

# ASSESSMENT OF LONELINESS AND FACTORS THAT MODIFY IT IN THE GROUP OF PATIENTS STAYING IN THE ADMISSIONS DEPARTMENT WITH PARTICULAR EMPHASIS ON THE FREQUENCY OF STAYS

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## Authors' contribution:

A. Study design/planning • B. Data collection/entry • C. Data analysis/statistics • D. Data interpretation • E. Preparation of manuscript • F. Literature analysis/search • G. Funds collection

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## ABSTRACT

**Introduction:** Loneliness is a growing civilisation problem of the 21<sup>st</sup> century, affecting physiology, psyche, and other aspects of the quality of human life. Seniors take different attitudes towards old age; the study focused on one of the groups of elderly people – patients.

**Aim of the study:** The purpose of the paper was to assess the occurrence of loneliness and factors modifying it in patients staying in the Admissions Department (AD).

**Material and methods:** The study involved 108 people over 65 years of age brought to the AD by the Medical Rescue Team or reporting themselves, with a referral. The study used a diagnostic survey method and a questionnaire technique. The research tool was the author's questionnaire and the De Jong Gierveld and Kamphuis scale for measurement of loneliness in the Polish adaptation of Grygiel, Humenny, Rębisz, Świtaj, and Sikorska-Grygiel.

**Results:** The occurrence was found of a statistical relationship between sense of loneliness and civil status, social group, inhabitation, and distance of residence from the closest people. The influence of marital status and sense of loneliness on the frequency of visits to the AD was also proven.

**Conclusions:** The factors associated with the sense of loneliness among persons staying in the AD were participation in the pensioner/widower group, as well as the residence of the closest persons and distance of residence. More frequent stays in the AD in patients with the diagnosis "Hypertension" and "Malaise, fatigue" were associated with a higher sense of loneliness in the study group.

**Key words:** the elderly, aging, loneliness, Admissions Department.

## INTRODUCTION

Loneliness is a growing civilisation problem of the 21<sup>st</sup> century. It affects the human physiology and psyche and other aspects of quality of life. As observations in large agglomerations show, the increase of loneliness results in conditions that enforce artificiality and shallowness of inter-human interactions, interpersonal relationships become incomplete, contacts superficial, random, and broken [1]. The civilisation model that we have observed in recent years in Poland, in the situation of cessation or reduction of professional and family obligations, gives profit in the form of a free time pool [2]. Such situations include, for example, converting from a multigenerational family into a single-generation household, or changing the occupational situation or marital status.

In 1986, over 8% of Polish society were people over 65 years of age. As predicted by demographers, in Poland in 2050 as much as 35.8% of people will be over 60 years old [2]. Basic data available on the website of the Central Statistical Office inform that the demographic load ratio, defined as the number of non-working age population per 100 persons of working age, in 2017 already reached a worrying level of 63, which in the long term will have significant economic and social consequences [3, 4].

The course of aging and old age is individualised. The form of spending time has an impact on this process, which translates into a lifestyle that can be diametrically different for people of the same age. Attitudes towards old age represented by the seniors can be divided into several types:

- working people who continue their work despite reaching retirement age;
- gardeners who remain physically active, resting in the form of an active hobby;
- home and family people, involved in the life of relatives and family matters, closely related to the role of grandmother and grandfather;
- social, active in various associations, organisations and volunteers;
- entertainment, benefiting from cultural institutions;
- globetrotters who have found time to travel and visit new places;
- pious people who increase the importance of religion and the need to participate in religious rites;
- patients who focus on activities related to themselves and their health [2, 5, 6].

Literature defines various forms of seniors' activity; however, the study "The social situation of people aged 65+" carried out by *ARC Rynek i Opinia*

shows that seniors try to fight with loneliness mainly through activities performed alone, such as: reading or solving crosswords, watching TV [7].

Data obtained from the Municipal Social Welfare Centre in Szczecin show that 93.2% of single women in all age groups benefited from the help of the city in the form of care services; the percentage in the group of men was lower and amounted to 73.6%. In 2017, the percentage of women remained at the same level, but men more often took advantage of caring services – 81.8% [8].

