STRESSFUL LIFE EVENTS AND QUALITY OF LIFE IN SCHIZOPHRENIA: A GENDER-BASED ANALYSIS

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Abstract

Background: Psychosocial stressors and quality of life (QoL) play a central role in the course of schizophrenia. Gender may influence these domains differently.

Objective: To assess and compare stressful life events and QoL between male and female schizophrenia patients. Explore the relationship between stressful life events and quality of life in schizophrenia with a gender-based perspective.

Methods: Sixty drug-naïve, first-episode schizophrenia patients (30 male, 30 female) were assessed using the Presumptive Stressful Life Events Scale (PSLES)and WHOQOL-BREF.

Results: Males reported significantly more stressful life events (mean 5.37 vs. 2.97, p<0.01) and higher stress scores (180.0 vs. 129.5). Conversely, females had better quality of life scores across physical, psychological, and social domains (total QoL 83.5 vs. 74.3, p<0.05).

Conclusion: While male patients experience greater stress exposure, female patients demonstrate relatively preserved quality of life. Tailored interventions targeting stress management in men and psychosocial support for women may enhance recovery.

Key word: schizophrenia. Stressful, psychological, social domains, quality of life(QoL), drug-naïve

INTRODUCTION

Schizophrenia is a chronic psychiatric disorder marked by disturbances in thought, perception, emotion, and behaviour [1]. Although prevalence is relatively uniform worldwide, its course and

outcomes vary considerably [2]. Gender is now recognized as an important factor influencing age of onset, symptom profile, treatment response, and long-term functioning [3,4].

Stressful life events are well-known precipitants in the onset and relapse of schizophrenia [5]. They affect both symptom severity and illness trajectory. Evidence suggests that men and women differ in exposure to stress, coping patterns, and vulnerability [6]. Men often face greater occupational and interpersonal stress, while women may show stronger emotional reactivity but benefit from better social support [7]. Such gender-specific stress responses can significantly alter clinical outcomes [8].

Quality of life (QoL) has emerged as a key outcome in schizophrenia, reflecting not only symptom reduction but also functional well-being [9]. Factors such as cognitive performance, social relationships, medication side effects, and stress coping play major roles in QoL [10]. Gender differences in premorbid adjustment, symptomatology, and social roles may contribute to varied QoL outcomes across men and women [11].

In India, research on gender-based differences in stressful life events and QoL among schizophrenia patients remains limited [12]. Cultural and familial structures may uniquely shape these experiences. Exploring these aspects can provide valuable insights for developing gender-sensitive treatment and rehabilitation strategies [13].

Despite extensive global literature, few Indian studies have examined how stressful life events influence QoL differently in men and women with schizophrenia [14]. Addressing this gap can aid clinicians in tailoring interventions to improve outcomes in both genders.

AIMS & OBJECTIVE:
1. Assess and compare stressful life events among male and female patients with schizophrenia.
2. Evaluate and compare quality of life between genders.
3. Explore the relationship between stressful life events and quality of life in schizophrenia with a gender-based perspective.

Methodology:
Inclusion criteria
1. Persons diagnosed as cases of schizophrenia according to criteria by   ICD-10 Research Diagnostic Criteria.
2. Patients are selected in the age group between 18-45years.
3. Patients who give informed consent.
4. Patients who are selected as cases should be first episode and Drug naïve patients.

Exclusion criteria
1. History of mental retardation. Substance abuse except nicotine.
2. Patients with medical illness.
3. Patients with past history of psychiatric illness on treatment
4. Patients with violent and aggressive behavior.

Operational design:
The study was conducted at tertiary care hospital, Madurai for the period of 6 months. The study was approved by Institutional Ethical Committee. The sample was chosen from psychiatry outpatient department, and in patients diagnosed as schizophrenia as per ICD10 RDC by senior psychiatrists is chosen as cases. All the patients were screened depending on the inclusion and exclusion criteria.

