

Impact of self-rated health among elderly on visits to family physicians

Amira Kurspahić-Mujčić¹, Melisa Čalkić², Suad Sivić³

¹Department of Social Medicine, School of Medicine, University of Sarajevo, Sarajevo, ²Primary Health Care Center, Gornji Vakuf-Uskoplje, ³Public Health Institute of Zenica-Doboj Canton, Zenica; Bosnia and Herzegovina

ABSTRACT

Aim To evaluate an impact of eight dimensions of self-rated health measured by the SF-36 questionnaire on visits to family physicians among people older than 65.

Methods This cross-sectional study was carried out in family medicine outpatient departments of the Public Institution Primary Health Care Center of Canton Sarajevo, Bosnia and Herzegovina. The study included 200 respondents divided into two age groups: 18-65 (n=100) and older than 65 (n=100). The SF-36 questionnaire for self-assessment of health status and a questionnaire for the evaluation of socio-demographic characteristics of respondents and health care utilization were used.

Results In the group of respondents aged 18-65 the dimension that was related to physical functioning was assessed as best (79.1±25.6), while the dimension concerning the vitality was assessed as the worst (56.1±19.9). In the group of respondents older than 65 the dimension related to social functioning was assessed as best (65.4±24.9), and the dimensions related to general health was assessed as worst (47.7±20.4). Family physicians were visited by significantly more respondents older than 65 than those from the age group 18-65 (94% vs.74%) (p= 0.000). Scores on the scales of general health (p=0.021) and social functioning (p=0.024) in respondents older than 65 had a significant impact on visits to family physicians.

Conclusion Poor self-rated general health and better social functioning are important predictors of visiting family physicians by elderly persons.

Key words: age, primary health care, quality of life

Corresponding author:

Amira Kurspahić-Mujčić
School of Medicine, University of
Sarajevo
Čekaluša 90, 71000 Sarajevo, Bosnia and
Herzegovina
Phone: +387 33 202 051;
Fax: +387 33 202 051;
Email: mujcich@bih.net.ba

Original submission:

15 April 2016;

Accepted:

01 June 2016.

doi: 10.17392/857-16

INTRODUCTION

Older age groups are vulnerable due to departure from the labor market with greater dependence on pensions, breakdown of extended families, isolation due to the death of their contemporaries, especially of their spouses, and declining physical and mental capabilities (1). Changes in social and economic circumstances and health at older age predict changes in quality of life (2-4).

The interest in the quality of life of elderly has become relevant with the demographic shift that has resulted in greying of the population (5). The increasing life expectancy due to improvement in social and living conditions, health promotion and education, better access to health care services and people's activity contribute to this process (6).

The increasing life expectancy raises the question of whether longer life spans result in more years of life in good health, or whether it is associated with increased morbidity and more years spent in prolonged disability and dependency (7,8). The results of the conducted studies based on the application of modern techniques of subjective assessment of health through structured questionnaires (SF-36 questionnaire) showed that people now live longer, healthier and more actively enjoy life (9-11).

It was also found that certain dimensions of self-rated health can have a positive effect on the use of health care services, which ultimately leads to improved health (12). For elderly people regular use of primary health care is of special significance (13). They need visits to family physicians to prevent diseases, control the therapeutic effect of used drugs and improve general health (14). Pappa and Niakas have found in the study conducted in Greece that self-perceived health status was the most important determinant for visiting family physicians (15).

The aim of this study was to evaluate the impact of eight dimensions of self-rated health measured by the SF-36 questionnaire on visits to family physicians among people older than 65 in family medicine outpatient departments of the Public Institution Primary Health Care Center of Canton Sarajevo, Bosnia and Herzegovina.

EXAMINEES AND METHODS

Study design

This cross-sectional study was carried out in family medicine outpatient departments of the Public Institution Primary Health Care Center

of Canton Sarajevo, Bosnia and Herzegovina (B&H) in period March-August 2015.

The study was approved by the Ethics Committee of the School of Medicine, University of Sarajevo. For this investigation a written consent of the General Director of the Primary Health Care Center of Sarajevo Canton was obtained. An informed consent for participation in the study was taken from all respondents.

