ORIGINAL ARTICLE

Quality of life and needs of hospitalized schizophrenic patients in the Czech Republic

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Abstract

OBJECTIVES: : The main aim of the study was to investigate the quality of life and the medicinal and social needs of patients hospitalized with schizophrenia in the Czech Republic to uncover potential issues in these areas.
METHODS: Relevant self-evaluating questionnaires (SQUALA for quality of life; CANSAS for medicinal and social needs) were used in a cohort of hospitalized schizophrenic patients undergoing rehabilitation before discharge from the mental hospital.
RESULTS: Two hundred and forty-four patients (women N=115) aged 18–58 years were involved in the study. The quality of life of hospitalized patients with schizophrenia was subjectively assessed as universally worse in comparison with the general Czech population ($p<0.05$ in most cases; two-sample Student's t-test), but patients were not wholly critical of their own health status and overestimated its quality (arithmetic mean 63.79 in the patients vs the range of 45.5–59.8 as the norm in the general Czech population). Intimate relations, financial matters, treatment of psychotic symptoms, and sexual life were among the most pressing medicinal and social needs in our study subjects.
CONCLUSION: The results of our study should stimulate psychiatric nurses in their effort not only to detect but also address the problems of schizophrenic patients concerning quality of life and unfulfilled needs. This can be done via education, guidance towards a healthy lifestyle, or providing patients with adequate exercise. Overall this issue is of significant importance in the Czech Republic due to the fact that legislative reform of mental health care emphasizing community care and psychiatric nursing has just been implemented.

INTRODUCTION

Schizophrenia is one of the most serious mental disorders. It affects around 0.3–0.7% of people at some point in their life (van Os & Kapur 2009). Delusions, hallucinations, disorganized thinking, abnormal motor behavior, negative symptoms and cognitive deficit are among the most striking symptoms of schizophrenia. These psychopathological phenomena impair the patients´ ability to act comprehensibly, function in social relationships, find and maintain a paid job, and live up to natural expectations (Weinberger & Harrison 2011).

Quality of life is defined as a personal feeling of comfort, patterned on satisfaction or dissatisfaction

in important areas of life. These include the subject´s physical state, mental life, social relations, employment, economic situation, etc. (Becker *et al.* 1993).

According to Maslow´s hierarchy of needs, medicinal needs of a human being represent a physiological call of nature which must be met for the subject to live and for his or her health status not to be endangered (Maslow & Abraham 1943). Social needs are among the so-called "higher needs" and comprise the needs for social contact and support, love, and social self-assertion. The medicinal as well as social needs of people suffering from schizophrenia are typically under-accomplished (van Os & Kapur 2009).

The purpose of the study was to assess the quality of life and the medicinal and social needs of hospitalized schizophrenia patients in the Czech Republic. This has recently become a "hot" topic in the country due to planned mental health care reform. The reform seeks intensive expansion of extramural psychiatric services and extensive involvement of psychiatric nurses in the treatment and rehabilitation of people with serious mental disorders, including schizophrenia (Tresnak 2014).

SUBJECTS & METHODS

Subjects

Hospitalized patients suffering from schizophrenia at the Mental Hospital Opava, Czech Republic from the period of September 2011 – June 2014 were asked to participate. The following inclusion criteria were applied: Age 18–65 years, diagnosis of schizophrenia (F20 according to the ICD-10 classification), voluntary treatment in the hospital, and a willingness to participate in the research. The patients were hospitalized at an open ward mostly aimed at rehabilitation and resocialization. They had already undergone acute pharmacological treatment for schizophrenic episode at a locked psychiatric ward several weeks prior.

We did not examine healthy volunteers because previous such research employing identical assessment methods had already been carried out in the Czech Republic, and the literature allowed us ample access to data concerning the results.

Methods

Sociodemographic data on the study´s participants (age, gender, education, occupation, family status and number of psychiatric hospitalizations in the patient´s life) were obtained from medical records.

