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**QUALITY OF LIFE IN OUTPATIENTS AND INPATIENTS WITH SCHIZOPHRENIA**

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**ABSTRACT**

This study aimed to measure the subjective quality of life (QOL) of 60 patients with schizophrenia were selected non probability and simple selection in two groups by inpatients ( 30 ) and out-patients (30 ). Range of their age was 18-45 years. Quality of life of patinets was evaluated by Wisconsin Quality of life Questioner. This Questioner evaluated 8 domains, which are as follows: general satisfaction, occupations and activities, psychosocial wellbeing, physical health, social relationship, financial status, activities of daily living, symptoms and goals. The data are analyzed by using spss program via Independent T test.

With regards to the result of recent study, mean score of quality of life between this groups was significantly different and out-patients versus in-patients have better quality of life.

Except physical health and symptoms, other domains such as general satisfaction, occupational activities, social relationships, activities of daily living and financial status in out-patients were better.

Long term hospitalization reduces social relationships and participations in occupations and activities of daily living. It seems that reducing duration of hospitalization and early

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rehabilitative interventions in the community that is supplement to the medication, could improve quality of life in these people.

**Key words: Schizophrenia / quality of life/ Wisconsin quality of life questioner/ mental health**

## **INTRODUCTION**

Schizophrenia occurs in approximately 1% of the population worldwide. Compared with native-born individuals, migrants have an increased incidence and prevalence of schizophrenia. Exposures related to urban city, economic status, and latitude are also associated with various frequency measures (1). This disorder is a chronic disease characterized by psychotic symptoms (2). Cognitive impairment and functional decline. Approximately two thirds of the overall effect of a schizophrenia diagnosis on cognitive performance was mediated through a single common factor. The Wechsler subtest scores showed almost uniformly strong relationships with this factor. The independent associations of group status with the subtest scores were smaller in magnitude and only selectively significant.(3). All of these characteristics substantially impact the quality of life (QoL) of patients with schizophrenia(4).Although there is strong evidence that multicomponent treatment involving medication, cognitive behavioral therapy, education, and exercise have beneficial effects on symptoms and functioning, most patients still have impaired

QoL including affective, emotional, and social dimensions. Data were collected on socio-demographics, outpatient clinic attendance, perceived social support, perceived satisfaction with hospital care, medication adherence, illness severity and QOL. Multiple linear regression analysis was used to determine the amount of variance in the QOL domain scores explained by socio-demographic and clinical variables. Employment status, perceived social support, satisfaction with outpatient care, antipsychotic medication dose, Brief Psychiatric Rating Scale (BPRS) scores and medication adherence had significant relationships with all the QOL domains. Average monthly allowance and outpatient clinic default were significantly associated with all QOL domains except social relationship (5,6) (New approaches are therefore needed to act efficiently on QoL (7).

Patients with severe mental illness experience a lower qualityof life (QOL) than the general population. Objective life-conditions were worse in the SMI group than in mentally healthy population and CMD

groups, but the opportunities available to the SMI group were no more restricted than the CMD group. Subjective QOL ratings reflected this; SMI group scores were lower than the healthy population and in some life-domains the CMD group. Models of QOL suggested that life-quality was explained differently in the three groups. QOL studies combining mental health samples should control for health-status group, and domain-specific and global indicators of lifestyle and opportunity (8). QOL provides the patient's perspective as opposed to conventional health indicators such as mortality and morbidity. QoL resulted positively associated to personal and social functioning, while it was negatively related to psychiatric symptoms (9). QOL is a person's sense of well-being, health status and satisfaction with life circumstances, including access to resources and opportunities. Such an outcome is of particular importance in the development of treatments that can help patients with schizophrenia to lead more fulfilling and satisfying lives. QOL is assessable with a variety of validated scales. Development of effective intervention strategies is facilitated by identifying areas influencing on QOL amenable to change. The majority of studies have focused on the impact of psychiatric symptoms and

sociodemographic characteristics on QOL. Positive, negative and depressive symptoms, anxiety, self-stigma and lack of social support have been significantly and negatively associated with QOL (10, 11, 12, 13). Sociodemographic characteristics, including age, employment status and living situation, seem to be correlated with QOL (14). An evaluation of the relation between QOL and physical characteristics, clinical characteristics and smoking could suggest possible intervention areas. Quality of life feedback positively influences patient satisfaction, which confirms the relevance of measuring QoL in clinical practice. The absence of a significant effect of QoL feedback on clinical outcomes also suggests that clinicians did not use these data optimally. Our findings suggest a nocebo effect of QoL assessment without feedback that should be considered by researchers and clinicians (15).

Patients with schizophrenia experienced a significantly lower QOL compared with the general population. High BMI, low ADD and smoking habits were significantly associated with lower QOL in first-ever diagnosed patients, and high BMI and short illness duration were significantly associated with lower QOL in patients with long-term illness (16). Changing these might improve QOL in

patients with schizophrenia. Obesity is associated with decreased HRQoL in Chinese patients with schizophrenia. findings suggest that the prevention and management of weight gain and obesity is important in improving HRQoL in patients who suffer from this devastating mental illness(17).

