Original Article

Do Life Events and Social Support Vary across Depressive Disorders?

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ABSTRACT

Background: Social support and life events moderate the expression of depression though studies have shown contradictory results. The objective was to study the stressful life events and perceived social support in patients with adjustment disorder, first-episode depression, and recurrent depressive disorder (RDD). **Subjects and Methods:** One hundred and forty-six patients aged 18–60 years with adjustment disorder, first-episode depression, or RDD according to Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision were evaluated using the presumptive stressful life events scale and Multidimensional Scale of Perceived Social Support. **Results:** There was no difference in mean number of total life events and subgroups as well as perceived stress score in the past 1 year between the groups. There was no difference in the perceived social support scale total score, as well as from family and friends, across the three groups. However, the mean perceived social support from significant others in those with RDD was lower as compared to those with adjustment disorder. **Conclusion:** Stressful life events do not differ in adjustment disorder, first-episode depression, and RDD. Furthermore, the perceived social support was similar across the three groups, except for perceived social support from significant others, which was less in those with RDD.

Key words: *Depression, life events, perceived social support*

INTRODUCTION

The fact that stressful life events increase risk of depression is a well-researched subject.[1] There is plenty of evidence to suggest that among all psychological disorders, life events have the strongest causal association with depression. It was found that those with depressive disorders report almost three times as many events as matched general population participants in six 6 months before the onset of symptoms.[2,3] The excess was particularly for exit and undesirable events; there was no excess for entrances or desirable events. Life events were also found to affect the remission and relapse of depression.

The impact of life events was found to be less in recurrent depressive disorder (RDD), particularly in instances of

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severe illness. Kendler *et al*.[4] conducted a study on female–female twin pairs to assess the association between exposure to life events and number of previous depressive episodes. They found that this association progressively declines through approximately nine episodes but remains mostly unchanged with further episodes. These results were suggestive of a kindling hypothesis; however, there also seemed to be a threshold at which the brain is no more additionally sensitized to the depressed state. Horesh *et al*.[5] conducted a study to assess the relationship between stressful life events and recurrent major depressive disorders. They found that the proportions of events related to loss in childhood and in the year before the first episode were higher in the individuals with depression than in the control group during the same time frame. Proportions of significant life events were also more common in the depressed patients in the year before their first depressive episode (FDE). They concluded that life events have an important role in the onset of depressive disorders but becomes less significant in the maintenance of this illness.

The adjustment disorder is a diagnostic entity characterized by an emotional response to a stressful event. The Outcome of Depression International Network Project found adjustment disorder in <1% of population.[6] Maercker *et al*.[7] reported the prevalence of adjustment disorder to be 0.9% in the general population, upon taking into consideration the criterion of clinically significant impairment. A few studies have also been done on the association between stressful life events and adjustment disorders. Al-Ansari and Matar,[8] in their study on adolescents with adjustment disorder, found that strained relationships with a family member or a friend of the opposite sex were found to be a main stressor. Patients were mostly females from nonintact families. Severe stressful life events in the context of migration have been coupled with high rates of adjustment disorders.[9]

Although there is an overwhelming amount of literature that has depicted an association between life events and depression, nonetheless, a few studies have been unable to confirm this expected relationship.[10] Tennant *et al*.[11] attribute this to the various methodological problems that beset the assessment of the life events - affective illnesses relationship.

In the recent years, there has been an intense interest in the role that social support plays in health maintenance and the etiology of disease. Many studies have indicated that in individuals who are married and have many friends and relations, the psychological and material resources are in better health than those with fewer supportive social networks.[12] There is now solid evidence regarding the protective role of social support in the etiology of mental disorder and particularly so for depression.[13] The presence of adequate social support has been found to act as a protection against depression,[14] and following a depressive episode, it has been found to predict a better long-term outcome.[15] Some studies have shown that social support may provide protection not only against initial episodes of major depression but also against recurrent episodes. However, other studies have postulated an overlapping genetic vulnerability to both recurrent depression and to low social support and thus disproved a directly causal relationship between the two.

Clarke and Jensen[16] examined the stress-buffering recursive model of depression which proposed that social support nullifies the harmful effects of stressful life events on psychological disorders. It was found that social support did not have a significant mediating effect on life events for depression in any of the areas.

In contrast, Chou and Chi[17] examined the impact of a series of common stressful life events on change in depressive symptoms among the older individuals and reported that social support moderated the influence of life event exposure on depression. Paykel[18] in a review of various studies on life events, social support, and depression found that comparisons of recent life events at onset of a depressive episode and in general population controls showed consistently high event rates. The events covered a range of threatening and undesirable experiences with limited selectivity to exit events and interpersonal losses, with similar effects in endogenous and non-endogenous symptom clusters. Both the onset and relapse of depression were associated with a lack of social support, both acting independently and modifying the effects of life events. Yang[19] did a study to estimate the role of perceived social support on functional disability and depression in later life. The study found that only perceived social support, and not objective measures of support, significantly helps reduce stress and mediates the harmful effects of disability on worsening of depressive symptoms.

