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Sociodemographic determinants of the quality of life in patients with schizophrenia

Socjodemograficzne determinanty jakości życia u pacjentów ze schizofrenią

MARTA MAKARA-STUDZIŃSKA[1, A–G], MAŁGORZATA WOŁYNIAK[2, A–D], IWONA PARTYKA[3, A, D–F]

[1] Independent Laboratory of Mental Health, Medical University in Lublin
Head: Marta Makara-Studzińska MD, PhD
[2] Neuropsychiatric Hospital in Lublin
Head: Edward Lewczuk, MSc
[3] Department of Psychiatry, Medical University in Lublin
Head: prof. Andrzej Czernikiewicz MD, PhD

A – Study Design, **B** – Data Collection, **C** – Statistical Analysis, **D** – Data Interpretation, **E** – Manuscript Preparation, **F** – Literature Search, **G** – Funds Collection

Summary **Background.** The improvement of the patients' quality of life has become one of the most important aims of psychiatric care as the literature research proves that patients with schizophrenia declare lower overall quality of life comparing to general population. The quality of life in patients with schizophrenia depends on various determinants including: sociodemographic, clinical, economic or social factors.
Objectives. The analysis of different determinants of quality of life in subjects with schizophrenia was the aim of this study.
Material and methods. A group of 115 patients with schizophrenia from community mental health service centers in the voivodeship of Lublin in Poland were examined with the use of methods: WHOQoL-BREF, HADS, PANSS, GAF.
Results. A lower quality of life was found in the subgroups of: men, subjects who were divorced or widowed, living with parents, with worse living conditions and worse financial situation, financially dependent, with shorter period of time after last hospitalization, longer total period of time spent in hospital, lower GAF score, higher PANSS score, suicide attempt in the past, comorbid depressive and anxiety disorder, negative attitude of their families towards them and their treatment, not-attending psychoeducation activities.
Conclusions. As the idea of deinstitutionalisation in psychiatry is being implemented it is crucial to extend the knowledge concerning the ways to improve the quality of life in patients with schizophrenia. It is important to develop the social support and diminish the process of stigmatization as well as improve the financial and occupation support, provide better protection against violation of regulations.
Key words: quality of life, schizophrenia, sociodemographic determinants.

Streszczenie **Wstęp.** Poprawa jakości życia w schizofrenii stała się jednym z głównych celów opieki psychiatrycznej, a z literatury przedmiotu jasno wynika, że jakość życia pacjentów ze schizofrenią jest niższa w porównaniu z populacją ogólną. Na jakość życia osób chorych na schizofrenię wpływają w różnym stopniu czynniki socjodemograficzne, kliniczne, ekonomiczne czy społeczne.
Cel pracy. Analiza wpływu czynników socjodemograficznych na jakość życia osób chorych na schizofrenię.
Materiał i metoda. Do badań zaproszono chorych z 21 ośrodków psychiatrii środowiskowej w województwie lubelskim (115 osób). Zestaw metod obejmował: WHOQoL-BREF, HADS, PANSS i GAF.
Wyniki. W badanej grupie osób chorych na schizofrenię objętych opieką środowiskową jakość życia była znacząco gorsza u mężczyzn, osób owdowiałych i rozwiedzionych, mieszkających z rodzicami, oceniających swoje warunki materialne i mieszkaniowe jako złe, będących na utrzymaniu swoich bliskich, z krótszym czasem, jaki upłynął od ostatniej hospitalizacji, dłuższym łącznym czasem spędzonym w warunkach szpitalnych, niższymi wynikami w skali GAF, wyższymi wynikami w skali PANSS, z próbą samobójczą w wywiadzie, ciężkimi zaburzeniami lękowymi i depresyjnymi, negatywnym stosunkiem ich rodzin do nich samych i do procesu leczenia, nieuczestniczących w psychoedukacji.
Wnioski. W czasach, kiedy pojawiła się i jest realizowana idea deinstytucjonalizacji w psychiatrii ważne jest poszerzenie wiedzy na temat sposobów poprawy jakości życia pacjentom ze schizofrenią. Istotny jest rozwój wsparcia społecznego oraz zminimalizowanie stygmatyzacji, jak również poprawa zaplecza finansowego i dostępności zatrudnienia oraz ochrona przed naruszaniem przepisów.
Słowa kluczowe: schizofrenia, jakość życia, czynniki socjodemograficzne.