The subjects were explained about the nature of the study and obtained informed consent. Socio demographic details as per proforma collected from cases. Complete physical examination including detailed Neurological evaualtion done. The Presumptive StressfulLife Event sscale: (PSLE) and WHO BREF QOL were applied to consecutive drug naive 30 male and 30 female patients.

Statistical design:

Statistical design was formulated using the data collected as above, for each of the scales and socio-demographic variables. The central values and dispersion were calculated. In comparison of the data for categorical variables chi-square and for numerical variables student t-test were used. For multiple comparisons of more than two numerical variables, ANOVA used. Correlation among variables was studied using Pearson's correlation coefficient.

RESULTS AND INTERPRETATION:

Table- 1: showing comparison of socio-demo-graphic profile between male and female schizophrenia patients.

S.NO	VARIABLES		MALE n=30		FEMALE n=30		X^2
			N	%	N	%	
1.	AGEOFONSET (YEARS)	<24 25-34 >35	11 16 3	36.7 53.3 10.0	5 13 12	16.7 43.3 40.0	7.960* D =2
2.	EDUCATION	Primary Secondary Graduate	13 10 7	43.3 33.3 23.3	18 8 4	60.0 26.7 13.3	1.847 Df =2
3.	MARITAL STATUS	Unmarried Married	19 11	63.3 36.7	7 23	23.3 76.7	9.774* Df=1
4.	DOMICILE	Rural Urban	17 13	56.7 43.3	15 15	50.0 50.0	.268 Df =1
5.	OCCUPATION	Unemployed Skilled Semiskilled	13 7 10	43.3 33.3 23.3	16 3 11	60.0 26.7 13.3	1.958 Df =2
6.	SOCIO ECONOMIC CLASS	Lower Upper lower Middle	16 7 7	53.3 23.3 23.3	24 1 5	80.0 3.3 16.7	6.433* Df =2

**P<0.01,*P <0.05

Table 1 shows that the majority of males with schizophrenia have the age of onset of illness between 25 to 34 years (53.3%), majority of females also show the same age of onset of illness between 25 to 34 years (43.3%). A 36.7% of males have onset of illness below 25 years of age, only 16.7% of female show illness onset less than 25 years. 10 % males have illness onset above 35 years, 40 % females

have onset of illness after 35 years. Males have significantly younger age of onset compared to females. Majority of them having primary education, unemployed, coming from rural background, no significant difference between female and male patients. Majority of females are married, males are unmarried. Majority of females belong to lower socio economic class.

Table-2: showing Comparison of Duration of untreated psychosis among male and female schizophrenia

S.no	VARIABLE	MALE n=30		EMALE n=30		X^2
		n	%	n	%	

1		<6 (months)	12	40	8	26.7	1.24
2	DURATION OF UNTREATED PSYCHOSIS	7-48 (months)	12	40	14	46.7	Df=2
3		>48(months)	6	20	8	26.7	