## AIM OF THE STUDY

The purpose of the paper was to assess the occurrence of loneliness and factors modifying it in patients staying in the Admissions Department, with particular emphasis on the frequency of stays.

## MATERIAL AND METHODS

The study was conducted in the period from October 2018 to January 2019 in the Admissions Department of the Independent Public Health Care Centre of the Ministry of Interior Affairs and Administration in Szczecin. The subject study did not require the approval of the Bioethics Committee, but an appropriate certificate was obtained in this matter (KB-0012/287/10/18). The permission of the hospital's management was obtained to conduct the research. Participation in the study was voluntary and anonymous. Criteria for inclusion in the study were:

- age over 65 years,
- initial diagnosis: according to classification ICD-10 I10 – hypertension or ICD-10 R53 – malaise, fatigue,
- no risk to health or life at the moment of reporting to the Admissions Department,
- expressing conscious consent to participate in the study.

The study included 108 people brought to the Admissions Department by the Medical Rescue Team or reporting themselves with a referral. The majority of the group were women (63.9%). The average age was  $78 \pm 7.9$  years. The sociodemographic characteristics of the group are included in Table 1.

Due to the small number of people living in the rural areas ( $n = 4$ ) of the categorical variable, the place of residence is not included in further statistical analysis.

The study used the method of a diagnostic survey, a questionnaire technique. The research tool was the author's questionnaire and the De Jong Gierveld and Kamphuis scale for measurement of the sense of loneliness in the Polish adaptation of Grygiel, Humenny, Rębisz, Świtaj, and Sikorska-Grygiel [9]. The scale for measurement of the sense of loneliness is a tool consisting of 11 statements: six items containing negative

**Table 1.** Sociodemographic characteristics of the studied group

Variable	Number (n)	Percentage (%)
Gender		
Woman	69	63.9
Man	39	36.1
Age (in years)		
≤ 70	41	38.0
71-80	32	29.6
81-90	10	9.3
> 90	25	23.1
Place of residence		
Countryside	104	96.3
City	4	3.7
Education		
Primary + vocational	29	26.9
Secondary	52	48.1
Higher	27	25.0
Professional situation		
Unemployed	4	3.7
Working	23	21.3
Pensioner	81	75.0
Marital status		
Single	21	19.4
In a permanent relationship	43	39.8
Widow/widower	44	40.7
Time of widowhood (in years)		
< 1	4	3.7
1-5	22	20.4
> 5	18	16.7

sentences, formulated, describing the lack of satisfaction from social contacts; and the remaining five – positively formulated – measuring satisfaction related to interpersonal relationships. The respondent assesses to what extent the scale theorems express his/her current situation and feelings, on a five-point Likert scale, from “definitely yes” to “definitely not”. The higher the total score, the greater the loneliness. The questionnaire of our own design concerned family relations and information regarding the stay in the Admissions Department. It consisted of 11 closed questions.

The qualitative variables as well as the answers to questions were described by numbers (*n*) and frequency (%). The measurable variables are described using the basic parameters: the arithmetic mean (*M*), the standard deviation (*SD*), the median (*Me*), and the minimum and maximum values (*min.* and *max.*). To check the significance of differences in the level of loneliness in two groups, the Mann-Whitney *U* test was used, and in at least three groups – the Kruskal-Wallis test. The correlation between age and loneliness was examined by the significance test of Spearman’s rank correlation coefficient. The Pearson  $\chi^2$  independence test was used to investigate the relationship between quality variables. Differences in the age level in patients with different frequency of stays at the Admissions Department were verified by means of analysis of variance (ANOVA). A *p*-value < 0.05 was considered statistically significant. Statistical calculations were carried out using the Statistica 10 PL statistical package.

