



Impact of isolation on the biopsychosocial functioning of older people with COVID-19

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Abstract

Introduction. COVID-19 is a highly contagious coronavirus disease that has had a significant impact on the functioning of society. On 11 March 2020, due to the rapid spread of the virus, the WHO declared a global pandemic. By the end of 2021, 5 variants of SARS-CoV-2 had been identified since the beginning of the pandemic. The course of the disease varied depending on the age of the patients and the presence of possible comorbidities. Most patients were asymptomatic or sparsely symptomatic of the infection; however, in about 6% of cases, the course of the disease was critical. Typical symptoms of COVID-19 include: fever, muscle pain and headache, lack of smell and taste, cough, dyspnea, diarrhoea and nausea. According to epidemic guidelines, infected patients were subjected to isolation, which harmed their mental state, especially the elderly.

Objective. The aim of the study was to assess the impact of isolation on the biopsychosocial functioning of elderly patients with COVID-19.

Materials and method. The study was conducted among 360 elderly patients in hospital wards operating as a unit in a hospital complex dedicated to patients infected with the SARS-CoV-2 virus. Data were collected using standardized questionnaires: ADL Scale, IADL, GDS, SF-36 Quality of Life Scale, Multidimensional Scale of Perceived Social Support, and supplementary questions about, among others, the oxygen therapy provided, length of stay in the unit, and the support received from relatives.

Results. Almost half (48%) of the subjects received oxygen therapy, and 36% had a length of disease of 7–14 days. A correlation was observed between the quality of life and the above-mentioned factors. Correlations of quality of life indicators with the length of illness were moderate (except for the level of pain) and positive, meaning that the longer the patients were ill, the lower their quality of life. Correlations of disease severity were moderate for pain, vitality, and emotional limitations, while vital for physical functioning and limitations and general and mental health. The intensity of oxygen therapy was moderately correlated with physical and emotional limitations and general health and strongly correlated with physical functioning, vitality and mental health. Correlations between functional status and mental status of elderly patients were also studied. Analysis of variance showed that the constructed model was an excellent fit to the data, $F = 37.14$; $p < 0.001$, explaining 42% of the variance in the dependent variable ($R^2 = 0.42$). As many as 80% of the respondents felt that isolation harmed their well-being. Examining the impact of quality of life on their well-being showed that most of the associations tested were statistically significant, and all were positive. Associations of moderate strength were shown for physical functioning, physical limitations and general health, while strong associations were shown for vitality, emotional limitations and mental health. Pain complaints were associated with changes in well-being at the level of statistical trend ($p = 0.055$). This means that the lower the patients' quality of life, especially in terms of vitality and mental health, the more significant the impact of isolation on their well-being. The study also investigated the effect of social support on mental state. The model proved to be an excellent fit to the data, $F = 5.91$, $p = 0.002$, and explained 23% of the variance in the dependent variable (Adjusted $R^2 = 0.23$). At the same time, support from friends turned out to be the only significant predictor (Beta = 0.53), and this means that the more support the subjects received from them, the lower the level of depression they manifested.

Conclusions. 1) The better the functional state of a senior and the support received from relatives, the lower the severity of depression. 2) The lower the quality of a senior's life, especially in terms of mental state, the greater the negative impact on his/her well-being in isolation. 3) The low quality of life of a senior increased the likelihood of depression. 4) The quality of life of older Covid-19 patients was higher in those without chronic disease. 5) The quality-of-life level was lower in patients with a more severe course of COVID-19, and longer duration of disease and oxygen therapy.

Key words

quality of life, elderly, COVID-19, isolation

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INTRODUCTION

Coronavirus disease 2019 (COVID-19) is a highly contagious viral disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It has devastated global demographics, causing more than 3.8 million deaths worldwide to-date, making it the most consequential global health crisis since the 1918 influenza pandemic.

