

ORIGINAL PAPER ΕΠΕΥΝΗΤΙΚΗ ΕΡΓΑΣΙΑ

Factors affecting the health status of elderly people receiving home care

OBJECTIVE To assess the interaction between comorbidities and self-reported health status as the basis for preventive intervention in care of the elderly.

METHOD A cross-sectional study was conducted with elderly people (≥ 65 years) registered in the home health care program "Help at Home". The health status of the participants was assessed using the Greek version of the screening instrument "HealthOmeter", also known as "YGEIOMETRO". The "HealthOmeter" consists of 115 items organized in 8 health domains: Social health, mental health, physical health, life habits, medicines (pharmaceuticals), health and care attitudes and utilization, family health and biometrical values. Higher scores on the 5-point response scale indicate better health status.

RESULTS The participants were 120 older adults in a home care program (80% females), with a mean age of 82 ± 7.4 years. The overall health status of the respondents was reported as "fairly good", despite the high prevalence of chronic comorbidities reported, including mental disorders (16.6%), diabetes mellitus (40.8%), hypertension (45.8%) and cardiovascular diseases (33.3%). The overall health status did not differ with gender (male 50.8 vs female 55.2, $p=0.585$), but males scored significantly higher than females on the scales of social health (6.3 vs 3.3, 0.042), and family health (10.3 vs 7.2, $p=0.006$). Multivariable linear regression analysis revealed that scores on specific health domains, and the overall health status were negatively associated with the presence of diagnosed chronic disease, mental disorders, respiratory symptoms and sensory impairment, even after adjusting for gender, age, and smoking.

CONCLUSIONS These findings suggest that healthcare professionals caring for homebound older adults should perform a general assessment of their needs prior to designing their plan of care.

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Παράγοντες οι οποίοι επιδρούν στην κατάσταση της υγείας ηλικιωμένων ατόμων που λαμβάνουν κατ' οίκον φροντίδα

Περίληψη στο τέλος του άρθρου

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Health status encompasses physical, mental, and social health. Measures of disease, such as symptoms, signs, and physiological measures, and measures of illness, such as functional status, are included in the concept of health status, according to the report of the Society of General Internal Medicine Task Force on Health Assessment.¹ In this context, assessment of the impact of illness on physical, mental, and psychosocial functioning is an es-

sential element of clinical diagnosis, a major determinant of therapeutic choices, a measure of their efficacy, and a guide to the planning of long-term care for the dependent elderly.² In addition, health status assessment has been proposed as an important health determinant, especially in primary person-centered care, with priority being given to prevention and health promotion, and in particular for the model of primary health care based on family health

strategy.³ Although aging is a highly individual process which influences the health status of older people, there is abundant evidence that their health status is associated with a synthesis of risk factors of decline in functional status, such as depression, comorbidities, cognitive impairment, high body mass index (BMI), low physical activity, increased medication use, smoking, and reduced social contact.⁴

It is documented that not only the aging process itself, but also multiple comorbidities, including cardiovascular disease (CVD), hypertension and mental disorders, are associated with poor health status and health-related quality of life (HRQoL) in the elderly. Hypertension, in particular, has an indisputable relationship with poorer health status, predominantly on the basis of physical activity, and is related to an increase in strokes and heart failure among older adults.⁵ CVD leads to increased depressive symptomatology and feelings of anxiety that affect the general health status, especially in women.⁵ Diabetes mellitus (DM) is associated with coronary artery events in older adults with a history of CVD.⁶ Higher prevalence rates of chronic diseases have been recorded among aged patients receiving home care than in those in the general population.⁷ It is documented that 45% of the general population and 88% of the population aged ≥ 65 years have one or more chronic illnesses.⁸ In the Greek primary health care system, hypertension, DM, CVD and depression are the most prevalent chronic diseases.⁹ The burden of chronic disease on the general health status and well-being is well researched in general, but how it affects the overall health status of older adults in home care programs was considered worthy of investigation.

The purpose of the present study was to assess the overall health status and its various domains by exploring the main dimensions of health of older adults receiving home care. A further aim was exploration of the complex interaction between specific comorbidities and their effect on the self-reported overall health status, as the basis for preventive intervention in the care of the elderly.