## RESULTS

In the first stage of the study, the relationship between the gender of patients and the frequency of stays was analysed, and it was observed that there was no statistically significant relationship between the two variables (*p* > 0.05). The average and median age were the highest in patients who were in the Admissions Department 5-9 times a year, and the lowest in patients who were there for the first time. Analysis of variance, however, did not show a significant statistical difference in the age level in patients with varying frequency of stays (*p* > 0.05). Thus, the age of patients did not affect the frequency of stays in the Admissions Department.

The data obtained from the author’s questionnaire show that more than half of the patients lived in the household alone (51.9%), and for 83.3% it was not their first stay in the Admissions Department. 55.6% notified a close person about their current stay in the hospital. The vast majority of patients (63%) stayed alone until the end of their stay in the Admissions Department. Detailed data are presented in Table 2.

A sense of loneliness in the subjects studied. The De Jong Gierveld and Kamphuis scale for measurement

of the sense of loneliness included between 11 and 52 points. The average sense of loneliness in patients was 31.1 ±8.9 points. The distribution of the obtained points of the scale clearly divided the subjects into two groups, non-lonely persons and lonely persons.

In the presented results, 34.3% of the respondents experienced general emptiness, 37% thought that they lacked the company of other people, and 34.2% thought that there was a shortage of people around them. Rejection was felt by 39.9% of respondents, and 31.5% stated that there are not many people whom they can trust completely. Detailed results obtained using a scale for measurement of the sense of loneliness are presented in Table 3.

During the studies, the date and day of the week in which the tests were carried out were also marked. Table 4 shows the number and incidence of patients for each day of the week. It shows that the smallest percentage of patients were observed on Fridays, and the highest on Sundays.

**Table 2.** Data from the authors’ questionnaire

Variable	Number ( <i>n</i> )	Percentage (%)
Residence of persons the closest for the patient		
In the same property	41	38.0
Separately, but in the same town	27	25.0
In a different town	24	22.2
In a different country	16	14.8
Living in a household		
With family/partner	52	48.1
Alone	56	51.9
Frequency of stays in the Admissions Department in the current year?		
For the first time	18	16.7
2-4 times a year	51	47.2
5-9 times	27	25.0
More than 10 times	12	11.1
Informing a loved one about the current stay in the Admissions Department?		
Yes	60	55.6
No	48	44.4
Arrival of a close person during the current stay at the Admissions Department?		
Yes	40	37.0
No	68	63.0
Stressful or sad experience in the past year		
Yes	51	47.2
No	57	52.8

**Table 3.** Number and frequency of patients' responses to statements to the scale for measurement of the sense of loneliness

Statement	Definitely yes		Yes		Neither yes nor no		No		Definitely not	
	n	%	n	%	n	%	n	%	n	%
There is always someone with whom I can talk about everyday problems	15	13.9	46	42.6	27	25.0	16	14.8	4	3.7
I do not have a really close friend	9	8.3	31	28.7	31	28.7	27	25.0	10	9.3
I experience general emptiness	8	7.4	29	26.9	32	29.6	28	25.9	11	10.2
There are many people I can depend on when I have problems	10	9.3	29	26.9	46	42.6	19	17.6	4	3.7
I lack the company of other people	8	7.4	32	29.6	32	29.6	24	22.2	12	11.1
I feel that I have too limited a circle of friends and acquaintances	7	6.5	25	23.1	40	37.0	28	25.9	8	7.4
There are many people I can trust completely	4	3.7	29	26.9	41	38.0	30	27.8	4	3.7
There are enough people with whom I feel closely related	9	8.3	44	40.7	32	29.6	22	20.4	1	0.9
There are no people around me	5	4.6	32	29.6	29	26.9	33	30.6	9	8.3
I often feel rejected	3	2.8	19	17.6	43	39.8	33	30.6	10	9.3
I can count on friends whenever I need them	8	7.4	43	39.8	44	40.7	12	11.1	1	0.9