## **MATERIALS AND METHODS**

### **Design:**

This study is a descriptive- analytical method to examine quality of life in patients with schizophrenia who were hospitalized in care centers and outpatient clients who referred to occupational therapy, day centers. As the patients have been investigated in terms of the variable studied, at a particular time, the study was cross-sectional (non-intervention) and was conducted in a small community.

### **Sample**

The study population includes people with schizophrenia who have at least spent their illness for 2 years. Their ages were between 18-45 years old. The sample population included 30 patients with schizophrenia who were hospitalized in round- the- clock care centers in Tehran and 30 out-patient clients in occupational therapy, day centers. The sampling was conducted in to a simple non-random method and it was basis on output and input criteria in this study.

### **Measures:**

Selecting samples was done in to a simple non-random method among patients with schizophrenia who were hospitalized in care centers and outpatient clients in occupational therapy, day centers.

Demographic data was obtained through patient's file and by the patient. Data on quality of life was obtained through semi-structured interview by using Wisconsin quality of life questionnaire.

First, Articles and resources were collected after studying resources and required investigations about topic, The research was written and suitable tools were determined.

Data was collected by semi-structured interview and completing a questionnaire during the following steps.

In this study, the sampling was done into a simple non-random method in an available population. After getting recommendation from mental clinic school of rehabilitation, Iran university of medical sciences, we referred to care centers of patients with mental disorders, (Tolluh Mahan, psychecomfort and Ehsan house) and day clinics( Sina clinic and mental clinic school of rehabilitation, Iran university of medical sciences) for sampling.

After approval of authorities in these centers, we referred to above centers. After studying files, the samples were determined based on

output and input criteria in this study. For the purposes of work, a room was used with minimum sound stimuli and distraction factors and with good lightening and temperature, and a comfortable seat and a table was used for the patient. First, we talked to person for establishing the first relationship and providing sense of security for him/ her.

Then, the required explanations were given to the patient about the aims of research and the questions were raised by a researcher. After completing testimonial form by patients, demographic data was completed through the file and an interview by researcher. The questionnaire was filled by the presence and supervision of researcher. As subjects had answered to questionnaire directly on quality of life, therapist did not judge the answers. Tester only guided patients in order to clarify questions and he helped them when it was necessary.

**tools:**

In this study, Wisconsin quality of life questionnaire was used for evaluating quality of life. (WQOL). The questionnaire was designed by Bekr and his colleagues in 1993, America and it was reviewed in 1995. the validity of questionnaire was done by Noori and Biabanzadeh in 1373. ( $r=.75$ ).

The main objective of this questionnaire is self- assessment and each domain is assessed based on its importance for evaluating the patient that examines living domain as well as demographic and basic data. Descriptive- statistical indices (mean, standard deviation,..) and analytical statistic (T-test independent, ANOVA) were used by SPSS software.

**RESULTS**

As is shown in **table 1**, from 60 evaluated samples, 30 subjects were in inpatient group and 30 subjects were in outpatient group. All statistical population subjects were diagnosed that they had schizophrenia illness. In hospitalization group, 4 subjects were between 19-27 ages, 9 subjects were between 28-36ages and 17 subjects were between 37-45 ages. Their age mean was 36/1 and standard deviation was 93/5. In terms of marital status, 27 subjects (90%) were single and 3 subjects (10%) were divorced and no one married among them. In terms of education, 5 subjects (16/7%) had elementary education in fifth grade, 8 subjects (26/7%) had guidance education, 14 subjects (46/7%) had high school education and 3 subjects (10%) had academic education. All 30 subjects were unemployed (100%) in hospitalization group. In contrast in outpatient group, 16 subjects were between

19-27 ages, 7 subjects were between 28-36 ages and 7 subjects were between 37-45 ages. Their age mean was 13/31 years old and standard deviation was 1/8 .In terms of marital status, 28 subjects were single (3/93%) and 2 subjects (7/6%) were divorced and no one was married. In terms of

education levels, 2 subjects were (7/6%) had guidance education, 14 subjects (46/7%) had high school education and 14 subjects (46/7%) had academic education. In terms of employment status, 24 subjects (80%) were unemployed and 6 subjects (20%) were employed.

**Table 1: statistical indices of age, marital status, employment and education on subjects (N=60.)**

( n=30) outpatient group		( n=30) inpatient group		<i>age</i>
<b>P</b>	<b>N</b>	<b>P</b>	<b>N</b>	
53/3	16	13/3	4	19-27
23/3	7	30	9	28-36
23/3	7	56/7	17	37-45
8/1	31/13	5/93	36/1	<b>mean</b>
<i>marital status</i>				
93/3	28	90	27	<b>single</b>
0	0	0	0	<b>married</b>
6/7	2	10	3	<b>divorced</b>
<b>education</b>				
0	0	16/7	5	<b>elementary education</b>
6/7	2	26/7	8	<b>guidance education</b>
46/7	14	46/7	14	<b>high school</b>
46/6	14	10	3	<b>academic education</b>
<b>employment</b>				
80	24	100	30	<b>unemployed</b>
20	6	0	0	<b>employed</b>

