THE INFLUENCE OF SOCIAL SUPPORT ON DEPRESSION AMONG ELDERLY PEOPLE IN SERBIA

Milan Đorđić[1], Sofija Čolović[1], Snežana Radovanović[2], Svetlana Radević[2], Gordana Gajović[3], Nemanja Murić[4], Slađana Veselinović[4], Aleksandar Gavrilović[5] and Tatjana Bošković Matić[5]

[1]*University of Kragujevac, Faculty of Medical Sciences, Department of Communication Skills, Ethics and Psychology, Kragujevac, Serbia*
[2]*University of Kragujevac, Serbia, Faculty of Medical Sciences, Department of Social Medicine*
[3]*Health Center Aranđelovac, Aranđelovac, Serbia*
[4]*University of Kragujevac, Faculty of Medical Sciences,* Department of Psychiatry, *Kragujevac, Serbia*
[5]*University of Kragujevac, Faculty of Medical Sciences, Department of Neurology, Kragujevac, Serbia*

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Corresponding author:

Sofija Colovic

University of Kragujevac, Faculty of Medical Sciences, Department of Communication Skills, Ethics and Psychology, Kragujevac, Serbia

E-mail: Sofija Colovic

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ABSTRACT

Social factors such as social support, integration, and belonging to the community are positive resources against adverse events and living conditions. This study at examining the influence of social support on depression among elderly people in Serbia. The research was done according to the type of cross-sectional study, a mass survey of a random, representative stratified two-stage sample of the population of Serbia in 2013, which was conducted by the Ministry of Health of the Republic of Serbia. The target population consisted of 3540 respondents aged 65 and over. The Patient Health Questionnaire-8 (PHQ-8) was used to evaluate the presence of depressive symptoms and the social support score from the questionnaire Oslo-3 scale of social support. The relations between depression symptoms and social support were examined with univariate logistic regression analyses. In the univariate regression model, social support stood out as a strong predictor of depression. People with weak social support are three and a half times more likely (OR = 3.45) to have depression compared to those with strong social support. Men with small social support were more likely to have depression (OR = 5.08) than women (OR = 3.41). These results indicate the urgency of addressing depression as a public health priority to reduce the burden and disability and improve the overall health of the elderly population.

Keywords: *Social support, depression, elderly people, Serbia.*

INTRODUCTION

Geriatric depression is a health problem that is often not detected on time and requires special medical attention. Geriatric depression is generally insufficiently recognized and insufficiently treated because it is often considered a natural part of aging. Many studies have shown that about half of cases of depression in the elderly usually remain undiagnosed (39,40). Symptoms such as increased fatigue, loss of appetite, sleep deprivation, and loss of interest in everyday social activities often are not recognized as symptoms of depression. Also, older people are less likely to want to acknowledge feelings of sadness, different somatic and cognitive changes such as irritability and memory loss, disorientation, and depression. Therefore, these symptoms usually remain unrecognized and undiagnosed because they consider a normal part of the aging process. If they occur almost daily with the duration of depression for more than two weeks, they are not a normal part of the aging but symptoms of a major depressive disorder (1).

Social factors such as social support, integration, and belonging to the community are positive resources against adverse events and living conditions. They increase the ability to adapt to change and manage life. Social network and support have an independent and strong impact on health and quality of life at all stages of the life cycle, especially in the elderly. Researches have shown that the quality of life of the elderly is directly related to the degree of social interaction, the level of social engagement, and social networks. People who have a lower level of social activities and less frequent contacts have a higher level of cognitive impairment. They are more likely to feel lonely and have a higher chance of developing depression (2, 3).

Social support can affect health and well-being through modifying individual behavioral factors and adopting healthy lifestyles. It also enables better emotional adaptation to stressful and negative life events. Social support helps people to overcome stress more easily and it is associated with better mental health outcomes (4). Therefore, this study aimed at examining the influence of social support on depression among elderly people in Serbia

METHODS

The research was done according to the type of cross-sectional study, a mass survey of a random, representative stratified two-stage sample of the population of Serbia in 2013, which was conducted by the Ministry of Health of the Republic of Serbia. The target population consisted of 3540 respondents aged 65 and over. The research process itself was done following the protocol and instruments of the European Health Research (second wave). As a research instrument, it was used Standardized questionnaires consist of defined indicators/variables based on the recommendations of the World Health Organization and the European Health Research. All information obtained in the research is confidential and confidentiality is guaranteed. Respondents were provided promptly with all information about their rights as well as information related to the research, after which they signed informed consent to participate in the research.

