

Stressful Life Events Severity in Patients with Depressive Disorder: A Cross-Sectional Study

Riju Niroula^{1*}, Pooja Silwal²

1. Assistant Professor, Department of Psychiatry, College of Medical Sciences, Bharatpur, Nepal

2. Medical Officer, College of Medical Sciences, Bharatpur, Nepal

Abstract

Introduction

Stress and stressful life events are believed to precipitate depressive disorders but the areas of stress and types of stressful life events found in depression vary by socio-cultural contexts. So this study was conducted to assess the contribution of the number and severity of recent stressful life events on the prevalence of depressive disorder in a tertiary hospital in Nepal.

Methodology

237 consecutive patients with ICD-10 diagnosis of a depressive disorder were included in the study. The Beck Depression Inventory (BDI) was applied to rate the severity of depressive disorder and The Social Readjustment Rating Scale (SRRS) was applied to assess for the severity of stressful life events.

Result

65.8% patients had experienced low severity of Stressful life events SLEs while 13.5% patients suffered from medium severity of SLEs and 20.6% suffered from severe SLEs. Severity of depression assessed with BDI revealed the 62.8% patients suffered from moderate depression while 22.7% suffers from severe depression. The Chi square statistics showed statistically significant difference

on age, marital status, educational status and socio-economic status. Also the severity of depression was found to be statistically significant with severity of SLEs experienced.

Conclusion

Significant correlation was seen between severity of depressive disorder and stressful life events. Establishing their impact and addressing coping mechanisms should be done to make for a comprehensive management of any patient diagnosed with depressive disorder.

KEYWORDS

Depression, Depressive disorder, Life events, Stress, Stressful life events

*Corresponding Author

Dr. Riju Niroula

Assistant Professor

Department of Psychiatry

College of Medical Sciences, Bharatpur, Nepal

INTRODUCTION

Stressful life events (SLE) may be defined as: "environmental events or chronic conditions that objectively threaten the physical and/or psychological health or well-being of individuals of a particular age in a particular society".¹ Life events may be described as social and environmental occurrences leading to psychophysiological modification in the general population during the life course.² According to Holmes and Rahe, critical stressful life events were supposed to be associated with stress experience regardless of the valence of a certain life event.³ This means that important life changes, whether negative, such as the death of a close friend, or positive, such as marriage, all induce stress.⁴

Severe life events are arguably the most important risk factor for episodes of major depressive disorder. Approximately 70% of first episodes of depression and 40% of recurrent episodes of depression are preceded by a severe stressful life event.^{2,4} SLE are able to strongly predict both the onset.⁵ and recurrence⁶ of depressive episodes, including suicidal behaviour.

Socio-demographic variables such as gender potentially mediate the relation between SLE and depression. For instance, when compared to males, females seem to be more vulnerable to the adverse effects of psychosocial stressors.⁷

Socioeconomic status was shown to have an impact on life events and other stressors.^{8,9} Higher financial stress was associated with moderate to-severe functional limitations and poor-to-fair self-rated health. Differential exposure to stress and negative life events based on socioeconomic disparities may be one determinant for socioeconomic inequalities in health.⁸

The above indicates that SLEs should be taken into consideration in depressive disorder because of their impact on illness course and outcomes including suicide. The epidemiological data of patients with depression are limited in Nepal.¹⁰ Little is known about the role of SLE in depression. This has prompted the present study, to assess the prevalence of depressive symptoms, severity, and types of stressful life events associated with the onset of depressive disorder in a tertiary hospital in Nepal.