Table 2 shows 40 % male with schizophrenia have the DUP of less than 6 months, compared to 26.7% of female with schizophrenia.40% males and 46.7% females having DUP of7 to 48 months. 6% males' and 8% females have more than 48 months of duration of untreated psychosis. Statistically no significant difference in the duration of untreated psychosis between male and female patients
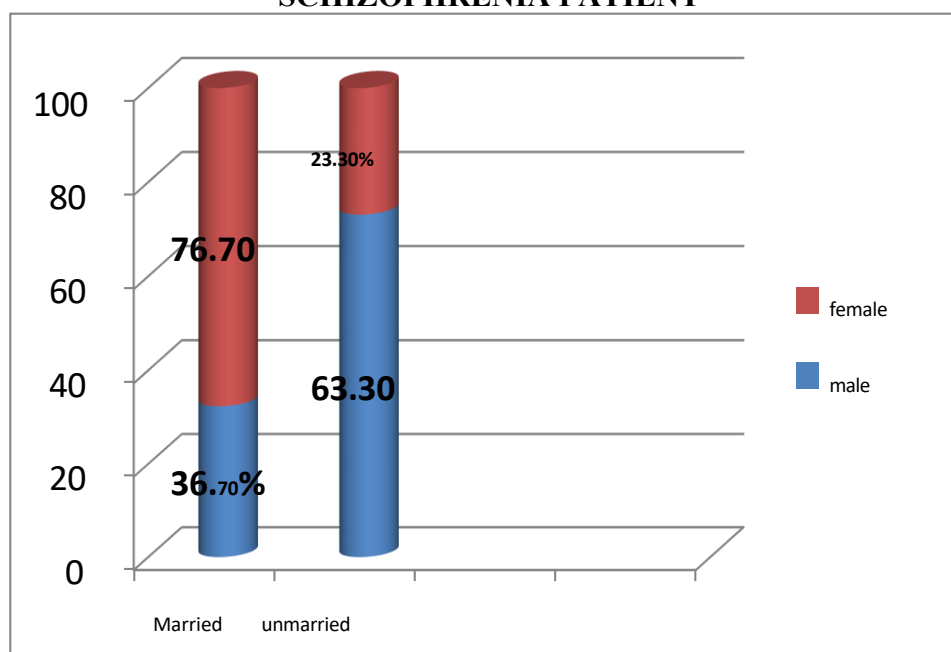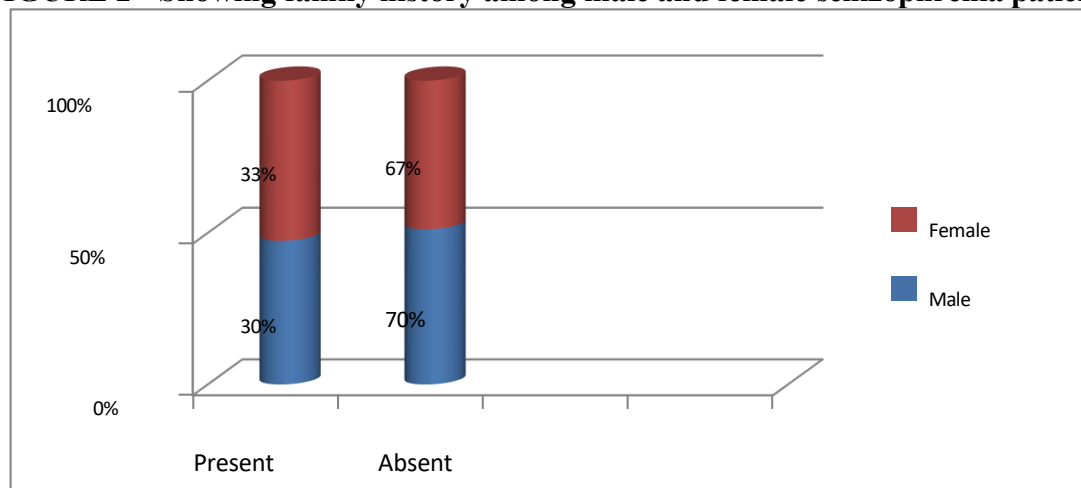
Table-3:

S.NO	VARIABLE	MALE (n=30) Mean±SD	FEMALE (n=30) Mean±SD	tvalue
1	AGE OF ONSET(years)	27.17±6.6	31.87±7.8	—2.495*
2	DURATION OF UNTREATED PSYCHOSIS(months)	28.77±36.6	35.03±32.07	—.705
3	DURATIONOFILLNESS (months)	28.77±36.6	35.03±32.07	—.705

**P<0.01,*P <0.05

Table 3 shows the mean age of onset of illness in males 27.17±6.6 compared to females 31.87±7.8, which is statistically significant. No statistically significant difference in duration of untreated psychosis and duration of illness between male and female patients.

