



A COMPARATIVE STUDY OF MARITAL DISTRESS AND BURDEN OF ILLNESS IN WIVES OF PATIENTS WITH SCHIZOPHRENIA AND ALCOHOL DEPENDENCE

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ABSTRACT

Background: Chronic psychiatric disorders have huge psychosocial burden. In the Indian family set up, wives are main caregivers and thus these illnesses may have a huge impact on them.

Aim: This study aims at assessing the marital distress and burden of illness experienced along with their association in the wives of patients with schizophrenia & alcohol dependence.

Materials & Methods: This was a cross-sectional single interview study with study population of 30 wives each of patients with schizophrenia [group A] & alcohol dependence [group B]. After institutional ethics committee approval, wives of the patients were interviewed using semi structured proforma which included Socio-demographic profile, Dyadic Adjustment Scale (to assess marital distress) and Burden Assessment Scale (to assess perceived illness burden). Data thus obtained was analyzed statistically.

Results: Marital distress was seen equally in the spouses of patients with schizophrenia and alcohol dependence, but dyadic satisfaction was seen more in the spouses of patients with schizophrenia. There was no difference between the burden of illness perceived in the two groups however impact of illness on marital relations was seen more in the spouses of patients with Alcohol Dependence. Negative correlation was seen between marital adjustment and burden of the illness.

Conclusion: This study gives insight into the effect of major chronic psychiatric disorder on the marital life and the burden of illness. Early intervention and better coping mechanisms can help to improve the quality of life of the spouses.

KEYWORDS : Marital Distress, Burden of illness

INTRODUCTION

Psychiatric disorders continue to be a psychological and social problem entailing a staggering cost to the individual and the society. The consequences of care giving are high in the lives of the members who bear most of the responsibility.

Demands of caring for these patients have both emotional and practical impact on the care giver which has been conceptualized as 'Burden of the disease'.⁽¹⁾ The disease related problems are stressful for the spouses, giving rise to signs of strain for them in the form of physical and /or psychological ill health.⁽²⁾

Families are an integral part of the care system for persons with a chronic mental illness like Schizophrenia.^(3,4) Unlike professional care providers, the informal caregivers are often on call 24 hours a day and not protected by a limited workday or a professional distance. The demands of being involved in the care of a mentally ill relative have both an emotional and a practical impact on the caregiver.⁽¹⁾

Historically, the role of caregiving has been overwhelmingly ascribed to women on the basis of their presumed natural ability.⁽⁵⁾

Among them, the spouse caregivers were noted to experience difficulty in terms of having to balance multiple roles, raising children and financial burden, particularly when the illness strikes the primary wage earner.⁽⁶⁾

The smallest group of mutually interacting individuals and doing the functions of a family is that of marital partners. Marriage has been considered as the most important and fundamental human relationship because it provides the primary structure for establishing a family relationship and rearing the next generation.

The partners may be drawn together for emotional reasons, empathic attraction, similarities or complementarity.⁽⁷⁾ A good marriage provides individuals with a sense of meaning and identity in their illness. Studies have demonstrated that people are generally happier and healthier when they are married.⁽⁸⁾

While marriage seems to be a highly desirable relationship, marital satisfaction is not easily achieved. A study of marriages over 40 years revealed the characteristics related to enhanced marital quality to be love, reciprocity, understanding, religious orientation, commitment, intimacy and congruence.⁽⁹⁾

Spanier et al⁽¹⁰⁾ described 'marital adjustment' as the process determined by a) Troublesome marital differences b) Interpersonal tensions and personal anxiety c) Marital satisfaction d) Marital cohesion e) Consensus in matters of importance to marital functioning.

When a family member is sick, the effect of his sickness reverberates in the whole family. It is evident more so in a marital unit, especially when the patient is the bread earner.⁽¹¹⁾ The marital adjustment is compromised and it gives rise to marital distress.⁽¹²⁾

Paelino and Mc Crady⁽¹³⁾ while reviewing the literature of marriage and alcoholism has shown that divorce rate was higher amongst alcoholics than non alcoholics.

Though many have defined 'Burden' over the time, the core of all definitions is how the caregiver is affected by the problems related to or caused by the patient's illness.

