)
Need for increased physical activity	32 (32)	20 (20)	48 (48)
Need for assistance with self-care	23 (23)	57 (57)	20 (20)
<b>Psychological needs</b>			
Need for psychological support during stress	30 (30)	42 (42)	28 (28)

Need for memory improvement	99 (99)	1 (1)	0 (0)
Need for behavioral change (habits)	99 (99)	1 (1)	0 (0)
Need for safety (self-harm)	91 (91)	9 (9)	0 (0)
Need for safety (accidental injuries)	16 (16)	29 (29)	55 (55)
Mental health problems (depression)	72 (72)	23 (23)	5 (5)
<b>Social needs</b>			
Need for communication (company)	27 (27)	27 (27)	46 (46)

Next, we studied the age influence on the unmet needs of older people (Table 3). When analyzing unmet needs among older people, we found statistically significant differences between the age groups of 65-74 years and 75 years and older, indicating a significant increase in problems with age.

When analyzing basic needs, it was found that with age, the unmet need for useful activity (contribution to society) increases, so in the age group of 65-74 years, 40.7% of respondents note this need as unmet, while in the group of people over 75 years old, this figure increases to 63% ( $p = 0.035$ ), which emphasizes the increasing importance of self-realization and social significance in old age. Analysis of physical needs showed an increasing unmet need for improving physical health with age - 40.7% in the 65-74 age group and 65.2% in the 75 and older group ( $p = 0.008$ ), and also, dissatisfaction with the need to increase physical activity is growing - from 35.2% to 63% in two age groups ( $p = 0.020$ ), which indicates an increase in problems with physical condition and maintaining activity. As for psychological needs, there is a significant increase in dissatisfaction with the need related to ensuring safety from 42.6% to 69.6% ( $p = 0.005$ ) in age groups, which reflects a high level of anxiety for one's own safety and the need for protection from accidental injuries with age. In the area of social needs, dissatisfaction in communication increases from 35.2% to 58.7% ( $p=0.025$ ), indicating growing isolation and loneliness among older adults. The analysis shows that the unmet needs of the 75 and older age group are higher in all major, physical, psychological and social categories compared to the 65-74 age group. With age, difficulties associated with the loss of a sense of self-importance, physical health, physical activity, safety and social isolation increase.

**Table 3** – Analysis of unmet needs by age groups in older adults ( $p < 0.05$ )

Need area	Need type	65-74 years, n (%)	75 years and older, n (%)	p-value
<b>Basic needs</b>				
The need for useful activity (contribution to society)	No Need	14 (25,9)	4 (8,7)	$p=0,035$
	Satisfied Needs	18 (33,3)	13 (28,3)	
	Unsatisfied Needs	22 (40,7)	29 (63)	
<b>Physical needs</b>				
Need for improved physical health	No Need	18 (33,3)	4 (8,7)	$p=0,008$
	Satisfied Needs	14 (25,9)	12 (26,1)	
	Unsatisfied Needs	22 (40,7)	30 (65,2)	
Need for increased physical activity	No Need	22 (40,7)	10 (21,7)	$p=0,020$
	Satisfied Needs	13 (24,1)	7 (15,2)	
	Unsatisfied Needs	19 (35,2)	29 (63)	
<b>Psychological needs</b>				
Need for safety (accidental injuries)	No Need	14 (25,9)	2 (4,3)	$p=0,005$
	Satisfied Needs	17 (31,5)	12 (26,1)	
	Unsatisfied Needs	23 (42,6)	32 (69,6)	
<b>Social needs</b>				
Need for communication (company)	No Need	20 (37)	7 (15,2)	$p=0,025$
	Satisfied Needs	15 (27,8)	12 (26,1)	
	Unsatisfied Needs	19 (35,2)	27 (58,7)	

**Discussion of results.**

The aim of our study was to identify unmet needs of older people living in the Almaty City Social Services Center. This is important for developing effective programs aimed at meeting the needs of the aging population. The main results of the

study showed the presence of unmet needs in all 4 areas, so the main unmet needs are associated with the loss of a sense of self-importance, physical needs - with physical health, physical activity, psychological needs - with safety and social needs are not satisfied in communication, increasing with age.

One of the main results of our study is that the unmet need of older people for useful activities (contribution to society) increases with age, which is consistent with the results of studies in other countries, which show that older people often face unmet needs for social activity and participation in public life, which, in turn, negatively affects their quality of life [18, 19]. Another key finding of the study is that with age there is a need to improve physical health and increase physical activity. Other studies show that regular physical activity is a key factor in successful ageing and maintaining physical and psychological health in older people [20, 21]. The results of a study conducted in Kazakhstan showed that there are a number of barriers that prevent older people from leading an active lifestyle and the community is at an early stage of readiness to take action on the problem of physical inactivity in older people [22]. Our study showed that the unmet need of older people for protection from accidental injuries increases with age. These results are consistent with the results of studies in other countries, where unmet needs of older people for safety were also found, especially in relation to the prevention of falls and other accidental injuries [23, 24].

Regarding the unmet need for communication and company, which increases with age, our result confirms the result of a study conducted in Almaty in 2017, which confirmed the need to intensify social support for older people, since their need for communication remains unmet [25]. In addition, a number of studies confirm the global significance of the problem of social isolation and the unmet need of older people for communication, which requires the development of comprehensive approaches to solve it [26, 27].

Despite the interesting results obtained, we note some limitations of our study. Since the study was conducted in the Center for Social Services, the data obtained may not reflect the needs of older people living in their own homes. When translating and adapting the original questionnaire, there may have been losses in the meaning of some questions.

Future studies could be aimed at studying the needs of older people living in their own homes to identify the specific needs of people living in different conditions.

### Conclusion.

The article discusses the unmet needs of older people living in the Center for Social Services. Contributing positively to society, physical activity and socialising have been found to play an important role in the lives of older people.

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