The respondents were patients who used health care services at the Primary Health Care Center during the study period. The study included 200 respondents based on the principle of systematic random sampling. The respondents were divided into two groups according to their age: respondents older than 65 (n=100) and those aged 18-65 (n=100). The inclusion criteria encompassed persons older than 18, who had a medical record in the Primary Health Care Center of Sarajevo Canton. According to exclusion criteria persons under 18 years of age, persons who did not have medical records at the Primary Health Care Center of the Sarajevo Canton and terminally ill persons were not involved in the study.

Methods

The respondents were supposed to fill out a questionnaire that included questions about their socio-demographic characteristics and utilization of health care and the SF-36 questionnaire. Socio-demographic characteristics were included: the highest level of accomplished formal education, self-assessed material status, age, gender, "live alone". As an indicator of health care utilization visits to family physicians and visits to specialist on referral by family physicians in the last twelve months were observed. The respondents were asked to provide "yes" or "no" answers to the question whether he/she had visited a family physician/family physician associated with specialist in the last twelve months.

The SF-36 questionnaire was used to measure the self-rated health through eight dimensions of health (16,17). The SF-36 Health Survey is a self-report questionnaire in which a generic outcome measure is designed to examine a person's perceived health status. The SF-36 Health Survey includes one multi-item scale measuring each of the eight health concepts: physical functioning (10 items), physical role limitations (four items), bodily pain

(two items), general health perceptions (five items), energy/vitality (four items), social functioning (two items), emotional role limitations (three items) and mental health (five items). The SF-36 Health Survey items and scales were constructed using the Likert method of summated ratings. Answers to each question were scored (some items need to be recorded). These scores were summed to produce raw scale scores for each health concept which were then transformed to a 0 – 100 scale (18).

Statistical methods

Testing of the difference between two groups of respondents, aged 18 to 65 and older than 65, was performed by χ^2 and Student’s t tests for independent samples. The impact of health dimensions of SF-36 questionnaire on the resulting visits to family physicians and visits to a specialist upon referral by family physicians was determined by calculating the Odds Ratio (OR). Level of significance was set at $p < 0.05$, and the confidence level was 95%.

RESULTS

The average age of the respondents in the total sample was 57.18 ± 19.25 years; 41.40 ± 13.79 years (minimum 19, maximum 64) in the group of respondents aged 18 to 65 years, and 72.96 ± 7.16 years (minimum 66, maximum 90) in the group older than 65.

In both study age groups females were slightly more represented than males, 55%:45% in the group aged 18-65 years, and 53%:47% in the group older than 65, respectively.

In the group aged 18-65 years 34% had completed college/university, while in the group older than 65 19% of the respondents had a college/university degree. In the group of the respondents older than 65 years there were more respondents who evaluated their financial status as worse than the average in the comparison to the group of respondents aged 18-65 years, 31.0% vs. 12.0%. There were almost twice as many respondents who lived alone in the group of respondents older than 65 years, than in the 18-65 years group, 31% and 16%, respectively (Table 1).

Self-rated health as measured by the SF-36 questionnaire among the examined groups was significantly different according the six dimensions of health: physical functioning ($p=0.000$), physical problems ($p=0.002$), bodily pain ($p=0.010$), gene-

Table 1. Socio-demographic characteristics of respondents

Characteristic	No (%) of respondents		p
	Group 18-65 years (n=100)	Group 65+ years (n=100)	
Gender			0.777
Males	45 (45.0)	47 (47.0)	
Females	55 (55.0)	53 (53.0)	
Education level			0.001
Incomplete elementary school	3 (3.0)	8 (8.0)	
Completed elementary school	45 (45.0)	34 (34.0)	
High school diploma	18 (18.0)	39 (39.0)	
Completed high school/college	34 (34.0)	19 (19.0)	
Self-perceived financial status			0.005
Worse than average	12 (12.0)	31 (31.0)	
Average	59 (59.0)	46 (46.0)	
Better than average	29 (29.0)	23 (23.0)	
Lives alone			0.012
Yes	16 (16.0)	31 (31.0)	
No	84 (84.0)	69 (69.0)	