MATERIAL AND METHOD

Study design

The study was conducted with a convenience sample of older adults aged ≥ 65 years who were registered in the "Help at Home" program. The home care program is designed to provide social, nursing and medical care to people aged 65 years and older in their homes, especially those with multiple medical conditions, such as chronic diseases, and disadvantaged social status and or poor family support. These programs are funded by the European Union (EU) and the Greek Ministry of Health and supervised by the local municipal authorities. Following an initial invitation by the local

municipal authorities of the Asterousia region, a municipality of Heraklion, Crete, 136 older adults were approached by a member of the research team, informed about the purpose of the study and asked to participate. Following informed consent, 120 individuals agreed to participate to the study (88.2% response rate). All the participants were enrolled in the municipal home care program. The study questionnaires were completed by face-to-face interview conducted in the participants' homes, with a mean duration of 20–30 min. The data were collected during the 6-month period January–June 2014.

Study questionnaire

The health status of the participants was assessed by the use of the "HealthOmeter", which is an instrument developed by a Swedish team of researchers¹⁰ for evaluation of the health status and wellness profile. For the purpose of this study, the Greek version of the "HealthOmeter" was used, which has been translated and tested, and found to have high reproducibility. It is anticipated that this instrument will be a practical tool for use by primary care physicians and nurses in daily practice to identify the health risk of their patients. Its structure follows the original Swedish version and includes 115 questions/items organized in 8 health domains: Social health, mental health, physical health, life habits, medicines (pharmaceuticals), health and care utilization, family health, and biometrical values. The responses of the participants to each item are recorded on a 5-point visual analog scale. For example, for the question: "How satisfied are you with your accommodation conditions?", the respondent was asked to choose between the following options: dissatisfied (-2), fairly dissatisfied (-1), moderate (0), fairly happy (+1) and happy (+2). The overall health status of each individual was assessed as the total score of answers provided to all the items of the 8 health domains. Consequently, a higher positive response indicates "better" overall health status.¹¹

Chronic diseases and comorbidities

In order to explore the association and the interaction between recorded comorbidities and health status we designated specific chronic diseases, sensory impairments, signs and symptoms, in accordance with the figures of the global statistics of diseases, the known risk factors in Greece,¹² and the current report of the World Health Organization (WHO) on the profile of health and well-being in Greece.¹³ In particular, the situation and the trends in health and well-being are clearly summarized in the WHO report, with the core indicators for monitoring Health 2020 policy targets and the current age-standardized mortality rates from CVD and respiratory diseases. It includes the 10 most common risk factors and associated burden of disease (high blood pressure, high body mass index [BMI], dietary risks, tobacco use, low physical activity, etc.). Accordingly, the HealthOmeter as screening tool for health risk assessment encompasses all aspects of individual health status.

In this context, we designated as risk factors the most prevalent disabilities and diagnosed chronic diseases, including DM, hypertension, CVD (coronary artery disease, congestive heart

failure, and arrhythmias) and mental disorders (anxiety neurosis, dementia and depression). Respiratory symptoms and sensory impairment were also assessed. Smoking status was defined as a history of smoking >30 pack-years, according to the recent Global Initiative for Chronic Obstructive Lung Disease (GOLD) recommendations.¹⁴ The demographic characteristics, including gender, age, educational level and occupation (before retirement) were also recorded.

Ethical considerations

Written ethical approval was obtained from the Scientific Council of the Nursing Department of the Technological Educational Institute of Crete. The study was conducted as a part of the nursing intervention in home care of the Laboratory of Epidemiology, Prevention and Management of Diseases of the Nursing Department. All the participants provided informed consent and were allowed to withdraw from the study at any time-point.

Statistical analysis

The demographic data and prevalence rates of chronic diseases were described using frequency distributions and proportions. The Student's t-test was used to determine the significance of differences between males and females in the total and domain specific "HealthOmeter" scores. Pearson correlation was used to assess the level of agreement between total score and score in health domains. Multivariable linear regression analysis was conducted to evaluate the effect of independent variables (chronic diseases, respiratory symptoms, individual characteristics) on the "HealthOmeter" total score and the domain specific scores, after adjusting for gender, age and smoking. A p-value of ≤ 0.05 was considered statistically significant. The data were analyzed with the Statistical Package for Social Sciences (SPSS), version 19.0.

RESULTS

Demographic data

The "HealthOmeter" showed good internal consistency based on the Cronbach's alpha coefficient, which was 0.913. The characteristics of the participants are summarized in table 1. The mean age of the study population was 82.0 ± 7.4 years, and 56.7% of the sample were aged >80 years. Hypertension (45.8%) and DM (40.8%) were the chronic medical conditions most frequently recorded by the study participants. In addition, dyspnea and cough were the most frequently reported respiratory symptoms, despite the fact that only 3% of were active smokers (tab. 2).

