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Quality of Life of Schizophrenia Patients: A Review

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Abstract

The study of quality of life (QOL) of schizophrenia patients has gained prominence in the last two decades, especially after the introduction of the second generation antipsychotic drugs. As a result of improved prognosis QOL is now considered as a significant outcome measure of schizophrenia treatment, yet the determinants of QOL for schizophrenia patients are not well known. Earlier treatment of positive symptoms was given more importance and less attention was given to treating long term impairment and chronic illness. Now the goal of treatment is to give the patient good quality of life. This is of paramount importance in disorders like schizophrenia where a complete cure is achieved in less number of patients while in the majority there are relapses or long term impairment due to illness.

Keywords: Quality of life; Psychiatric disorders; Treatment.

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Introduction

Schizophrenia is a clinical disorder of unpredictable but profoundly disruptive psychopathology that involves positive, negative, and cognitive symptoms. The disorder affects cognition, emotion, perception and other attributes of conduct. The disease runs a chronic course with variable outcome. The effect of the disorder is always serious and long lasting. Since its initial description various aspects of schizophrenia has been a subject of debate; whether it is a disease of organic etiology, a group of separate entities, a syndrome, a reaction to stress, or an accumulation of maladaptive behaviors. The earliest description of schizophrenia is found in Ayurveda where Charaka described schizophrenia patients as gluttonous, filthy, naked with loss of memory. Krepelin in 1896 used the term dementia precox referring to mental deterioration starting early in life. Bleuler in 1911 coined the term schizophrenia, considering the illness to be a group of disorders rather than a single entity. He described the four primary symptoms-autism, ambivalence, loosening of association and affective flattening as the core of the disorder. Later Schneider identified elevensigns whose presence in the absence of course brain disease was strongly suggestive of a

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diagnosis of schizophrenia and named them as symptoms of first rank. Till the early part of the previous century the outlook for the disorder was bleak. With the advent of electroconvulsive therapy and antipsychotics the prognosis did improve. However, despite advances in treatment many patients are left with long term impairment.

Quality of Life

Now-a-days evaluation of quality of life (QOL) has developed into a significant measure of treatment outcome and well-being of persons affected by psychiatric disorders including schizophrenia.[1–3] Because of its severe and persistent nature, schizophrenia has major consequences for the general health, performance, autonomy, subjective well-being and life satisfaction of those afflicted with it.[4] Many of these patients have lifelong disability, meager income, substantial family stress and may be disconnected from their significant others. Due to the chronicity of the disorder and partial relief of symptoms with treatment, large numbers of patients live in long stay facilities and fail reach adult landmarks as getting married, having children, and being gainfully employed. The subjective QOL of chronic schizophrenia patients have been described using the QOL interview. The findings indicated that, compared with normal controls, individuals with schizophrenia had lower ratings for all QOL indices except satisfaction with health. The largest difference in QOL between schizophrenia patients and the normal control subjects were in the areas of occupation, finances and social life.[5–6] In addition patients with schizophrenia have significantly lesser QOL compared to patients with other psychiatric diagnoses.[7] In 120 outpatients with schizophrenia both objective and subjective life conditions indicated an impaired QOL. The greatest number of discontented subjects were in the domains of work and finance. Clinical factors such as psychopathology strongly influenced the patient's life satisfaction, while demographic characteristics hada feeble effects on the patients self-assessed QOL.[8]

Leisse & Kallert assessed social integration and QOL of schizophrenia patients in complementary care using five groups of patients who lived in a variety of psychiatric facilities or at home either with or without family support. The study examined psychopathology, extent of social disability, subjective QOL with an emphasis on social relationships, recreation, general independence. The five groups differed with respect to socio-demographic variables and the degree of social disabilities. The group differences were particularly evident in the areas of daily social life and leisure activities, highlighting the need for further development of complementary systems of psychiatric care.[9] Priebe et al. evaluated 86 first episode schizophrenia patientsand 51 patients with long-term schizophrenia for objective and subjective QOL. Results were compared with samples of inpatients and outpatients with long term schizophrenia. It was found that subjective QOL was lower in the first episode schizophrenia patients compared to those with long term illness and it changed little with time.[10]

In terms of demographic variables, marital status and gender are believed to be unrelated to subjective QOL.[11–13] However, Shtasel and colleagues reporting on unmedicated schizophrenia subjects, found that females had higher QOL than males.[14] Further, married patients had higher global satisfaction.[5] Studies on the relationship of age with subjective life quality has given contradictory results, including negative correlations[11–13] as well as no correlation.[5]