ral health ($p=0.000$), social functioning ($p=0.021$) and mental health ($p=0.001$). In the group older than 65 the average score on all scales was lower than the average score of the younger respondents from the 18-65 years group. Out of the eight dimensions of self-rated health in the 18-65 years group of respondents the dimension that is related to physical functioning was assessed as the best (79.1 ± 25.6), and the dimension concerning the vitality as the worst (56.1 ± 19.9). In the group of respondents older than 65 the dimension that is related to social functioning was assessed as the best (65.4 ± 24.9), and the dimensions related to general health as the worst (47.7 ± 20.4) (Table 2).

Table 2. Comparison of self-rated health through eight dimensions of health measured by the SF-36 questionnaire according to age

Dimension of health	Age group (years)	Mean value (SD)	p
Physical functioning	18-65	79.1 (25.6)	p=0.000
	>65	60.4 (24.6)	
Role limitations due to physical problems	18-65	69.8 (39.6)	0.002
	>65	51.0 (45.6)	
Bodily pain	18-65	70.8 (25.8)	0.010
	>65	60.9 (28.2)	
General health	18-65	63.5 (18.8)	0.000
	>65	47.7 (20.4)	
Vitality	18-65	56.1 (19.9)	0.086
	>65	51.6 (17.4)	
Social functioning	18-65	73.0 (21.2)	0.021
	>65	65.4 (24.9)	
Role limitations due to emotional problems	18-65	68.0 (41.0)	0.194
	>65	60.0 (45.7)	
Mental health	18-65	69.1 (18.5)	0.001
	>65	61.2 (15.9)	

SD, standard deviation

Table 3. Impact of eight dimensions of health measured by the SF-36 questionnaire on visits to family physicians and family physicians associated with specialist in the last twelve months for respondents over 65 years of age

Dimension of health	Family physicians			Family physicians+ specialist		
	Mean value	p	OR (95% CI)	Mean value	p	OR (95% CI)
Physical functioning	60.4	0.621	1.005(0.986-1.024)	60.4	0.688	0.997(0.982-1.012)
Role limitations due to physical problems	51.0	0.150	0.988(0.971-1.005)	51.0	0.027	0.988(0.978-0.999)
Bodily Pain	60.9	0.068	0.977(0.953-1.002)	60.9	0.011	0.977(0.959-0.995)
General health	47.7	0.021	0.960(0.927-0.994)	47.7	0.002	0.989(0.934-0.985)
Vitality	51.6	0.410	0.982 (0.912-1.074)	51.6	0.050	1.033(1.000-1.07)
Social functioning	65.4	0.024	1.041(1.005-1.079)	65.4	0.406	1.010(0.986-1.035)
Role limitations due to emotional problems	60.0	0.102	1.010(0.998-1.023)	60.0	0.194	1.006(0.997-1.015)
Mental health	61.2	0.739	0.993(0.950-1.037)	61.2	0.777	1.005(0.973-1.038)

OR, Odds Ratio; CI, confidence interval

In the last twelve months family physicians were visited by significantly more respondents older than 65 years than respondents from the age group 18-65 (94 vs. 74) (p=0.000). In the last twelve months family physicians associated with specialists visited significantly more respondents older than 65 than the respondents from the 18-65 group (68 vs. 33) (p=0.000) (data are not shown). In case of respondents older than 65 years, the scores on scales measured by the SF-36 questionnaire of general health (p=0.021) and social functioning (p=0.024) had a significant impact on visits to family physicians. The dimension of health, which describes bodily pain was borderline significant for visiting family physicians (p=0.068). On visits to family physicians associated with visits to specialists scores on a scale of physical problems, bodily pain, general health and vitality had a significant impact (Table 3).

DISCUSSION

This study explored self-rated health of older people through eight dimensions of health (SF-36). The obtained results indicate that with the increasing age, the respondents evaluated health significantly worse in six dimensions of health (physical functioning, physical problems, bodily pain, general health, social functioning and mental health), while the two dimensions of health vitality and emotional problems did not worsen significantly with age.