Differences in the "HealthOmeter" according to gender

The total "HealthOmeter" score did not differ between males and females (50.8 vs 55.2, $p=0.585$), but significant

Table 1. Demographic data of the study participants, recipients of home care in rural Crete (n=120).

Characteristics		n	%
Gender	Male	24	20.0
	Female	96	80.0
Age (mean 80±7.4 years)	68–79	52	43.3
	80–100	68	56.7
Education	Illiterate	99	82.5
	Primary	20	16.7
	High school	0	0.0
	Tertiary	1	0.8
Occupation (before retirement)	Farming, animal grazing	83	69.2
	Freelance, private or public employees	4	3.3
	Housework	33	27.5

Table 2. Respiratory symptoms, chronic diseases and other individual characteristics among the study participants, recipients of home care in rural Crete (n=120).

Characteristics		n	%
<i>Respiratory symptoms</i>			
Dyspnea		38	31.7
Cough		23	19.2
Allergies		4	3.3
Smoking*		4	3.3
<i>Diagnosed chronic diseases</i>			
Mental disorders**		20	16.7
Diabetes mellitus		49	40.8
Hypertension		55	45.8
CVD***		40	33.3
<i>Individual characteristics</i>			
Lives alone		58	48.3
Decubitus		10	8.3
Hearing impairment		20	16.7
Visual impairment		16	13.3
Memory impairment		14	11.7

* Smoking: Current smoker's >30 packs/year

** Mental disorders: Anxiety neurosis, dementia and depression

*** CVD: Cardiovascular disease (coronary artery disease, arrhythmia, congestive heart failure)

differences were recorded in the "HealthOmeter" domain specific scores (tab. 3). Specifically, males scored higher than females on the scales of social health (6.3 vs 3.3, $p=0.042$) and family health (10.3 vs 7.2, $p=0.006$), and females scored higher than males on the scales of physical health (17.3 vs 11.7, $p=0.033$) and life habits (12.5 vs 7.6, $p<0.001$).

Table 3. Total "HealthOmeter" and domain specific scores, according to gender in recipients of home care in rural Crete (n=120).

	Male (n=24) Mean (SD)	Female (n=96) Mean (SD)	p-value
Health status domains	Total HealthOmeter score	50.8 (41.8)	55.2 (33.0)
	Social health	6.3 (6.5)	3.3 (6.4)
	Mental health	3.4 (9.3)	3.3 (9.2)
	Physical health	11.7 (12.6)	17.3 (11.1)
	Life habits	7.6 (5.1)	12.5 (4.5)
	Medicines	3.9 (8.6)	4.5 (5.0)
	Health and care attitudes and utilization	8.7 (6.8)	9.9 (6.0)
	Family health	10.3 (4.9)	7.2 (3.3)
	Biometrical values	-1.0 (4.9)	-2.7 (4.7)

SD: Standard deviation

Association between self-reported health status and common respiratory symptoms

Reported dyspnea in participants was related to lower total "HealthOmeter" and "physical health" domain specific scores ($t=-2.37$, $p=0.020$; $t=-3.78$, $p<0.001$, respectively). Participants who reported cough scored higher on the scales "health and care attitudes and utilization" and reported more frequent visits to the local health services ($t=2.22$, $p=0.028$). Smokers scored very low on the "life habits" scale ($t=-3.66$, $p<0.001$) (tab. 4).

Association between self-reported health status and chronic disease

Patients with a history of mental disorder scored low on the total "HealthOmeter" scale ($p=0.004$) and the "mental health" scale ($p<0.001$). Similarly, patients with DM scored very low on the total "HealthOmeter" scale ($p<0.001$) and

Table 4. Independent association between 7 health domains* and characteristics of recipients of home care in rural Greece (n=120).

