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Abstract

Background: The health and social care needs of people aged ≥ 80 years are a neglected topic.

Aims: To determine the prevalence of unmet health and social care needs and associated factors in community-dwelling individuals aged ≥ 80 years in Izmir District of Balçova, Turkey.

Methods: There were 1075 participants aged ≥ 80 years. The dependent variables were unmet health and social care needs. Independent variables were sociodemographic, socioeconomic and lifestyle characteristics. The data were collected in face-to-face interviews conducted at the homes and analysed by multiple logistic regression model. Ethical approval was obtained from the Non-Invasive Research Ethics Board of Dokuz Eylul University Medical Faculty (2017/26-24).

Results: The mean age was 84.1 (3.7) years and 61.0% were female. Healthcare needs were expressed by 88.2% of the participants and 78.9% claimed that they had social care needs. Prevalence of unmet health and social care needs was 32.5% and 46.6%, respectively. Approximately 90.0% of their needs were covered by families. Perceived low-income status was a risk factor for unmet healthcare needs, and lack of social support was a risk factor for unmet social care needs. Additionally, not receiving formal education was a protective factor in unmet social care needs.

Conclusion: Public health policy should be developed to enable better access to care, especially for the oldest people, considering that nearly one third of the participants in this study had unmet healthcare needs and almost half had unmet social care needs.

Keywords: aged, unmet needs, healthcare needs, social care needs, Turkey

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Introduction

In Turkey, the proportion of people aged ≥ 65 years is 8.8% (1) and this is projected to reach 22.6% by 2060 (2). In the Turkish elderly population, 21.3% comprises individuals aged ≥ 80 years, and by 2050, it is expected that 25% of elderly people will be aged ≥ 80 years (3). Along with ageing, the health and social care needs of the elderly population have become more apparent, and especially among people aged ≥ 80 years, cognitive and functional limitations and the need for care have increased (4–7). Despite the increasing number of people aged ≥ 80 years worldwide, this group has often been neglected in previous research. Unmet health care is defined as no visit from or to a physician within a defined time period despite having specified conditions (8). Unmet social care need is defined as lack of support for individuals or institutions despite having needs in daily activities (9). Both definitions have been found to be associated with mortality among older people (8,10). There is a necessity to develop strategies to meet the health and social care requirements of elderly people as unmet care needs affect quality of life and increase severity of illness, complications, hospital admission and mortality (8,9,11,12).

In Turkey, most of the elderly population has health coverage. Even if this facilitates access to health care, there are difficulties in fulfilling the health and social needs resulting from the loss of income due to retirement, ageing and socioeconomic inequalities. The needs of elderly people are generally provided by their families. Factors such as changes in family dynamics and

women joining the workforce have increased the risk of encountering difficulties in meeting the needs of elderly people. Therefore, there is a clear necessity to establish political strategies to fulfil the health and social care needs of older people. When discussing and developing policies for the elderly population, it is critical to incorporate both health and social care needs (13). In situations in which policies are restricted due to financial constraints, it is important to target individuals aged ≥ 80 years. There have been no studies in Turkey to pinpoint the unmet health and social care needs of the elderly population. Additionally, although the needs of people aged ≥ 80 years are higher, they have often been ignored in studies of ageing.

The aims of this study were to determine: (1) the prevalence of unmet health needs; (2) the prevalence of unmet social care needs; and (3) the associated factors with unmet health and/or social care needs in community-dwelling individuals aged ≥ 80 years, residing in the Balçova District of Izmir, Turkey.

Methods

Study design

This study was carried out using data from the Balçova Older People Health and Social Care Project in 2018. The project was carried out through a protocol between Balçova Municipality and Dokuz Eylul University Medical Faculty Public Health Department. The municipality financed the data collection process to find individuals aged ≥ 80 years in need in Balçova District. The authors of the paper designed the study, planned and monitored the data collection process, and analysed data without receiving any fee from the Municipality. This was a population-based cross-sectional study. The study group comprised 1603 community-dwelling individuals aged ≥ 80 years living in Balçova District. Information on those individuals were obtained from Balçova Municipality List-Based Address-Based Population Registration System. We aimed to reach all residents in the relevant age-group without sample selection. In total, 1075 elderly participants were evaluated (response rate 67.1%). The data on falls, fear of falls and associated risks have been published from this database elsewhere (14).

