Objective and subjective quality of life in schizophrenic patients after a first hospitalization

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Abstract

Purpose: There is no single, universally accepted definition of quality of life (QOL). Both subjective and objective information is necessary to assess QOL. The aim of the study was to evaluate in cross-sectional and prospective manner objective and subjective quality of life in schizophrenic patients 1 month after hospitalization and in one year follow-up.

Material and methods: A study sample consisted of 86 schizophrenic subjects: 52 male and 34 female; age 25.5; ±5.8 (range 17-47) and control group of matched 52 male and 34 female subjects were enrolled. Subjective QOL scale (WHOQOL-BREF), Social Functioning Scale (SFS) and structured questionnaire were used. Patients were evaluated 1 month (T1) and 13 months (T2) after a discharge from the hospital.

Results: In both T1 and T2 we found similar levels of SFS score and subjective measurement of QOL in patients, which were significantly lower than in healthy controls.

Conclusions: This study showed that both objective and subjective quality of life are significantly decreased directly after hospitalization, and they are relatively stable in 1-year follow-up.

Key words: social functioning, quality of life, schizophrenia, first-episode, 1-year follow-up.

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Received 25.01.2005 Accepted 02.02.2005

Introduction

Quality of life (QOL) is a complex and multidimensional construct. There is no single, universally accepted definition of QOL. The World Health Organization definition focuses on the subjective perspective [1]. Definitions include several broad concepts such as well-being, happiness/satisfaction and achievement of personal goals. Quality of life instrument can measure both health-related quality of life (HRQOL) and generic QOL. HRQOL is one part of the total QOL. The concept has often been measured in patients with different symptoms of diseases and it is closely connected to health and includes both physical and mental status [2]. Both subjective and objective information is necessary to the construct [3]. Social functioning impairment is essential feature of schizophrenia and belongs to objective indicators of health.

The purpose of this study was to assess social functioning and subjective QOL in first-episode schizophrenia patients, 1 month after hospitalization (T1) and in 1-year follow-up (T2).

Material and methods

Ninety-six patients were qualified for the study after hospitalization due to the first episode of psychosis. At discharge, all study subjects met the diagnostic criteria for schizophrenia (ICD-10) [4]. During a first and a second assessment, respectively, 8 and 2 patients refused to participate, resulting in the final group of 86 subjects: 52 male and 34 female; age 25.5; ±5.8 (range 17-47). The control group comprised 86 psychiatrically healthy subjects: 52 male and 34 female matched according to age. Psychometric measures: Social Functioning Scale (SFS) is a 79-item questionnaire, developed and validated on outpatients with schizophrenia [5]. The questionnaire asks the patient about performance in seven areas: Social Engagement (SE), Interpersonal Communication (IC), Recreational Activity (RA), Social Activity (SA), Independence Competence (INC), Independence Performance (IP) and Occupational Activity

Table 1. **Comparison of social functioning in schizophrenia patients measured with Social Functioning Scale 1 month and 13 months after hospitalization, and the score of healthy control subjects**

	SFS T1	SFS T2	t	p	SFS in healthy controls	SFS in patients (T2) vs controls
	Mean (SD)	Mean (SD)				
SFS global	103.7 (11.88)	105.5 (10.68)	-1.79	0.08	117.0 (6.71)	-8.458***
Social engagement (SE)	105.2 (11.08)	107.1 (12.77)	-1.80	0.08	114.4 (10.14)	-4.149**
Interpersonal communication (IC)	110.3 (19.98)	113.4 (19.88)	-1.45	0.15	130.3 (15.55)	-6.181***
Social activity (SA)	102.3 (15.96)	104.3 (13.43)	-1.06	0.16	120.3 (11.02)	-8.501***
Recreational activity (RA)	99.3 (14.93)	100.4 (14.28)	-.58	0.56	111.4 (13.46)	-5.153**
Independence performance (IP)	93.8 (15.12)	95.7 (15.61)	-1.42	0.15	106.6 (11.70)	-5.131**
Independence competence (INC)	109.3 (14.60)	109.6 (14.92)	-0.80	0.42	117.0 (8.83)	-3.906**
Occupational activity (OA)	109.8 (14.08)	108.9 (13.27)	0.29	0.77	122.3 (1.67)	-9.155***

*** $p<0.001$; ** $p<0.01$

Table 2. **Comparison of subjective quality of life in schizophrenia patients measured with WHOQOL-BREF 1 month and 13 months after hospitalization, and the score of healthy control subjects**

WHOQOL - BREF	WHOQOL T1	WHOQOL T2	t	p	WHOQOL in healthy controls	patients T2 vs controls
	Mean (SD)	Mean (SD)				
Overall quality of life (Q1)	3.3 (0.88)	3.3 (0.91)	0.12	0.90	3.8 (0.84)	3.76 ***
Physical Domain (Ph)	14.6 (2.61)	14.8 (2.51)	-0.67	0.51	16.3 (2.40)	5.23 ***
Self-evaluation of the health status (Q2)	3.1 (0.99)	3.1 (0.99)	0.19	0.85	3.8 (0.86)	4.47 ***
Psychological Domain (Ps)	12.5 (2.69)	12.5 (3.13)	0.13	0.90	14.5 (2.74)	5.41 ***
Social relationships Domain (SR)	13.0 (2.75)	13.1 (3.16)	-0.49	0.62	15.7 (3.21)	6.44 ***
Environment (E)	13.6 (2.34)	14.0 (2.14)	-1.81	0.07	13.8 (2.69)	NS

