



## Original Research

# Difference in Quality of Life before the Onset of Psychotic Symptoms in Schizophrenia- A Retrospective Study

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## Abstract

**Introduction:** *Quality of life is an important assessment domain in acute and remitted phase of schizophrenia. However considering the view of poor social adjustment and neuropsychological deficits even in prepsychotic phase of illness, it would be important to know how the patients performed on quality of life domains before the onset of symptoms in schizophrenia.*

**Materials and Methods:** *A retrospective study was conducted with population of 25 male and 25 female patients of schizophrenia. The study was hospital based and cross sectional assessment of quality of life (QoL) was done prior to onset of illness during best six months of functioning prior to 5 years of onset of illness in both population groups.*

**Results:** *QOL was assessed by WHO QOL-BREF in four different domains. In all the domains, no significant difference was found (Domain1,  $p=.24$ , Domain 2,  $p=.71$ , Domain 3,  $p=.42$ , Domain 4,  $p=.53$ ).*

**Conclusions:** *There was no difference in quality of life in male and female patients of schizophrenia before onset of psychotic symptoms. So it can be regarded as quality of life is a different construct and is not solely dependent on neuropsychological deficits or social dysfunction especially prior to onset of symptoms of schizophrenia.*

**Keywords:** *Quality of Life (QoL) before onset of psychosis, WHOQOL-BREF, Schizophrenia.*

## Introduction

Quality of life is defined by the World Health Organization as the "individual's 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". This definition reflects the subjective point of view as an inherent innovative aspect of quality of life, and hence, the best person to assess its own quality of life is the individual himself. Alternatively it can also be defined as a person's sense of wellbeing and satisfaction with his/her

life circumstances, as well as a person's health status and access to resources and opportunities. However, there are still doubts as to whether patients with schizophrenia are capable of self-assessment of their quality of life because of their cognitive deficits and lack of insight into their illness. In many studies it is also measured objectively. One study found that relationships between objective and subjective quality of life presents a relatively clear picture, in as much as the objective QoL scores were connected with their corresponding subjective QoL scores.<sup>[1]</sup>

Quality of life assessment is based on the principle of applying medical care and interventions, bearing in mind patients' right of autonomy, which necessarily includes taking into account their opinion during diagnostic evaluation and in formulating their care plan.<sup>[2]</sup> Clearly, such an outcome is of particular importance to researchers aiming to develop treatments to help individuals with schizophrenia to lead more fulfilling and satisfying lives.<sup>[3]</sup> One factor consistently shown to be negatively associated with QoL is psychiatric symptoms. However, due to wide variations in measurement strategies and definitions of QoL, it has been difficult to identify which psychiatric symptoms are most strongly associated with poor QoL in individuals with schizophrenia.<sup>[4]</sup> One study calculated quality of life five years prior to hospitalization with eight measures derived from interview- occupational impairment, financial dependence, impairment in performing household duties, relationship impairment with friends, enjoyment of recreational activities, overall psychosocial functioning, GAS score and the measures with corresponding measures of premorbid adjustment and called it premorbid functioning.<sup>[5]</sup> They reported poor premorbid functioning in schizophrenia.

Assessment of Quality of life prior to onset of psychotic symptoms is a novel approach. In studies done previously, difference in other important domains e.g. - neuropsychological functions and social adjustment during premorbid

period have reported significant difference in male and female patients of schizophrenia. So, next logical step would be to determine any significant difference exist in quality of life prior to onset of psychotic symptoms of schizophrenia.

### Materials and Methods

Total sample size of population was kept as 50 out of which 28 were male patients and 22 were female patients of schizophrenia. All the patients were age matched. The diagnosis of schizophrenia was established by 2 independent psychiatrists in previous visit(s) in outpatient or in- patient based on ICD-10 DCR criteria. Sample was taken by purposive sampling method. Only the patients in the resolution stage of illness was taken in the study. Resolution was defined based on the criteria proposed previously- 8 domains of PANSS – delusions, unusual thought content, hallucinatory behavior, conceptual disorganization, mannerism/ posturing, blunted affect, social withdrawal and lack of spontaneity should be rated 3 or less in each domain.<sup>[6]</sup> Patients in resolution stage of the disease were taken so that proper information about their quality of life could be gathered from patient. Information was also collected from patient's informant living with them during the period before onset of psychotic symptoms. Only those patients were taken whose onset of illness were between 20-40 years so that contamination of the data from early and late onset schizophrenia could be avoided. Written informed consent was taken from all the patient and informants before participation in the study. In case of illiterate patients consent was taken by reading it out in presence of 2 witnesses. After consent, quality of life (QoL) prior to onset of illness was assessed during best six months of functioning prior to 5 years of onset of illness between male and female patients of schizophrenia. Such a duration criteria has been used in prior study to avoid contamination of data from symptoms of prodromal period.<sup>[5]</sup> Quality of life was assessed by WHO QOL-BREF (Field Trial Version) scale.