The PHQ-8 Patient Health Questionnaire (5) was used to assess the presence of depression, which consists of eight items that address the following mental problems and ailments: decreased satisfaction or interest in doing everyday tasks or events around you; feeling of emptiness, discouragement, displeasure, depression, hopelessness; sleep problems (difficulty with falling asleep, waking up during sleep or excessive sleep); feeling that you do not have enough energy, fatigue, tiredness; decreased or increased appetite; negative opinion of themself, feelings of failure and worthlessness, self or family disappointment; difficulty with concentrating on certain activities, inability to concentrate on reading newspapers or watching TV (reduced ability to think, concentrate or indecisive - assessed subjectively or by others); slowness of physical activities or speech so that other people may notice it, or in contrast psychomotor restlessness and anxiety or a feeling that they are active more than usual (noticed by others, not just a subjective feeling).

Respondents answered how often in the last two weeks they had any of the above possible mental problems by choosing one of the four answers offered: "no problems", "a few days a week", "more than seven days" and "almost every days during the week. " The answers to each question were rated 0-3: 0 ("no problem"), 1 ("a few days a week"), 2 ("more than seven days") and 3 ("almost every day"). , and after adding up the scores for each of the eight questions, a total PHQ-8 score was obtained ranging from 0 to 24. A PHQ-8 score of zero to four indicates no symptoms of depression, a PHQ-8 score of five to nine indicates mild symptoms of depression, and a total PHQ-8 score of ten or more indicates a high probability of depression, which is further classified as moderate (PHQ-8 score of 10 to 14), moderately severe (PHQ-8 score of 15 to 19) and a severe depressive episode (PHQ-8 score 20 and above). Based on the PHQ-8 score, subjects will be classified into one of 3 categories: no depressive symptoms, mild depressive symptoms (subsyndromal depression), and depressive episode (depression). In the analysis of the results, a depressive episode meant a value of almost 10 or more.

The social support score is formed by assigning and collecting points for each answer to three possible questions from the questionnaire "Oslo-3 scale of social support": "How many people are so close to you that you can count on them when you have serious personal problems?" ranges from 1 ("None") to 4 ("6 or more"), "How many people are interested in you, in what you do, what happens in your life?" not interested ") to 5 (" Very interested "))," How easy is it to get practical help from a neighbor/neighbor if you need it? "(the number of points ranges from 1 (" Very difficult ") to 5 (" Very easy ")). By adding points to these three questions, a score of social support was established: strong social support (12-14 points), moderate (9-11 points) and poor (3-8 points) (6).

Statistical data processing was performed in the software package SPSS, version 18.0. The results of the research are presented in tables and graphs. Category variables are presented as frequencies and the Chi-square ($\chi 2$) test was used to compare differences in the frequency of these variables. A univariate and multivariate regression model was used to determine the relationship between depression and potential independent risk factors, and the probability of a relationship was expressed as the odds ratio. A probability of less than 5% was considered statistically significant.

RESULTS

PHQ-8 values recently showed that every tenth inhabitant of Serbia aged 65 and over (a total of 10%) has a depressive episode, while 17.5% of them had mild depressive symptoms (subsyndromal depression). Observed concerning the categories of depression, the largest number of the elderly population had moderate depression (5.8%), followed by moderately severe depression (2.6%), while the smallest share of respondents had a severe depressive episode (1.6%). The mean value of the PHQ-8 score in the population aged 65 and over was 3.5 (Chart 1).

In subjects with a PHQ-8 value ≥of 10 (depressive episode), the most common symptoms of depression present almost every day for the last two weeks of the study were lack of energy or a feeling of fatigue (61.8%), slow movement, or restlessness. (46.4%) and sleep problems (44.1%) (Table 1).