In this study, respondents older than 65 evaluated the dimension of health that relates to general health as worst. Aging is accompanied by physiological disorders in terms of lower mobility and disability on one hand, and by suffering from various chronic diseases on the other hand (19) the-

re for self-rated general health is expected to be worse. Emotional functioning changes little with age (20). Findings might reflect that older adults are better able to control exposure or reaction to difficult emotions and are able to put one's own life in a context, so that one reaches a state of self-acceptance (21).

Chronic pain was more common among older than in younger people in this study, which is in line with the results of other researchers who suggest that nearly one third of older people suffer from chronic pain (22). The consequences of this pain include impaired activities of daily living and impaired ambulation and depression (23). Pain may also be related to complications associated with deconditioning, gait abnormalities, accidents, polypharmacy, and cognitive decline (24).

Ageing brings several physical as well as mental problems (25). As people are getting older they find it increasingly difficult to concentrate, they are not happy with themselves as once when they were younger, and because of numerous problems their negative mood tends to increase (26). The result is visible in the field of mental health.

Older people are less satisfied with the domain of social functioning (1). For them, the absolute value of satisfaction with social relations is reduced for several reasons, e. g. a circle of friends at that age is reduced and some close persons are probably no longer alive (27). Old people tend to have less of a chance to participate, especially after retirement (28), but the results of the study conducted by Gilmour in Canada among 16 369 respondents at age of 65 and older indicate the existence of desire of older people for greater participation in social activities (29).

It is known that self-rated health affects the use

of health care and that certain dimensions of self-rated health differently affect visits to doctors at primary and secondary levels of health care (30,31). In the present study scores on scales of general health and social functioning had significant influence on visits to the family physicians. It was found that the perception of poor general health significantly affected the increased number of visits to family physicians. This is in accordance with the study conducted by Chou et al among the elderly in Hong Kong (32). Hansen et al. showed self-related health as a function of disability associated with higher use of primary care services but not inpatient admissions (33). The results of this study show that people who are poorly socially functioning visited family physicians less, which is in line with the conducted studies which state that poorer social functioning is recognized as a barrier to health care utilization and solving health problems. Increasing social support and mobility facilitates access to family physicians (34-37).

People who live alone are in a particularly difficult situation. Despite having poorer self-reported health, those living alone attend outpatient and general practice less often (38). Zhou et al found

that non-visiting rate among empty-nest elderly is significantly higher than that among non-empty-nest ones (39). Therefore, the future studies should be dealing in detail with social functioning of older people and ways to improve it.

In conclusion, the results of this study show that poorer self-rated health is a predictor for the use of general practice. The extent to which the person with poorer self-rated of health will use primary health care services depends primarily on the degree of its social functioning. A person with better social functioning can more easily achieve a visit to a family physicians and also in case of need, solve his/her health problem. It is therefore important to work on the implementation of interventions that will be aimed at improving social functioning of older people. The implementation of these interventions is needed for enabling older people to maintain active and independent life as long as possible.

FUNDING

No funding was received for this study.

TRANSPARENCY DECLARATION

Competing interests: None to declare.