Platt⁽¹⁴⁾ defined 'Burden' as the problems, difficulties or adverse events that affect the life or lives of significant other of the patient.

It can also be defined operationally as the extent of suffering experienced by the family of a patient due to various problems encountered with regard to financial conditions, routine family interactions, leisure and physical and mental health of family members caused by patient's illness.⁽¹⁵⁾

Tsang et al⁽¹⁶⁾ have suggested that sources of burden are predominantly the stigmatizing attitudes towards individuals with mental illness and inadequate public resources.

Platt⁽¹⁴⁾ differentiates 'Burden' into Objective burden -meaning any

disruption to family which is potentially verifiable and observable e.g. loss of earning, restriction of activities, extra household tasks etc. Subjective burden: i.e. personal feelings of carrying a burden – frustration, low self-esteem, helplessness etc.

Spouse of schizophrenic patients experience burden on a practical, financial and emotional level.⁽¹⁷⁾ Greater burden was predicted by more negative symptoms, self-blame, decreased tangible support⁽¹⁸⁾ and less knowledge due to poor psychoeducation.⁽¹⁹⁾

In Alcohol dependence, economic instability, patient's impairment in employment and legal problems contribute to lower social support leading greater burden of illness on spouses in Indian scenario.⁽²⁰⁾ Medanos et al⁽²¹⁾ have noted high level of burden in 45% of primary caregivers (mostly spouses) and correlated it positively with psychological distress, in the subjects.

The studies on spouses of schizophrenics have noted that 'Burden of caregiving' in spouses have an impact on mental health of the spouse.⁽²²⁾ As high as 61% of them experienced some kind of psychiatric morbidity.⁽²³⁾ Various studies have shown high prevalence of depression, anxiety and somatization in spouses.^(24,25)

The alcohol related problems are stressful for the spouses giving rise to signs of strain to them, often in the form of physical and / or psychological ill health.⁽²⁶⁾

Alcoholism (i.e. Alcohol Dependence) and Schizophrenia are two of the psychiatric disorders with huge psychosocial burden. Hence, to understand the impact of the illness on the spouses of the patient, this study was undertaken.

AIMS AND OBJECTIVES

1. To assess the marital distress expressed by the wives of patients with alcohol dependence & schizophrenia.
2. To compare the burden experienced by the wives in both the groups.
3. To study the association of marital distress with burden of illness in wives of patients with alcohol dependence & schizophrenia.

METHODOLOGY

This was a cross-sectional single interview study done at a tertiary care teaching hospital. Study population included randomly selected wives accompanying the patients diagnosed as per DSM-5 criteria as Schizophrenia- (30 subjects) & Alcohol dependence (30 subjects). The study protocol was approved by institutional ethics committee and relevant permissions were taken. Inclusion criteria included age group of 21-45 years of the wife and she must be living with the patient in the same environment for at least 12 months. Exclusion criteria included history of psychiatric illness/ mental retardation or brain damage in wife. History of comorbid illness in the patient was also an exclusion criteria.

After obtaining written informed consent, wives of the patients meeting above criteria was interviewed using semi structured proforma which included socio-demographic profile and rating scales like Dyadic Adjustment Scale and Burden Assessment Scale. Dyadic Adjustment Scale⁽¹⁰⁾ is a 32 item scale that assesses overall levels of marital well-being. It has four subdivisions like Dyadic Consensus, Dyadic Satisfaction, Dyadic Cohesion & Affectional expression. A total score of less than 100 is considered to represent marital distress.

Burden Assessment Scale⁽²⁷⁾ is a 20 item scale to assess the burden experienced by the wives of patients with psychopathology. It comprises of five factors like Impact on well-being, marital relationships, Appreciation for caring, Impact on relations with others & Perceived severity of the disease. This is a semi-quantitative scale considering a cut-off of 40, dividing into Low burden and High burden.

The data thus obtained was analyzed statistically with suitable methods. The sample was divided into two groups comprising of wives of patients of schizophrenia (Group A) and Alcohol Dependence (Group B). The comparison between the variables of two groups was done by 'Chi square test', Fischer's Exact test and Independent sample 't' test wherever necessary with SPSS-11 package of Windows. The correlation of Marital Distress with different variables was studied using Pearson's Correlation Coefficient where 'p' value of < 0.05 was taken as 'significant' indicating '95%' confidence limits.