**Table 2: Mean quality of life (QOL)**

( n=30) outpatient group		( n=30) inpatient group		<b>illness duration</b>
<b>P</b>	<b>N</b>	<b>P</b>	<b>N</b>	
63/3	19	26/7	8	≤ 10
23/3	7	43/3	13	11-19
13/3	4	30	9	≥ 20
6/35	10/5	6/89	15/26	<b>Mean</b>
<b>Start</b>				
83/3	25	83/3	25	14-25
16/7	5	16/7	5	26-34
4/54	20/83	4/77	21/26	<b>Mean</b>
<b>numbers of inpatient</b>				
96/7	29	53/3	16	0-5
3/3	1	46/7	14	6-9

Table 3: Minimum and Maximum quality of life (QOL)

maximum	minimum	SD	Mean	
2/88	-3	1/46	0/36	satisfaction
3	-3	1/62	-0/07	business activities
2/7	-2/4	1/27	0/14	psychological comfort
3	-1/8	1/33	1/51	outlook
3	-3	1/63	0/5	physical health
3	-3	1/65	0/43	social relationship
3	-2/3	1/46	0/19	economic situation
3	-3	1/54	0/71	daily activities of life
2/24	-2/10	0/96	0/48	Quality of life

Table 4: T-Test quality of life (QOL)

P-value	T	outpatient group		inpatient group		
		SD	M	SD	M	
0/002	3/29	1/45	-0/2	1/25	0/94	satisfaction
0/000	3/91	1/36	-0/81	1/55	0/66	business activities
0/18	1/34	1/28	-0/08	1/24	0/36	psychological comfort
0/007	2/79	1/44	1/06	1/03	1/97	outlook
0/571	0/57	1/75	0/38	1/52	0/62	physical health
0/006	2/87	1/65	-0/13	1/45	1/01	social relationship
0/009	2/68	1/63	-0/28	1/1	0/67	protection
0/000	6/75	1/37	-0/3	0/91	1/73	daily activities of life
0/000	5/19	0/82	-0/05	0/79	1/02	Quality of life

According to table in this study, from 30 participants in inpatients group, 8 subjects (26/7%) had spent their illness duration less than 10 years and 13 subjects (43/3%) were between 11-19 ages and 9 subjects (30%) had spent their illness duration more than 20 years. Age of onset for illness was between 14-25 ages for 25 subjects (83/3%) and for 5 subjects (16/7%) was between 26-34 ages .Also based on findings in this study for inpatient group, the numbers of inpatient was between 0-5 times for 16 subjects (53/3%) and 14(46/7%) subjects had experienced inpatient for 6-9 times . in contrast in outpatient group, 19 subjects (63/3%) had spent their illness duration less than 10 years and 7 subjects (23/3%) between 11-19 ages

and 4 subjects (13/3%) had spent their illness duration more than 20 years. Age of onset for illness was between 14-25 ages for 25 subjects (83/3%) and for 5 subjects (16/7%) was between 26-34 ages.

Also based on findings in this study for outpatient group, the numbers of inpatient was between 0-5 times for 29 subject (96/7%) and one subject had experienced hospitalization for more than six times.

Table3 shows indices of statistical mean, standard deviation, the minimum and maximum values obtained in subscales on quality of life (level of satisfaction, business activities, health and psychological comfort, symptoms, outlook, physical health, social relationship, protection, financial situation,

daily activities of life) in statistical population in this study. According to table, we see that the mean of Values obtained in the domain of business activities (-0/07), health and psychological comfort (0/14) and economic situation (0/19) is lower than other subscales. Therefore, in these cases it can be said briefly that quality of life had more damage and symptoms and outlook had the least damage (1/51) with respect to means.

Table 4 is shown the comparison of scores mean in both groups of inpatient and outpatient by using t-test independent statistical method in each of subset of quality

of life. P-value obtained from comparison of total quality of life is smaller than . /5 in both groups. (p=0/00). As the mean of score on quality of life in outpatients is significantly more than inpatient patients, so the assuming that quality of life in outpatients is better than inpatient group is verified. According to table 4, t-test showed that score mean of subsets in domain of quality of life in outpatient group is better than inpatient group. Also, as it is shown, apart from two domains, i.e. health and psychological comfort (p=0/18) and physical health (p=0/571) there is a significant difference between two groups.