Despite the unprecedented pace of work on the COVID-19 vaccine as well as intensive global mass vaccination, the emergence of new variants of SARS-CoV-2 and the slowdown in vaccination, including among children, as well as booster vaccination, threatens to undo the considerable progress made to-date in limiting the spread of this viral disease [1, 2, 3].

People of all ages are at risk of infection and severe illness. However, patients aged ≥ 60 and with comorbidities have an increased risk of developing severe COVID-19 infection. The percentage of COVID-19 patients requiring hospitalization is six times higher in those with pre-existing conditions than in those without (45.4% vs 7.6%). Therefore, the described infection predominantly affects the elderly [4, 5, 6].

COVID-19 has a significant impact not only on physical health, but also on the mental state of the patient. People's mental health has suffered from orders to stay at home or in a hospital in a limited space, changes in their existing functioning, and above all, limitation of social contacts, which are a potential factor protecting human mental well-being [5, 7, 8, 9]. The stressors associated with the COVID-19 pandemic were also: infection, economic hardship, job loss, stigma and quarantine restrictions, mainly isolation which, in turn, caused: anxiety, depression, complicated bereavement, feelings of loneliness, eating disorders, obsessive-compulsive disorders, traumatic stress, and, as a result, an increased risk of suicide.

Some social groups are particularly vulnerable to the adverse psychologic effects of the prevailing pandemic. These include people who are lonely, with depressed mood or depression, with multimorbidity, with an increased risk of infection, or with a predisposition to psychiatric disorders. These factors suppress the immune system, reducing resistance to disease and infection [5, 10, 11]. In addition, psychiatric disorders and severe mental illnesses have been associated with an increased risk of morbidity and mortality associated with the COVID-19 pandemic. Accordingly, several countries have declared the COVID-19 pandemic a national emergency, leading to roadblocks requiring millions of people to be physically and socially isolated, causing disruptions in daily routines, resulting in the health and education systems being overwhelmed [12].

Age is a significant risk factor for mortality associated with SARS-CoV-2 infection, as the natural causes of ageing, such as cognitive and sensory impairment, as well as general neglect, contribute to increased loneliness, depression, and even suicide in older people [13, 14, 15, 16]. Due to compulsory isolation, seniors, even those who have not been treated so far, may develop psychiatric problems in the form of sleep disorders, anxiety and depression disorders. Initially, these are adjustment disorders which, over time, may develop into symptoms of a depressive episode in some patients. This is especially likely in people who do not receive adequate social support, which reduces their quality of life [16].

OBJECTIVE

The aim of the study was to determine the impact of isolation on the biopsychosocial functioning of geriatric patients with COVID-19.

MATERIALS AND METHOD

The survey was conducted from January – March 2022 among 360 people aged over 65 who underwent isolation due to Covid-19 virus infection in single-name hospital wards in Wrocław, Poland. The study was conducted following the principles of the Declaration of Helsinki. All participants in the study provided informed consent, were informed of its objectives, the possibility of opting-out at any stage, and that participation in the study was voluntary and anonymous. The study was approved by the Bioethics Committee at Medical University in Wrocław (No. K.B. – 547/2021).

The study used standardized survey instruments:

