

Quality of life in schizophrenic patients in Duhok city

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Abstract

The concept of life quality has long been considered an important aspect of mental health. The interest in studying quality of life in persons with schizophrenia started as concern was increasing about the role played by the chronically mentally ill in the community. The aims of this study were to measure Quality of Life (QOL) in schizophrenic patients, then explain adverse events that significantly affect them, and to identify the socio-demographic and clinical factors' impact on the QOL. A case control study, 40 schizophrenic patients and equal number of companions of medical patients in Duhok City were interviewed using the Arabic version of the WHOQOL-BREF instrument which includes 4 domains: physical health, psychological health, social relationships and environment, and also assesses 2 items. The overall QOL and general health. The total duration of the study was 8 months (from 20/12/2006 to 20/8/2007) and the SPSS program was used for data analysis. The present study revealed high significant difference between the patients and the control group in the 4 domains and the item of the general health (p-value = 0,000), and a weak significant difference between the 2 groups in the item of the overall QOL (p-value = 0.056). It is concluded that the schizophrenic patients showed lower QOL than the controls in the 4 domains: physical health, psychological health, social relationships and environment and lower satisfaction with general health and lower rating, although weak significant, of the overall QOL.

Introduction

Schizophrenia is the heartland of psychiatry and the core of its clinical practice. Because it is a relatively common condition, which cripples people in adolescent or early adult life, without greatly reducing their life expectancy, it has been described as the worst disease affecting mankind (1).

In psychiatry, the concept of life quality has long been considered an important aspect of mental health (2).

The interest in studying quality of life in persons with schizophrenia started as concern was increasing about the role played by the chronically mentally ill in the community. This was evident after the deinstitutionalization process, which took place in the 1960s and 1970s in western countries.(3)

Over the past 15 years, there has been an increased amount of research on

the quality of life (QOL) of individuals with severe psychiatric disorders such as schizophrenia. In the literature, QOL has mainly been used as an outcome indicator for the evaluation of services, programs and, more recently, in clinical trials for new drugs.(4)

In 1991 a panel of researchers of the World Health Organization (WHO) started to develop a unifying and trans-cultural definition of QOL. The emphasis within this definition was first, on the subjective nature of QOL and second, on the need to explore all those aspects of life considered as having a significant impact on QOL (5).

The aims of this study were to measure Quality of Life (QOL) in schizophrenic patients, then explain adverse events that significantly affect them, and to identify the socio-demographic and clinical factors' impact on the QOL.

Patients and Methods

A case control study, 40 schizophrenic patients and equal number of companions of medical patients in Duhok City were interviewed using the Arabic version of the WHOQOL-BREF instrument which includes 4 domains: physical health, psychological health, social relationships and environment, and also assesses 2 items: the overall QOL and general health. The total duration of the study was 8 months (from 20/12/2006 to 20/8/2007) and the SPSS program was used for data analysis.

The interviewed patients were schizophrenics who attended psychiatric outpatient clinic in the Mental Health Center in Duhok City where interviewed by a Consultant Psychiatrist. The controls were healthy companions of the medically ill patients in the medical wards of Azadi General Teaching Hospital in Duhok City, they were selected randomly (The companion of every another patient was selected).

All participants (cases and controls) interviewed, and their verbal consent had been taken before contributing in the study, and formal consents from both Mental Health Center and Azadi General Teaching hospital in Duhok City were taken before starting the study.

The WHO QOL-BREF questionnaire consists of 26-item includes 4 domains:

Physical health, Psychological health, Social relationship, and Environment.

There are also two items that are examined separately: question 1 asks about an individual overall perception of quality of life and question 2 asks about an individual overall perception of their health.

The questionnaire is transculturally validated; the items include information on patient's functioning during the 2 weeks prior to the interview. The instrument is generic scale

developed to assess the QOL of both ill and healthy population. (6, 7)

Statistical analyses were performed using SPSS (Statistical Package for the Social Sciences) for windows, version 11.5.