RESULTS

The study subjects were divided into two groups. Group A included wives of patients with schizophrenia while Group B included Wives of patients with Alcohol Dependence.

In our study, as per socio demographic characteristics [TABLE 1], of the 30 subjects in group A, the mean age of wives of patients with schizophrenia was 32.9 years while mean age of wives of patients with alcohol dependence was 37.3 years. Age of the spouses in Group B (Alcohol Dependence) was noted to be more than Group A (schizophrenia) and the difference was statistically significant.

It was seen that 20% subjects were illiterate, 66.66% subjects studied till 10th standard while just 13.33% subjects were educated till intermediate level and beyond. There was no significant difference between Group A and B with respect to education.

With regard to occupation, 58.33% subjects were housewives, 31.66% subjects were unskilled/skilled worker, 11.66% subjects were semi-professional/ professional.

In our study, 60% subjects earned less than 100 rupees per day, while 16.66 % subjects earned around 100 to 500 rupees per day while 23.33% subjects earned more than 500 rupees per day. As most patients were housewives so majority i.e. 60% belonged to group of those not earning anything or less than 100 rs per day.

Marital Adjustment/ Distress: As per Table 2 [A], with regards to Marital Adjustment/ Distress, there was no statistically significant difference in the means of total score for marital adjustment in both the groups (p = 0.44). But 60% of the spouses in both the groups (i.e. 18/30 in each group) had scores below 100 suggestive of marital distress. It means that there was marital distress equally in the spouses of schizophrenics and alcoholics. The comparison of scores for dyadic cohesion, dyadic consensus and affectional expression is not statistically significant. But, the scores for dyadic satisfaction were more in the spouses of schizophrenics and the difference was statistically significant. (P = 0.05).

Burden of Illness: Considering Burden of Illness, as per Table 2 [B], no statistical difference was found between the burden of illness perceived by the spouses of patients of schizophrenia [group A] and Alcohol dependence [group B]. The difference in the two groups for four parameters of 'Burden' was not statistically significant; namely, Impact on well-being, Appreciation of care, impact on relationship with others and Perceived severity of the illness. The impact on marital relations was more on the spouses of patients with Alcohol Dependence and the difference was statistically significant.

The scores in our study suggest a negative correlation of statistical significance between marital adjustment and burden of the illness perceived by the spouses in both the groups. (Table 2 [C]) i.e. higher Burden has been correlated with lower marital satisfaction.

DISCUSSION:

Schizophrenia represents the prototype of chronic mental illness in psychiatry⁽²⁸⁾ while alcohol dependence is a psychiatric, psychological and / or social problem that entails in staggering cost to the individual and society. As both the disorders are prevalent in young and middle-aged people, most of the spouses too fall in this

age group, where most people are traditionally building relationships and developing careers. The stress involved in this 'off-time' caregiving can be enormous.⁽²⁹⁾

In our study, as per socio demographic characteristics [TABLE 1], Age of the spouses in Group B (Alcohol Dependence) was noted to be more than Group A (schizophrenia) and the difference was statistically significant. It should be noted that the sample was drawn from a general hospital and this difference may reflect late help seeking by the patients of Alcohol Dependence and their families. Barriers for help seeking are mainly denial of the problem, guilt about the alcohol abuse and related behavior patterns, stigmatization & feelings of shame.⁽³⁰⁾

With respect to education, there was no significant difference between Group A and B. In a study by Gopinath & Chaturvedi,⁽³¹⁾ Younger age and more education was correlated with greater burden in spouses of schizophrenia but our findings differ with no such correlation being observed.

With regard to occupation, 58.33% of the spouses in both the groups were housewives. In Indian Society, men usually shoulder more responsibility, as the 'breadwinners' while the expectations from women are traditionally limited to their role as housewives. Majority of the working women in Group A were labourers while there was equal number of professionals as well as labourers in Group B comprising of spouses of Alcoholics. Tripathi et al⁽²⁰⁾ found that wives of alcoholics often get employed to struggle with financial problems due to alcoholism in their spouses. Our findings are consistent with this observation.