1. Assessment Scale for Basic Daily Life Activities – contains 6 questions about washing, dressing, controlling urine and stool output, using the toilet, mobility and eating. The patient marks 'yes' when independent within a given issue, and is awarded 1 point. A score of 5–6 means fully functional, 3–4 points – moderate, and 2 or less – severe functional impairment.
2. The Lawton Instrumental Activities of Daily Living Scale (IADL) contains 9 questions about: using the phone, reaching places beyond walking distance, shopping, housework and minor repairs, washing, preparing meals, taking medication and managing money. Each question must be answered on a 3-point scale, where 1 point is signifies the inability to perform a given activity, 2 points – carrying out activities with help, and 3 points. – the activity is performed by the patient independently.
3. Multidimensional Scale of Perceived Social Support – consists of 12 sentences concerning social support by a loved one, family and friends. The examined person assesses the truth of the statement using a 7-point scale, where 1 point. means 'strongly disagree', and 7 – 'strongly agree'. Questions 1, 2, 5 and 10 refer to a relative, 3, 4, 8, and 11 refer to family support, and 6, 7, 9 and 12 refer to the respondent's friends.
4. The Geriatric Depression Rating Scale (GDS) is one of the most widely used scales for screening depression in the elderly, and consists of 30 questions to which a 'yes' or 'no' should be indicated. The examined person answers the questions on the basis of how he/she felt during the previous 2 weeks. Answers marked with an asterisk (*) mean 1 point, and without it – 0 points. The patient obtained 0–9 points, which means no depression, 10–19 points – suspicion of a mild form of depression, and 20 or more – profound depression. The result is not synonymous with the actual diagnosis, it is only a suggestion to initiate psychiatric diagnosis.
5. The SF-36 Quality of Life Assessment Questionnaire contains 11 sub-questions, some of which contain additional sub-items. The scale allows for the determination of 8 elements: mental health, social, emotional and physical functioning, limitations related to physical health, vitality, mental health, general sense of health and pain sensation. The higher the score, the lower the quality of life.

Additionally, supplementary questions concerning the severity of the Covid-19 infection, the oxygen therapy administered, duration of the illness, the illness among the patient's relatives, the subjects' well-being concerning their illness, and relationship with their relative, and relationship to their well-being during isolation were used.

Statistical analyses were carried out using the IBM SPSS Statistics 26 package, which was used to analyze basic descriptive statistics with the Shapiro-Wilk test, linear regression analysis, Spearman's rho correlation analysis and the Mann-Whitney U test. The significance level was considered to be $\alpha = 0.05$.

A total of 360 subjects (100%) participated in the survey, including 202 (56%) women and 158 men (44%). The largest group of patients were those aged 65–70 (N=209; 58%), followed by those in the 71–80 age range (N=79; 22%) and patients over 80 (N=72; 20%). Widows/widowers (N=144; 40%) predominated among the respondents, followed by those who were married (N=122; 34%), divorced (N=50; 14%) and single (N=44; 12%). The largest group were patients with vocational education (N=115; 32%), primary education (N=94; 26%), secondary education (N=79; 22%) and higher education (N=72; 20%). Half of the respondents resided in a city of more than 100,000 residents (N=180; 50%), 34% (N=112) in a rural area, and 16% (N=68) in a city of up to 100,000 residents.

RESULTS

Almost half of the subjects (N=172; 48%) received low-flow oxygen therapy, 38% (N=137) received high-flow oxygen therapy, and 14% (N=51) of the patients received no oxygen therapy.

The largest group of patients were those with a length of hospitalization of 7–14 days (N=130; 36%), >14 days sick, 34% (N=122) of respondents, and <7 days 30% (N=108). Most respondents had been diagnosed with chronic diseases

(N=281; 78%), and more than half (N=209; 58%) declared that someone close to them was also ill with COVID-19, 80% of whom died as a result of the virus.

Respondents were asked to describe the severity of the course of their illness on a scale of 1–5 (where 1 means mild disease and 5 is very severe). The most significant number of patients (N=115; 32%) declared a moderate course of COVID-19, 30% (N=108) declared that the disease had a severe course, and 38% (N=137) reported a mild course. The vast majority of respondents perceived a lowered mood in themselves since the disease (N=295; 82%), and 66% (N=238) perceived a sense of helplessness. The majority (N=317; 88%) believed that isolation had harmed their well-being, the reason for which was the lack of opportunities to visit a hospital (N=288; 80%), with the same number of respondents declaring that they could count on support. Basic descriptive statistics on the standardized tests analyzed are presented in Table 1.