Introduction

Patients with schizophrenia declare lower quality of life comparing to general population [1, 2] and the quality of life depends on sociodemographic, clinical, economic or social factors. A lower quality of life in mentally ill people is a result of difficulties in social sphere including relationships, sexual activity and lack of social support. In psychological area the problems concern difficulties with thinking, learning process, memory and concentration. People with schizophrenia declare low self-esteem, have problems with the acceptance of their appearance and often struggle with negative feelings concerning themselves and their future.

A discussion regarding the reliability of the estimation of quality of life assessed by patients was initiated, as the lack of the insight and the presence of psychopathological symptoms were the most problematic issues [3]. However, Vorunganti et al. proved that patients with schizophrenia during remission and willing to cooperate are capable of adequate estimation of their quality of life [4]. Nowadays there is an agreement on the validity of self-evaluation of the illness- and treatment-dependent influence on patients' quality of life.

Objective

The aim of this study was to analyze different determinants of quality of life in patients with schizophrenia.

Material and methods

The survey covered a group of 115 patients with schizophrenia from community mental health service centers in the voivodeship of Lublin, Poland. There were 64 men (55.65%) and 51 women (44.35%). The range of age in the group was between 22 and 63, so the average age was 36.56 (SD = 10.41).

Following methods were used: WHOQoL-BREF (WHO Quality of Life), HADS (Hamilton Anxiety and Depression Scale), PANSS (Positive and Negative Syndrome Scale), GAF (Global Assessment of Functioning).

Results

The survey showed that in the group of subjects with schizophrenia the lowest average score of WHOQoL-BREF was noticed in the psychological health domain (AM = 11.38; SD = 2.39), then in the social relationships domain (AM = 12.02; SD = 3.15) and environment (AM = 12.70; SD = 2.22) domain. The highest average score was recorded for the physical health domain (AM = 13.22; SD = 2.17).

The general quality of life was assessed better by women than men. However there were no statistically significant differences between men and women in particular domains and in general perception of health.

There was a significant correlation between the civil status and the quality of life: unmarried and married subjects achieved statistically significant higher scores in psychological health, social relationships and environment domain than the divorced and widowed ones.

People who declared living with their parents or siblings assessed the social relationships domain significantly lower than those who declared living with their children or partner. There were no significant correlations in the rest of the domains and two general questions.

The highest scores were recorded in respondents who declared good financial and living conditions. Those who assessed them as bad consistently had lower scores in all domains of quality of life. The correlation was the most significant for the environment domain, then for psychological health, physical health and social relationships domain.

Unemployed or financially-dependent respondents defined their general quality of life as low while those who were professionally active declared high quality of life. There was no statistically significant correlation between professional status and perception of one's health and particular domains of quality of life.

Total GAF score was another factor under analysis. The higher it was, the better perception of the quality of life in all domains and of health status was noted. The strongest correlation was found in the environment domain (Tab. 1).

The relationship between the quality of life and PANSS score was also significant. The better the quality of life was declared, the lower PANSS and its domains' scores were. Similar correlation was found for general health status except for the positive symptoms domain. The only significant negative correlation was noticed for general perception of health status and negative symptoms in PANSS scale (Tab. 2).

A significant correlation between the severity of anxiety and depressive disorders and scores in general perception of quality of life, general health status and all domains of quality of life was found. The more severe those disorders get, the lower scores were observed in all domains of quality of life. The most significant relationship was noted between the intensity of anxiety and depressive disorders and psychological health domain (Tab. 3)

Positive attitude of families towards people with schizophrenia and towards treatment corre-

Table 1. Selected domains of quality of life in people with schizophrenia in correlation with GAF score

WHOQoL–BREF – domains	GAF	
	Statistical analysis	
	p	*R*
Physical health	$p < 0.05$*	$R = 0.25$
Psychological health	$p < 0.01$**	$R = 0.37$
Social relationships	$p < 0.01$**	$R = 0.27$
Environment	$p < 0.001$***	$R = 0.35$

sponded positively with the assessment of general quality of life. There was no correlation between general perception of health status and the family's attitude towards treatment, although the relationship between the evaluation of health status and the attitude of the family towards the respondent was statistically significant. When the attitude was positive, the perception of health was better.