**Table 5: ANOVA-Test quality of life (QOL)**

P-value*	F	( n=60 )		( n=24 ) 37-45		( n= 16) 28-36		( n= 20 ) 19-27		
		M(SD)	(SD)	M	(SD)	M	M(SD)			
0/636	0/456	1/46	0/36	1/42	0/14	1/47	0/53	1/54	0/50	satisfaction
0/08	2/641	1/62	-0/07	1/46	-0/56	1/71	-0/08	1/38	0/22	business activities
0/547	0/610	1/27	0/14	1/2	-0/07	1/26	0/35	1/61	0/53	psychological comfort
0/185	1/737	1/33	1/51	1/61	1/15	0/97	1/91	1/12	1/63	outlook
0/391	0/954	1/63	0/5	1/9	0/25	1/51	0/96	0/97	0/43	physical health
0/114	2/258	1/61	0/48	1/5	0/2	1/2	0/01	1/27	1/05	social relationship
0/019	4/256	1/46	0/19	1/67	0/3	1/33	-0/62	0/99	0/71	protection
0/29	3/787	1/54	0/71	1/93	0/22	1/16	0/56	0/97	1/43	daily activities of life
0/111	2/290	0/97	0/51	0/09	0/2	0/87	0/50	0/8	0/81	Quality of life

**Table 6. t-test independent**

P-value	T	unemployment (n=6)		employment (n=54)		
		M(SD)	(SD)	M(SD)	(SD)	
0/89	0/31	1/46	0/38	1/59	0/18	satisfaction
0/03	-1/82	1/65	-0/19	0/80	1/05	business activities
0/26	-1/77	1/27	0/04	0/96	1/0	psychological comfort
0/80	-1/33	1/36	1/43	0/72	2/20	outlook
0/83	-1/04	1/59	0/43	2/01	1/16	physical health
0/37	-0/69	1/68	0/39	1/32	0/88	social relationship
0/16	-1/63	1/47	0/09	1/08	1/11	protection
0/18	-2/75	1/50	0/54	0/92	2/27	daily activities of life
0/22	-2/04	0/97	0/40	0/56	1/23	Quality of life

According to table 5, ANOVA test showed that although the mean of values obtained on quality of life in first group was higher than other two groups, and second and third groups were in next ranks, the difference between groups and within groups weren't significant with significant level ( $p < 0/05$ ) in terms of statistical level. ( $p = 0/111$ ), so assuming that there is a significant difference on quality of life in patients with schizophrenia on different levels of age, is rejected. In table 6, based on t-test independent results, the mean of values

obtained is different for both groups in domain of variable on quality of life. (24-25 ages= 0/45, 26-34 ages= 0/65). However, this difference is not significant with significant level ( $p < 0/05$ ) between 2 groups in terms of statistic and there is no relationship between quality of life in patients with schizophrenia and age variable of onset for illness. ( $p = 0/80$ ), so assuming that there is a significant difference on quality of life in patients with schizophrenia basis on age of onset for illness is rejected in this study.

Table 7. ANOVA test

P-value	F	(n=60) كل		(n=10) 26-34		(n= 50) 1-25		
		M(SD)		(SD)	M	M(SD)		
0/968	0/062	1/46	0/36	/51	0/65	1/46	0/31	satisfaction
0/968	0/002	1/62	-0/07	1/69	0/23	1/62	-1/33	business activities
0/196	1/711	1/27	0/14	0/99	0/70	1/29	0/02	psychological comfort
0/143	2/209	1/33	1/51	1/64	1/47	1/27	1/52	outlook
0/974	0/001	1/63	0/50	1/57	0/72	1/65	0/46	physical health
0/964	0/002	1/65	0/43	1/78	0/41	1/64	0/44	social relationship
0/313	1/035	1/46	0/19	1/30	0/63	1/49	0/10	protection
0/266	1/262	1/54	0/71	1/81	0/40	1/49	0/78	daily activities of life
0/804	0/062	0/96	0/48	0/94	0/65	0/97	0/45	Quality of life

Based on ANOVA test results in table 8 the mean of values obtained is different for 3 groups in the area of variable on quality of life and the difference is significant with significant level ( $p < 0/05$ ) between groups and within groups in the area of statistic. ( $p = 0/01$ ), so assuming that there isn't a significant difference on quality of life in patients with schizophrenia on educational levels ( elementary, guidance, high school and academic ) is verified in this study. In table based on t-test independent results,

although the mean of values obtained is different for both groups in the area of variable on quality of life, (employed subject= 1/23 , unemployed subject= 0/40) . but the difference between two groups isn't significant with significant level ( $p < 0/05$ ) in the area of statistic. ( $p = 0/22$ ), so assuming that there is a significant difference for both married and single groups on quality of life in patients with schizophrenia is rejected in this study.

Table 8: ANOVA test

P-value*	F	(n=60) ≤ 10		(n=13) 20 ≤		(n= 20) 11 -19		(n= 27 ) ≤ 10		
		M(SD)		(SD)	M	(SD)	M	(SD)	M(SD)	
0/29	1/26	1/46	0/36	1/45	0/09	1/48	0/10	1/43	0/69	satisfaction
0/006	5/58	1/62	-0/07	1/64	-0/38	1/34	-0/81	1/56	0/62	business activities
0/07	0/2/70	1/27	0/14	1/28	-0/38	1/28	-0/04	1/17	0/52	psychological comfort
0/0/09	2/43	1/33	1/51	1/42	0/83	1/43	1/59	1/12	1/78	outlook
0/26	1/34	1/63	0/50	2/03	-0/13	1/61	0/77	1/39	0/61	physical health
0/0/12	2/15	1/65	0/43	1/51	-0/16	1/71	0/21	1/59	0/89	social relationship
0/15	1/91	1/46	0/19	1/62	0/25	1/68	-0/30	1/13	0/53	protection
0/17	1/82	1/54	0/71	1/82	0/25	1/66	0/46	1/23	1/12	daily activities of life
0/02	0/04	0/96	0/48	1/20	0/04	0/82	0/28	0/83	0/85	Quality of life