For most of the variables introduced, the results of the Shapiro-Wilk test turned out to be statistically significant, which means that their distributions significantly deviated from the normal distribution. However, it should be noted that the skewness of the distribution of all variables did not exceed the conventional absolute value of 1, which means that their distributions were asymmetric to a slight degree. Therefore, it was reasonable to conduct the analysis based on parametric tests.

Respondents examined the effect of functional status on their mental state. For this purpose, a linear regression analysis was performed, in which the predictor variable was the Geriatric Depression Scale score, and the independent variable was the level of performance of daily activities. Due to the high collinearity between the 2 variables representing the level of performance of simple and complex activities, the index created by summing the scores from the 2 scales was used as a predictor (Tab. 2).

Analysis of variance showed that the constructed model was an excellent fit to the data, $F = 37.13$; $p < 0.001$, explaining

Table 1. Basic descriptive statistics of the studied variables with the Shapiro-Wilk test

	M	Me	SD	Sk.	Kurt.	Min	Max	W	p
Scale for assessing activities of daily living									
Basic activities of daily living (ADL)	3.63	4.00	2.27	-0.21	-1.66	0.00	6.00	0.82	<0.001
Intricate activities of daily living (IADL)	17.51	15.00	6.71	0.23	-1.38	9.00	27.00	0.86	<0.001
SF-36 Quality of Life Assessment Questionnaire*									
Physical performance	35.83	49.00	17.94	-0.81	-0.96	0.00	50.00	0.77	<0.001
Physical limitations	9.59	12.00	4.33	-1.54	0.86	0.00	12.00	0.58	<0.001
Pain complaints	5.17	4.00	2.14	-0.25	-1.13	1.00	8.00	0.87	<0.001
General health	12.35	13.00	4.77	-0.64	-0.31	1.00	20.00	0.95	0.016
Vitality	10.33	10.00	4.61	0.18	-0.73	7.00	20.00	0.98	0.258
Emotional constraints	9.71	10.00	6.11	-0.65	-1.22	0.00	15.00	0.77	<0.001
General health	14.67	15.00	5.25	-0.07	-0.61	3.00	25.00	0.99	0.478
Old-age depression									
	18.47	19.00	7.68	-0.47	-0.42	0.00	30.00	0.95	0.105
Multidimensional scale of perceived social support									
Support from friends	15.99	16.00	7.97	0.01	-1.35	4.00	28.00	0.93	0.003
Support from family	19.51	22.00	7.52	-0.96	-0.46	4.00	28.00	0.85	<0.001
Support from a key person	19.55	22.50	7.43	-0.74	-0.66	4.00	28.00	0.89	<0.001

* The higher the score, the lower the quality of life.

Table 2. Regression model predicting old-age depression based on the level of performance of daily activities

	B	SE	Beta	t	p
F(1;48) = 37.13; p < 0.001; R² = 0.43					
(Fixed)	30.65	2.17		14.15	<0.001
Level of performance of daily activities	-0.57	0.08	-0.65	-6.08	<0.001

43% of the variance in the dependent variable ($R^2 = 0.43$). None of the introduced predictors proved to be statistically significant, and the level of the dependent variable can be accurately determined from the straight line (constant) alone. The level of performance of daily activities turned out to be a significant predictor (Beta = -0.65), meaning that the better the respondents did with daily activities, the lower their depression severity was.

Analyzing the collected data, it was examined whether the patients' perceived social support they receive affected their mental state. For this purpose, a linear regression model was again created, in which the predictor variable was the level of depression, and the predictors were variables representing patients' perceived support they receive from relatives (Tab. 3).

Table 3. Regression model predicting old-age depression based on perceived social support

	B	SE	Beta	T	p
F(3;46) = 8.24; p < 0.001; Skoryg. R² = 0.32					
(Fixed)	27.71	2.68		10.27	<0.001
Support from friends	-0.42	0.16	-0.42	-2.63	0.011
Support from family	0.25	0.22	0.27	1.26	0.217
Support from a key person	-0.41	0.26	-0.37	-1.58	0.119

The model proved to be a good fit to the data, $F = 27.71$, $p < 0.001$, and explained 32% of the variance in the dependent variable (Adjusted $R^2 = 0.32$). At the same time, the only significant predictor turned out to be support from friends (Beta = -0.42), which meant that the more support the respondents received, the lower level of depression they manifested.