<sup>[7]</sup> WHO QOL-BREF scale validity is proved in many studies. <sup>[8, 9]</sup> WHO QOL-BREF is a 26 item rating scale. The items are scored on a continuum of 1 to 5. WHO QOL-BREF assesses quality of life in four domains- domain 1 for physical health, domain 2 for psychological, domain 3 for social relationships and domain 4 for environment. Physical health domain include activities of daily living, dependence on medical aids, energy, mobility, pain, sleep/ rest and work capacity. Psychological domain includes body image and appearance, negative/ positive feelings, self esteem, spirituality, thinking, learning, memory and concentration. Domain 3 includes social/ personal relationship, social support and sexual activity. Domain 4 includes financial resources,

freedom, physical safety and security, and health and social care.

### Results

Quality of life domain 1 score which assesses physical health, in males was  $69.48 \pm 5.17$  and in females  $67.76 \pm 4.99$ . The 2 tailed p value was .24 and non-significant. Domain 2 which assesses psychological health, score in males was  $68.80 \pm 6.0$  and in females  $68.12 \pm 8.20$ . The p value was non-significant ( $p=.71$ ). Domain3 assesses social relationships. Score in males was  $65.56 \pm 9.4$  and in females  $67.76 \pm 9.55$ . 2 tailed p value was not significant ( $p=.42$ ). Domain 4 assesses environment. QoL score was  $66.64 \pm 9.4$  in males and  $68.00 \pm 4.9$  in females. Again p value was not significant ( $p=.53$ ).

**Table 1** Group differences of Quality of life (QoL) prior to onset of illness assessed during best 6 months of functioning prior to five years of onset of illness between male and female patients of schizophrenia

Variables	Male (n=28) (Mean $\pm$ SD)	Female (n=22) (Mean $\pm$ SD)	t	df	p
Qol Domain 1	$69.48 \pm 5.17$	$67.76 \pm 4.99$	1.19	48	.24
Qol Domain 2	$68.80 \pm 6.01$	$68.12 \pm 8.21$	.37	48	.71
Qol Domain 3	$65.56 \pm 9.46$	$67.76 \pm 9.55$	-.82	48	.42
Qol Domain 4	$66.64 \pm 9.48$	$68.00 \pm 4.90$	-6.37	48	.53

\*Significant at  $p \leq .05$  (2 tailed)

### Discussion

The present study was done with some improvements. Diagnosis of schizophrenia was made by 2 independent psychiatrists so that biasness at diagnosis can be minimized. Patients were age matched so recall bias could be kept at manageable level. Age range was kept at such level that contamination with both extreme ages of onset of disorder can be avoided. Only patients in resolution stage of disorder were included to have more reliable information. Quality of life was assessed in pre psychotic phase of illness. Quality of life was assessed during the best 6-months of functioning in the period of 5 years prior to onset of symptoms so that contamination with prodromal period can be avoided or minimized. One previous study assessed QoL five years before hospitalization. <sup>[5]</sup> According to said study, it may provide more comprehensive assessment of

function of the patient during the period before the onset of disorder. Only in the said previous study, quality of life was assessed prior to onset of psychosis. In the present study, no domain of QoL during said period was having significant difference in male and female patients of schizophrenia. Difference in other domains prior to onset of psychosis has been reported in male and female patients of schizophrenia in prior studies. In one study, premorbid adjustment was different in male and female patients of schizophrenia with males demonstrating poorer levels.<sup>[10]</sup> It can be presumed that quality of life is different from social adjustment and would be determined by more specific features. In other study FDRs of schizophrenia were having more neuro-psychological deficits compared to normal population.<sup>[11]</sup> Neuro-psychological deficits are also reported in pre-psychotic phase of

schizophrenia. However neuro-psychological deficits may not impair quality of life during pre-psychotic phase but may impair during psychotic, resolution and remission phases. Later finding has been established in studies. Probably severity of neuropsychological dysfunction would be more after onset of psychosis causing impairment of quality of life in male and female patients. However the presumed association needs to be determined in future studies in pre-psychotic phase of illness of schizophrenia.

### Conclusion

In India, this is the first study which tries to explore differences in the quality of life before the onset of symptoms of schizophrenia. According to the present study, male and female patients of schizophrenia did not differ in quality of life significantly. So it may be presumed that although there is differences found in premorbid adjustment (social adaptation achieved during different psychosocial stages) and neuropsychological function before the onset of schizophrenia, there is no such difference present in quality of life in male and female patients of schizophrenia.

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