In our study, as most patients were housewives so majority i.e. 60% belonged to group of those not earning anything or less than 100 rupees per day. High income was noted for spouses of alcoholics owing to the high proportion of professionals in the group. Lower socioeconomic factors produce or precipitate schizophrenia. This also called the Breeder Hypothesis.⁽³²⁾ Our results indicate that the spouses, especially the housewives will benefit from psychosocial rehabilitation programs that emphasize acquisition of work-related skills and income generation.

As per Dyadic Adjustment Scale, marital distress was seen equally in the spouses of schizophrenics and alcoholics. The marital distress can be reasonably explained by patient's dysfunction in most of the following roles; occupational, marital-as a spouse and parent, within an extended family and in the community. Wives are isolated because they have fewer outlets to exploit when their spouse becomes mentally ill.⁽¹⁵⁾ She also noted that it was remarkable that wives often found it upsetting to have to take on traditionally male roles, even though they managed to do so competently.

Dyadic satisfaction score were significantly more in the spouses of schizophrenics as compared to wives of alcoholics. The wives of alcoholics who drink heavily report low level of relationship satisfaction.⁽²⁾ Epstein et al,⁽¹²⁾ have reported that marital distress is more in early onset alcoholics than late onset alcoholics and is significantly associated with psychological distress.

In our study, no statistical difference was found between the burden of illness perceived by the spouses of patients of schizophrenia and Alcohol dependence.

The impact on marital relations was more on the spouses of patients with Alcohol Dependence and the difference was statistically significant.

This result was consistent with the presumption that burden associated with being in a relationship with someone with mental illness may result in lower marital satisfaction for the partner.^(33,34)

Lowyck et al⁽¹⁷⁾ suggested that the burden is perceived on practical

and emotional level: and correlated it with symptomatic behaviors of the patient. It has been highly correlated with 'Negative symptoms' in schizophrenia i.e. Affective flattening, Alogia, Avolition-apathy, Anhedonia asociality and impaired attention.⁽¹⁵⁾ On the contrary, stable partnerships seem to be achievable when patient's impairment is perceived as less burdensome. Psychological well-being is effected by the Burden perceived. It has been positively correlated with emotion focused coping styles and low self-esteem.⁽³⁵⁾

Based on Pearson's correlation, the scores in our study suggest a negative correlation of statistical significance between marital adjustment and burden of the illness perceived by the spouses in both the groups. Similarly in study by Chakrabarti and Kulhara,⁽¹¹⁾ higher burden has been correlated with lower marital satisfaction in spouses of schizophrenics. As per Kishor M et al,⁽³⁶⁾ the level of burden in the spouses of alcoholics is significantly associated with marital distress. The wife of alcoholic patient has to shoulder the responsibility of family and undergo the maximum amount of stress and fear of separation.

SUMMARY AND CONCLUSION:

In our study, as per socio demographic characteristics, mean age of the spouses in Group B (Alcohol Dependence) was noted to be more than Group A (schizophrenia) and the difference was statistically significant.

There was no significant difference between Group A and B with respect to education except higher proportion of professionals in group B comprising of spouses of patients with alcohol dependence.

60% belonged to group of those not earning anything or less than 100 rupees per day while high income was noted for spouses of patients with alcohol dependence.

Marital distress was seen equally in the spouses of patients with schizophrenia and alcohol dependence, but dyadic satisfaction was seen more in the spouses of patients with schizophrenia.

There was no difference between the burden of illness perceived by the spouses of patients of schizophrenia or Alcohol dependence. However on the sub parameter of impact of illness on marital relations, it was seen more in the spouses of patients with Alcohol Dependence as compared to wives of patients with schizophrenia.

Negative correlation is seen between marital adjustment and burden of the illness perceived by the spouses of patients with schizophrenia and alcohol dependence, i.e higher burden of illness is associated with lower marital satisfaction.

CLINICAL IMPLICATIONS

This study emphasizes the need for awareness about illness like Schizophrenia and Alcohol Dependence. The community needs to be sensitized to accept these patients as 'ill' and seek remedial measures.