We used the Subjective Quality of Life Analysis (SQUALA) questionnaire for every patient. This multidimensional self-assessment method was created by Mathieu Zannotti in 1992 for mentally ill subjects in an attempt to evaluate quality of life from a subjective point of view. There are three parts of SQUALA – the demographics (9 items), the importance of a given variable (21 items), and the subject´s satisfaction with a given variable (21 items). Concerning life variables in the second and third parts of SQUALA, they are the same in these two sections, and comprise health, physical self-sufficiency, mental state, housing conditions, sleep, the subject´s family relations, children, love, sexuality, leisure time, hobbies, occupation, justice, freedom, finances, and alimentation. These variables are divided into five domains, in the same way in both the second and third parts of SQUALA: abstract values, health, close social relations, leisure time, and basic needs. In the second part of SQUALA, the subject expresses the importance of every varibale for himself/herself on a scale of 0 (non-significant) to 4 (absolutely necessary). In the third SQUALA´s part, the respondent marks how he or she is satisfied with a given variable in his or her life on a scale of 1 (very disappointed) to 5 (totally satisfied). Rough scores are used to appraise the SQUALA results. The SQUALA questionnaire has been described in detail elsewhere (Zannotti & Pringuey 1992). SQUALA was already used and validated in the Czech Republic (Dragomirecka 2006). An arithmetic mean in the range of 45.5–59.8 is considered as a norm.

We also used the Camberwell Assessment of Need questionnaire – the short version (CANSAS) – for every study subject. This tool is intended to survey the medicinal and social needs of mentally ill individuals, i.e. whether the needs are met or not. CANSAS includes 22 items related to housing conditions, daily activities, physical health, mental problems, threats to the patient or other people, substance abuse, friends, sexuality, care of children, education, transportation, or finances. Each item is assessed by the responder as to whether this need is satisfied or not (no problem = 0 points; the need has recently been addressed with the help of professional caretakers = 1 point; the need has not been fulfilled = 2 points). This means that for items with 1 or 2 points, professional help should be continued (1 point) or applied anew (2 points). The Camberwell Assessment of Need was first introduced in 1995 and is described in detail elsewhere (Phelan 1995). A Czech version of CANSAS has also been validated (Probstova *et al.* 2006).

Statistics

To compare our results in the total patient sample with the literary data for the general Czech population, we used the two-sample Student´s t-test. If individual parameters were analyzed (e.g. age, gender, education etc.) against the same parameters in the general Czech population, we applied the non-parametric Wilcoxon test and Kruskal-Wallis test. A result was considered statistically significant if $p < 0.05$. To ascertain possible reciprocal correlations between the SQUALA and CANSAS results, the Spearman´s correlation coefficient was calculated. We used the Stata v. 13 statistical program.

Ethical issues

The work was approved by the Ethics Committee, Faculty of Medicine, University of Ostrava, Czech Republic

on the 20th of June, 2011 (EK 3/2011). The subjects voluntarily gave their informed consent to participate. The study was performed in accordance with the principles of the Declaration of Helsinki of 1975, as revised in 1983.

RESULTS

Sociodemographic data on the study sample

The total number of schizophrenia patients included into the study was 244 (women N=115). Most of the respondents were in the age range of 18–29 (N=127), followed by 30–44 years of age (N=90) and 45–58 (N=27). Fifty eight individuals lived in towns/villages with populations up to 10 000. Ninety lived in cities of 10 000–50 000 inhabitants, 55 in cities with 50 000–100 000 inhabitants, and 41 in cities with more than 100 000 inhabitants. The education level was distributed in the following way: high school (N=110), vocational school (N=89), university degree (N=25), and primary school (N=20). Most of the patients received a disability pension (N=103), followed by unemployed people without a disability pension (N=61), employees (N=31), students (N=27), retirees (N=10), entrepreneurs (N=5), women on maternity leave (N=4), housewives (N=1), and not stated (N=2). The financial situation was reported as follows: average (N=100), moderately below-average (N=92), substantially below-average (N=39), moderately above-average (N=12), and substantially above-average (N=1). As for marital status, 144 participants were single, 66 lived with a wife/husband or in a similar relationship, and 34 were divorced. The number of childless patients was 171. Seventy-two patients were being hospitalized at a psychiatric department/ward for the first time, 83 individuals for the 2–3rd time in their lives, 47 for the 4–5th time, and 42 respondents for the 6th or more time.

To sum up, a typical participant was a male aged 18–29, living in a city of 10 000–50 000 inhabitants, with a high-school education, receiving a disability pension, with an „average" economic background, single, childless, and recently hospitalized at a psychiatric ward for the 2–3rd time in his life.