When it comes to social support, among the elderly who had poor social support, every fourth respondent had a depressive episode (27.3%), in contrast to only every twelfth respondent with strong social support (8.7%). Mild symptoms of depression are present in 27.3% of respondents with poor and 20.4% of respondents with moderate social support. This difference is highly statistically significant (Chart 2).

When we talk about social support, people who do not have any close person in their environment who can count on, when they have serious personal problems, the prevalence of a depressive episode is present in as many as 25.3% of respondents, or the prevalence of mild symptoms in 21.5% of respondents. When asked how much people are interested in you, depression is present in 36.1% of those who stated that there are no such people in their environment as opposed to 8.0% of those who reported a depressive episode and stated that people are very interested in them. Depression is also present in a significantly higher percentage of those respondents who stated that it is very difficult for them to get practical help from neighbors when they need it (23.5%) than those who do not have a problem with it(7.9%), (Table 2).

In the univariate regression model, social support stood out as a strong predictor of depression. People with weak social support are three and a half times more likely (OR = 3.45) to have depression compared to those with strong social support. Men with small social support were more likely to have depression (OR = 5.08) than women (OR = 3.41), (Table 3).

DISCUSSION

According to the stress relief model, a well-developed social network and positive social support can reduce the negative effects of stressful life events on the occurrence and presence of depressive symptoms in the elderly. On the other hand, the deficit in social support due to retirement, death of a spouse and friend, mental and physical limitations, can be a risk factor for the occurrence or worsening of depression in late life as well as reduced life satisfaction (7). Previous research has shown that older people with poor emotional support are more likely to be depressed, with men showing higher rates of depression than women (8).

Older people who are living with spouses and children have the lowest rates of depression (54). Similar studies have shown that frequent visits to the elderly reduce the risk of depression. The chances of depression in the elderly who are meeting with friends and relatives are reduced by less than 60% compared with the elderly who do not (9). Loss of family support and moving to a new environment affects the health of the elderly. People living in geriatric homes were more likely to suffer from depression, which could be caused by inadequate social adaptation and living in a geriatric home, which is a stressor (1). The greatest feeling of loneliness is observed among the elderly living in rural areas, in single-member households, or among elderly people who are not active in any association or organization (10).

Stressful life events and old age are significantly associated with depression, as confirmed by the results of many studies. The loss of a spouse, close relative, or friend constantly reminds the elderly of the inevitable end. This will have a particularly disturbing effect on the elderly person, especially if the deceased is a younger member of the family because then the elderly person has lost someone who could take care of him/her in old age (11).

Many studies show that social support has a strong influence on the appearance of depressive symptoms in the elderly. Retirement, in turn, has the effect of reducing income and reducing psychosocial support, which significantly affects the rate of depression in the elderly population (12). Older people who live in a family environment, who visit with friends and relatives, as well as those who nicely spend their free time, have a lower risk of depression. The poor social network, loss of a close relative, or co-worker can lead to depression in the elderly, and on the other hand, depression can contribute to a decrease in the quality of social activities (13, 14).

The results of our research suggest that the prevalence of depression is significantly higher among people who do not have adequate social support. Among the elderly who had poor social support, every fourth respondent had a depressive episode (27.3%), in contrast to only every twelfth respondent with strong social support (8.7%). Encouraging individuals to initiate, maintain, and expand social engagement in later life could help reduce depressive symptoms (15).

Depression in the elderly worsens the results of many medical diseases and increases mortality. Age-related processes, including arteriosclerosis, inflammatory and degenerative diseases, can increase vulnerability to depression. Environmental factors, such as impoverishment, isolation, change of residence, care, contribute to a further increase in susceptibility to depression or the initiation of depression in already vulnerable elderly people. Appropriate treatment of depression in the elderly reduces symptoms, prevents suicidal ideation, improves cognitive and functional status, and helps patients develop the skills needed to cope with a disability or psychosocial difficulties. Prevention of depression can significantly improve outcomes, mainly recovery of function and quality of life, as well as the risk of mortality. Therefore, the importance and possibilities for the prophylaxis of depression should be considered, especially in those circumstances where the risk of depression is markedly increased, such as stroke, cancer, institutionalization, etc. (16).