Another hypothesis tested was the relationship between the quality of life of geriatric patients who remained isolated and their well-being. For this purpose, quality of life indicators from the SF-36 questionnaire and the author's question were used: 'On a scale of 1–5 (where 1 is 'not much' and 5 is 'very much'), how do you think that isolation has affected your well-being?' Spearman's rho correlation analysis was used to test the relationships (Tab. 4).

Most of the associations tested were statistically significant and all were positive. Associations of moderate strength were shown for physical functioning, physical limitations and general health, and strong associations were shown for vitality, emotional limitations and mental health. Pain complaints were associated with changes in well-being at the level of statistical trend ($p = 0.056$). This means that the lower the patients' quality of life, especially in terms of vitality and mental health, the more significant the impact of isolation they felt on their well-being.

Next, the relationship between quality of life and old-age depression was tested. Again, Spearman's rho correlation

Table 4. Correlations between quality of life indicators and change in the well-being of patients in isolation

	Change of well-being in isolation	
Physical performance	Spearman's rho	0.41
	significance	0.002
Physical limitations	Spearman's rho	0.45
	significance	<0.001
Pain complaints	Spearman's rho	0.28
	significance	0.056
General health	Spearman's rho	0.44
	significance	0.003
Vitality	Spearman's rho	0.58
	significance	<0.001
Emotional constraints	Spearman's rho	0.53
	significance	<0.001
Mental health	Spearman's rho	0.61
	significance	<0.001

analysis was used (Tab. 5). All tested associations were statistically significant and positive, meaning that the worse the patients' quality of life was, the higher the level of geriatric depression they manifested. Associations of physical limitations with the level of depression were moderate, and all other indicators were strong.

Table 5. Correlations between quality of life indicators and change in the well-being of patients in isolation

	Old age depression	
Physical performance	Spearman's rho	0.65
	significance	<0.001
Physical limitations	Spearman's rho	0.39
	significance	0.008
Pain complaints	Spearman's rho	0.55
	significance	<0.001
General health	Spearman's rho	0.62
	significance	<0.001
Vitality	Spearman's rho	0.68
	significance	<0.001
Emotional constraints	Spearman's rho	0.57
	significance	<0.001
Mental health	Spearman's rho	0.68
	significance	<0.001

The study also examined whether the support of relatives affected the daily functioning of isolated geriatric patients. For this purpose, a linear regression analysis was conducted in which the predictor variable was the level of performance of daily activities, and the predictors were the different types of support perceived by the patients (Tab. 6). The model proved to be a good fit to the data, $F = 5.92$; $p = 0.002$, and explained 24% of the variance in the dependent variable (Adjusted $R^2 = 0.24$). At the same time, support from friends turned out to be the only significant predictor (Beta = 0.54), which meant that the more support the respondents received from them, the better they performed in the activities of daily living.

Table 6. Regression model predicting level of performance of daily activities based on perceived social support

	B	SE	Beta	T	p
$F(3;46) = 5.92; p = 0.002; Skoryg R^2 = 0.24$					
(Fixed)	11.26	3.26		3.48	0.001
Support from friends	0.58	0.18	0.54	3.12	0.003
Support from family	0.21	0.26	0.19	0.84	0.414
Support from a key person	-0.19	0.31	-0.17	-0.62	0.544

Finally, the associations linking the course of the COVID-19 disease, the presence of comorbidities, and the quality of life of isolated geriatric patients were tested. For this purpose, Spearman's rho correlation analysis and Mann-Whitney U test were performed (Tab. 7, 8). Most of the tested correlation coefficients were statistically significant. Correlations of quality of life indicators with the length of illness were moderate (except for the level of pain) and positive, meaning that the longer the patients were ill, the lower their quality of life. Correlations of disease severity were moderate for pain, vitality and emotional limitations, strong for physical functioning and limitations, and general and mental health. The intensity of oxygen therapy was moderately correlated with physical and emotional limitations and general health, and strongly correlated with physical functioning, vitality and mental health. In conclusion, the patients' quality of life

was inversely correlated with the severity and duration of COVID-19 and the intensity of oxygen therapy.