An Indian study reported that on the WHOQOL - BREF scale subjects with Schizophrenia obtained the least scores on social relationship domain, which was significantly negatively correlated with occupation. Patients who were employed patients obtained better scores on this domain of WHOQOL-BREF. Total monthly income was significantly positively correlated with scores on the social relationship domain and total scores of WHOQOL-BREF. On PANSS scores on positive subscale and total scores were significantly negatively correlated with physical, psychological, social relationship domains and total QOL. Negative subscale PANSS had significant negative correlation with physical and psychological domains and total QOL. General psychopathology subscale of PANSS had significant negative correlation with all subscales of QOL.[15]

In 30 community living schizophrenia patients on medication and equal number of age and sex matched normal controls assessed with WHOQOL and stigma and discrimination scale it was found that 46% of schizophrenia patients faced high stigma and had significantly lower QOL scores. QOL scores were correlated with poor physical conditions, psychological state, environmental factors as well as lack of social support but not with stigma.[16]

Subjective and Objective QOL in Schizophrenia

In schizophrenia subjects psychopathology, as determined by total Brief Psychiatric Rating Scale (BPRS) score, correlated negatively with global life satisfaction and subjective QOL subscales, but not with objective ones. Analysis revealed that subjective measures of QOL were more affected by negative.[17]

In outpatients with schizophrenia there was an inverse relation between patients subjective QOL and their score on the PANSS and the number of psychiatric outpatients visits.[18] A study of 90 first admitted schizophrenia patients found that QOL in schizophrenia is affected by illness as a result of the complex interaction between psychopathology and gender related variables.[19] In 80 individuals with schizophrenia scores on subjective and objective QOL measures were found to be markedly different. It was observed that patients of schizophrenia with symptoms of depression assessed their QOL lower and obtained lower scores on subjective QOL. On the other hand those with poor insight assessed their QOL higher. Future research should take this factor into consideration.[20]

QOL and psychopathology in schizophrenia

Studies evaluating QOL of subjects with schizophrenia have recognized some important influential factors, including social support,[21] unmet need[22] and side effects of drugs.[23] The consensus is that QOL in schizophrenia is significantly negatively impacted by negative symptoms and general psychopathology (e.g., anxiety, depression). On the other hand mixed findings have been reported as far as positive symptoms are concerned.[24] There are substantial variations in the size of the associations among negative symptoms, general psychopathology, and QOL. While few studies have reported large relationships among these measures,[25,26] other studies observed only moderate to small associations.[27,28]

Meltzer and associates reported a link between negative symptoms and QOL, but they also demonstrated a correlation with positive symptoms.[11] However, severe negative symptoms, the presence of tardive dyskinesia, and long duration of illness are all associated with lower QOL.[12] In 70 patients of schizophrenia with mean age 58 years, HRQOL was affected by symptoms of psychosis, psychosocial factors and social maladjustment.[29] Another study found that the severity of negative symptom was not related to poorer QOL but significantly positively correlated with later work-related difficulties, financial dependence, impaired social relationships, inability to enjoy recreational activities and impaired global assessment of functioning.[30]

In 128 schizophrenia patients QOL scores were associated with positive and negative symptoms and the level of functioning. QOL in schizophrenia was more highly related to negative rather than positive symptoms.[26] In a study toexamine the differential relations among psychiatric symptoms and the QOL of inpatients and outpatients with schizophrenia, it was found that negative symptoms and general psychopathology had a markedly stronger relationship with the health-related QOL of elderly outpatients with schizophrenia.[31] Lehman in his study found that low scores on QOL were associated with high ratings on depression and, to a lesser degree, anxiety.[32,33] Patients with depression and anxiety are likely to observe lives in more negatively than real circumstances, resulting in distortion in appraisal of subjective QOL. Several authors reported negative correlation between depression and QOL. These studies however were mostly about subjective QOL. Reine et al. reported a strong association between QOL in schizophrenia patients in a stabilized phase of the disease and depression. QOL was influenced more by depression rather than symptoms of psychosis. Also, in view of the weak correlation between subjective and objective assessment of QOL, the authors recommended simultaneous evaluation of QOL from subjective and objective perspective.[34]