It is crucial to provide screening for early depression using routine diagnostic tools such as questionnaires for older people who are living in the community, in order to detect depression early and to reduce the burden on their families and society as a whole. It would also be useful to improve the physical health, psychological health, and health of the elderly. Older people are expected to live with their family or relatives, to participate in religious activities and group communities (17).

Stats from many studies suggest the importance of screening for depression in the elderly because of its high prevalence and risk of increased morbidity and mortality. Many factors, biological and psychosocial, affect variability in both clinical presentation and response to treatment. There is significant evidence that prevention can significantly reduce the incidence rate of depression. A recent meta-analysis studied the effects of preventive interventions with individuals without confirmed depression revealed a 21% reduction in incidence over 1-2 years in prevention groups compared with control groups (18).

In addition to proactive and effective control of primary diseases, it is necessary to make efforts to improve the psychological and social function of patients. Depressive symptoms in the elderly are associated with greater difficulties in the treatment of comorbidities, poorer prognosis, and should be thoroughly investigated and early treatment of this vulnerable population should be provided. Therefore, it is necessary to identify depressive symptoms early, to relate them with other diseases, in order to intervene on time with preventive measures and thus prevent the evolution of the disease to full depression (19).

Aging-related depression can be controlled by creating living conditions and environments that increase the presence and activity of older people in social situations. Also, attempts to secure their financial assistance and independence will have a positive effect on their mental well-being (20, 21).

Moreover, public awareness of the mental problems of the elderly population, early diagnosis, and proper management of these groups of people will not only alleviate their suffering but represent a way to improve the quality of life of this category of society, which certainly represents a great contribution to society as a whole. Public health professionals as well as primary care physicians need to be trained to recognize depression and take appropriate treatment. Also, social protection providers, from the formal and informal sectors, should be included in the teams that should take steps at the national level and direct more resources to support the elderly population (22, 23).

Depression significantly affects not only the quality of life of the patient but also the family and the community and contributes to a significant increase in health care costs, so the prevention of depression deserves special attention. Improved recognition and treatment of geriatric depression has great potential for improving physical and mental health later in life, reducing disability, and improving quality of life (24).

Graph 1. Prevalence of depression in the population aged 65 and over

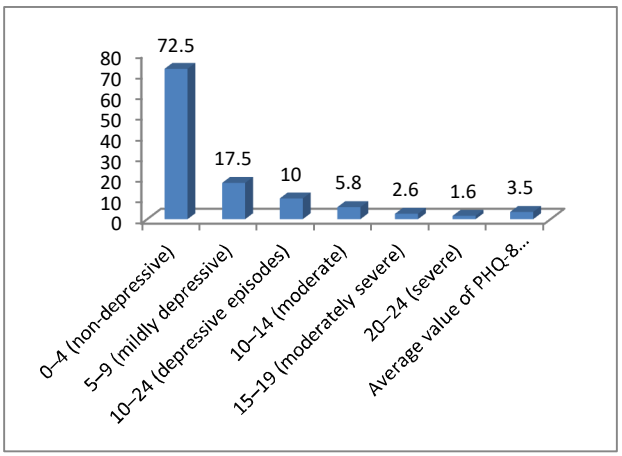


Table 1. Depressive symptoms in people with PHQ-8 ≥10

Symptoms of depression	not at all		few days		more than 7 days		almost every day	
	n	%	n	%	n	%	n	%
Poor interest or pleasure in doing something	19	5.4	113	31.9	90	25.4	130	36.9
Discouragement, hopelessness	24	6.9	93	26.6	103	29.4	130	37.1
Sleep problems	22	6.2	64	18.1	112	31.6	156	44.1
Feeling tired or lacking in energy	6	1.7	27	7.6	102	28.9	218	61.8
Poor appetite or overeating	87	24.6	111	31.4	76	21.5	80	22.6
Bad opinion of yourself	115	33.9	100	29.5	56	16.5	68	20.1
Difficulty concentrating	54	15.4	121	34.6	72	20.6	103	29.4
Slow motion or restlessness	65	18.7	69	19.9	52	15	161	46.4