	Total score*			Physical health			Mental health			Health care utilization		
	β-coefficient**	t	p-value	β-coefficient**	t	p-value	β-coefficient**	t	p-value	β-coefficient**	t	p-value
<i>Respiratory symptoms</i>												
Dyspnea	-0.144	-2.37	0.020	-0.276	-3.78	<0.001	-0.068	-1.34	–	-0.110	-1.41	–
Cough	0.052	0.69	–	-0.023	-0.25	–	0.099	1.59	–	0.213	2.22	0.028
Allergies	-0.099	-1.68	–	-0.134	-1.89	–	-0.048	-0.97	–	-0.065	-0.58	–
Smoking	-0.035	-0.56	–	0.048	0.64	–	0.013	0.25	–	0.038	0.49	–
<i>Diagnosed chronic diseases</i>												
Mental disorders	-0.247	-2.93	0.004	-0.080	-0.80	–	-0.326	-4.65	<0.001	-0.190	-1.76	–
Diabetes mellitus	-0.331	-5.15	<0.001	-0.268	-3.47	0.001	-0.155	-2.89	0.005	-0.159	-1.93	–
Hypertension	-0.132	-1.98	0.050	-0.006	-0.07	–	-0.097	-1.75	–	0.156	1.83	–
Cardiovascular disease	0.011	0.17	–	0.132	1.70	–	0.144	2.67	0.009	-0.054	-0.65	–
<i>Individual characteristics</i>												
Lives alone	0.073	1.14	–	0.108	1.40	–	0.102	1.90	–	0.006	0.07	–
Decubitus	-0.193	-3.22	0.002	-0.200	-2.79	0.006	-0.148	-2.97	0.004	-0.201	-2.62	0.010
Hearing impairment	-0.141	-2.11	0.038	-0.252	-3.16	0.002	0.014	0.25	–	-0.052	-0.60	–
Visual impairment	0.045	0.66	–	-0.044	-0.53	–	-0.048	-0.83	–	0.051	0.58	–
Memory impairment	-0.298	-3.48	0.001	-0.237	-2.31	0.023	-0.372	-5.22	<0.001	-0.304	-2.77	0.007

* Total score refers to the mean value of scores on 7 health domains

Note: Health domain "family health" is not presented, due to restricted data

Method: Multivariable linear regression

** Adjusted for gender, age, and smoking

various domain specific scales, including "physical health" ($p=0.001$), "mental health" ($p=0.005$), and "biometrical values" ($p<0.001$) (tab. 4.1). A similar pattern was observed for participants with hypertension who recorded a low total score ($p=0.050$) and low scores on the "life habits" and "biometrical values" scales ($p=0.050$; $p<0.001$, respectively) (tab. 4.1).

Significantly lower scores were recorded on the "medicines" scale by patients with CVD ($p<0.001$), mental disorder ($p<0.001$), DM ($p<0.001$), and hypertension ($p<0.001$). This means that the increased use of drugs as part of the treatment of these chronic conditions is reflected in their responses to items in this specific domain of the "Healthometer" questionnaire (tab. 4).

Association between self-reported health status and sensory impairment

Lower total scores the "Healthometer" scale were recorded by patients with decubitus ($p=0.002$) and those with

hearing ($p=0.038$), and memory impairment ($p<0.001$). Furthermore, patients with decubitus recorded low scores on the "physical health" and "mental health" scale ($p=0.006$; $p=0.004$, respectively). Visual impairment and living alone were not found to affect the total or domain specific scores (tab. 4).

DISCUSSION

The findings of this study indicate that caring for older adults with comorbidities and those with sensory impairments is a very common feature for health professionals in home care programs. Our analysis revealed the negative impact of common chronic diseases on the perceived overall health status of the participants. Poorer health status was reported especially by older adults with respiratory symptoms and those who were taking medication for chronic diseases. Specifically, the increased prevalence of chronic diseases and other medical conditions are strong determinants of the wellness profile of older adults. It also

Table 4.1 (continuation of table 4)

	Social health			Life habits			Medicines			Biometrical values		
	β -coefficient**	t	p-value									
<i>Respiratory symptoms</i>												
Dyspnea	0.042	0.50	–	-0.092	-1.15	–	-0.009	-0.18	–	-0.111	-1.69	–
Cough	-0.058	-0.56	–	0.139	1.41	–	-0.015	-0.24	–	0.050	0.62	–
Allergies	-0.110	-1.35	–	-0.138	-1.77	–	0.001	0.02	–	-0.072	-1.13	–
Smoking	0.113	1.30	–	-0.305	-3.66	<0.001	0.072	1.37	–	-0.056	-0.83	–
<i>Diagnosed chronic diseases</i>												
Mental disorders	-0.146	-1.25	–	0.077	0.69	–	-0.381	-5.42	<0.001	0.122	1.33	–
Diabetes mellitus	-0.083	-0.93	–	-0.095	-1.12	–	-0.406	-7.57	<0.001	-0.482	-6.94	<0.001
Hypertension	0.002	0.03	–	-0.174	-1.98	0.050	-0.221	-3.99	<0.001	-0.481	-6.71	<0.001
Cardiovascular disease	0.018	0.20	–	0.135	1.57	–	-0.324	-5.99	<0.001	-0.034	-0.48	–
<i>Individual characteristics</i>												
Lives alone	-0.092	-1.04	–	0.018	0.21	–	0.034	0.63	–	0.052	0.75	–
Decubitus	-0.003	-0.04	–	-0.147	-1.86	–	-0.097	-1.94	–	-0.015	-0.22	–
Hearing impairment	0.022	0.23	–	-0.144	-1.63	–	-0.068	-1.22	–	0.040	0.56	–
Visual impairment	0.084	0.87	–	0.144	1.58	–	0.080	1.39	–	-0.087	-1.17	–
Memory impairment	-0.034	-0.29	–	-0.078	-0.69	–	-0.222	-3.12	0.002	-0.112	-1.22	–