METHODOLOGY

This was a descriptive cross-sectional study conducted among 237 patients of any age and gender, who attended the Psychiatry Out patient Department of College of Medical Sciences, Bharatpur, Chitwan, Nepal who were diagnosed as Depressive disorder between November 2020 and November 2021. Ethical approval was taken from Institutional Review Committee and informed consent was taken from all participants. Patients attending the psychiatry OPD who fulfilled the diagnostic criteria for depressive disorder according to ICD-10 DCR 11 were included in the study. The exclusion criteria were schizophrenia and other psychotic disorders, bipolar disorders, substance use disorders, organic mental disorders, and mental retardation. Socio-demographic details were collected using a self designed semi- structured proforma. The Social Readjustment Rating Scale (SRRS) by Holmes and Rahe was used to capture the life events experienced by participants. The scale has 41 items reflecting SLEs they have experienced over the past year. The higher the score, the more SLEs experienced and greater the stress.³ SRRS scores were categorised as low (<150), medium (150–299), or high (≥300).³ Symptoms of depressions were assessed by the 21-item The Beck Depression Inventory (BDI).¹² BDI is a self-report measure with responses rated on a 4-point scale ranging from 0 to 3 based on severity of each item. The maximum total score is 63, which is categorised as follows: 0–13 (minimal depression), 14–19 (mild depression), 20–28 (moderate depression), and 29–63 (severe depression). A higher score would indicate severe depressive symptoms.¹² Data were analysed using SPSS version 16 (Chicago, Illinois, USA) and descriptive statistical analysis was performed.

RESULTS

The mean age of the 237 patients enrolled for the study was 36.81 years (standard deviation = 11.02 years). There was a preponderance of women(62%) in the sample. The majority (81.8%) were married. Almost two third of cases (63.7%) belonged to lower class socioeconomic status, about half (50.2%) were unemployed and 24.1% were illiterate. (Table 1)

All patients with depressive disorders had experienced Stressful life events. 156 patients (65.8%) had experienced

low severity, 32 patients (13.5%) had experienced medium severity and 49 patients (20.6%) had experienced high severity of SLEs with SSRS mean score of 220.61 (standard deviation of 80.06). Severity of depression assessed with BDI revealed the majority of patients(62.8%) were suffering from moderate depression while 22.7% were suffering from severe depression. (Table 1)

The Chi square statistics on demographic variables (Table 2) showed statistically significant difference on age, marital status, educational status and socio-economic status.

Also the severity of depression was found to be statistically significant with severity SLEs experienced (P = 0.0001)

Table 1. Descriptive statistics for socio-demographic variables.

Variables	Category	Frequency (N)	Percentage (%)
AGE in years	20-36	119	50.2
	37-60	115	48.5
	>60	3	1.2
GENDER	Male	90	37.9
	Female	147	62.0
MARITAL STATUS	Married	194	81.8
	Single	29	12.2
	Widow/widower	14	5.9
EDUCATION	Illiterate	57	24.1
	Primary	56	23.6
	Lower Secondary	48	20.3
	Secondary	47	19.8
OCCUPATION	Higher Secondary & above	29	12.2
	Unemployed	119	50.2
	Employed	98	41.3
SOCIO-ECONOMIC STATUS	House work	20	8.4
	Lower	151	63.7
	Middle	66	27.8
SEVERITY OF DEPRESSION	Upper	20	8.4
	Mild	34	14.3
	Moderate	149	62.8
STRESSFUL LIFE EVENTS	Severe	54	22.7
	Low	156	65.8
	Medium	32	13.5
	High	49	20.6

Table 2. Relationship between different socio-demographic variables with stressful life events.

Variables	Category	Recent Stressful Life Events			P value
		Low	Medium	High	
AGE in years	20-36	88	21	10	0.0001
	>36	66	13	39	
GENDER	Male	55	15	20	0.635
	Female	100	18	29	
MARITAL STATUS	Married	135	29	30	0.001
	Single	20	4	5	
	Widow/widower	0	0	14	
EDUCATION	Illiterate	45	7	5	0.0001
	Primary	29	7	20	
	Lower Secondary	36	8	4	
	Secondary	40	2	5	
OCCUPATION	Higher Secondary & above	11	3	15	0.541
	Unemployed	83	16	20	
	Employed	58	16	24	
SOCIO-ECONOMIC STATUS	House work	12	3	5	0.002
	Lower	105	21	25	
	Middle	35	7	24	
SEVERITY OF DEPRESSION	Upper	17	3	0	0.0001
	Mild	31	3	0	
	Moderate	110	25	14	
	Severe	15	4	35	