Based on ANOVA test results in table 8 the mean obtained is different for 3 groups in the area of variable on quality of life (less than 10 years= 0/85, 11-19 years =0/28,more than 20 years= 0/48) . This difference is significant with significant level (p<0/05)

between groups and within groups in term of statistic. (p=0/02), so assuming that quality of life in patients with schizophrenia who were hospitalized, has significant difference on the basis of duration of illness, is verified in this study.

Table 9.T-Test quality of life (QOL)

P-value	T	(n=6)6-9		(n=45)0-5		
		M(SD)		M(SD)		
0/98	2/43	0/79	-0/26	1/29	0/58	satisfaction
0/23	2/53	1/34	-0/95	1/62	0/22	business activities
0/24	0/66	1/42	-0/05	1/22	0/2	psychological comfort
0/005	2/05	1/69	0/92	1/13	1/71	outlook
0/12	0/46	1/98	0/33	1/51	0/56	physical health
0/66	1/16	1/71	0/01	1/62	0/58	social relationship
0/60	0/52	1/59	0/02	1/43	0/25	protection
0/89	2/65	1/56	-0/15	0/43	1/00	daily activities of life
0/98	2/43	0/99	-0/01	0/90	0/65	Quality of life

In table 9 based on t-test independent results, although the mean of obtained values is different for both groups in the area of variable on quality of life ( the numbers of hospitalization(0-5)= 0/65 and the numbers of hospitalization (6-9)= -0/01) this difference isn't significant with significant

level (p<0/05) between two groups in the area of statistic (p=0/98), so the assuming that there is a significant difference on quality of life based on numbers of hospitalization, is rejected in this study. The results of research on the basis of evaluating quality of life in Wisconsin

questionnaire indicates that the mean of scores on quality of life in outpatients is different from the mean of scores on quality of life in patients who were hospitalized in care centers and quality of life in outpatients had higher level than hospitalized patients in all domains (level of satisfaction, business activities, health and psychological comfort, symptoms and outlook, physical health, social relationship, economic situation and daily activities of life). These findings are consistent with the findings of Sally Chan and his colleagues. They expressed that hospitalized patients had problems about financial issues, unemployment, lack of social relationship, failure to do activities of daily life, and lack of opportunity for participation in social activities which reduce quality of life and they stated that vocational rehabilitation and improvement of social relationship with drug therapy is important and necessary for improving quality of life for subjects. In addition, they concluded that hospitalized subjects had more problems in domain of physical health than other domain, because mental health specialists may be pay attention more to mental problems and ignore physical health. Also, as these subjects usually have problems for doing daily activities and self-care, so their physical health may be influenced. Hospitalized

subjects had more problems in domain of mental health that result in to lowering their quality of life. Also these findings are consistent with the findings (18). they believed that living in a community results in to increasing of individual participation in social activities and business activities and increasing of social relationship. In fact, they showed that living in a community for patients with mental disorders has priority than hospitalization. They found out this issue through measuring quality of life and comparison of hospitalized patients and patients who lived in a community.

As life has multi-dimensional nature, it has been effected by different factors. Prolonged hospitalization reduces individual participation in domain of social activities, business activities, and results in to reducing of social relationship. It seems that reducing hospital stay and starting rehabilitation as soon as possible based on community, can have a significant impact on improving quality of life of individuals.

have compared quality life of 40 patients with schizophrenia who were being discharged from hospital and showed that outpatients were better than hospitalized patients in all domains (19). have considered quality of life of 40 patients with schizophrenia who were being discharged

from hospital. Most results indicated that most patients were dissatisfied about education status, social relationship, and leisure and they were satisfied about housing, security and transportation. There were some problems in domain of employment (20). Investigated quality of life of 200 patients with schizophrenia who lived in the community. These results showed that there is a low quality of life in domain of quality of living environment, social performance and family and social relationships and all these subjects had some problems in domain of daily activities of life. Based on these finding, some policies must be adopted for providing rehabilitation facilities in a community that is a complementary of drug therapy. These results suggest that there was no significant statistical difference between quality of life in patients with schizophrenia in age groups (19-25), (28-36), (37-45).table (2-2-4) showed that these findings are consistent with the findings of Osman and his colleagues. They believed that there is no relationship between age and the satisfaction of life (21).