Note: Health domain "family health" is not presented, due to restricted data

Method: Multivariable linear regression

**Adjusted for gender, age, and smoking

appears that respiratory symptoms and or undiagnosed obstructive airway disease affect to a substantial degree the general health status of the elderly population. In addition, visual, hearing and memory impairments affect mainly the functional status of the aging population.

The main finding of this study was that the overall perceived health status was negatively affected by the burden of chronic diseases, including chronic respiratory diseases and mental disorders. Possible explanations for this could be derived from the report that musculoskeletal symptoms may negatively affect HRQoL in the population of same rural areas on the island of Crete. Specifically, it was documented that the SF-36 dimensions of physical functioning, role limitations due to physical health problems and bodily pain were the most affected by the presence of musculoskeletal symptoms, while social functioning, vitality and general health were the least affected.^{5,15} Consumption of red meat and meat products was found to be associated with an increased likelihood of DM in the elderly population in this region.¹⁶ According to the Mediterranean Islands (MEDIS) study, which was a health-and-nutrition survey designed to evaluate the bioclinical, behavioural (lifestyle) and dietary characteristics of elderly individuals living in the Mediterranean islands, the consumption of fat only from meat or its products appears to increase the burden of CVD risk factors among CVD-free, elderly people, taking into consideration that red meat plays an important role in Cretan culture and lifestyle in general.¹⁷ In the international literature, it has been documented that patients with CVD reported lower physical, psychological, and social functioning on HRQoL scales than their premorbid levels, even only a year after diagnosis.⁵ In addition, older patients with DM were 64% more likely to report 14 or more unhealthy days (physical or mental) during the previous 30 days, suggesting that the QoL of these patients may be persistently "poor" due to diabetes-related symptoms.^{18,19}

We also found that the overall perceived health status was negatively affected by frequent respiratory symptoms, and it is possible that the individuals reporting cough and dyspnea were suffering from undiagnosed obstructive airway disease. Studies conducted on patients with chronic obstructive pulmonary diseases (COPD) revealed lower scores on HRQoL scales among patients with reported severe dyspnea and impaired lung function compared with those of a healthy control population.²⁰ Dyspnea on exertion has been reported as one of the main causes of the severe restriction of physical activity and impairment of functional status among older patients, with the degree of restriction being associated mainly with the severity of chronic airflow obstruction.²¹ Moderate and severe COPD clearly can affect the frequency of performance of everyday activities (e.g.,

trips, visits to friends) as the disease progresses from mild to severe, which, in turn, has an impact on overall health, well-being and QoL.²²

The phenomenon of "polypharmacy" among older patients with multimorbidity is widely recognized as being common.²³ Our data showed that participants with chronic diseases recorded lower scores on the "medicines" specific domain, indicating recourse to medication for their health conditions. It is also probable that this elderly population also took medication without diagnosis, as in the same rural region of Crete, a study showed that more than one in every three prescriptions was prescribed through a third-person contact and 69.8% of the prescriptions were renewal of an older one.²⁴ In addition, a study conducted among elderly patients with heart failure, confirmed that polypharmacy was frequent, as 74% of the patients were taking 6 or more pills per day, and 28% 11 or more.^{25,26} Another study conducted in Greece showed that older patients with mental health disease were found to be exposed to excess multiple drug treatment.²⁷

Our data also show that participants with "poor" memory had a low total "HealthOmometer" score, lower "physical" and "mental health" domain specific scores and reported increased medication use. A possible explanation for this finding might be that the reduced levels of physical exercise among this age group might contribute to cognitive dysfunction and memory loss.^{28,29} A prospective study showed that the performance of long-term regular physical activity among older women decreased the risk of cognitive decline by 20%.^{30,31} On the other hand, depressive symptoms usually coexist with dementia and may contribute to increased medication use.³²

To our knowledge, this is the first study to assess the overall and domain specific "HealthOmometer" scores among older adults receiving home care in rural areas of Crete, Greece, but the study has some limitations which need to be addressed. Firstly, the medical history of the participants was self-reported and or retrieved from medical records in the rural health care centers, which were often incomplete, which might have contributed to information bias. Another limitation is that the assessment of health status and well-being was based on self-report, which increases the risk of response and information bias (i.e., perceived health status and well-being).