This study helps us to understand the dynamics of Marital Distress and its association with the burden of illness. It also stresses the need to address the plight of the spouses and help with clinical intervention wherever needed.

LIMITATIONS OF THE STUDY

This study was conducted in an urban tertiary care general hospital. The sample groups might not represent the general population exactly. This study is a cross-sectional study. A longitudinal study can be better for the correlation of variables.

TABLE 1 - SOCIODEMOGRAPHIC CHARACTERISTICS OF THE SUBJECTS

| SR. NO | SUBJECT VARIABLES | GROUP A | GROUP B | RESULTS | |
|--------|-------------------------|---------------------------------|---------|---------|--|
| 1. | Age of the subject | Mean [In years] | 32.9 | 37.3 | t*=2.49;p=0.01 significant |
| | | SD | 8.17 | 5.31 | |
| 2. | Education | Illiterate | 07 | 05 | X ² = 0.42 p=0.52 not significant |
| | | School | 20 | 20 | |
| | | Intermediate & above | 03 | 05 | |
| 3. | Occupation | Housewife | 16 | 19 | X ² =6.268 p=0.04 significant |
| | | Unskilled/ skilled worker | 13 | 06 | |
| | | Semi-professional/ professional | 01 | 06 | |
| 4. | Income [rupees per day] | < 100 | 18 | 18 | X ² =6.717 p=0.046 significant |
| | | 100-500 | 08 | 02 | |
| | | > 500 | 04 | 10 | |

TABLE 2: MARITAL ADJUSTMENT/ DISTRESS AND BURDEN ILLNESS

| Sr. No | Variable | Group A | | Group B | | Result |
|--|------------------------------------|---------|-------|---------|-------|-----------------------|
| | | Mean | S.D. | Mean | S.D. | |
| A] MARITAL ADJUSTMENT/ DISTRESS (Dyadic Adjustment Scale) | | | | | | |
| 1. | Dyadic consensus | 42.30 | 9.79 | 40.57 | 10.61 | t=0.65; p=0.51 |
| 2. | Affectional expression | 7.50 | 2.50 | 7.63 | 2.54 | t=0.20; p=0.84 |
| 3. | Dyadic cohesion | 12.20 | 4.49 | 12.20 | 5.83 | t=0.00; p=0.99 |
| 4. | Dyadic satisfaction | 33.30 | 8.27 | 28.89 | 8.68 | t=1.19; p=0.06 |
| 5. | Total score | 93.30 | 26.32 | 90.23 | 23.40 | t=0.66; p=0.44 |
| B] BURDEN ILLNESS (Burden Assessment Scale) | | | | | | |
| 1. | Impact on well being | 7.63 | 2.89 | 9.00 | 2.57 | t=1.99; p=0.06 |
| 2. | Impact on Marital Relations | 7.60 | 2.85 | 8.97 | 2.28 | t=2.05; p=0.04 |
| 3. | Appreciation of care | 6.47 | 2.54 | 8.84 | 2.08 | t=1.11; p=0.27 |
| 4. | Impact on relationship with others | 7.70 | 3.03 | 7.13 | 2.55 | t=1.10; p=0.31 |
| 5. | Perceived severity of disease | 7.77 | 2.88 | 8.70 | 2.45 | t=1.35; p=0.18 |
| 6. | Total score | 37.17 | 12.51 | 42.40 | 10.33 | t=1.77; p=0.87 |
| C] CORRELATION OF MARITAL ADJUSTMENT WITH BURDEN ILLNESS | | | | | | |
| Pearson's Correlation Coefficient | | - 0.785 | | - 0.703 | | Negatively correlated |
| P value | | 0.000 | | 0.000 | | Significant |