Ethical approval

Ethical approval for the study was obtained from the Non-Invasive Research Ethics Board of Dokuz Eylul University Medical Faculty (2017/26-24).

Variables

The dependent variables were unmet health and social care needs and independent variables were defined as gender, age groups, educational status (latest school graduation), marital status, cohabitation, number of children, house ownership, self-perceived income and expenditure, health insurance and social support (with the question “Is there anybody that you

could call and get support from if you needed it?").

Unmet healthcare needs

Unmet healthcare needs were defined as situations in which a participant needed health care but did not receive it (15). Initially, 3 items were used to determine healthcare needs. (1) The presence of chronic disease: for chronic diseases such as diabetes mellitus, hypertension, cardiovascular disease, or chronic obstructive pulmonary disease, a physician's diagnosis was requested, and participants' own statements were evaluated. Even if 1 of the conditions existed, this was considered relevant. (2) The presence of dependence: dependence status was defined according to the Barthel Activities of Daily Living (ADL) Index (16) (Supplementary Table 1) at the time of the interview. Validity and reliability of the index have been studied by Kucukdeveci et al. (17). For this scaling approach, any participant who had severe (21–61 points) or full (0–20 points) dependency according to the Barthel Index was considered as having a need. (3) Poor self-perceived health: individuals perceiving themselves as being worse than their peers at the time of the interview, were considered as having a need.

Later, we asked participants who had unmet needs whether they had received any health care at home or at a medical facility in the last 6 months. If they had not received any health care this was considered as having unmet healthcare needs.

Unmet social care needs

Unmet social care needs were determined with the Barthel ADL Index and Lawton–Brody Instrumental ADL (IADL) Index (16,18) (Supplementary Table 2). Participants who were unable to perform at least 1 of those activities at the time of the interview, were considered as having a social care need. These people were asked if they received help from any individuals or institutions. If the answer was negative, this was considered an unmet social care need. The data were collected by face-to-face interviews at participants' homes between February and May 2018 by trained interviewers who were medical and nursing students. A standard training programme was provided for the interviewers by researchers. For testing purposes, the questionnaire was administered to community members of another district who were aged ≥ 80 years. The participants who could or did not complete the interviews during 3 visits were excluded from the study.

Statistical analysis

The data were analysed using SPSS version 15.0 (SPSS, Chicago, IL, USA). The continuous data were presented as mean (standard deviation), and the categorical variables were presented as percentages. The multiple logistic regression model was used to determine the associated factors with unmet health and social care needs. The model included all of the

initially selected independent variables. P

Results

The mean age of the participants was 84.1 (3.7) years (range 80–101 years). A total of 701 (65.2%) of the respondents were between 80 and 84 years old, and 656 (61.0%) were female (Table 1). Among the elderly, 1012 (94.9%) had social support, and 1014 (94.9%) had health insurance.

The most common activities for which elderly people had severe or full dependence on the ADL were: climbing stairs (46.1%), bladder control (32.7%), mobility on level surfaces (27.7%), bathing (27.2%); and on IADL: shopping (57.6%), preparing food (56.1%), doing laundry (47.9%), and housekeeping (46.2%).

Prevalence of health and social care needs were determined as 88.2% and 78.9%, respectively. The health and social care needs and the degree to which these needs were met are shown in Figure 1 . These needs were not fulfilled in 32.5% of individuals who required health care, and 46.6% of those who needed social services. According to the individuals' own declarations, the frequency of their need for care was 40.9%. According to their needs on the ADL, 88.5% were covered by their families, 111.2% by their caregivers and only 0.3% had care by the Municipality. There were similar observations for IADL needs (90.0%, 9.8% and 0.2%, respectively.

Among all participants, the prevalence of unmet health care needs was 28.4% overall, and 25.6% based on the presence of chronic disease, 6.2% based on dependency on the ADL, and 8.9% according to perceived health. Among all participants, the prevalence of unmet social care needs was 36.9% in total, 23.3% according to ADL, and 31.5% according to IADL.

The main predictor in determining unmet health care needs was the participants' self-perceived income and expenditures (Table 2). When compared to situations where income surpassed expenditure, there was a higher risk of unmet healthcare needs in situations where income was less than or equal to expenditure. Also, when determining unmet needs according to dependence, it appeared that while not being married increased risk, being alone was a protective factor [odds ratio (OR) = 0.4, 95% CI: 0.2–0.8] Based on self-perceived health, not being married and not having health insurance were risks leading to unmet needs.