A comparison of patients with diagnosed chronic diseases accompanying COVID-19 disease with patients without accompanying diseases, showed significant differences in means for physical functioning, physical limitations, pain complaints and overall health. In each case, the quality of life was higher in patients without concomitant chronic diseases.

DISCUSSION

COVID-19, in addition to the physical aspects, also involves many psychological problems, mainly due to the lack of effective pharmacotherapy, the speed of the spread of the infection, the number of deaths, and the isolation, which significantly affect the mental state of patients [17, 18]. Xiao et al. state that epidemics affect not only the condition of infected patients, but also the mental health of uninfected people [19].

According to the current regulations on the prevention and control of infections and infectious diseases in humans, isolation means 'the isolation of a person or group of persons with an infectious disease, or a person or group of persons suspected of having an infectious disease, in order to prevent the transmission of a biological pathogen to other persons' [20]. According to Qui, it is much easier for the elderly to

Table 7. Correlations between quality of life indicators and length and severity of the COVID-19 course

		Length of illness	Severity of the course	Oxygen therapy
Physical performance	Spearman's rho	0.48	0.56	0.58
	significance	<0.001	<0.001	<0.001
Physical limitations	Spearman's rho	0.49	0.55	0.47
	significance	<0.001	<0.001	<0.001
Pain complaints	Spearman's rho	0.22	0.31	0.26
	significance	0.138	0.032	0.087
General health	Spearman's rho	0.42	0.51	0.48
	significance	0.003	<0.001	<0.001
Vitality	Spearman's rho	0.44	0.48	0.51
	significance	0.002	<0.001	<0.001
Emotional constraints	Spearman's rho	0.48	0.48	0.47
	significance	<0.001	<0.001	<0.001
Mental health	Spearman's rho	0.42	0.51	0.61
	significance	0.002	<0.001	<0.001

Table 8. Comparison of quality of life in patients with and without chronic diseases

	Current chronic diseases (n = 281)				No chronic diseases (n = 79)				Z	p	r	η^2
	średnia ranga	M	Me	SD	średnia ranga	M	Me	SD				
Physical performance	29.23	41.11	50.00	13.12	12.28	17.09	6.00	20.74	-3.63	0.000	0.53	0.28
Physical limitations	27.77	10.61	12.00	3.15	17.51	6.01	6.00	6.00	-2.62	0.008	0.38	0.15
Pain complaints	27.77	5.54	6.00	1.89	17.46	3.83	4.00	2.57	-2.16	0.031	0.31	0.08
General health	27.82	13.24	14.00	4.15	17.23	9.18	8.00	5.71	-2.14	0.031	0.31	0.08
Vitality	26.23	10.55	10.00	4.02	22.87	9.56	8.00	6.54	-0.69	0.496	0.11	0.01
Emotional constraints	26.28	10.00	15.00	6.08	22.78	8.65	10.00	6.37	-0.76	0.451	0.11	0.01
Mental health	25.83	14.74	15.00	5.07	24.32	14.46	13.00	6.07	-0.32	0.761	0.04	0.00

develop depression or stress through quarantine or isolation [21]. The current study confirmed a relationship between the length of hospitalization (thus isolation) and quality of life. Patients who stayed longer in the hospital had a significantly lower quality of life than those with a much shorter hospitalization. Socio-demographic and clinical factors (functional status, concomitant diseases, or the extent of an injury), are shown in the literature to determine the quality of life [22, 23, 24], and were also reflected in own study. Similar conclusions were drawn in a survey in which comorbidities lowered the quality-of-life assessment of elderly patients. Noor Ani Ahmad et al. proved that mental status is dependent on the patients' functional status. Older patients with ADL limitations were 2.6 times more likely to be affected by depression, while those with IADL limitations were almost twice as likely to be affected by depression [25].