DISCUSSION

Most of the subjects in this study were young-to- middle-age group with the mean age of 36.81 years which was similar to another study.¹³ This suggests that younger people may be more vulnerable to the the adverse impact of stress. The particular vulnerability in the younger age group may due to emotional turmoil, interpersonal problems, job difficulties and academic setbacks.¹⁴ A study done in United States reported that young people had higher prevalence of depression compared to patients over the age of 65 years.¹⁵ This decrease in the prevalence of major depressive disorders in older adults may be due to more psychological stability after 65 years of age. However the apparent decrease in depression may simply because depression often goes unnoticed in the elderly; indeed, some symptoms such as loss of motivation, fatigue and isolation are often attributed to aging.¹⁵

In this study, the medium to high stressful life events in depressed patients was significantly more frequent in women than in men (62% Vs 37.9%). In fact, most of studies¹⁶⁻¹⁹ has reported higher prevalence of stress in depressed women than men. Females are more likely to ruminate over events than men do, and are more likely than men to become depressed in response to a stressful life event.²⁰ Females are more susceptible to harm from life stressors like interpersonal problem with parents, in-laws, spouse and other family members. These issues can cause feelings of negativity, low self-esteem and lack of control over life in females and are more likely to develop depression.²⁰

The Chi square statistics on demographic variables showed statistically significant difference on age, marital status, educational status and socio-economic status in our study. The proportion of married patients (81.8%) developing depression was seen to have more SLEs which is consistent with other previous studies where married people of both genders had increased risk to fall in depression.²¹⁻²³ This may be explained by the fact of financial pressure or unemployment, heightened responsibility, resulting in increased stress and depression in males in Nepal after marriage while in females increasing trend of husband going abroad for work after marriage resulting in depression in wife.²⁴ A study done in Nepal among wives of Nepalese men working abroad revealed adverse consequences in their

mental health, including psychological problems, financial and societal problems resulting in increased prevalence of depression.²⁴

We observed that the significant proportion of the patients in our study were illiterate (24.1%), unemployed (50.2%) and of lower socioeconomic status (63.7%). These results are comparable to previous studies^{25,26} where significantly higher incidence of major depression and SLEs were found among people of lower SES, lower educational background and among the unemployed.

The stressful life events severity also had the impact on the occurrence of depression.

Reporting more SLEs was associated with increased severity of depression in our study ($p < 0.05$). The depressed subjects experienced low (65.8%) to high (20.6%) life events prior to the onset of depression in our study which is in accordance with the majority of previous studies.²⁶⁻²⁹

CONCLUSION

Stressful life events were found to have a significant contribution to the illness in the context of the socio-demographic background of the subjects. Significant correlation was also seen between severity of depressive disorder and stressful life events. Life events can behave as acute and ongoing stressors during the course of an illness. Establishing their impact and addressing coping mechanisms should be done for a comprehensive management of any patient diagnosed with depressive disorder. Early identification of people who are at social risk of depression and providing prompt intervention will prevent depression or reduce the symptoms of depression.

ACKNOWLEDGEMENT

The author would like to thank all the patients for giving consent to participate in the study.

CONFLICT OF INTEREST

None

FUNDING SOURCE

None

REFERENCE

- Grant KE, Compas BE, Stuhlmacher AF, Thurm AE, McMahon SD, et al. Stressors and child and adolescent psychopathology: Moving from markers to mechanisms of risk. *Psychol Bull.* 2003;129:447–66.
- Monroe SM, Harkness KL. Life stress, the 'kindling' hypothesis, and the recurrence of depression: Considerations from a life stress perspective. *Psychol Rev.* 2005;112:417–45.
- Holmes TH, Rahe RH. The social readjustment rating scale. *J Psychosom Res.* 1967; 11:213–18.
- Kessler RC. The effects of stressful life events on depression. *Ann Rev Psychol* 1997;48:191–214.
- Kendler KS, Karkowski LM, Prescott CA. Stressful life events and major depression: risk period, longterm contextual threat, and diagnostic specificity. *J Nerv Ment Dis.* 1988;186:661–9.
- Bos EH, Bouhuys AL, Geerts E, van Os TW, Ormel J. Stressful life events as a link between problems in nonverbal communication and recurrence of depression. *J Affect Disord.* 2007; 97:161–9.
- Kendler KS, Kuhn J, Prescott CA. The interrelationship of neuroticism, sex, and stressful life events in the prediction of episodes of major depression. *Am J Psychiatry.* 2004; 161:631–6
- Lantz PM, House JS, Mero RP, Williams DR. Stress, life events, and socioeconomic disparities in health: results from the Americans' changing lives study. *J Health Soc Behav.* 2005;46:274–88.
- Hobson CJ, Kamen J, Szostek J, Nethercut CM, Tiedmann JW et al. Stressful life events: a revision and update of the social readjustment rating scale. *Int J Stress Manag.* 1998;5:1–23

