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RESEARCH

INVESTIGATING THE EFFECTS OF POVERTY ON HEALTH AND QUALITY OF LIFE IN POOR PEOPLE AGED 65 AND OVER IN ETİMESGUT DISTRICT, ANKARA

ABSTRACT

Introduction: The purpose of this research was to examine the effects of poverty on health and quality of life of poor people aged 65 and over in Etimesgut District, Ankara.

Materials and Method: A questionnaire was administered to 116 people over the age of 65 who were deemed a priority group for assistance by the Etimesgut Social Assistance and Solidarity Foundation in Ankara. The questionnaire comprised questions related to socio-demographic characteristics, health status and health care utilization of elderly people, along with the World Health Organization Quality of Life Instrument-Older Adults Module. Research data were evaluated using the Chi-Square Test, Independent Samples T Test, One-Way Analysis of Variance, Mann-Whitney U Test and Kruskal-Wallis Test.

Results: The average monthly income of the elderly participants was 168.94±54.67 Turkish liras and they lived completely under the poverty line determined for Turkey. However, it was found that women, illiterate participants and those receiving the old age pension were poorer, and of those whose income was below average, more delayed/did not seek help when they were ill. Statistical analysis revealed that total quality of life scores of participants aged 65-74 and literate participants were higher; the "social participation" scores of participants whose income was below average and those received an old-age pension were lower.

Conclusion: Poverty has negative effects on the health status, health care utilization and quality of life of elderly people.

Key Words: Aged; Poverty; Health Status; Quality of Life.

ARAŞTIRMA

ANKARA ETİMESGUT İLÇESİNDE YAŞAYAN 65 YAŞ VE ÜZERİ YOKSUL BİREYLERDE YOKSULLUĞUN SAĞLIK VE YAŞAM KALİTESİ ÜZERİNE ETKİSİNİN İNCELENMESİ

ÖZ

Giriş: Bu araştırmanın amacı, Ankara Etimesgut İlçesinde yaşayan 65 yaş ve üzeri yoksul bireylerde yoksulluğun yaşlı sağlığı ve yaşam kalitesi üzerindeki etkisinin incelenmesidir.

Gereç ve Yöntem: Araştırmada, Ankara'da Etimesgut Sosyal Yardımlaşma ve Dayanışma Vakfı tarafından yardımlar için öncelikli olarak belirlenmiş 65 yaş ve üzeri 116 kişiye anket uygulanmıştır. Anket formu, yaşlıların sosyo-demografik özelliklerini, sağlık durumlarını ve sağlık hizmeti kullanımlarını belirlemeye yönelik sorular ile Dünya Sağlık Örgütü Yaşam Kalitesi Yaşlı Modülünden oluşmaktadır. Araştırma verileri Ki-Kare Testi, Bağımsız İki Örneklem T Testi, Tek Yönlü Varyans Analizi, Mann-Whitney U Testi ve Kruskal-Wallis Testi ile değerlendirilmiştir.

Bulgular: Araştırmaya katılan yaşlıların bir aylık ortalama gelirlerinin 168.94±54.67 Türk lirası olduğu ve Türkiye için belirlenmiş yoksulluk sınırının altında yaşadıkları belirlenmiştir. Bununla birlikte kadınların, okuryazar olmayanların, geçimini yaşlılık aylığı ile sağlayan yaşlıların daha yoksul olduğu ve sağlık hizmeti ihtiyaçlarını daha fazla erteledikleri bulunmuştur. Yapılan analizlerde, 65-74 yaş grubunun ve okuryazar olanların toplam yaşam kalitesi skorlarının daha yüksek olduğu, geliri ortalamanın altında olanların ve yaşlılık aylığı alanların da "sosyal katılım" alan skorlarının daha düşük olduğu belirlenmiştir.

Sonuç: Yaşlılarda yoksulluk sağlık, sağlık hizmeti kullanımı ve yaşam kalitesini olumsuz etkilemektedir.

Anahtar Sözcükler: Yaşlı; Yoksulluk; Sağlık Durumu; Yaşam Kalitesi.