stated that there is no relationship between quality of life and different age groups. As it was said that there isn't any relationship between age and quality of life, some researchers suggest that there is an inverse

relationship between quality of life and age. So it can be concluded in this study that aging and its effects on patients with schizophrenia reduces somewhat demand and preferences and subjects adjust their expectations with conditions (22) . Aging, low performance and reducing the amount of success result in to modifying expectations and quality of life which is from interaction between expectations with performance and successes, doesn't change. It should be noted that in this study due to age limit 18-45 years old, and its cross-sectional , we can't offer decisive comment and further studies are essential on a wider age range. These results indicate that there isn't any significant statistical difference between quality of life in single patients with schizophrenia and divorced patients in this study.

have reported that being single is related to low quality of life. These patients have nohusband and wife relationship in their life and they feel lack of usefulness in their life and lack of emotional relationship, so, single patients with schizophrenia may never experience husband and wife relationship or emotional relationships(23).

have reported that there is no significant relationship between marital status and quality of life, and the role of marital status somewhat is unpredictable on quality of

life(24). suggested that there is no relationship between quality of life and marital status(25). Also, stated that there is no relationship between quality of life and marital status which these recent findings are consistent with findings in this research , because there is an unequal in the community in this study due to that no one was married and most of them were single.( 91/1%). Therefore, for obtaining better conclusion, we need more researches in this field (22). According to this study, there was no significant statistical difference between quality of life of unemployed and employed patients with schizophrenia. Osman and his colleagues (209) have reported that there is relationship between quality of life and employment status and employed subjects have better quality of life than unemployed subjects. have concluded that unemployment rate was higher among patients with schizophrenia. In articles, employment and business activities have always been mentioned as one of major problems for patients with schizophrenia. In this study, most of patients were single and most of them have suggested job as an important thing for determining quality of life. Although in this study, the mean of scores on quality of life of employed subjects was somewhat higher than the mean of scores on

quality of life of unemployed subjects, but in this study there was no a significant relationship between employment status and quality of life of patients with schizophrenia which can be due to few samples and also small number of employed samples in this study. (16/6%) and further studies are necessary in this field (26) .

Based on results in this study, there was a significant difference on quality of life of patients with schizophrenia in educational levels (elementary, guidance, high school and academic). These findings are consistent with the findings of Kardosoo and his colleagues. They suggested that low education is associated with the field of social network and if an individual has lower education, enjoys weaker social network and results in to reducing social relationship for an individual and decreasing his participation rate in the community that these factors result in to lowing quality of life. Other studies have reported relationship between low quality of life and low education in domain of schizophrenia illness and they stated its reason that higher education rate is related to individual more fitness in domain of social performance and more satisfaction in life.

It seems that subjects with lower educations have less skills in order to compatible with social needs. suggested that there is no

relationship between quality of life and education(21). The findings of showed that subjects with lower educations have better quality of life(27).

Based on the results in this study, there was no a significant difference on quality of life in patients with schizophrenia in age groups. (14-25, 26-34).bIn addition, for confirming this finding, expressed that there is no relationship between age of onset for illness and quality of life(28).

In this study, there was no significant relationship between the numbers of hospitalization and quality of life. (0-5,6-9).this finding is consistent with the finding of Osman. He stated that there is no relationship between the numbers of hospitalization and relapse with quality of life. However,Sally Chan suggested that there is relationship between quality of life and the numbers of hospitalization. This result is similar to following studies. They stated that after relapsing of illness, the performance of patient faces with more damages. In addition, consecutive relapseis related to Stigma, poverty and unemployment. In addition to, Re-hospitalization is stressful for family and patients and if the numbers of hospitalization is more, quality of life will be lower. In this study, there was significant relationship

between duration of illness (less than 10 years, 11-19 and more than 20 years) and quality of life. Aki Kogo stated that there is no relationship between duration of illness and quality of life. Solanky suggested that there isn't any relationship between quality of life and duration of illness.

The prevalence and high rate of schizophrenia illness has caused that this illness is called as a modern age illness and has attracted the attention of mental health specialists. Patients with schizophrenia have occupied 50% of hospital beds and 75-85% subjects are unemployed. ( the rate of unemployment was 89/1% in this study.) a small percentage of them are married which often leads to divorce.

In addition, studies show that these subjects have serious failures in domain of skills of life, social skills, and daily activities of life, business activities and relationship with social environment. So these subjects need to learn these skills that are effective for improving and promoting their quality of life. These services must be provided by rehabilitation systems. Also the results of this study on quality of life in patients with schizophrenia indicated that the quality of life of patients who were being discharged from hospital and lived in the community, was higher than hospitalized patients and

most patients preferred to live outside of hospital environment.

In this study, we have seen that quality of life in outpatients was better than hospitalized patients in all domains, so there must be attempts to provide therapy and protection for individuals in the community. So, standard therapy for schizophrenia illness must be combination of medical and non-medical therapy.

The main aim of therapy must be improving of quality of life for these subjects in order to help them for obtaining natural / state in daily life.

For these subjects, activities such as teaching of daily skills of life, teaching of social skills and skills for protecting of self result in to rising confidence and providing more realistic level of life for an individual and establishing relationship between the individual and the community.