Twin studies on depression and social support have reported conflicting conclusions. Some studies have found that some forms of social support have a direct link to recurrence risk while recurrence itself influences certain other forms of social support;[20] other research has shown that there is a common genetic vulnerability to both recurrence and social support, a fact that drives this intricate relationship.[21]

Thus, while this topic certainly calls for further investigation, the data available so far indicate that social support may be a protective factor against

recurrent episodes of depression, especially for the fairer sex. However, we still do not know whether those who are prone to relapses in depression simply have less social support due to common underlying genetic vulnerabilities to both, or whether social support can actually be manufactured (such as through therapy), which may then act as a preventive agent against relapses in those at risk. The studies from India generally indicate that clustering of events is the rule in the predepressive state. None of the depressives in Indian studies suffered a "single" or "no event."[22] Among the Indians, two events in a year are held tolerable without the accompanying stress and without any disturbance to the psychological equilibrium.[23] Taking into consideration the contrasting results obtained, our objective was to study the stressful life events and perceived social support in patients with adjustment disorder, first-episode depression, and RDD. The hypothesis was that there would be no difference in stressful life events in the past 1 year and perceived social support between those with adjustment disorder, first-episode depression, and RDD.

SUBJECTS AND METHODS

Participants

This was a cross-sectional, observational study carried out in the Department of Psychiatry, Kasturba Hospital, Manipal, a tertiary care center in South India. The Institutional Ethics Committee approved the study. The sample comprised consecutive male and female patients of the age group 18–60 years, visiting the outpatient services or admitted as inpatients and diagnosed to have adjustment disorder, major depressive disorder, or RDD as per Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)[24] criteria by a consultant psychiatrist. Those with major psychiatric or medical comorbidities, and those having Mini–Mental State Examination (MMSE)[25] scores of 23 or less, were not allowed to participate in the study. All the study participants had given a written informed consent.

Tools

A sociodemographic and clinical pro forma, designed for the study, was used to collect patient details. Mini International Neuropsychiatric Interview - English Version 5.0.0 (MINI Plus),[26] a structured diagnostic interview, was used to make the DSM-IV-TR diagnosis. To study life events, presumptive stressful life events scale (PSLES)[23] was used, which is based on Holmes and Rahe[27] stressful life events scale. PSLES consists of 51 items and has been designed to suit the Indian population. The items are ranked from the most stressful, i.e., death of spouse, to least stressful, i.e., going on a pleasure trip or pilgrimage. The items in the scale are further divided into personal (e.g., marital separation,

suspension from job) and impersonal (e.g., death of friend, crop damage), and desirable (e.g., getting married, expansion in business), undesirable (e.g., marital conflict, robbery, or theft), and ambiguous (e.g., retirement, prophecy of astrologer). The scale has been standardized to assess life events in two-time frames, past 1 year and lifetime, with scores being calculated on two formats: the number of life events and weighted stress scores. Based on their data, the authors reported that in India, an adult person would most likely experience, an average of two events in the past year and ten events in a lifetime without any physical or psychological consequence.[23] The test-retest reliability for the scale has been found to be 0.73.[28]

Multidimensional Scale of Perceived Social Support,[29] a 12-item scale was used to assess the level of social support as perceived by an individual. The items in this scale are divided into factor groups related to the source of social support, namely, family (e.g., I can talk about my problems with my family), friends (e.g., my friends really try to help me), and significant others (e.g., there is a special person who is around when I am in need). There are four questions devoted to each source and each is rated on a 7-point Likert scale ("1" for "very strongly disagree" and "7" for "very strongly agree"). The higher the scores, the greater is the social support. The scale has been shown to have high internal consistency, good reliability, and validity.[30] MMSE,[25] a 19-item instrument was used to measure the participant's cognitive state.

Procedure

A total of 146 participants were assessed during the 8 months' period in which the study was conducted. The diagnosis was confirmed using MINI Plus. All the participants were subsequently rated on PSLES (past 1 year) and Multidimensional Scale of Perceived Social Support.

Statistical analysis

Data obtained were analyzed using Statistical Package for the Social Sciences (SPSS) for Windows, version 16.0 (Chicago, SPSS Inc.). The categorical and continuous variables across diagnostic groups were compared using Pearson's Chi-square test (or Fisher's exact test) and one-way ANOVA, respectively. *Post hoc* Tukey honest significant difference (HSD) was used to examine group differences if ANOVA was significant, and the effect sizes were reported as partial eta squared (η_p^2 (EQU). Exploratory correlational analysis (Pearson's *r*) was carried out between perceived social support and sociodemographic and clinical variables separately for the three groups. Level of significance was kept at $P < 0.05$ (two-tailed).