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Introduction

Aging is a natural and inevitable process causing differences in the mental abilities, social capabilities and psychological condition of individuals who experience certain alterations in anatomical structure and physiological functions (1-2). As stated in the United Nations "World Population Ageing 2013" report, parallel to the global rise in life expectancy and decline in fertility rates, the proportion of people age 65 and over has been outpacing the proportion of other age groups (2). The rapid growth of the elderly population in all countries, including Turkey, is attributed to major achievements in medicine and public health. Nonetheless it is also defined as a demographic transformation that has introduced a number of difficulties driven by certain changes not only in general health status but also in the socio-economic status of elderly people (2,3).

In line with aging, the frequency of dealing with chronic diseases is also increasing (2-4). However, WHO (1998) argues that when discussing the overall health status of elderly people, disease prevalence or absence cannot or should not be recognized as the sole determinant. A vast majority of elderly people, although they have specific diseases, can still manage to feel totally healthy once the adverse effects of diseases that critically impact their daily lives are eliminated (4). Within this scope, quality of life (QoL) is defined as: "an individual's perception of his position in life in the context of the culture and value systems he lives in, and in relation to his goals, expectations, standards and concerns" (5-7).

It is feasible to list a number of variables of QoL; however, when the issue is old age it is assumed that socio-economic factors have a greater effect than individual factors on QoL. Because the income of the elderly is reduced, particularly after retirement, when health expenditure increases (largely due to deterioration of health), their likelihood of falling into poverty increases (2-3, 8-11). To be more specific, out-of-pocket health expenditures have a substantial effect on household budgets, limit the consumption of non-health goods and services, decrease available access to health services and push a number of families into the trap of medical poverty. Hence, compared to non-elderly people, poverty can be more persistent among elderly people, who can hardly escape from this trap. Studies indicate that the correlation between age and poverty is "U" shaped; in contrast to other groups, the elderly population is exposed to a greater incidence of poverty (2,9). In a broad sense, poverty is defined as the absence of production resources adequate to provide income and a sustainable budget (2, 10). In the world of elderly people, poverty displays itself in the form of hunger and malnutrition, unhealthiness, non-accessibility or limited access to education and other basic services, disease and resulting increase in death ratios, homelessness and unfavorable accommodation conditions, unsafe environmental conditions, isolation and alienation. Poverty also accounts for the emergence of nonparticipation in decision-making processes as well as economic, social and cultural life (8, 10,11).

Within the scope of WHO's "active and healthy aging" target, micro and macro level research is essential to determine health, social security and social service needs of elderly people, particularly those coping with poverty. Hence the purpose of this research was to assess the effects of poverty on the health and QoL of elderly people by conducting an empirical analysis of health status, health care utilization and QoL of people ages 65 and over living in Etimesgut district, Ankara.

Materials and Method

A cross-sectional survey design was used to determine the effects of poverty on health status, health care utilization and QoL of poor elderly people. The field study began in March 2014 and was completed in May 2014.

All social assistance beneficiaries, whose application was approved by Social Assistance and Solidarity Foundation, were considered as poor according to Turkish Law No 3294. In that sense, the study covered 116 people over the age of 65 who were determined to be a priority group for assistance by the Social Assistance and Solidarity Foundation in Etimesgut District, Ankara.

The questionnaire consisted of the following three sections: the first part included information on socio-demographic characteristics (age, gender, education, marital status, household characteristics, employment and income), the second part included questions related to health status and health care utilization (self health evaluation, chronic illness and disability, recent illness or injury, access to health care), and the final part consisted of the WHOQOL-OLD Scale. The WHOQOL-OLD scale consists of 24 Likert-type questions on 6 dimensions: "sensory abilities", "autonomy", "past, present and future activities", "social participation", "death and dying", and "intimacy". The "sensory abilities" dimension assesses sensory functioning and the impact of loss of sensory abilities on quality of life. The "autonomy" dimension refers to independence in old age and thus describes the

amount of being able to live autonomously and to take own decisions. While the "past, present, and future activities" dimension describes satisfaction about achievements in life and at things looking forward to, the "social participation" dimension delineates participation in activities of daily living, especially in the community. The "death and dying" dimension is related to concerns, worries, and fears about death and dying, while the "intimacy" dimension assesses being able to have personal and intimate relationships. Each dimension provides an individual score, and an overall score is also calculated from the set of 24 items. Total scores on the WHOQOL-OLD range from 24 to 120, with higher scores being indicative of better QoL. Validity and reliability of the WHOQOL-OLD scale for the Turkish population has been established by Eser et al. (12).