Quality of life

A comparison between the quality of life in the patients and the general Czech population is shown in Table 1. Altogether, the quality of life in our study sample in comparison with the general population was worse, apart from the abstract values and basic needs domains, which were assessed by the patients as better in some age groups.

In Table 2, the SQUALA domains are presented in terms of their importance and satisfaction to the patients. The most striking finding is that the patients subjectively assessed their quality of life in the health domain as modestly better in comparison with the norm in the general Czech population. This overestimation of one´s own health status was not associated with gender, age group, marital status, employment status or number of psychiatric hospitalizations (*p*=NS; Wilcoxon test, Kruskal-Wallis test).

Tab. 1. Quality of life (SQUALA scores) in the patients vs general Czech population.

Age	Domain	Patients			General Czech population			*p*-value
		N	arithm. mean	sd	N	arithm. mean	sd	
18–29	Abstract values	127	58.06	17.56	94	51.53	14.68	0.0038
	Health	127	65.40	16.35	94	70.23	14.27	0.0230
	Close social relations	127	52.68	16.72	94	63.19	19.71	<0.001
	Leisure time	127	53.54	15.2	94	50.32	12.71	0.0943
	Basic needs	127	53.14	17.69	94	47.98	14.63	0.0222
30–44	Abstract values	90	55.50	18.5	108	53.77	12.77	0.4320
	Health	90	61.63	16.46	108	70.42	13.77	0.0001
	Close social relations	90	50.67	18.19	108	64.04	17.55	<0.001
	Leisure time	90	52.64	15.60	108	51.33	14.87	0.5468
	Basic needs	90	51.37	16.36	108	48.55	14.76	0.2041
45–58	Abstract values	27	62.59	21.57	106	52.45	15.46	0.0060
	Health	27	63.38	16.20	106	65.59	15.78	0.5193
	Close social relations	27	57.16	20.95	106	57.12	16.68	0.9916
	Leisure time	27	56.81	16.45	106	49.86	13.82	0.0266
	Basic needs	27	55.37	12.7	106	48.02	13.6	0.0116

Two-sample Student´s t-test

Tab. 2. SQUALA domains as of their importance and satisfaction in the group of patients (N=244).

Domain	Item	N	ar. mean	sd	Min.	Max.
Abstract values	Feeling of safety Justice Freedom Beauty and arts Truth	244	57.61	18.26	14	100
Health	Health Physical self-sufficiency Mental well-being Self-care	244	63.79	16.40	25	100
Close social relations	Family relations Love Sexual life Children	244	52.43	17.80	6.67	100
Leisure time	Sleep Relations to others Rest Hobbies	244	53.57	15.38	22.5	100
Basic needs	Environment and housing Finances Alimentation Occupation	244	52.73	16.66	13.33	100

The arithmetic mean in the range of 45.5–59.8 is considered as a norm in the Czech population
Values 59.9–66.9 represent a modest elevation of the quality of life
Values 38.3–45.4 mean a modest decrease in the quality of life (Dragomirecka, 2006)

Tab. 3. Correlations of the SQUALA domains with the CANSAS results in the group of patients (N=244).

	SQUALA 1 Abstract values	SQUALA 2 Health	SQUALA 3 Close social relations	SQUALA 4 Leisure time	SQUALA 5 Basic needs	CANSAS
SQUALA 1 Abstract values	1.0000					
SQUALA 2 Health	0.4435*	1.0000				
SQUALA 3 Close social relations	0.5448*	0.5076*	1.0000			
SQUALA 4 Leisure time	0.5923*	0.5150*	0.5863*	1.0000		
SQUALA 5 Basic needs	0.5928*	0.4286*	0.5490*	0.5514*	1.0000	
CANSAS	–0.1719*	–0.2423*	–0.3141*	–0.2311*	–0.2107*	1.0000

*$p<0,05$; Spearman´s correlation coefficient

Medicinal and social needs of the patients

According to the CANSAS questionnaire results, intimate relations, financial situation and treatment of psychotic symptoms were among the most unfulfilled items in general, while in the subgroup of men sexual life was also stated ($p=0.016$; two-sample Student´s t-test). This was not influenced by age or employment status (p=NS; Wilcoxon test, Kruskal-Wallis test). On the other hand, patients living with a partner more often perceived their medicinal and social needs to be met in comparison with study subjects who were single ($p<0.05$; Wilcoxon test).