The current study also used the Katz and Lawton scale to assess functional status and obtained a statistically significant hypothesis. The severity of depression was lower in patients who were better able to perform basic and complex activities of daily living. This proves that able-bodied people are less likely to suffer from depression, therefore the main action should be to do everything possible to keep seniors physically fit for as long as possible, in order to improve their independence.

According to Geneviève Gariépy, social support significantly impacts the prevention of depression in the elderly. The source, which is associated the most with the prevention of depression, were spouses, followed by friends [26]. According to Tengku Mohd TAM et al., good overall social support, having a spouse or partner, living with family, more frequent contact with loved ones, support from family and satisfaction with social support, are associated with fewer depressive symptoms in community-dwelling older adults in Asia [27]. Own study showed a relationship between support and the mental state of isolated people. This issue proved to be statistically significant and, as in the above-mentioned studies, showed that the greater the amount of social support received, the lower the level of depression manifested. Support received from friends proved to be a particularly important predictor.

Only a few studies have addressed the impact of isolated patients' quality of life on their well-being. Publicly available articles are based on the broad concept of quality of life and its impact on the state of functioning in various spheres. Well-being is significantly influenced by health status, a component of quality-of-life assessment. The higher the patients rated their health status, the higher they also rated their well-being [28]. The literature shows that elderly patients whose quality of life is lower, manifest a worse well-being [29]. Self-assessment proved that the lower the patients' quality of life, especially in terms of vitality and mental state, the greater the impact of isolation they felt on their well-being.

In the most general terms, it can be assumed that quality of life is the perception an individual of his/her life position in the cultural context and value system in which they live, and in relation to the tasks, expectations and standards set by environmental conditions [30]. As the literature shows, depressive syndromes significantly reduce the quality of life of elderly patients and additionally pose a serious clinical problem [31]. The current study shows that the quality of life affects the mental state of elderly patients, which influences

higher levels of depression in geriatric patients. The above-findings have also been confirmed by other studies relating to the quality of life in the elderly [32, 33].

Social support is reliably associated with lower morbidity and mortality. Important considerations are the physiological mechanisms by which the support affects these end-stages of health. Kim et al. examined relationship between social support, activities of daily living and depression in Japanese and Koreans living in the USA. Hierarchical regression analysis showed that social support was a significant factor influencing depressive symptoms, as well as their functional status [34]. In contrast, as reported by Mahmud et al., low social support was associated with reduced daily living activities in older adults in Malaysia [35].

During the COVID-19 pandemic, hospital visits were suspended, and in many hospitals contact between the family and patient could only be by telephone. However, not all patients were capable of using a mobile phone, so that direct support for isolated patients was provided by the medical staff. Based on own experience, it can be concluded that the support received from relatives in this way was a significant factor for the patients, which motivated them to function correctly. Due to the already reduced well-being caused by isolation, the lack of visits further aggravated the patients' mental state. It can be concluded from the above-studies that patients who did not receive regular support from family, friends or loved ones, functioned less well within the activities of daily living, a finding reflected in other studies [36, 37, 38].

CONCLUSIONS

1. The better the functional state of a senior and the support received from relatives, the lower the severity of depression.
2. The lower the quality of a senior's life, especially in terms of his mental state, the greater the negative impact on well-being in isolation
3. The low quality of life of a senior increases the likelihood of depression.
4. The quality of life of older COVID-19 patients is higher in those without a chronic disease.
5. The level of quality-of-life is lower in patients with a more severe course of COVID-19 and longer duration of disease and oxygen therapy.

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