In the data analysis stage, the SPSS syntax file prepared by the WHOQOL-OLD Group was used to compute scores for each of the six dimensions and the total score of the WHOQOL-OLD scale. While the dependent variables of the study were variables related to health status, health care utilization and quality of life scores; socio-demographic characteristics were investigated as independent variables. The main independent variable was the average monthly income as a means to measure poverty. Elderly people whose income was below the average monthly income (168.9 Turkish liras) were considered as poorer. Chi Square Tests were performed to determine the relations between poverty and health status, health care utilization of elderly. The WHOQOL-OLD total score and scores for each of the dimensions were described by calculating mean and standard deviation (SD) values. Data normality was evaluated with the Kolmogorov-Smirnov Test. The Independent Samples T-Test, One-Way Analysis of Variance (ANOVA), Mann-Whitney U Test and Kruskal-Wallis Test were used to compare the scores of elderly people with respect to their poverty and socio-demographic characteristics.

This study was approved by the Baskent University Institutional Review Board and Ethics Committee (Project no: KA14/93) and supported by the Baskent University Research Fund.

Results

Table 1 shows the distribution of selected socio-demographic characteristics of the 116 elderly people who participated in this study. The average monthly income of participants was 168.94±54.67 Turkish Liras (TL). The main source of income was the old age pension (76.7%). All of the participants receiving the old age pension were living on less than 168.9 TL.

Table 1— Socio-demographic Characteristics of the Participants (n=116)

Characteristics	n	%
Age Group		
65-74	60	51.8
75-84	34	29.3
≥85	22	18.9
Sex		
Female	75	64.7
Male	41	35.3
Marital Status		
Married	49	42.2
Widow/widower	67	57.8
Living Arrangement		
Alone	13	11.2
With spouse	49	42.2
With children	54	46.6
Education		
Illiterate	80	68.9
Literate	36	31.1
Worked Previously for Wage		
Yes	33	28.4
No	83	71.6
Monthly Income (TL)		
<=168.9	96	82.8

Table 2 shows the distribution of participants' data on health status and health care utilization according to income level. In the context of health evaluation, elderly participants were asked to evaluate their health on a scale of 1 to 3 (1=good, 2=moderate, 3=poor). While 45% of elderly people whose income was above average rated their health as good; 38.5% of elderly people whose income was below average rated as poor. 79 participants of 116 total participants had at least one chronic disease/disability that had lasted more than 6 months. The most common chronic diseases were hypertension and diabetes mellitus. A total of 32 participants had experienced a sudden illness or injury such as flu, diarrhea, or fracture in the last 4 weeks. The most common sudden illness was cold/flu, comprising 90%, of all sudden illnesses. There were no significant correlations between participants' income level and variables related to health status ($p > 0.05$).

Table 2— Health Status and Health Care Utilization of Elderly People According to Income

	Below Average İncome (≤168.9 TL)		Above average income (>169 TL)		p
Characteristics	**n**	**%**	**n**	**%**	
Self Health Evaluation					
Good	29	30.2	9	45.0	0.377
Moderate	30	31.3	6	30.0	
Poor	37	38.5	5	25.0	
Chronic Disease and Disability					
Yes	62	64.6	17	85.0	0.060
No	34	35.4	3	15.0	
Recent Illness or Injury					
Yes	26	27.4	6	30.0	0.503
No	69	72.6	17	70.0	
Ever Delayed Seeking Help					
Yes	68	70.8	9	45.0	0.027*
No	28	29.2	11	55.0	
Ever Referred to The Hospital But Had Not Gone					
Yes	24	25.0	9	45.0	0.066
No	72	75.0	11	55.0	

*p<0.05

Regarding access to health care, the situation of elderly participants delaying/not seeking help was examined. Overall, 77 participants who delayed/did not seek help did so because they thought they could not afford to pay. Among the participants whose income was below average, more delayed/did not seeking help when they were ill (70.8% vs. 45.0%) (p<0.05). Thirty three participants had been referred to the hospital but had not gone. The most important reasons for not going to the hospital were transportation (81.8%) and economic problems (6.1%).

WHOQOL-OLD scale results for the 116 elderly participants are summarized in Table 3. The mean "death and dying" dimension score (88.79±19.02) was higher than scores on the other dimensions. Participants had the lowest mean score on the dimension of "social participation" (38.20±13.71). The mean score on the total WHOQOL-OLD scale was 50.44±8.25.