FIGURE 1- SHOWING MARITAL STATUS BETWEEN MALE AND FEMALE SCHIZOPHRENIA PATIENT

FIGURE 2 - Showing family history among male and female schizophrenia patients

Table-4: Comparison of stressful life events among male and female schizophrenia

s.no	VARIABLE	MALE (n=30) Mean± SD	FEMALE (n=30) Mean± SD	t value
1	NUMBER OF LIFE EVENTS	5.37±.828	2.97±.89	10.366*
2	TOTAL LIFEEVENTS SCORE	180.03±86.97	129.50±42.63	2.858*

**P<0.01,*P <0.05

The above table shows that males with schizophrenia scored high on number of life events, 5.37 compared to 2.97 in females and also males scored high on total life events with a score of 180.03 compared to 129.50 in females. There is a statistically significant difference between male and female patients in experiencing stressful life events.

Table-5: Comparison of quality of life among male and female schizophrenia

S. no	ITEMS	MALE (N=30) Mean±SD	FEMALE (N=30) Mean ±SD	tvalue
1	PHYSICAL HEALTH	21.9±3.3	24.2±2.02	-3.296*
2.	PSYCHOLOGICAL HEALTH	18.3±3.1	21.43±3.7	-3.499*
3.	SOCIAL RELATIONSHIP	9.60±1.4	10.4±1.1	-2.555*
4	ENVIRNMENT	24.5±4.8	27.4±4.6	-2.303*
5	TOTAL QOL	74.3±8.9	83.5±7.5	-4.281

**P<0.01,*P <0.05

The above table shows that females with schizophrenia scored high on quality of life compared to males. Mean total score of females was 83.5 compared to mean total score of 74.366 among males. There is a statistically significant difference in quality of life of males and females.

Table-6: showing correlation between stressful life events and age of onset of illness:

S.NO	VARIABLES	AGE OF ONSET OF ILLNESS	
		MALE r value	FEMALE r value
1	NUMBER OF LIFE EVENTS	—O.108	.468**
2	TOTAL LIFE EVENTS SCORE	0.144	0.200

**P <0.01,*P <0.05

This table shows that there is a significant positive correlation between age of onset of illness and number of life events in female. In males there is negative correlation between number of life events and age of onset of illness. There is a positive correlation between age of onset of illness and total life events score in male and female.

Table-7: showing correlation between stressful life events and duration of untreated psychosis

S.NO	VARIABLES	DURATION OF UNTREATED PSYCHOSIS	
		MALE r value	FEMALE r value
1	NUMBER OF LIFE EVENTS	0.032	0.017
2	TOTAL LIFE EVENTS SCORE	0.077	0.074

This table shows that there is a positive correlation between number of life events and duration of untreated psychosis, and there is a positive correlation between total life events score and duration of untreated psychosis. But it is not statistically significant.

Table-8: showing correlation between quality of life and age of onset of illness

S.no	ITEMS	AGE OF ONSETOF ILLNESS	
		MALE (N=30)	FEMALE (N=30)
1	PHYSICAL HEALTH	—0.234	0.234
2.	PSYCHOLOGICAL HEALTH	0.143	0.143
3.	SOCIAL RELATIONSHIP	0.074	0.074
4	ENVIRNMENT	0.244	0.244
5	TOTAL QOL	0.296	0.296

This table shows there is positive correlation between quality of life and age of onset of illness, but it is not statistically significant in Females.. In males also there is a positive correlation between all the variables except physical health.

DISCUSSION: The present study examined gender differences in stressful life events and quality of life among patients with schizophrenia FROM SOUTHERN PART OF INDIA. Our findings indicate that male patients reported significantly higher stressful life event scores compared to females, while females demonstrated better quality of life scores across multiple domains.

The higher frequency and intensity of stressful life events in males may be explained by their greater underline exposure to occupational, financial ,
and interpersonal stressors. Previous research has suggested that males are more likely to experience external stressors and maladaptive coping patterns, which may exacerbate symptom severity and illness progression [3,6]. Browne et al. also observed that stressful life events frequently preceded the onset or exacerbation of schizophrenia, particularly in males [5]. The present findings are consistent with this evidence, highlighting the need to assess and address stress in clinical management, especially in male patients.