*** $p<0.001$

(OA). The self-report questionnaire was administered by a verbal interview to the patients. SFS was previously translated into Polish and validated [6]. The WHOQOL-BREF [7] is an international quality of life instrument which produces a profile with four domains scores: Physical (Ph), Psychological (Ps), Social relationships (SR), Environment (E) and two separately scored items about the individual's perception of quality of life (Q1) and health (Q2). According to WHO quality of life is "individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". The English version of the instrument had been previously translated and psychometrically validated in Poland. Psychometric properties of the WHOQOL-BREF are satisfactory in a large extend [8]. Demographic and clinical variables regarding preadmission and hospitalization periods were measured with a structured interview. The protocol of the study was accepted by Bioethical Committee of Poznan University of Medical Sciences. We used Student t-test for independent data to compare results of the patients and the controls. Student t-test for dependent data was used to compare the first and the second measurements of social functioning and subjective OQL in patients.

Results

Study sample consisted of predominantly male (60.5%) and young (62.8% below 22 years of age) patients. At a first admission mean age of patients was 25.5 years (SD 5.8). Female patients at the first admission were older (mean difference 2.8 years, $t=2.26$, $p<0.05$).

After the first hospitalization in 51.2% of patients we observed significant impairment of social functioning (SFS score ≤105). Mean SFS scores in T1 and T2 were 103.7 and 105.5 respectively and did not show significant change. Between first and second assessment, level of social functioning was not changed in majority of patients (59.2%). The difference between T2 results of patients and healthy controls was significant for global assessment ($p<0.001$) and every subscale of SFS. The most significant differences between patients and controls were observed in 3 subscales: IC, SA, OA ($p<0.001$) (*Tab. 1*).

In both assessments more than half of patients were not satisfied with their general quality of life (Q1) – T1: 52.3%, T2: 51.2%. In both assessment significantly lower score in assessment of Ps dimension than in 3 other aspects of subjective quality of life (Ph, E, SR) were observed ($chi^2=71.54$. $df=3$; $p<0.001$).

Subjective quality of life in one-year follow-up was not changed either in the global evaluation and in the domains. In significant number of patients (43%) we observed improvement in E dimension. WHOQOL mean scores were significantly worse in patients than in healthy control group (p<0.001), except the environmental domain (*Tab. 2*). Significantly lower number of patients than controls were satistfied with their general quality of life (Q1) – 48.8% vs 72.1% (t=3.69, p<0.01) and with health status (Q2) – 40.7% vs 68.6% (t=4.24, p<0.01). In study group mean values for WHOQOL-BREF items were in range 2.6--4.3 points, in comparison subjects in range: 1.5-4.5 points. In patients the lowest subjective rating of quality of life in patients reffered to joy of life, ability to concentrate, amount of money to satisfy needs, aim of life, feeling of safety and sexual life.

Discussion

These results suggest that in schizophrenic patients, quality of life in both functional and subjective dimension is poor one month after a hospitalization and does not change significantly during 1-year follow-up. The impairment of social functioning in early phase of schizophrenia was reported in many studies [9,10,11] and some reported also lack of differences in comparison with patients with longer duration of illness [12]. Similarily, low scores in subjective quality of life were reported in majority of studies in patients with first episode of schizophrenia or early phase of the illness [9,10].

Follow-up studies brought discrepant results concerning changes in subjective and objective quality of life in schizophrenia [10,13]. In several studies no significant change in quality of life was observed [13,14]. Several researchers reported worsening of one or both dimensions of quality of life [9,15], which was associated mainly with drop-out from intensive treatment programs. Conversely, significant improvement of quality of life was associated mainly with different therapeutic interventions [16,17]. These results suggest, that early intervention may improve only short-term outcome [15], and stability of improvement may be associated only with long-term programs aimed at prevention of recurrences.

We replicated findings of other authors, who reported that subjective dissatisfaction with quality of life in patients with schizophrenia is associated with poor social relationships, and difficulties with job, finances and health problems [9,18]. The lowest scores reported in PS dimension may be associated with concept of self, which is disturbed in early phase of schizophrenia [19].

Improvement in Environment (E) dimension of subjective QOL in patients may lead to level of satisfaction observed in healthy subjects. In previous studies, subjective quality of life was better in patients with longer duration of schizophrenia, than in patients with shorter course of illness [12,13], which is probably associated with dynamic adaptation (response shift and quality of life) [20]. In our study improvement in (E) dimension indicates positive impact of environmental factors.

The obtained results point to the role of early pharmacological and psychosocial intervention in schizophrenia. Such an action, may allow to avoid the personality disintegration and help to build social support network, which is essential in establishing appropriate level of functioning in schizophrenic patients.

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