Comparisons between two groups were performed by the Mann-Whitney U test (MWU), and comparisons among 3 groups were performed by the Kruskal-Wallis H test (KWH). A P value of < 0.05 was considered significant.

Results

The data on 40 outpatients with the ICD-10 diagnosis of schizophrenia and equal number of healthy control group were collected. The average age of the patients was 31.5 years old (15-65 years old) (SD = 9.99) and of the controls was 30.48 years old (15-65 years) (SD = 10.83). Of the sample, 75% of the patients were male (n = 30) and 25% were female (n= 10), while 60% of the controls were male (n - 24) and 40% were female (n = 16). Among the clinical characteristics of the patients, for example: 15% of the cases (n=6) were on classical antipsychotic, 30% (n=12) on typical antipsychotic, 40% (n=16) on both, and 15% (n=6) without treatment (Table 1)..

Schizophrenic patients showed lower scores than control group in the 4 domains of the WHOQOL-BREF, physical health (mean - 38.5, SD = 13.88), Psychological health (mean = 37.08, SD =12.72), social relationships (mean = 40.83, SD = 15.65), environment (mean = 40.62, SD = 9.62), there was high statistical significant difference for the all domains (p-value = 0.000 for the 4 domains i.e., p-value < 0.05). In addition, the first general question (item 1) which reflects the personal attitude to the overall quality of life was analyzed and compared between the 2 groups, it shows weak statistical significant difference (p-value = 0.056), which mean that, although schizophrenic

patients showed lower rating of the overall QOL but the difference with the control group is statistically weakly significant. The second general question in the questionnaire, which reflects the personal attitude to the satisfaction with general health, also analyzed and compared between the 2 groups and showed high statistical significance (p-value = 0.000 i.e., p-value < 0.05), which means that the patients dissatisfied with their general health with high statistical significant difference with the control group. (Table 2)

In this study, generally there was no statistical significant difference among the demographic and clinical characteristics in the scores of all domains & items in the schizophrenic patients i.e., there was no relationship between the categories of the socio-demographic and clinical characteristics and the QOL schizophrenic patients. In the gender subgroup (male and female), the p-value of the 4 domains was: 0.66, 0.132, 0.55 and of the 2 items was: 0.26 and 0.45.

In the age subgroup (in years) (15-30, 30-50 and 50-65), the p-value of the 4 domains was: 0.34, 0.57, 0.73, 0.052 and of the 2 items was: 0.71 and 0.76. In the marital status subgroup (single, married and divorce), the p-value of the 4 domains was: 0.89, 0.89, 0.84, 0.43 and of the 2 items was: 0.6 and 0.45. In the duration of illness subgroup (in years) (1-5, 6-10 and >11), the p-value of the 4 domains was: 0.37, 0.44, 0.32, 0.02 and of the 2 items was: 0.73 and 0.71.

Generally, the p-value was > 0.05 among all domains and items of all subgroups, this is apart from weak statistical significant difference in the duration of the illness subgroup in the score of the environment domain (p-value = 0.02), and a weak significant difference in the age subgroup in the score of the environment domain again (p-value = 0.052). (Table3) and (Table4).

Discussion

Most of the cases were male (n=30, 75%), and remaining 10 cases (25%) were female, and this male-female ratio could be explained as females psychiatric patients were less frequently brought to the psychiatrists in our culture.

Regarding the education, most of the cases (n = 28, 75%), were illiterate, 8 cases (20%) finished the primary school, 3 cases (7.5%) finished intermediate school, and just one case (2.5%) finished the preparatory school.

This could be explained by increased prevalence of schizophrenia- in lower socioeconomic groups, but equal incidence across socioeconomic classes (reflects downwards drift theory, which state that although those with the disorder originally may have been born into any socioeconomic class, they eventually tend to drift downward into the lower socioeconomic classes owing to their significant impairments) and also the disease itself may have prevented some of them to continue their education (8),

Other socio-demographic variables, like age, marital status, and family size were not so different (between the 2 groups: cases and controls). In this study, it showed lower scores among schizophrenic patients than the control groups in all domains (physical health, psychological health, social relationships, and environment), which reflects lower satisfaction of the quality of their life.