Table 2. Prevalence of depression and social support

Social support	Without depressive symptoms		Mild depressive symptoms		Depressive episode		p*
	n	%	n	%	n	%	
How many people are so close to you that you can count on them when you have serious personal problems?							
None	42	53.2	17	21.5	20	25.3	< 0.0005
1 and 2	1013	66.7	304	20	202	13.3	
3 and 5	1120	76.6	233	15.9	109	7.5	
6 or more	390	81.3	67	14	23	4.8	
How many people are interested in you, in what you do, what happens in your life?							
Very interested	1208	77	234	14.9	126	8	< 0.0005
Somewhat interested	973	73	243	18.2	116	8.7	
Neither interested nor uninterested	262	65.3	89	22.2	50	12.5	
Little interested	85	54.5	39	25	32	20.5	
Not interested	37	44.6	16	19.3	30	36.1	
How easy is it to get practical help from a neighbor/neighbor if you need it?							
Very easy	510	75.8	110	16.3	53	7.9	< 0.0005
Easy	1000	76.5	206	15.7	102	7.8	
Possible	726	71.5	179	17.6	111	10.9	
Difficult	262	63.7	92	22.4	57	13.9	
Very difficult	67	50.8	34	25.8	31	23.5	

*** Chi-square test**

Graph 2. Prevalence of depression and social support

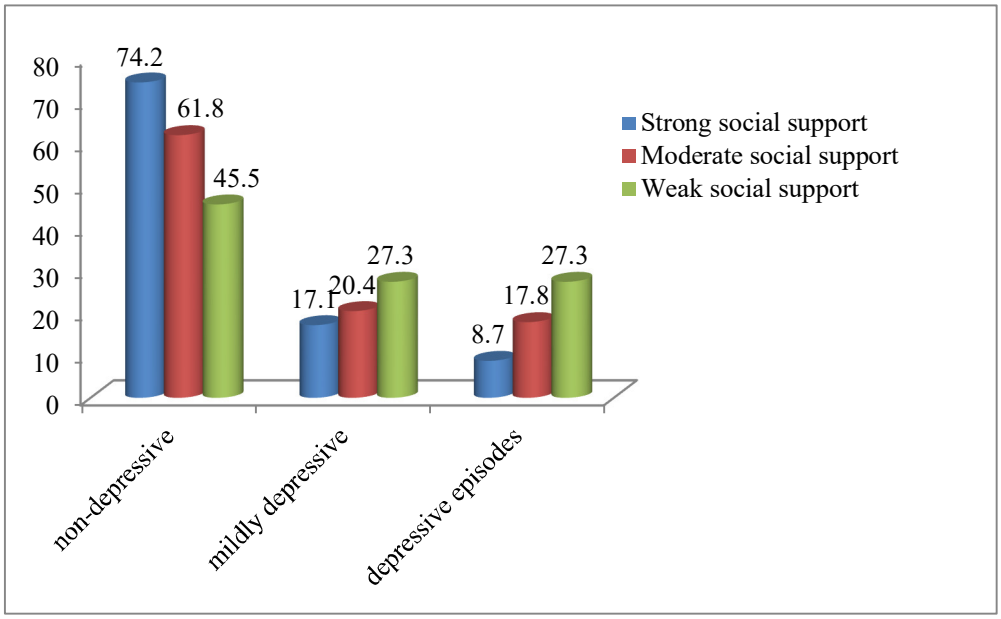


Table 3. Odds ratios (OR) and 95% confidence intervals (CI) for the presence of depression in the elderly in relation to social support

Social support	Univariate analysis, **OR (95% CI)**		
	Total	**Males**	**Females**
Strong	1	1	1
Moderate	1.78 (1.45-2.17)*	2.635 (1.34-5.50)*	1.347 (0.82-2.11)
Weak	3.45 (1.05-11.34)*	5.08 (2.21-11.62)*	3.41 (2.01-5.83)*

*** p<0.001**

CONCLUSION

These results indicate the urgency of addressing depression as a public health priority to reduce the burden and disability and improve the overall health of the elderly population. It is necessary to identify on-time subpopulations that are at high risk of developing depression. By identifying predictors of depression, a focused, targeted intervention could be organized to preserve the mental health of the individual and the community.

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