It mentions about the effect of psychological rehabilitation services in performance of daily activities for an individual, spirit, and hope for recovery and relationships and improving of social skills to cope with their problems. The effect of rehabilitation and vocational rehabilitation on quality of life show that teaching and providing jobs for these patients results in to having more satisfaction in domain of employment,

income, autonomy, daily activities of life and social relationship.

based on results obtained in this study , we can concluded that establishing mental rehabilitation day centers for these special people, that provide rehabilitation facilities, teaching skills of life, teaching daily skills of life, participation in social activities, recreational activities, and even learning a profession and if possible providing employment, can have effect on improvement of quality of life for these people.

#### **DISCUSSION**

QoL is emerging as an important outcome of the treatment of schizophrenia, yet relatively little is known about the factors that influence the QoL of individuals who suffer from this illness. The relationship between psychiatric symptoms and QoL among individuals with schizophrenia has been studied most extensively. However, this research has yet to elucidate how important psychiatric symptoms are to QoL, and which symptoms hold the strongest relations to QoL. To our knowledge, this is the first systematic meta-analysis to examine the effect of any potential contributor to QoL in schizophrenia. The results of this analysis suggest that psychiatric symptoms have a significant, but small, negative relationship

with QoL in schizophrenia, with general psychopathology consistently emerging as the strongest contributor to poor QoL. In addition, findings suggest that positive and negative symptoms are not related to the QoL of all groups of individuals with schizophrenia equally, but that such symptoms may be particularly detrimental to QoL in studies of individuals receiving treatment in the community, and that positive symptoms are only weakly related to QoL in studies of individuals in the early course of the illness. Such findings hold several important implications for treatment development and future QoL studies in schizophrenia research.

The mean physical and environmental QOL in this study are consistent with prior findings in patients with schizophrenia. Mean psychological and social QOL is subject to greater dispersion across studies. The significantly lower psychological QOL in our sample could reflect our naturalistic study design. This ensures a broad and representative sample of patients as opposed to studies with exclusion criteria. For instance, excluded patients who were not on stable medication (29) assessed QOL in patients in six long-term psychiatric facilities for severely mentally ill patients. Of these, 73% suffered from schizophrenia (30).

Physical, psychological and social QOL were significantly higher compared with the results obtained in our study (all  $p < .05$ ), despite the severity of illness in the patients (31). A community-based care program has proven successful in improving QOL in people with severe problems (32). This suggests that QOL is changeable with the right means. Compared with the general population, patients with schizophrenia had significantly lower QOL in all domains, which is in agreement with earlier studies (33).

#### REFERENCES

- [1] McGrath J., Saha S., Chant D. & Welham J. Schizophrenia, : A Concise Overview of Incidence, Prevalence, and Mortality. *Epidemiol. Rev.* 30, 67–76 (2008).
- [2] Bruijnzeel D. & Tandon R: The Concept of Schizophrenia: From the 1850s to the DSM-5. *Psychiatr. Ann.* 41, 289–295. (2011).
- [3] Dickinson D., Iannone V. N., Wilk C. M. & Gold J. M : General and specific cognitive deficits in schizophrenia. *Biol. Psychiatry* 55, 826–833. . (2004).
- [4] Awad & Voruganti: Measuring quality of life in patients with schizophrenia: an update. *Pharmacoeconomics* 30, 183–195 (2012)

- [5] Adelufosi A. O., Ogunwale A., Abayomi O. & Mosanya J. T.: Socio demographic and clinical correlates of subjective quality of life among Nigerian outpatients with schizophrenia. *Psychiatry Res.* 209, 320–325 (2013).
- [6] Hsiao C.-Y., Hsieh M.-H., Tseng C.-J., Chien S.-H. & Chang C.-C: Quality of life of individuals with schizophrenia living in the community: relationship to socio-demographic, clinical and psychosocial characteristics: Quality of life of individuals with schizophrenia. *J. Clin. Nurs.* 21, 2367–2376 . (2012).
- [7] Boyer L., Baumstarck K., Guedj E. & Auquier P: What's wrong with quality-of-life measures? A philosophical reflection and insights from neuroimaging. *Expert Rev. Pharmacoecon. Outcomes Res.* 14, 767–769 . (2014)
- [8] Evans, S., Banerjee, S., Leese, M., & Huxley, P. The impact of mental illness on quality of life: A comparison of severe mental illness, common mental disorder and healthy population samples. *Quality of Life Research*, 16, 17–29.(2007).
- [9] Galuppi, A., Turola, M. C., Nanni, M. G., Mazzoni, P., & Grassi, L: Schizophrenia and quality of life: How important are symptoms and functioning. *International Journal of Mental Health Systems*, 4, 31–39.. (2010).
- [10] Brissos, S., Balanzá-Martinez, V., Dias, V. V., Carita, A. I., & Figueira, M. L. :Is personal and social functioning associated with subjective quality of life in schizophrenia patients living in the community? *European Archives of Psychiatry and Clinical Neurosciences*, 261, 509–517.(2011).
- [11] Mosanya, T., Adelufosi, A., Adebawale, O., Ogunwale, A., & Adebayo, O. Self-stigma, quality of life and schizophrenia: An outpatient clinic survey in Nigeria. *International Journal of Social Psychiatry*, 60, 377–386.(2014).
- [12] Noerholm, V., & Bech, P :Quality of life in schizophrenic patients: Association with depressive symptoms. *Nordic Journal of Psychiatry*, 60, 32–37.(2006).
- [13] Van de Willige, Wiersma, Nienhuis, & Jenner: Changes in quality of life