RESULTS

Sociodemographic and clinical variables

The sociodemographic and clinical variables are summarized in Table 1. There was a significant difference in age across diagnostic groups ($P = 0.002$); the mean age of those with adjustment disorder was less than the other two groups. There was no difference in terms of gender, education, occupation, marital status, residence, and family type.

Stressful life events and perceived social support

The group differences in stressful life events and perceived social support across diagnostic groups are summarized in Table 2. We found no difference in mean number of total life events and subgroups as well as perceived stress score in the past 1 year between the groups.

Differences were also not evident in the perceived social support scale total score, as well as from family and

Table 1: Sample characteristics (*n*=146)

	Mean (SD)			*F* (df=2, 143)	*P*
	Adjustment disorder (*n*=28)	FDE (*n*=87)	RDD (*n*=31)		
Age (in years)†	31.8 (12.6)	39.9 (14.0)	42.5 (11.8)	6.2*	0.002
	n (%)	*n* (%)	*n* (%)	χ²	
Gender					
Male	16 (57.1)	47 (54.0)	20 (64.5)	1.1	0.598
Female	12 (42.9)	40 (46.0)	11 (35.5)		
Education#					
Nil	4 (14.3)	14 (16.1)	1 (3.2)	-	0.236
Primary	3 (10.7)	18 (20.7)	6 (19.4)		
Secondary	13 (46.4)	29 (33.3)	9 (29.0)		
Higher	8 (28.6)	26 (29.9)	15 (48.4)		
Occupation#					
Unemployed	5 (17.9)	13 (14.9)	4 (12.9)	-	0.899
Employed	23 (82.1)	74 (85.1)	27 (87.1)		
Marital status					
Single	16 (57.1)	33 (37.9)	4 (12.9)	12.7*	0.002
Married	12 (42.9)	54 (62.1)	27 (87.1)		
Residence					
Rural	21 (75.0)	59 (67.8)	15 (48.4)	5.3	0.071
Urban	7 (25.0)	28 (32.2)	16 (51.6)		
Family type#					
Nuclear	17 (60.7)	32 (36.8)	13 (41.9)	-	0.078
Extended	9 (32.1)	51 (58.6)	18 (58.1)		
Living alone	2 (7.1)	4 (4.6)	0		

*$P<0.05$; †*Post hoc* Tukey HSD showed AD < FDE, RDD; #Fisher's exact test. AD − Atypical depression; RDD − Recurrent depressive disorder; FDE − First depressive episode; SD − Standard deviation; HSD − Honest significant difference

Table 2: Group differences in stressful life events and perceived social support across diagnostic groups (n=146)

	Mean (SD)			*F* (df=2, 143)	*P*
	Adjustment disorder (*n*=28)	FDE (*n*=87)	RDD (*n*=31)		
Total number of life events	3.64 (2.42)	3.46 (2.36)	3.32 (1.93)	0.14	0.866
Personal life events	1.96 (1.75)	1.86 (1.46)	1.61 (1.31)	0.46	0.631
Impersonal life events	1.68 (1.12)	1.60 (1.49)	1.71 (1.35)	0.09	0.915
Desirable life events	0.79 (1.10)	0.75 (0.82)	0.81 (0.79)	0.06	0.942
Undesirable life events	2.46 (1.89)	2.46 (1.65)	2.19 (1.58)	0.31	0.737
Ambiguous life events	0.39 (0.78)	0.26 (0.62)	0.29 (0.64)	0.40	0.668
Perceived stress score	175.21 (112.81)	168.03 (111.30)	160.93 (109.82)	0.12	0.886
Perceived social support scale total score	42.96 (9.96)	40.29 (9.91)	39.45 (7.87)	1.13	0.325
Perceived social support					
Family	19.71 (6.72)	21.29 (5.75)	22.74 (5.71)	1.91	0.151
Friends	12.54 (8.27)	11.99 (8.86)	11.97 (8.93)	0.05	0.956
Significant others†	10.71 (9.51)	7.01 (7.36)	4.74 (4.13)	5.04*	0.008

*$P<0.05$; †Effect size η_p^2 (EQU) =0.066, *post hoc* Tukey HSD showed scores in RDD < AD (P=0.006). AD − Atypical depression; RDD − Recurrent depressive disorder; SD − Standard deviation; HSD − Honest significant difference

friends, across the three groups. However, there was a significant difference in perceived social support from significant others across groups ($P = 0.008$), with small effect size ($\eta_p^2 = 0.066$); the mean score in those with RDD was lower as compared to those with adjustment disorder (*post hoc* Tukey HSD).