Quality of life correlated with medicinal and social needs of the patients

We found statistically significant but only mildly negative correlations among the SQUALA domains and the CANSAS results (Table 3).

DISCUSSION

It is possible to sum up the main results of our work: the quality of life of hospitalized patients with schizophrenia was subjectively assessed as generally worse in comparison with the general Czech population, but the

patients were not wholly critical of their own health status, and overestimated its quality. Intimate relations, financial situation, treatment of psychotic symptoms, and sexual life (in males only) were among the most unfulfilled medicinal and social needs in our subjects. Patients living with a partner more often perceived their medicinal and social needs to be met compared to study subjects who were single. The quality of life scores obtained by the SQUALA questionnaire correlated only mildly with the CANSAS data relating to meeting medicinal and social needs.

The fact that the quality of life in schizophrenia is not as good as in the general population is sufficiently covered in the literature (Bobes *et al.* 2007; Margariti *et al.* 2015). Our results are in accordance with these findings.

The subjective overvaluation of the patients´ health status can be explained by the fact that patients with schizophrenia do not often focus attention on their own physical health. They live in their own imaginary psychotic world and their assessment of a real health situation is impaired. A cognitive deficit may also play a significant role, in addition to the so-called „positive" psychotic symptoms (hallucinations, delusions). Our findings are similar to the results of the study by Barr *et al.* (2001). In 180 schizophrenic patients in a community mental health care, the authors found that the patients subjectively assessed their health status as comparable to the general population, even if all the other SQUALA domains were self-evaluated as worse.

Our patients mostly indicated that their unmet medicinal and social needs involved social relations, finances, treatment of psychotic symptoms, and sexual life, all of which is understandable. As stated above in the sociodemographic data section, a typical respondent in the study was a single male, receiving a disability pension, and hospitalized for schizophrenia. Our results are similar to the ones ascertained by Wennstrom *et al.* (2004). The authors investigated 741 outpatients with schizophrenia and other psychotic disorders in Sweden. The main difference in the Wennstrom´s study sample was that finances were not seen as such a pressing issue as in our study. This may be due to mentally ill people in Sweden being in better position financially than those in the Czech Republic.

Our study also concurred with Brain *et al.* (2014) in revealing the importance of close social relationships in the lives of schizophrenic patients. The authors studied 111 outpatients with schizophrenia and schizophrenia-like psychosis. If the study subjects felt stigmatized and discriminated against, social relationships (including intimate ones) were perceived as the most important domain. On the other hand, a quality partnership may help the patient to overcome his or her troubles better.

As far as we know, the assessment tools SQUALA and CANSAS have never been applied concurrently in schizophrenic patients. The slight correlation found in our study suggests that quality of life and medicinal and social needs are not exactly the same variables and as such should be used to analyze and improve living conditions of schizophrenic patients.

The subjective assessment of quality of life and needs as well as the use of SQUALA and CANSAS questionnaires only for hospitalized schizophrenic patients represents the limitations of our study. A more comprehensive view would be obtained if objective tools were utilized not only in inpatients but also on an outpatient basis. This attitude may be employed in future research.

On the other hand, a relatively large and homogenous study sample is one of the strong points of our research.

The results of the study point to the fact that schizophrenic patients are not able to assess their health conditions in a realistic way and thus are unable to look after their health sufficiently. Literary data indicate that cardiometabolic and other risk factors of physical diseases are more prevalent and life-threatening in people suffering from schizophrenia than in the general population (Protopopova *et al.* 2012). Moreover, schizophrenic patients are discriminated against in terms of access to physical health care services (Arboleda-Florez & Sartorius 2008; De Hert *et al.* 2011). Thus the practical outcome of our study can be to stimulate psychiatric nurses in their effort to continuously detect and take care of problems concerning the quality of life and unmet needs of patients with schizophrenia. Psychiatric nursing staff should be qualified in the prevention of physical diseases in mentally ill people. This can be done via education, guidance towards a healthy lifestyle, or making sure patients receive adequate exercise. Further research in this field could be performed by monitoring the quality of life and needs of schizophrenic patients before and after the systematic education by psychiatric nurses and optimization of nursing care. This is especially important in the Czech Republic, where legislative reform of mental health care emphasizing community care and psychiatric nursing has recently been implemented.

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