In contrast, females in our study reported better quality of life compared to males. This aligns with previous literature showing thatfemales with schizophrenia, despite experiencingmajority of them having primary education, employed, coming from rural background, similar to maleoften retain stronger social support networks and better premorbid adjustment [10,11]. Social integration and supportive family roles may contribute to enhanced subjective well-being and quality of life in women [9]. In addition, delayed onset of illness in females may allow for better psychosocial and occupational development, which could have a protective effect on overall functioning [4].

The observed gender differences suggest that stressful life events and quality of life are interrelated but operate differently across genders. Males appear more vulnerable to external stressors, which may worsen clinical outcomes and functioning, while females seem relatively protected by psychosocial buffers that positively influence quality of life.

These findings have important clinical implications. Routine assessment of stressful life events should form part of schizophrenia management, particularly in males, to mitigate the impact of stress on illness course. At the same time, interventions aimed at strengthening social support and community integration may further enhance quality of life, especially in female patients [14].

However, this study has certain limitations, including modest sample size and cross-sectional design, which restrict causal inferences. Longitudinal studies are needed to clarify the causal pathways linking stressful life events, gender, and quality of life in schizophrenia within the Indian context [12].

References
1. World Health Organization. Schizophrenia. Fact Sheet. Geneva: WHO; 2022.
2. McGrath J, Saha S, Chant D, Welham J. Schizophrenia: a concise overview of incidence, prevalence, and mortality. *Epidemiol Rev*. 2008;30(1):67–76.
3. Leung A, Chue P. Sex differences in schizophrenia, a review of the literature. *Acta Psychiatr Scand Suppl*. 2000;401:3–38.
4. Goldstein JM, Link BG. Gender and the course of schizophrenia: Differences in treated outcomes. *Am J Psychiatry*. 1988;145(6):684–689.
5. Brown GW, Birley JL. Crises and life changes and the onset of schizophrenia. *J Health Soc Behav*. 1968;9(3):203–214.
6. Norman RM, Malla AK. Stressful life events and schizophrenia: I. A review of the research. *Br J Psychiatry*. 1993;162:161–166.
7. Tennant C. Life stress, social support, and schizophrenia: The development of the research. *Acta Psychiatr Scand Suppl*. 1985;319:137–142.
8. Horan WP, Ventura J, Nuechterlein KH, Subotnik KL, Hwang SS, Mintz J. Stressful life events in recent-onset schizophrenia: associations with symptoms, functioning, and coping. *Schizophr Res*. 2005;76(2-3):367–377.
9. Awad AG, Voruganti LN. The burden of schizophrenia on caregivers: A review. *Pharmacoeconomics*. 2008;26(2):149–162.
10. Hofer A, Kemmler G, Eder U, et al. Quality of life in schizophrenia: the impact of psychopathology, insight, and neurocognition. *Schizophr Res*. 2005;85(1-3):251–259.
11. Angermeyer MC, Holzinger A, Matschinger H. Quality of life in schizophrenia patients: a gender perspective. *Int J Soc Psychiatry*. 1999;45(4):278–288.
12. Thara R, Srinivasan TN. Outcome of marriage in schizophrenia. *Soc Psychiatry Psychiatr Epidemiol*. 1997;32(7):416–420.
13. Gururaj GP, Math SB, Reddy JY, Isaac MK. Family burden, quality of life and disability in obsessive compulsive disorder: An Indian perspective. *J Postgrad Med*. 2008;54(2):91–97.
14. Grover S, Nebhinani N, Chakrabarti S, Avasthi A. Comparative study of stressful life events and coping strategies in patients with schizophrenia and bipolar disorder. *Nord J Psychiatry*. 2017;71(1):1–8.