Correlation of perceived social support with sociodemographic and clinical variables

Among those with adjustment disorder, there was no significant correlation between perceived social support total and subgroup score with life events. Age was significantly negatively correlated with total perceived social support score ($r = -0.41, P = 0.032$) and social support from friends ($r = -0.55, P = 0.002$).

Among FDE patients, total perceived social support significantly positively correlated with desirable life events ($r = 0.29, P = 0.005$) and ambiguous life events ($r = 0.24, P = 0.028$) and negatively correlated with age ($r = -0.25, P = 0.017$). Social support from family negatively correlated with personal life events ($r = -0.24, P = 0.025$). Social support from friends positively correlated with desirable life events ($r = 0.21, P = 0.048$) and negatively correlated with age ($r = -0.25, P = 0.018$). Perceived social support from significant others significantly positively correlated with desirable life events ($r = 0.27, P = 0.011$).

Among RDD patients, total perceived social support significantly positively correlated with desirable life events ($r = 0.40, P = 0.024$). In contrast, social support from family, friends, and significant others did not have any correlation with life events or age.

DISCUSSION

The major finding in our study was that all the three diagnostic groups had similar rates of life events before the episode. This finding refutes the results of previous studies, which have found life events to be more before the first episode of depression as compared to recurrent episodes. Mitchell *et al*.[31] reported that first episodes of depression were more likely to be preceded by severe stressful life events than subsequent episodes, particularly in the case of nonmelancholic depression. Likewise, Corruble *et al*.[32] did a cross-sectional study of patients with unipolar depression and found that with more frequent past episodes; there was a linear decline of average life events exposure, which persisted even when age, gender, and severity were taken into account. However, Roca *et al*.[33] echoed the findings of our study. They found no relationship in severe life events with number of episodes. They concluded that prevention and treatment strategies for recurrent depression would need to address long-term life stress

management and not confine themselves to the initial recurrences.

Regarding adjustment disorder, our findings are in keeping with the study by Doruk *et al*.[34] which reported higher rates of life events in those with adjustment disorder compared to controls, which may point toward a substantial causal relationship.

It has been found that specific types of life events may predict recurrence of depression. Monroe *et al*.[35] found that subject-focused independent nonsevere life events predicted recurrence for only for those on treatment; there were fewer recurrences for unmedicated patients. Similar findings were reported in another study by Monroe *et al*.[36] that followed 67 individuals with recurrent depression, who had been successfully treated. They found that in the post recovery phase, higher scores on a stressful life events scale seemed to predict higher rates of recurrence during the 3-year follow-up period. Similarly, Gonzales *et al*.[37] found a similar though nonsignificant trend supporting the relationship between stressful life events and recurrence during a 3-year follow-up of 113 recovered patients with a history of recurrent depression.

The second major finding in our study was that the perceived social support was similar across the three groups, except for perceived social support from significant others, which was less in those with RDD. Similar findings have been echoed by Norris and Murrell[38] in a large panel study that compared bereaved and nonbereaved individuals. They found that depression following bereavement was associated with higher prebereavement depression, greater monetary troubles, higher global stress, fewer new interests, and poorer social support. Furthermore, life events and resources had stronger effects in the widowed group in contrast to others.

Wilhelm *et al*.,[39] in a retrospective study of 164 individuals, found that individuals with two or more episodes of depression in the past reported less satisfactory social support in their lives, compared to those who had had only one depressive episode, or had never been depressed. In a prospective study, Lewinsohn *et al*.[40] also found that poor social support or complete lack of the same at intake prospectively predicted an episode of depression during the 8-month follow-up period; however, this was restricted to the women in the study. These studies seem to imply that social support acts as a buffer against recurrent episodes of depression. However, Paykel and Tanner,[41] in their sample of patients suffering from severe depression, could not find this cushioning effect of social support; it may be the case that social support is less able to protect against more severe episodes of depression.

The limitations of our study include recall bias which is associated with retrospective assessments. The sample size for those with RDD and adjustment disorder was small. Furthermore, the hospital-based sample precludes generalization to community sample where milder illnesses are common. Future longitudinal studies could focus on this intricate and often conflicting relationship between social support and life events and clarify whether there is indeed any stress-buffering role for social support in the genesis of depression.

CONCLUSION

There was no difference in stressful life events across adjustment disorder, first-episode depression, and RDD. Perceived social support was also similar across the three groups, except for perceived social support from significant others, which was less in those with RDD as compared to the other groups.

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Conflicts of interest
There are no conflicts of interest.

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