No correlation was found between attending psychoeducation activities and the two general questions, while a significant relation was noticed with an improvement of general quality of life in particular domains. The respondents who participated in psychoeducation activities had the highest scores. Those who, because of any reason, did not want to take part in those activities had lower scores than people who did not participate because they had never heard of psychoeducation program before. Only in social relationships domain this correlation was not statistically significant.

Discussion

Similar results can be found in studies constructed by other authors from Poland and abroad. Górna et al. proved that in people with schizophrenia within an average period of 5 years after the first hospitalization, the highest scores were observed in physical health (AM = 14.3; SD = 3.1), then environment (AM = 13.5; SD = 2.3), and then social relationships (AM = 12.8; SD = 3.3) and psychological health domain (AM =12.8; SD = 3.4) [5]. Xiang et al. showed that the evaluation of quality of life by subjects with schizophrenia was the highest in the physical health domain (AM = 14. 22; SD = 2.48), then in environment (AM = 13.69; SD = 2.27), psychological health (AM = 13.64; SD = 2.64) and social relationships domains (AM = 13.13; SD = 2.64) [6].

The question of differences in evaluation of the quality of life between men and women has been widely been discussed in literature, although many contradictions has been observed. Many surveys showed that men had worse quality of life than women, especially in the area of social functioning [7]. Jarema et al. proved that the quality of life was better in men with schizophrenia then in women [8]. In some cases there was no significant relation found between sex and quality of life [9].

People with schizophrenia had problems with maintaining relationships, mainly because of the psychopathological symptoms. Many patients have low self-esteem and present low estimation of their appearance, and thus have smaller chances to establish and maintain intimate relationships. Moreover some of psychotropic drugs cause decreased libido or impotency as a side effect. Limited social life, financial problems or stigmatization also are responsible for lack of relationships in patients with schizophrenia [3]. Although Skantze et al. did not prove such a correlation [10].

Higher income and better financial situation were also proved as significant determinants of better quality of life [11].

Professional activity is another important factor that has an influence on the quality of life of patients with schizophrenia. The majority of research

Table 2. Selected domains of quality of life in people with schizophrenia in correlation with PANSS score

WHOQoL-BREF-domains	PANSS-P		PANSS-N		PANSS-O		PANSS-C	
	Statistical analysis		Statistical analysis		Statistical analysis		Statistical analysis	
	p	*R*	*p*	*R*	*p*	*R*	*p*	*R*
Physical health	$p > 0.05$	$R = 0.02$	$p > 0.05$	$R = –0.09$	$p > 0.05$	$R = –0.06$	$p > 0.05$	$R = –0.04$
Psychological health	$p > 0.05$	$R = –0.09$	$p < 0.05$*	$R = –0.19$	$p > 0.05$	$R = –0.14$	$p > 0.05$	$R = –0.16$
Social relationships	$p > 0.05$	$R = 0.02$	$p < 0.01$**	R = –0.29	$p > 0.05$	$R = –0.10$	$p > 0.05$	$R = –0.13$
Environment	$p > 0.05$	$R = –0.07$	$p > 0.05$	R = –0.16	$p > 0.05$	$R = –0.13$	$p > 0.05$	$R = –0.13$

Table 3. Selected domains of quality of life in people with schizophrenia in correlation with anxiety and depressive disorders