In a cross-sectional study of 80 patients with schizophrenia having duration of illness over 1 year and discharged from a hospital at least 6 weeks earlier were assessed with the PANSS, the St. Hans Rating Scale for Extrapyramidal Syndromes, the UKU Side Effect Rating Scale, the Drug Attitude Inventory, and the Lancashire QOL Profile. The results showed that more than half of all patients were satisfied with their life in general. Subjective dissatisfaction was mainly concerned with mental health and partnership. Higher QOL was associated with cognitive symptoms and employment status, while the depression and anxiety component of the PANSS, parkinsonism, and a negative attitude toward antipsychotic medication negatively influenced the QOL.[35] Gorna et al. evaluated 46 male and 26 female patients of schizophrenia using the WHOQOL-BREF, Social Functioning Scale (SFS) and Calgary Depression Scale for Schizophrenia (CDS) to assess depressive symptoms and its influence on subjective and

objective QOL showed moderate correlation with objective and strong correlation with subjective measures of QOL. The authors concluded that both subjective and objective QOL in schizophrenia is influenced by clinical symptoms of schizophrenia and depression.[36] Positive symptoms and depression were the main clinical factors affecting HRQOL in 157 stable outpatients with schizophrenia.[37]

In schizophrenia patients a number of studies have found strong relationships among general psychopathology, negative symptoms, and QOL in the early course of the illness.[10,38,39] Impaired cognitive function identified by interview-based assessment in 79 schizophrenia outpatients with severe negative symptoms, were a strong predictor of QOL.[40]

Suttajit and Pilakantain evaluated 80 individuals with schizophrenia and found that negative symptoms, low mood, and poor contact with loved ones were the most important predictors of poor QOL. However, positive symptoms, disorganized thought, anxiety/depression, decreased social support and adverse life events were also correlated with QOL.[41]

Although no studies have compared the relations between psychiatric symptoms and QOL for individuals with chronic verses first-episode psychosis, it seems plausible that the recent onset of such a debilitatingillness may enhance the impact of the symptoms of this illnesson QOL. Unfortunately, studies have yet to examine how the relationshipbetween psychiatric symptoms and QOL changes throughout thecourse of schizophrenia and fully elucidate whether such symptomspose increased threats to the QOL of individuals living in thecommunity.

Insight and QOL

In 17 schizophrenia patients discharged from the hospital and recovering from a relapse, QOL was associated with positive symptoms and misattribution on the Scale for Assessment of Unawareness of Mental Disorder (SUMD). No significant correlations were noted between neuropsychological deficits and QOL.[42]

Doyle et al. assessed the manner in which insight influenced schizophrenia patients. He evaluated objective life conditions and the concurrent validity between patients' and clinicians' assessments of patients' global QOL in 40 patients. It was found that in patients with good insight there was a significant correlation between objective and subjective indicators of QOL and also between subjective and external evaluations of global QOL. It was concluded that in schizophrenia subjects with impaired insight the self-report methodology for assessing QOL may not be useful.[43] Ilanit et al. reported that improved insight into having a psychotic disorder was related to reduced emotional well-being, lower vocational status, and less economic satisfaction. Insight into the necessity for, taking treatment was positively correlated with higher emotional well-being. Insight had no relation to the symptoms of psychosis.[44] Another study revealed that remitted individuals with bipolar disorder (BD) and schizophrenia had equally low levels of QOL in all four domains and both subjects with BD and schizophrenia had lower QOL than those in the control group. In individuals with either disorder, insight was negatively associated with QOL on the physical domain, and adverse effects of medication were negatively associated with QOL on the physical and environment domains.[45]

The lack of insight and its influence on subjective QOL and functional capacity was examined by Ashley et al. Results showed that insight interacts with negative symptom severity to predict subjective QOL, while severity of negative symptoms and insight contributed directly to functional capacity. It was concluded that individuals with intact insight are better able to manage their symptoms resulting in improved QOL.[46] A recent review concluded that good clinical and cognitive insight is associated with depression and poorer self-reported QOL.[47]

Neural substrates of QOL

Patients of Schizophrenia who obtained low scores on QOL were found to have lower Grey Matter (GM) Magnetization transfer ratio (MTR) values in the bilateral temporal pole (BA38), the secondary visual cortex (BA18), bilateral insula, vermis and the cerebellum as compared to patients of Schizophrenia with unimpaired QoL.