In conclusion, our results suggest that chronic diseases and other medical conditions are important factors which strongly affect the overall health status and well-being of older adults. Caring for older adults requires an understanding of the complex interactions between various comorbidities and their effect on their overall health status and quality

of life. Health care professionals caring for older patients in home care programs need to perform a general assessment of their needs prior to designing their plan of care.

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ΣΚΟΠΟΣ Εκτίμηση της επίδρασης των συννοσηροτήτων στη γενική κατάσταση της υγείας ως προληπτική πρακτική στη φροντίδα των ηλικιωμένων. **ΥΛΙΚΟ-ΜΕΘΟΔΟΣ** Διενεργήθηκε συγχρονική μελέτη σε εγγεγραμμένα μέλη προγράμματος κατ' οίκον φροντίδας «βοήθεια στο σπίτι», ηλικίας >65 ετών. Η κατάσταση της υγείας των ηλικιωμένων εκτιμήθηκε με το εργαλείο διαλογής «Υγειόμετρο», το οποίο αποτελείται από 115 ερωτήσεις ταξινομημένες σε οκτώ «διαστάσεις υγείας», όπως κοινωνική υγεία, ψυχική και σωματική υγεία, συνήθειες, φάρμακα, αντιλήψεις για την υγεία και χρήση υπηρεσιών υγείας, κληρονομικότητα και βιοχημικές εξετάσεις. Ο ερωτώμενος καλείται να απαντήσει σε πεντάβαθμη αναλογική κλίμακα τιμών μεταξύ -2 έως +2. Θετικές τιμές υποδηλώνουν καλύτερη κατάσταση υγείας. **ΑΠΟΤΕΛΕΣΜΑΤΑ** Μελετήθηκαν 120 άτομα (80% γυναίκες), μέσης ηλικίας $82 \pm 7,4$ ετών. Η κατάσταση της υγείας των ηλικιωμένων αναφέρθηκε γενικότερα ως «πολύ καλή», παρ' όλο που το 16,6% έπασχε από ψυχικές διαταραχές, 40,8% από διαβήτη, 45,8% από υπέρταση και 33,3% από καρδιαγγειακές παθήσεις. Η συνολική κατάσταση της υγείας δεν διέφερε σημαντικά ως προς το φύλο (άνδρες 50,8 έναντι 55,2 των γυναικών, $p=0,585$). Όμως, οι άνδρες ανέφεραν σημαντικά υψηλότερες τιμές «κοινωνικής» υγείας (6,3 έναντι 3,3, $p=0,042$) και «οικογενειακής» υγείας (10,3 έναντι 7,2, $p=0,006$) σε σύγκριση με τι γυναίκες. Η γραμμική παλινδρόμηση αποκάλυψε ότι η συνολική κατάσταση της υγείας επηρεάζεται αρνητικά κυρίως από την παρουσία των χρόνιων νοσημάτων, των ψυχικών διαταραχών, των συμπτωμάτων του αναπνευστικού και των αισθητηριακών δυσλειτουργιών, ανεξάρτητα από το φύλο, την ηλικία και το κάπνισμα. **ΣΥΜΠΕΡΑΣΜΑΤΑ** Τα ευρήματα της παρούσας μελέτης υποδεικνύουν ότι πολλαπλές καταστάσεις επιβαρύνουν σημαντικά την κατάσταση της υγείας των ηλικιωμένων και επομένως οι επαγγελματίες υγείας που ασχολούνται με τη φροντίδα αυτών των ατόμων θα πρέπει να προβαίνουν σε αξιολόγηση της κατάστασης της υγείας πριν από τον σχεδιασμό του εξατομικευμένου πλάνου φροντίδας.

Λέξεις ευρετηρίου: Ευεξία, Κατάσταση υγείας, Ποιότητα ζωής, Χρόνιες παθήσεις, Ψυχική υγεία

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