REFERENCES

- Charles S, Carstensen LL. Social and emotional aging. *Annu Rev Psychol* 2010;61:383–409.
- Webb E, Blane D, McMunn A, Netuveli G. Proximal predictors of change in quality of life at older ages. *J Epidemiol Community Health* 2011;65:542–7.
- Zaninotto P, Falaschetti E, Sacker A. Age trajectories of quality of life among older adults: results from the English Longitudinal Study of Ageing. *Qual Life Res* 2009;18:1301–9.
- Waidmann T, Bound J, Schoenbaum M. The illusion of failure: trends in the self-reported health of the US elderly. *Milbank Q* 1995;73:253–87.
- Kalfoss M, Halvorsrud L. Important Issues to Quality of Life Among Norwegian Older Adults: An Exploratory Study. *Open Nurs J* 2009;3:45–55.
- Kaczmarczyk M, Trafiałek E. Activating elderly people - a chance of good and satisfying aging. *Gerontol Pol* 2007; 15:116–8.
- Christensen K, Doblhammer G, Rau R, Vaupel JW. Ageing populations: the challenges ahead. *Lancet* 2009;374:1196–208.
- Carstensen LL, Turan B, Scheibe S, Ram N, Ersner-Hershfield H, Samanez-Larkin GR, Brooks KP, Nesselrode JR. Emotional experience improves with age: Evidence based on over 10 years of experience sampling. *Psychol Aging* 2011;26:21–33.
- Schnitker J, Bacak V. The increasing predictive validity of self-rated health. *PLoS ONE* 2014;9:e84933.
- Freedman VA, Martin LG, Schoeni RF, Cornman JC. Declines in late-life disability: The role of early-and mid-life factors. *SocSci Med* 2008;66:1588–602.
- Martin LG, Schoeni RF, Freedman VA, Andreski P. Feeling better? Trends in general health status. *J Gerontol B PsycholSciSocSci* 2007;62:11–21.
- Shi L, Starfield B, Politzer R, Regan J. Primary Care, Self-rated Health, and Reductions in Social Disparities in Health. *Health Serv Res* 2002; 37:529–50.
- McGee HM, O'Hanlon A, Barker M, Hickey A, Montgomery A, Conroy R, O'Neill D. Vulnerable older people in the community: relationship between the Vulnerable Elders Survey and health service use. *J Am GeriatrSoc* 2008;56:8–15.
- Laroche M. Health status and health services utilization of Canada's immigrants and non-immigrant populations. *Canadian Public Policy* 2000;26:51–75.
- Pappa E, Niakas D. Assessment of health care needs and utilization in a mixed public-private system: the case of the Athens area. *BMC Health Serv Res* 2006; 6:146.
- Ware JE, Snow K, Kosinski M, Gandek B. SF-36 Health Survey: Manual and Interpretation Guide. Lincoln (RI): Quality Metric Incorporated, 2000.
- McDowell I. *Measuring Health. A guide to Rating Scales and Questionnaires*. 3rd Edition ed. New York: Oxford University Press, 2006.
- Ware JE, Jr., Hays RD. Methods for measuring patient satisfaction with specific medical encounters. *Med Care* 1988; 26:393–402.
- Robine JM. Trends in population health. *Aging ClinExp Res* 2006;18:349–51.
- Jokela M, Batty GD, Kivimäki M. Ageing and the prevalence and treatment of mental health problems. *Psychol Med* 2013;43:2037–45.