**Table 4.** Number and frequency of patients relative to the days of the week

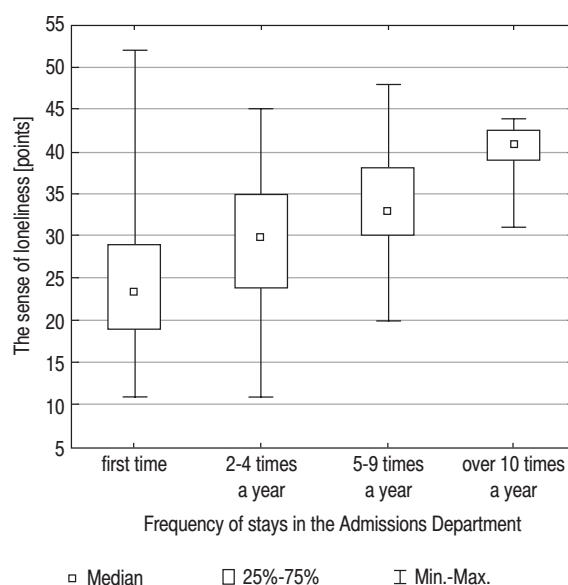
Day of the week	Number (n)	Percentage (%)
Monday	13	12.0
Tuesday	13	12.0
Wednesday	14	13.0
Thursday	15	13.9
Friday	5	4.6
Saturday	15	13.9
Sunday	33	30.6

At a later stage of the analysis of the collected material, the relationship between the loneliness of patients and the frequency of their stays in the Admissions Department was assessed. A statistically significant relationship was found for both variables. The sense of loneliness increased with the frequency of stays in the Admissions Department ( $p < 0.0001$ ) (Figure 1).

Statistical calculations showed that the gender and education level of patients did not affect the feeling of loneliness; for all calculations,  $p > 0.05$ . Similarly, no statistically significant correlation was found between the age of patients and the sense of loneliness ( $p > 0.05$ ).

The  $p$  level of probability of the result of multiple comparison test for the sense of loneliness in patients with different marital status showed statistically significant differences that occurred between groups (Table 5):

- single and in a permanent relationship ( $p = 0.022$ ), where the higher sense of loneliness was in single



**Figure 1.** The relationship between a sense of loneliness and the frequency of stays in the Admissions Department

- subjects rather than in patients who lived in a permanent relationship,
- in a permanent relationship and widow/widower ( $p < 0.0001$ ), where the higher sense of loneliness was in widows and widowers rather than in patients who lived in a permanent relationship.

The variables that significantly shaped the loneliness were:

- residence status, where the sense of loneliness was higher in people living alone in relation to those living with a family or partner,

**Table 5.** Sociodemographic variables and a sense of loneliness in the studied group

Variable	n	M	Me	Min.	Max.	SD	Test result	p
Frequency of stays in the Admissions Department							26.06*	< 0.0001
First time	18	25.2	23.5	11	52	10.0		
2-4 times a year	51	29.7	30.0	11	45	8.3		
5-9 times	27	33.9	33.0	20	48	7.3		
More than 10 times	12	40.1	41.0	31	44	3.5		
Professional status							-2.49**	0.0129
Employed	23	27.2	26.0	11	52	8.9		
Pensioner	81	32.2	33.0	11	48	8.7		
Marital status							25.22*	< 0.0001
Single	21	32.5	31.0	16	45	8.2		
In a permanent relationship	43	25.9	25.0	11	40	7.9		
Widow/widower	44	35.6	35.5	19	52	7.6		
Residence of the closest people							38.01*	< 0.0001
In the same real property	41	24.7	25.0	11.0	41.0	7.2		
Separately, but in the same town	27	32.9	33.0	19.0	48.0	6.9		
In a different town	24	35.5	36.0	22.0	46.0	6.6		
In a different country	16	38.2	40.5	16.0	52.0	8.9		
Status of residence							-5.64**	< 0.0001
With family/partner	52	26.2	25.0	11	52	8.2		
Alone	56	35.7	36.0	16	48	7.0		

\*Kruskal-Wallis test, \*\*U Mann-Whitney test

- residence of the closest people, where the feeling of loneliness was the lowest in people living with their relatives in the same property, and the highest in patients whose relatives live in another country.