The high statistical significant difference between the 2 groups (p-value = 0.000 for all domains) could be due to the effect of the schizophrenia itself and/or accompanying disabilities on these aspects of the patients life.

The score of the item 2 (the general health) was also lower in schizophrenic patients (which reflects dissatisfaction with general health) than controls, with very high statistical difference (p -value = 0.000); and this could be due to the effect of the disease itself on the schizophrenic patients.

The difference in the results between this and Japanese study which have been done by A. Kugo et al. in 2005 (Schizophrenic patients showed lower scores than nursing staff members in the physical health and social relationships domains of the WHOQOL-BREF) (9)

There is similarity in the results between this and Nigerian study, as schizophrenic patients showed lower scores in all domains of the QOL.

The relationship of the socio-demographic and clinical characteristics to the QOL in schizophrenic patients showed generally no statistical significant difference in the scores of the WHOQOL-BREF, this is including the categories of the gender, age, marital status, and the duration of the illness subgroups, and this could be explained by the devastating effect of schizophrenia.

In the age subgroup, the relation between the 3 categories (23 cases from 15-30 years, 15 cases from 30-50 years and only 2 cases from 50-65 years). In the marital status subgroup, the relation between the 3 categories (21 cases single, 18 cases married and only one divorced case). Regarding the duration of illness subgroup, the relation between the 3 categories (16 cases from 1-5 years, 12 cases from 5-10 years and 12 cases >10 years). As it is clear, the number of the cases in each category is very small which may affect the results

during the statistical analysis and this also may explain the only 2 exceptions of relationship between these subgroups and WHOQOL-BREF domains and items:

There is difference in the results between this and Brazilian study, which could be explained by the difference in the size of the 2 samples and the marital status, in addition to the use of the QLS-Brazil scale in Brazilian study which was developed specifically for patients with schizophrenia, and the different methods for the statistical analysis of the data between the 2 studies..

As a conclusion; Schizophrenic patients showed lower QOL than accompanists in the 4 domains: physical health, psychological health, social relationships and environment and lower satisfaction with general health and lower rating, although weak significant, of the overall QOL. There was no relationship between the categories of the socio-demographic and clinical characteristics and the QOL in schizophrenic patients apart from weak relationship of both the age and the duration of the illness subgroups to the environment domain.

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Table (1): Socio-demographic and clinical characteristics of the Patients and control.

Variables	Patients				Controls			
	No.	%	Mean	SD	No.	%	Mean	SD
social -demographic								
Gender	30	75			24	60		
Male	10	25			16	40		
Female								
Age	23	57.5	31.5	9.99	23	57.5	30.48	10.43
15-30 years	15	37.5			12	30		
31-50 years	2	5			5	12.5		
51-65 years								
Material status								
Single	21	52.5			18	45		
Married	18	45			22	55		
Divorce	1	2.5			0	0		
Education								
Non at all	28	70			7	17.5		
Primary school	8	20			8	20		
Intermediate school	3	4.5			10	25		
Preparatory school	1	2.5			7	17.5		
University and higher education	0	0			8	20		
Family size			8	3.63			7.55	3.74
< 5 persons.	1	17.5			15	37.5		
6-10 persons	26	65.5			17	42.5		
> 11 persons	1	17.5			8	20		
Clinical								
Duration of the illness			9.19	8.79				
1-5 years	16	40						
6-10 years	12	30						
>11 years	12	30						
Type of current medication								
Classical antipsychotic Typical	6	15						
antipsychotic Mixed	12	30						
Without treatment	16	40						
	6	15						
Main symptoms								
Positive symptoms	24	60						
Negative symptoms	13	32.5						
Mixed	3	7.5						
Patient's job								
Has a job	12	30						
Without a job	28	70						

No. = number, % = percentage, SD = standard deviation

Table (2): WHOQOL-BREF : Comparison between patient and controls.