21. Sarvimäki A, Stenbock-Hult B. Quality of life in old age described as a sense of well-being, meaning and value. *J Adv Nurs* 2000;32:1025-33.
22. Molton IR, Terrill AL. Overview of persistent pain in older adults. *Am Psychol* 2014;69:197-207.
23. AGS Panel on Persistent Pain in Older Persons. The management of persistent pain in older persons. *J Am Geriatr Soc* 2002;50:205-24.
24. Hairi NN, Cumming RG, Blyth FM, Naganathan V. Chronic pain, impact of pain and pain severity with physical disability in older people--is there a gender difference? *Maturitas* 2013;74:68-73.
25. Parkar SR. Elderly mental health: needs. *Mens Sana Monogr* 2015;13:91-9.
26. Singh A., Misra N. Loneliness, depression and sociability in old age. *IndustPsychiat J* 2009;18:51-5.
27. Cornwell EY, Waite LJ. Social disconnectedness, perceived isolation, and health among older adults. *J Health Soc Behav* 2009;50:31-48.
28. Barnett I, van Sluijs EM., Ogilvie D. Physical activity and transitioning to retirement: a systematic review. *Am J Prev Med* 2012;43:329-36.
29. Gilmour H. Social participation and the health and well-being of Canadian seniors. *Health Rep* 2012;23:23-32.
30. Morris St, Sutton M, Gravelle H. Inequity and inequality in the use of health care in England: an empirical investigation. *SocSci Med* 2005;60:1251-66.
31. Parslow R, Jorm A, Christensen H, Jacomb P, Rodgers B. Gender differences in factors affecting use of health services: an analysis of a community study of middle aged and older Australians. *SocSci Med* 2004;59:2121-9.
32. Chou KL, Chi I. Factors associated with use of publicly funded services by Hong Kong Chinese older adults. *SocSci Med* 2004;58:1025-35.
33. Hansen MS, Fink P, Frydenberg M, Oxhøj ML. Use of health services, mental illness, and self-rated disability and health in medical inpatients. *Psychosom Med* 2002;64:668-75.
34. Thorpe JM, Thorpe CT, Kennelty KA, Pandhi N. Patterns of perceived barriers to medical care in older adults: a latent class analysis. *BMC Health Services Research* 2011;11:181.
35. Taylor DH, Hoening H. Access to health care services for the disabled elderly. *Health Serv Res* 2006;41:743-58.
36. Iezzoni LI, McCarthy EP, Davis RB, Siebens H. Mobility impairments and use of screening and preventive services. *Am J Public Health* 2000; 90:955-61.
37. Fiscella K, Epstein RM. So much to do, so little time: care for the socially disadvantaged and the 15-minute visit. *Arch Intern Med* 2008;168:1843-52.
38. Kharicha K, Iliffe S, Harari D, Swift C, Gillmann G, Stuck AE. Health risk appraisal in older people 1: are older people living alone an "at-risk" group? *Br J Gen Pract* 2007;57:271-6.
39. Zhou C, Ji C, Chu J, Medina A, Li C, Jiang S, Zheng W, Liu J, Rozelle S. Non-use of health care service among empty-nest elderly in Shandong, China: a cross-sectional study. *BMC Health Serv Res* 2015;15:294.

Utjecaj samoprocjenjenog osjećaja zdravlja starijih osoba na posjete ljekaru porodične medicine

Amira Kurspahić-Mujčić¹, Melisa Čalkić², Suad Sivić³

¹Katedra za socijalnu medicinu, Medicinski fakultet, Univerzitet u Sarajevu, Sarajevo; ²Dom zdravlja, Gornji Vakuf-Uskoplje; ³Kantonalni zavod za javno zdravstvo Zenica, Zenica; Bosna i Hercegovina

SAŽETAK

Cilj Evaluirati utjecaj osam dimenzija samoprocjene zdravlja, mjerenih upitnikom SF-36, na posjete ljekaru porodične medicine kod osoba starijih od 65 godina.

Metode Rad predstavlja studiju presjeka provedenu u ambulantama porodične medicine Javne ustanove Dom zdravlja kantona Sarajevo (Bosna i Hercegovina). U istraživanje je bilo uključeno 200 ispitanika koji su bili podijeljeni u dvije dobne grupe: od 18 do 65 godina (n=100) i stariji od 65 godina (n=100). Korišten je upitnik SF-36 za samoprocjenu zdravstvenog stanja i upitnik za evaluaciju sociodemografskih obilježja ispitanika i korištenja zdravstvene zaštite.

Rezultati U grupi ispitanika u dobi od 18 do 65 godina najbolje je bila ocijenjena dimenzija koja se odnosila na fizičko funkcioniranje (79.1±25.6), a najlošije dimenzija koja se odnosila na vitalnost (56.1±19.9). U grupi ispitanika starijih od 65 godina najbolje je bila ocijenjena dimenzija koja se odnosila na socijalno funkcioniranje (65.4±24.9), a najlošije dimenzija koja se odnosila na opće zdravlje (47.7±20.4). Ljekara porodične medicine posjetilo je znatno više ispitanika starijih od 65 godina nego ispitanika mlađe dobne grupe (94% vs. 74%) (p=0.000). Skorovi na skalama općeg zdravlja (p=0,021) i socijalnog funkcioniranja (p=0.024) kod ispitanika starijih od 65 godina imali su signifikantan utjecaj na posjete ljekaru porodične medicine.

Zaključak Loša percepcija općeg zdravlja i bolje socijalno funkcioniranje su značajni prediktori posjete ljekaru porodične medicine kod starijih osoba.

Ključne riječi: star, primarna zdravstvena zaštita, kvalitet života