The presence of social support was associated with unmet social care needs in all models (i.e.

for total, OR = 2.2, 95% CI: 1.2–4.0); in other words, the risk of these unmet needs was higher among people who did not have social support. In total, and according to IADL, not receiving formal education was a protective factor in unmet social needs (Table 3). According to ADL, being female was a risk factor in unmet needs.

Discussion

In this study, we evaluated the unmet health and social care needs and associated factors in community-dwelling individuals aged ≥ 80 years residing in Balçova District, İzmir, Turkey. We determined that 88.2% of the elderly people had healthcare needs, and approximately one third of these individuals and 28.4% of all the elderly people had unmet needs. The main factor in determining unmet health care was that income was lower than expenditure. Additionally, according to dependence and self-perceived health, not being married increased the risks while being alone was found to be a protective factor in unmet needs according to dependence.

Unmet healthcare needs vary worldwide. In Spain, for chronic illnesses among people aged ≥ 65 years, the proportion was 3.7%, 6.6% among those with poor health perception, and 1.4% among those with dependency on at least 1 activity of the ADL (8). In France, it was 23% in people aged ≥ 70 years (15). The prevalence of perceived unmet healthcare needs of people aged ≥ 65 years was between 7.1% and 26.3% (12,19–21). In research conducted in 6 European countries, 36.6% of people aged ≥ 65 years had unmet healthcare needs based on ADL. The nation with the highest prevalence was Greece (61.5%) and the lowest was Sweden (3.6%) (22). The large variations in prevalence are due to the use and implementation of different methods to determine unmet healthcare needs. There are also differences among countries due to the various health and social care policies and approaches. It is known that as age increases, there is an overall increase in unmet healthcare needs (15,23). The fact that different age groups were studied also might have contributed to the variations in prevalence.

In our study and many others, the main determinant in unmet healthcare needs was low income (15,21,24), although there are also a few, rare studies in which income status was not significant (20). Although most elderly people in Turkey state that they have health insurance, the fact that there is a significant relationship between self-perceived income and unmet healthcare indicates the presence of other barriers preventing access to health care. This group comprises very old people who clearly need to rely on an able companion when seeking health care. Among older people with low income, their health coverage is not sufficient to meet all their needs. It may be that poorer individuals are not be able to cover the transport costs for access to health care, or other medical fees paid out of pocket, and therefore their access to medical services may be restricted. A World Health Organization report supports this suggestion. In low- and low-to-middle-income countries, the greatest barriers to access to health care are costs related to healthcare visits and transportation (25). Like ours, some previous studies have indicated that being married or living with a partner is a protective factor against

unmet healthcare needs (15, 20). Even if they are of advanced age, without relying on others, married couples may aid one another when seeking health care.

In this study, we determined that 78.9% of the elderly people had social care needs, and for approximately half of them, and 36.9% of the total population of the elderly, social needs were unmet. In 90% of cases involving older people, needs were covered and provided by their families. In our study, the main risk of unmet social care was the lack of social support. While being female (for ADL), and (for IADL) an equivalency between income and expenditures were risk factors, lower educational status was protective.

Generally, most research conducted to determine unmet social care needs uses the ADL and/or IADL. These studies indicate unmet social needs frequencies to be 32.8% in people aged ≥ 60 years (26); 0.2–61.2% in those aged ≥ 65 years (22,27–29); and 50–67.5% in those aged ≥ 75 years (13,30). The main reasons for the variations in prevalence of unmet needs are the differences in the criteria used in identifying the needs, approaches to collecting data, the characteristics of the aged being studied and cultural differences.

As in our study, others have shown that the main providers of care are spouses and other family members, or friends, or in other words, informal caregivers (13,27, 28,30). When considering the prevalence of unmet social needs, it is obvious that families cannot fulfil all the needs. Therefore, social support needs should be compensated. Among many other variables, social support has been found to have a major protective influence in the ageing population (21,31). Similar to our study, being female is generally a risk factor for unmet social needs (13,27, 30,32,33). The most important reason for this is that with individuals aged ≥ 80 years, women are generally widowed while men's needs are met by their wives. Surprisingly, lower educational status was determined to be a protective factor in terms of unmet needs. However, in a population aged ≥ 80 years, Hoogendijk et. al obtained a result similar to ours (33). This might be due to the fact that in the region we studied, people with lower educational backgrounds retained a relatively traditional lifestyle. This might be the reason why they had more social support, especially in IADL.