10. Risal A, Manandhar K, Linde M, Steiner TJ, Holen A. Anxiety and depression in Nepal: prevalence, comorbidity and associations. *BMC Psychiatry*. 2016;16:102.
11. World Health Organization. The ICD-10 Classification of Mental and Behavioural Disorders: Diagnostic Criteria for Research. Geneva: World Health Organization; 1993.
12. Beck, A. T, Ward, C. H, Mendelson et al. An inventory for measuring depression. *Arch. Gen. Psychiatry*. 1961;4:561-71
13. Kendler KS, Karkowski LM, Prescott CA. Causal relationship between stressful life events and the onset of major depression. *Am J Psychiatry*. 1999;156(6):837-41.
14. Akhtar-Danesh N, Landeen J. Relation between depression and sociodemographic factors. *Int J Ment Health Syst*. 2007;1:4.
15. Hoertel N, Le Strat Y, Gorwood P, Bera-Potelle C, Schuster JP, et al. Why does the lifetime prevalence of major depressive disorder in the elderly appear to be lower than in younger adults? Results from a national representative sample. *J Affect Disord*. 2013;149:160-5.
16. Kania SK. The Relationship Between Gender Differences and Stress. *The Huron University College Journal of Learning and Motivation*. 2014;52(1):92-101.
17. Assari S, Lankarani MM. Stressful life events and risk of depression 25 years later: race and gender differences. *Public Health Front*. 2016;24:4-49.
18. Bergdahl J, Bergdahl M. Perceived stress in adults: prevalence and association of depression, anxiety and medication in a Swedish population. *Stress and Health*. 2002;18(5):235-41.
19. Ahmad A, Mazlan NH. Stress and depression: a comparison study between men and women inmates in Peninsular Malaysia. *Int. j. humanit. soc. sci*. 2014;4(2):153-60.
20. Kessler RC, Bromet EJ. The Epidemiology of Depression Across Cultures. *Annu. Rev. Public. Health*. 2013;34:119-38.
21. Ensel WM, Lin N. Distal stressors and the life stress process. *J Community Psychol*. 1996;24(1):66-82.
22. Scott KM, Wells JE, Angermeyer M, et al. Gender and the relationship between marital status and first onset of mood, anxiety and substance use disorders. *Psychol Med*. 2010;40(9):1495-1505.
23. Bulloch AG, Williams JV, Lavorato DH, Patten SB. The depression and marital status relationship is modified by both age and gender. *J Affect Disord*. 2017;223:65-8.
24. Shakya DR. Psychiatric morbidities among mentally ill wives of Nepalese men working abroad. *Ind Psychiatry J*. 2014;23(1):52-7.
25. Lueboonthavatchai P. Role of stress areas, stress severity, and stressful life events on the onset of depressive disorder: a case-control study. *J Med Assoc Thai*. 2009;92(9):1240-9.
26. Muhwezi WW, Agren H, Neema S, Maganda AK, Musisi S. Life events associated with major depression in Ugandan primary healthcare (PHC) patients: issues of cultural specificity. *Int J Soc Psychiatry* 2008;54:144-63.
27. Lloyd C. Life events and depressive disorder reviewed. II. Events as precipitating factors. *Arch Gen Psychiatry*. 1980;37:541-8.
28. Kohn Y, Zislin J, Agid O, Hanin B, Troudart T, et al. Increased prevalence of negative life events in subtypes of major depressive disorder. *Compr Psychiatry*. 2001;42:57-63.
29. Leskela US, Melartin TK, Lestela-Mielonen PS, Rytala HJ, Sokero TP, et al. Life events, social support, and onset of major depressive episode in Finnish patients. *J Nerv Ment Dis* 2004;192:373-81.