Domains and items of quality of life	Patients		Controls		MWU	P-value
	Mean *	SD	Mean *	SD		
1. Physical Health	38.03	13.88	66.69	9.47	89.5	0.000
2. Psychological Health	37.08	12.72	60.41	13.17	158.5	0.000
3. Social Relationships	40.83	15.65	63.95	16.38	232	0.000
4. Environment	40.62	9.62	49.14	11.86	435	0.000
Items. :***						
Item 1 : Overall QOL	2.73	1.06	3.15	0.7	616	0.056
Item 2: General Health	2.77	1.02	3.6	0.98	447	0.000

MWU : Mean- Whyitney U test, SD= standard deviation, P-value <0.05 considered significant

*All measures scored so that a higher score indicates better QOL.

** The measures of the domains transformed to (0-100) scale

*** the measures of the items are of (1-5) scale.

Table (3): Relationship between WHOQOL-BREF and socio-demographic and clinical characteristics

Domains and items of quality of life	Gender		Age		Martial status		Duration of illness	
	MWU	P-value	KWH	P-value	KWH	P-value	KW H	P-value
Physical Health	136	0.66	2.15	0.34	3.03	0.89	1.97	0.373
Psychological Health	136	0.66	1.11	0.574	0.23	0.89	1.63	0.442
Social Relationships	102.5	0.132	0.623	0.732	0.33	0.847	2.24	0.325
Environment	131.5	0.558	5.91	0.052	1.68	0.43	7.63	0.02
Items. :								
Item 1 : Overall QOL	115.5	0.263	0.66	0.719	0.99	0.6	0.63	0.73
Item 2: General Health	125	0.45	0.535	0.765	1.59	0.451	0.66	0.718

MWU = Mean- Whitney U test, KWH = Kruskal-Wallis H test, P-value <0.05 considered significant

Table (4): Comparison between WHOQOL-BREF and the categories of some socio-demographic and clinical variables.

Socio-demographic and clinical variables	Domains								Items			
	Domain 1 Physical		Domain 2 Psycho.		Domain 3 Social		Domain 4 Environ.		Item1 Overall QOL		Item 2 Health	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
<u>Gender</u>												
Male	38.2	15.1	36.5	14.1	43	15.9	41.3	8.7	2.83	1.08	2.8	1.14
Female	37.5	9.7	38.7	7	34.1	13.2	38.4	12.1	2.4	0.96	2.6	0.51
<u>Age (in year)</u>												
15-30	39.1	13.7	37.1	12.2	39.1	16.9	38	7.9	2.61	1.03	2.7	0.87
31-50	38	14	38.3	13	42.7	14.7	42.5	9.7	2.93	1.03	2.93	1.16
51-65	25	15.1	27	20	45.8	5.8	56.2	13.2	2.5	2.12	2.5	2.12
<u>Marital statues</u>												
Single	40.8	12.7	37.5	10.4	40.4	15.6	40.1	8.4	2.86	0.96	2.95	0.86
Married	34.5	15	36.3	15.5	40.7	16.3	40.6	11	2.56	1.19	2.56	1.19
Divorce	42.8	0	41.6	0	50	0	50	0	2.73	0	3	0
<u>Duration of illness</u>												
1-5	42.1	18.7	40.1	10.8	40.6	12.5	41.9	10.3	2.87	1.25	2.94	1.12
6-10	37.2	6.7	34.3	14.2	36.1	20.2	35.4	5.5	2.58	0.79	2.75	0.75
>11	33.3	10.4	35.7	13.6	45.8	13.9	44	10.3	2.67	1.07	2.58	1.16

SD= standard deviation, *All measures scored so that a higher score indicates better QOL. The measures of the domains transformed to (0-100) scale, The measures of the items are of (1-5) scale.