Significant correlations between MTR values and QoL scores (p <0.005) were observed in the GM of patients in the right temporal pole (BA38), the bilateral insula, the vermis and the right cerebellum. Microstructural changes in areas forming a part functional networks involved in emotional and social interactions processes is related to low QOL in schizophrenia subjects.[48]

QOL and Antipsychotic Medication

Antipsychotic medication is the mainstay of treatment of schizophrenia. The pharmacotherapy of schizophrenia has undergone substantial changes. Research over the past decade has shown that about 80% of patients with schizophrenia respond to drugs, of these 20% recover well after the first attack but 60% and the 20% who do not respond require psychosocial intervention. The discovery of chlorpromazine in early 1950s may be the most revolutionary contribution in the treatment of schizophrenia. Later on other typical antipsychotics were used but these had annoying and debilitating side effects. After the discovery of newer or atypical antipsychotics patients felt more comfortable on medications because these had fewer side effects. These second generation antipsychotics have now become the dominant agents for treating schizophrenia. These agents are related with improved outcome and good psychosocial treatment and rehabilitation.Variety of factors influences the outcome of QOL of patients on antipsychotics. These are side effects, daily dosing, and treatment time, tolerability of medications, impact on cognitive functions, negative and depressive symptoms, compliance, previous experience with medications and social functioning.[49] Michael et al. in 161 stable schizophrenia patients being treated with first or second generation antipsychotics found that both group of subjects had comparable QOL ratings. However, the presence of adverse effects of antipsychotics was associated with reduced ratings in QOL domains of subjective feelings and general activities.[50] In 309 patients randomized to receive olanzapine and haloperidol, the comparison did not show any advantage of olanzapine over haloperidol in terms of treatment adherence, symptoms, EPS and QOL. Benefits in terms of reduction in akathesia and improved cognition were weighed against higher costs and weight gain with olanzapine.[51] Inwon et al. examined an association between the type of antipsychotic drugs administered and the QOL of patients with schizophrenia attending rehabilitation programs in community settings. It was found that QOL of patients on atypical antipsychotics was higher in comparison to patients on conventional antipsychotics even when results were adjusted for age, sex and other socio-demographic variables.[52]

Study by Lieberman et al. with schizophrenia patients receiving olanzapine, quetiapine, ziprasidone, resperidone or perphenazine showed that the common reasons for discontinuing medications was lack of effect or intolerability. Olanzapine had lower discontinuation rate but had different set of side effects but other SGAs were similar to each other and to perphenazine in terms of effectiveness.[53] A study done by Peter et al. to see the effect on QOL of atypical versus conventional neuroleptic medications in subjects with schizophrenia showed that there was no disadvantage in terms of QOL, symptoms and associated costs of care in using first generation antipsychotics rather than second generation.[54] An observational study by Kilian et al. supported this study.[55] Ann and Ahemed compared QOL in schizophrenia patients on first and second generation antipsychotics taking 50 patients on conventional medication and 76 patients on atypical antipsychotic medication. Atypically treated patients showed better QOL than conventionally treated patients.[56] Study by Nuss and Tessier concluded that use of amisulpride in schizophrenia improves the overall QOL.[57] It has been seen in most of the studies that newer antipsychotics results in better QOL and functional outcome. They have good tolerability, less side affects but they are costly in comparison to conventional antipsychotics which can affect the long term compliance of medication. Moreover QOL doesn't depend solely on medications but on resources of rehabilitation and social adjustment.

QOL in Deficit and Non-deficit Schizophrenia

In 1980s deficit schizophrenia was described. This subtype of schizophrenia was characterized by prominent idiopathic or primary negative symptoms. On the other hand nondeficit schizophrenia was characterized by prominent positive symptoms. Patients with deficit schizophrenia differ from other patients of schizophrenia in terms of risk factors, course of illness, family history, functional and structural variables, neurocognitive measures and response to treatment. There is less comorbidity with substance abuse, anxiety and depression. Delamillier et al. assessed QOL in 30 deficit and 112 nondeficit schizophrenia patients. The two groups of patients did not wary in terms of general psychopathology, total score of positive symptoms, or QOL. It was suggested that primary negative symptoms has no impact on subjective QOL.[58]

QOL and relapse in schizophrenia

Boyer et al. (2013) reported that in schizophrenia patients at 2 years follow up QOL as assessed by SF 36 is an independent prognosticator of recurrence of the illness. This area requires further evaluation.

Conclusion

QOL is a vital concept in Psychiatry. Since disorders like Schizophrenia may not respond completely to therapy in many cases the stress is now on improving the QOL of patients. Studies indicate that QOL in schizophrenia is affected by a number of factors including negative, positive and cognitive symptoms, insight, type of medication, side effects of medications, poor physical conditions, psychological state, environmental factors as well as lack of social support.

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