The main limitation of our study was the cross-sectional nature of the collected data, which prevents any determination of causality in the relationships revealed in our analyses. Additionally, it is difficult to compare estimates across studies because of differences in study methods and age groups. Another limitation of this study was the low participation rate. However, nowadays response rates of cross-sectional studies are more or less close to our participation rate. We do not know if there is a systematic difference between the participants and nonparticipants. Despite the low participation rate, we interviewed > 1000 individuals. To

our knowledge there is no general consensus on the definition of unmet health and/or social care needs. The varying definitions lead to varying levels of unmet needs. Thus, our results are based on the merits of our definition of unmet health and/or social care needs.

One of the strengths of our study was that it focused on people in the community and those aged ≥ 80 years; a group often ignored in other studies of the elderly and who are most in need of care. Most research tends to evaluate either health or social needs. However, as in our study, it is important to focus on both the health and social needs of elderly people. Another of our study's strengths was that data were collected within the homes of the participants and by trained medical and nursing students. Consequently, after the data were collected and preliminary analyses completed, the Municipality of Balçova initiated services providing the identified needs.

Conclusion

We determined that among people aged ≥ 80 years residing in Balçova District, approximately one third had unmet healthcare needs and almost half had unmet social needs. Perceived low income status and not being married were risk factors for unmet health needs, and lack of social support and being female were risk factors for unmet social needs. Policies that alleviate the negative financial barriers preventing the fulfilment of needs and bring them to a minimum level need to be developed and implemented. For example, it is critical to improve and increase the rights of public retirees, discontinue out-of-pocket payments, provide transport services, and establish social support programmes. Additionally, in the health and social services, proactive action should be taken for disadvantaged groups, which would help alleviate the inequalities arising from the unmet needs based on personal characteristics. The first step should be to set up a home follow-up programme incorporating health and social care to enable the identification of needs and provide residential care. In Turkey, it is clear that home healthcare services, which are only offered upon request, are inadequate in meeting healthcare needs and will continue so to be.

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Competing interests: None declared.

Besoins non satisfaits en matière de soins de santé et de soins sociaux et facteurs associés chez les personnes âgées de 80 ans et plus à Izmir (Turquie)

Résumé

Contexte : Les besoins en matière de soins de santé et de soins sociaux des personnes âgées de 80 ans et plus constituent un sujet négligé.

Objectifs : Déterminer la prévalence des besoins non satisfaits en matière de soins de santé et de soins sociaux ainsi que les facteurs associés chez les personnes âgées de 80 ans et plus qui vivent au sein de la communauté dans le district d'Izmir de Balçova, en Turquie.

Méthodes : Ont participé à cette étude 1075 personnes âgées de plus de 80 ans. Les besoins non satisfaits en matière de soins de santé et de soins sociaux constituaient les variables dépendantes. Les caractéristiques socio-démographiques, socio-économiques et relatives au mode de vie constituaient les variables indépendantes. Les données ont été recueillies lors d'entretiens en présentiel menés dans les foyers et analysées par un modèle de régression logistique multiple. L'approbation éthique a été obtenue auprès du Comité éthique de la recherche pour les procédures non invasives au sein de la Faculté de Médecine de l'Université de Dokuz Eylul (2017/26-24).

Résultats : L'âge moyen était de 84,1 ans (3,7) et 61,0 % des participants étaient des femmes ; 88,2 % des participants ont exprimé qu'ils avaient des besoins en matière de soins de santé et 78,9 % des participants ont déclaré qu'ils avaient des besoins en matière de soins sociaux. La prévalence des besoins en matière de soins de santé et de soins sociaux non satisfaits était de 32,5 % et de 46,6 %, respectivement. Près de 90,0 % de leurs besoins étaient couverts par les familles. La perception du statut de faible revenu était un facteur de risque pour les besoins en soins de santé non satisfaits, et le manque de soutien social était un facteur de risque pour les besoins en soins sociaux non satisfaits. De plus, le fait de ne pas avoir reçu d'éducation formelle était un facteur de protection pour les besoins non satisfaits en matière de soins sociaux.

Conclusion : Une politique de santé publique devrait être mise en place pour permettre un meilleur accès aux soins, notamment pour les personnes âgées, considérant que près d'un tiers des participants à cette étude avaient des besoins non satisfaits en matière de soins de santé et que près de la moitié avaient des besoins non satisfaits en matière de soins sociaux.

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