Table 4 shows the relationship between some characteristics of the elderly participants and their scores on the WHOQOL-OLD dimensions; several of these relationships were statistically significant (p<0.05). The "sensory abilities", "intimacy" and "total" scores of participants aged 65-74 were higher than scores for the other age groups. Furthermore, "death and dying" scores were higher for women than for

Table 3— Scores on WHOQOL-OLD Dimensions.

	Min	Max	Mean	SD
Sensory	6.25	81.25	42.83	14.68
Autonomy	18.75	81.25	43.42	13.88
Past, present and future activities	6.25	81.25	39.38	13.01
Social participation	.00	81.25	38.20	13.71
Death and dying	.00	100.00	88.79	19.02
Intimacy	12.50	93.75	50.05	19.09
Total Score	**27.08**	**70.83**	**50.44**	**8.25**

Table 4— Comparison of scores on WHOQOL-OLD Scale Dimensions According to Participants' Characteristics (Mean±SD)

	n	S	A	PPF	SP	DD	I	TS
Age Group								
65-74	60	45.83±14.17	43.96±11.90	42.08±13.16	40.73±12.94	88.02±20.27	54.27±17.05	52.41±6.98
75-84	34	40.81±15.71	42.46±17.26	36.03±13.77	35.48±16.19	92.83±10.22	43.57±21.62	48.09±9.93
≥85	22	37.78±13.01	43.47±13.70	37.22±9.92	35.51±10.46	84.66±24.83	48.58±17.98	47.92±6.97
p		0.048*	0.884	0.064	0.212	0.709	0.029*	0.021*
Gender								
Female	75	42.33±13.77	43.08±11.05	39.83±10.96	38.42±10.66	91.58±11.18	47.92±18.01	50.53±7.05
Male	41	43.75±16.36	44.05±18.11	38.57±16.23	37.80±18.17	83.69±27.70	53.96±20.58	50.30±10.20
p		0.390	0.720	0.618	0.635	0.032*	0.103	0.901
Education								
Illiterate	80	41.80±14.47	40.31±11.97	37.73±12.24	36.02±12.82	92.42±12.61	45.00±17.72	48.88±7.55
Literate	36	45.14±15.10	50.35±15.45	43.06±14.08	43.06±14.55	80.73±27.07	61.28±17.35	53.94±8.78
p		0.181	0.000*	0.041*	0.045*	0.023*	0.000*	0.002*
Worked Before for Wage								
Yes	33	44.70±16.10	48.30±16.70	41.48±14.73	40.34±17.05	83.90±27.56	55.87±19.07	52.43±9.29
No	83	42.09±14.11	41.49±12.17	38.55±12.26	37.35±12.15	90.74±14.06	47.74±18.71	49.66±7.73
p		0.254	0.017*	0.277	0.529	0.781	0.038*	0.103
Monthly Income (TL)								
≤168.9	96	42.97±14.35	42.45±12.76	38.48±11.84	36.52±11.73	91.02±13.87	48.96±19.51	50.07±758
>169	20	42.19±16.58	48.13±18.03	43.75±17.33	46.25±19.17	78.13±32.92	55.31±16.38	52.29±11.00
p		0.944	0.096	0.099	0.027*	0.005*	0.177	0.275
The Source of Income								
Old-age pension	89	42.63±13.93	41.78±12.66	37.64±11.23	36.66±11.96	90.66±14.20	48.88±19.30	49.71±7.17
Assistance from foundations	20	42.19±16.58	48.13±18.03	43.75±17.33	46.25±19.17	78.13±32.92	55.31±16.38	52.29±11.00
p		0.837	0.065	0.051	0.033*	0.009*	0.170	0.194

S: Sensory Abilities, A: Autonomy, PPF: Past, Present and Future Activities, SP: Social Participation, DD: Death and Dying, I: Intimacy, TS: Total Score
*p<0.05.

men. The "autonomy", "past, present and future activities", "social participation", "intimacy" and "total" scores of literate participants were higher than those of illiterates, and the "death and dying" scores of illiterates were higher than those of literate participants. Moreover, the "autonomy" and "intimacy" scores of participants who had previously worked for wages were higher than scores of those who had never worked. In addition, while the "social participation" scores of participants who had a monthly income over 169 TL were higher than scores for those who had a monthly income of 168.9 TL or lower, the "death and dying" scores of participants from the low income group were higher. Similarly, the "social participation" scores of participants who received an old-age pension were lower than the scores of those who received assistance from various foundations, while the "death and dying" scores were higher for the former group than for the latter group.