HADS		WHOQoL-BREF-domains			
Anxiety		**Physical health**	**Psychological health**	**Social relationships**	**Environment**
Norm	AM	14.49	13.33	13.81	14.14
	SD	1.99	2.09	2.98	1.78
	Me	14.29	14.00	13.33	14.00
Mild symptoms	AM	13.51	11.65	12.53	13.05
	SD	1.89	1.86	2.67	1.95
	Me	13.71	11.33	12.00	11.50
Moderate symptoms	AM	12.71	10.11	10.67	11.72
	SD	1.76	2.22	3.00	1.94
	Me	12.57	10.00	10.67	11.50
Severe symptoms	AM	10.34	9.03	9.21	10.36
	SD	1.85	1.72	2.95	2.23
	Me	10.86	9.33	8.00	11.00
Statistical analysis		$p < 0.001$***	$p < 0.001$***	$p < 0.001$***	$p < 0.001$***
		H = 26.34	H = 35.76	H = 21.72	H = 28.92
Depression		Physical health	Psychological health	Social relationships	Environment
Norm	AM	14.31	12.77	13.60	13.71
	SD	1.88	2.01	2.86	2.02
	Me	14.29	12.67	13.33	14.00
Mild symptoms	AM	12.83	10.70	11.33	12.12
	SD	1.56	1.49	2.29	1.71
	Me	13.14	10.67	10.67	12.00
Moderate symptoms	AM	11.54	9.38	9.33	11.63
	SD	1.89	2.25	2.89	1.94
	Me	11.43	9.33	9.33	11.00
Severe symptoms	AM	9.71	7.67	8.44	9.50
	SD	1.58	1.01	2.48	2.37
	Me	9.14	7.67	8.00	9.50
Statistical analysis		$p < 0.001$***	$p < 0.001$***	$p < 0.001$***	$p < 0.001$***
		H = 35.44	H = 45.27	H = 34.32	H = 26.73

showed that patients who were employed declared better quality of life; [10] mainly in general perception of health status and in physical health, psychological health and social relationships domains of WHOQoL-BREF [3]. Many patients, in spite of stable health status, have problems with finding employment. Probably due to many factors including side effects of neuroleptic drugs that impede the possibilities of finding a job [12] as well as frequent hospitalizations, that interfere with maintaining a job. A phenomenon of stigmatization often prevents from finding an occupation [13].

Caron et al. in 2005 proved that the total period of time spent in hospital was positively correlated

with a better quality of life and this was explained by lower expectations of chronically ill patients [7]. Moreover Caron et al. proved that patients who were in hospital in the year following the survey had lower quality of life.

Many authors underline the relation between GAF score and subjective assessment of quality of life in people with schizophrenia [14].

There are inconsistencies about correlation between the presence of psychopathological symptoms and the quality of life. Narvaez et al. proved that the severity of positive symptoms has no influence on both subjectively and objectively measured quality of life [15]. However there are many studies that confirm that the reduction of positive symptoms is an important factor of improvement in quality of life in patients with schizophrenia [14].

Ponizovsky et al. in 2003 proved that dissatisfaction of the quality of life was strongly connected with repeated suicidal attempts in people with schizophrenia [16].

There are many published studies showing that depression and anxiety are strong predictors of the quality of life in schizophrenia [15]. It was also proved that depressive symptoms have more influence on quality of life than psychotic symptoms. A study from China in 2008 proves that depression measured with HDRS was negatively correlated with all WHOQoL-BREF domains, and anxiety measured with the use of BPRS scale was connected only with psychological domain [6].

It is a well known fact, that social support is considered one of the most important protective factors of mental health and is also connected with a better quality of life in people with schizophrenia [17].

Many studies confirmed a positive influence of psychoeducation activities on the quality of life in people with mental disorders [18].

Conclusions

The connection between the quality of life of people with schizophrenia and some sociodemographic, economic or clinic factors has been proved by many studies. There are inconsistencies in the selection of surveyed groups and methods and this leads to certain difficulties in comparing the results and drawing conclusion.

Despite this fact, the knowledge about predictors of quality of life and exploration of this matter is an essential factor that allows to take care of the real needs of patients. The programs supporting people with schizophrenia should concentrate on the factors that can improve patients' quality of life, as well as use its best efforts to develop the social support and diminish the process of stigmatization.

Lehman counted a list of conditions that can improve the quality of life of people with mental disorders including: better financial support, vocational training, more occupation offers, better protection against violation of regulations, more privacy and better relations with other people [1].

Spiridonow et al. confirm that people with mental disorders declared that the most difficult issue for them were: demanding their rights, making decisions, planning the day and asking for help [2].

The results of many studies emphasize the meaning of knowledge and social skills next to pharmacotherapy in reducing the number of recurrence, improvement of social functioning, life satisfaction and diminishing the burden on relatives [19].

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Address for correspondence:
Dr hab. n. med. Marta Makara-Studzińska
Samodzielna Pracownia Zdrowia Psychicznego UM
ul. Chodźki 15
20-093 Lublin
Tel.: 81 718-65-92
E-mail: marta.makara-studzinska@umlub.pl

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