- in chronic psychiatric patients: A comparison between EuroQOL (EQ-5D) and WHOQOL. *Quality of Life Research*, 14, 441–451(2005)
- [14] McGrath J., Saha S., Chant D. & Welham J. Schizophrenia: A Concise Overview of Incidence, Prevalence, and Mortality. *Epidemiol. Rev.* 30, 67–76 (2008).
- [15] Boyer, L., Lançon, C., Baumstarck, K., Parola, N., Berbis, J., & Auquier, P, Measuring quality of life in patients with schizophrenia: an overview. *Expert Rev. Pharmacoecon. Outcomes Res.* 13, 343–349 (2013).
- [16] Afzalan M. [Elevation of quality of life in psychiatric patient's family (Persian)]. Thesis for Bachelor of Science social in worker. University of Social Welfare & Rehabilitation Sciences; 2002, pp: 30-62.
- [17] Guo, X., Zhang, Z., Zhai, J., Wu, R., Liu, F., & Zhao, J :The relationship between obesity and health-related quality of life in Chinese patients with schizophrenia. *International Journal of Psychiatry in Clinical Practice*, 17, 16–20.18. Lehman and his colleagues. (2013).
- [18] Rozlor and his colleagues : Palma N, Prince C. Subjective Quality of life in the evaluations of programs for people with serious mental illness. *Quality of life research* 2000, 5:1010-1034. (1996)
- [19] Mahlemand : Karbalaie Noori A. [Evaluation of community-based rehabilitation effect on quality of life of schizophrenic patients in shahid Esmaili center (Persian)]. Thesis for master of sciences in Occupational Therapy . Iran University of Medical Sciences; 1998 , pp: 38-49(1981)
- [20] Mubarak A. Social functioning and quality of life of people with schizophrenia in the northern region of Malaysia. *Australian e- journal for the advancement of mental health*, 4: 1446-7984(2005)
- [21] Kugo A, Tereda S. Quality of life for patients with schizophrenia in a psychiatric hospital. *Elsevier Psychiatry Research*, 144 : 49-56 (2005)
- [22] Cardoso C, Banderia M. factors associated with low quality of life in schizophrenia. *Rio de Janeiro*, 4: 1338-1384(2005)

- [23] Shair D, Turbo D. social support and quality of life among psychiatric patient in residential homes. The international journal of psychosocial rehabilitation,;11-85. (2007)
- [24] Osman CB, Badli MM. The Comparison of quality of life among patients with schizophrenia and major mood disorder in remission in hospital university Kebangsan Malaysia. Hong Kong J Psychiatry;19: 4-10(2009)
- [25] Chan S, Wai Y. Quality of life of clients with schizophrenia. Journal of advanced nursing, ,45: 72-83 (2004)
- [26] Kang Sim and his colleagues : Sim K, Mahendram R, Samuel J. subjective quality of life in first episode schizophrenia spectrum disorders with comorbid depression. Psyciatry Research, ( 2004 ); 129 : 141 -147(2004)
- [27] Solanky and his colleagues: Solanki RK, Singh P. Schizophrenia: impact on quality of life. Indian J Psychiatry, (2008)
- [28] Mitchell, A. J., Vancampfort, D., Sweers, K., Van Winkel, R., Yu, W., & De Hert, M. Prevalence of metabolic syndrome and metabolic abnormalities in schizophrenia and related disorders – A systematic review and meta-analysis. Schizophrenia Bulletin, 39, 306–318(2013).
- [29] Hjorth, P., Davidsen, A. S., Kilian, R., Eriksen, S. P., Jensen, S. O. W., Sørensen, H. O., & Munk-Jørgensen, P. Improving the physical health of long-term psychiatric inpatients. Australian and New Zealand Journal of Psychiatry, 48, 861–870.. (2014).
- [30] Boyer, L., Lançon, C., Baumstarck, K., Parola, N., Berbis, J., & Auquier, P. (2013). Evaluating the impact of a quality of life assessment with feedback to clinicians in patients with schizophrenia: Randomised controlled trial. British Journal of Psychiatry, 202, 447–453.
- [31] Roeg, D., Goor, I., Voogt, M., Assen, M., & Garretsen, H :Effects of interventional care: A community-based care program for persons with severe problems on several life areas. International Journal of Social Psychiatry, 60, 584–594.. (2014).
- [32] Yen, C., Cheng, C., Huang, C., Yen, J., Ko, C., & Chen, C, Quality of life and its association with insight, adverse effects of medication and

use of atypical antipsychotics in patients with bipolar disorder and schizophrenia in remission. *Bipolar Disorders*, 10, 617–624. (2008).