Discussion

In this study, health status, health care utilization and QoL data of 116 poor elderly people were examined to determine the effects of poverty on their health and QoL.

The average monthly income of the 116 participants in this study was 168.94 TL. This amount is below the absolute poverty line of 274.79 TL per capita in Turkey as of 2014. The monthly income of study participants receiving an old age pension was below 168.9 TL. In 2013, 797,426 elderly people out of a total of 5,891,694 elderly people received an old-age pension of 141.56 TL, according to Turkish Law No.2022 (1). When compared with OECD countries, this amount is far below average (2,10).

79 participants had at least one chronic disease/disability that had lasted more than 6 months. There was no significant

correlation between participants' income level and health status, yet it was reported that among the participants whose monthly income was below average, the number of people delaying/not seeking help was significantly higher (70% versus 45%). It has been highlighted in the literature that in addition to other factors, poverty, which has an effect on the emergence of chronic and acute diseases, also diminishes the utilization of health care services on account of poor social and economic conditions (3,8,9).

The total mean score on the WHOQOL-OLD Scale was 50.44±8.25 across all 116 participants. In the literature, no research has been reported on the correlation between poverty status and QoL for elderly people. However, the fact that the QoL score in the present study was far lower than comparable scores, not only in Turkey-based studies using the WHOQOL-OLD scale (5,12-14) but also in the majority of studies conducted in other countries (6,7,15-18), confirms the hypothesis that poverty has a negative effect on the QoL of elderly people.

On the WHOQOL-OLD scale, participants in this study obtained the lowest mean score on the dimension of "social participation" (38.20±13.71). However their "death and dying" dimension mean score (88.79±19.02) was higher than scores on the other dimensions. The low score on the "social participation" dimension suggests that elderly people rarely participate in social activities, and that the coexistence of poverty and old age accelerates social isolation and alienation. Women in particular, as well as those who are illiterate, those with income levels below average, those receiving an old age pension received higher scores on the dimension of "death and dying," which might be attributed to the fact that due to poverty, elderly people tend to be more fatalistic and accept the fact of death more easily. While the findings related to the WHOQOL-OLD scale dimension scores in this study are parallel to most of similar studies conducted in Turkey (5,13,14) but Eser at al. found that "death and dying" dimension mean score was lower than scores on the other dimensions (12).

When the total and dimension QoL scores were evaluated with respect to monthly income, it was found that those with an average monthly income over 169 TL had higher "social participation" scores while those with less than 168.9 TL per month had higher scores on the "death and dying" dimension. Parallel to this finding, a number of studies examining the QoL of elderly people and utilizing economic condition as a variable have found that those with higher income levels have higher QoL scores as well (6,14,16).

Compared to illiterates, literate participants received significantly higher "autonomy", "past, present and future activities", "social participation", "intimacy" and "total" scores and a significantly lower mean score for "death and dying". Similar studies on the QoL of the elderly populations of Turkey, Chile, Norway, Bangladesh, Vietnam, Mexico and Brazil have identified that a lower level of education is correlated to a decrease in QoL (5,6,14-18).

The findings of this research, considered together with findings from the relevant literature show that in order for people to experience a comfortable old age period in the community with no worries of poverty; health care services and social services should cooperate to develop policies focusing on increasing the QoL of elderly people. Improving old-age pensions given to elderly people within the scope of non-contributory payments by taking living standards into account should be evaluated as the first dimension of intervention, to mitigate and prevent poverty for the elderly. In this study, it has once again been underlined that education, even as low as a basic literacy level, was critically important for both income level and QoL. In the light of this finding, the second intervention dimension should be education, in order to mitigate the poverty of elderly people, increase the QoL of the elderly population and eliminate the adverse effects of poverty on QoL. Literacy programs should be provided for elderly people to assist them in obtaining their basic needs; such programs may also be considered as an opportunity to promote socialization. Another suggestion is to develop programs in which chronic diseases are followed up and whatever people require to manage these diseases is provided free of charge within the family medicine system. Free transportation should also be provided to ease access for elderly people coping with poverty. Developing and utilizing QoL scales specific to poverty may be beneficial in promoting holistic programs for the health of the elderly population.

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