## DISCUSSION

In our own studies, data such as age and gender did not show any significance for the loneliness of the subjects; however, Kubicki's and Olcoń-Kubicka's studies showed a significant influence of these elements [10]. The dependence of age on the sense of loneliness was not observed by Zalewska-Puchała *et al.* [11]. The PolSenior study from 2012 showed that the sense of loneliness grows with age, and it pointed to gender as the dominant factor affecting social isolation. The latest data will be available after the completion of the PolSenior 2 project, which began in September 2018 and will last until the end of 2019.

Our own research showed the dependence of a sense of loneliness from the place of residence of the closest people. The convergent results were obtained by Sidorczuk and Halicka, who showed a dependence of a sense of loneliness from their place of residence and family relations [12]. This is also confirmed by the study of Świtoń and Wnuk [13].

The team of Zalewska-Puchała *et al.*, in studies carried out at internal medicine departments, also used the De Jong Gierveld scale of measurement of the sense of loneliness. The average result obtained in the study group was 31.8 points [11]. Thus, it was almost entirely congruent with the result obtained in our own research (31.1 points) on a comparable group of 108 people.

In his research, Szukalski assessed the impact of residing alone on the perception of loneliness and isolation. He stated unequivocally that living together with relatives is a factor that reduces loneliness [14]. This result coincides with our own research. Analysis titled "The social situation of people aged 65+" implemented for the "Mali Bracia Ubogich" Association by *ARC Rynek i Opinia* shows that people over 65 years of age most often live in single-generation households (78%), while every third respondent lives alone (34%) [7]. A much higher percentage of people living alone was obtained in our own studies (51.9%). This result may be associated with higher reporting to the Admissions Department by this category of person. In her work, Fopka-Kowalczyk quotes conclusions from Janiszewska and Barańska's (2013) work, showing that having a family is not protection against the feeling of being alone, but it can be an auxiliary factor so that loneliness is not felt [15]. Similar conclusions

can be drawn from the results of our own research, which show that the sense of loneliness increases in proportion to the increase in distance from loved ones. However, the feeling of loneliness also applies to people who live with their loved ones – often to a lesser extent than in single-person households, but it does exist. In a study carried out in other countries, an example of which is the analysis carried out by Zhen-Qiang *et al.* in 2010 among the residents of Anhui, there was a relationship between residing alone and a sense of loneliness. The conclusions of this author coincide with those obtained in the course of our own research also in aspects such as the influence of marital status, and the lack of influence of gender and education on the feeling of loneliness. The author shows the influence of age on the feeling of loneliness, which does not coincide with our own research. He also shows that poor family function is associated with greater loneliness [16]. In our own research, this perspective was not considered; however, the results showing the dependence between living alone and with a close family and the place of residence of the closest persons may give rise to the deepening of this aspect. Nummel, in studies of the influence of loneliness on self-esteem of health, showed that loneliness is an important factor contributing to lower self-esteem of health, and concluded that good health is common in people who do not feel lonely. A similar conclusion stems from our own research, in which it was shown that the feeling of loneliness affects the frequency of stays in the Admissions Department [17]. Studies in the United Kingdom among people over the age of 65 years have shown the impact of changes in marital status, living conditions, and social relationships on the feeling of loneliness. Conclusions from the study conducted by Victor and Bowling in 2012 on changes in marital status coincide with results from our own research, in which a clearly higher level of loneliness was recorded in the group of widows and widowers [18].

## CONCLUSIONS

The factors associated with an increased sense of loneliness among people staying in the Reception Department were: widowhood, being a pensioner, lonely residence, and distance from the place of residence of a senior citizen. A higher sense of loneliness favoured more frequent visits to the Admissions Department. The sense of loneliness in pensioners is higher than in working people; therefore, it is necessary to consider undertaking social activities directed to this group that will support the implementation of the process of successful aging, reducing the loneliness of the elderly.

## Disclosure

The authors declare no conflict of interest.

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