REFERENCES

- Chakrabarti, S., Raj, L., Kulhara, P., Avasthi, A. & Verma, S.K.(1995) Comparison of the extent and pattern of family burden in affective disorders and schizophrenia.; Indian Journal of Psychiatry, 37, 105-112.
- Orford J. Natera G. velleman R. copello A. et al (2001) ways of coping and the health of relatives facing drug and alcohol problems in Mexico and England Addiction, 96, 761-774.
- Kulhara and Wig (1978) The chronicity of schizophrenia in N-W India; Br. J. Psychiatry; 132; 180-184.
- Shankar and Menon (1983); Interventions with families of people with schizophrenia; The issues facing a community based rehabilitation centre in India. Psychosocial Rehabilitation Journal; 15, 85-91.
- Jenkins, J.H.& Schumacher, J.G.(1999); Family burden of schizophrenia and depressive illness. British Journal of Psychiatry, 174,31-38.
- Mannion E (1996). Resilience and burden in spouses of people with mental illness ; Psych. Rehabilitation journal 20 13-23.
- Buss D. (1984) Marital assessment for personality disposition; Behav. Genet. 14,111-123.
- Gottman J. M. (1994): what predicts divorce? The relationship between marital process and marital outcomes Hillsdale, NJ: Erlbaum.
- Lauer R. H; Lauer J. C. and Kerr S. T. (1990). The long-term marriage Perceptions of stability and satisfaction. International Journal of aging and Human development 31, 189-195.
- Spanier (1976); measuring dyadic adjustment ; Journal of marriage and family ; Feb 1976; 15-27.
- Copas et al (1974) Treatment settings in psychiatry; Henry Kingston publishers.
- Epstein EE et al, Marital functioning in early Vs late onset alcoholic couples. Alcohol clinic EXP Res. 1997 May 21 (3) 54-56
- Paolino TJ, McCrady BS. The alcoholic marriage: Alternative perspectives. New York: Grune & Stratton; 1977.
- Platt S. (1985) Measuring the burden of psychiatric illness on the family : an evaluation of some rating scales; Psychological medicine 15, 383-393.
- Fadden G. Bebbington P. and Kuipers L. (1987). The Burden of care; the impact of functional psychiatric illness on the patient's family; British J. of psychiatry, 150, 285-292.
- Tsang et al ; sources of burden on families of individuals with mental illness. Int. J. Rehabil. Res. 2003 Jan; 26 (2) 123-130.
- Lowyck B. et al ; and study of burden on 150 spouses of schizophrenic pts.; Eur. Psychiatry 2004 Nov; 19 (7); 395-401
- Dyck et al; Predictors of burden and infections illness in schizophrenia caregiver ; J.of Psychos. Med. 1999 Jul - Aug. G1 (4); 411-9.
- Lim et al ; Burden of caregivers with schizophrenic patients in Korea; Appl Nurs Res. 2003, May 16 (2) 110-117.
- Tripathi et al; (2001) social support , coping resources and codependence in spouses of individual with alcohol dependence. Ind. J. Psychiatry 43 (3); 219-224.
- Medianos et al; Family disruption, economic hardship and psychological distress in schizophrenic, can they be measured; Eur. Psychiatry 2004 Nov. 13 (7) 408 - 414.
- Wittmund et al ; Depressive disorders in spouses of mentally ill patients; Soc. Psy. Epidemiology 2002 April, 37(4), 777 - 782.
- Pereira MG de Alameda JM The reparations of mental disease in the family a study of family members of psychotic patients; Acta Med. Post; 1999 Apr. June 12 (4-6) 1618-168.
- Salleh, M.R. (1994) The burden of care in schizophrenia in Malay families. Acta Psychiatrica Scandinavica, 89, 180-185.
- Jungbauer, Mory, Angermeyer; Does caring for a schizophrenic family member increased the risk of becoming ill; Fortser. Neurology & Psychiatry ,2002, Oct. 70 (10), 548-554.
- Moos, R. H. Cronkite R. and Finney J. W. (1990) Alcohol treatment context Process and Outcome. New York Oxford University press.
- Thara, R., Padmavathi, R., Kumar, S. & Srinivasan, L. (1998) Burden Assessment schedule: Instrument to assess burden on caregivers of chronic mentally ill ; Indian Journal of Psychiatry, 40, 21-29.
- Kaplan and Saddock (2004); Comprehensive Textbook of Psychiatry, 7th edition vol. 1; Lippincott Williams
- Folkman S. et al (1994); caregiver burden in HIV Positive & HIV negative partners; Journal of consulting and clinical Psychology; 62; 746-756.
- J.N. Vyas and Niraj Ahuja ; Textbook of Postgraduate Psychiatry, Vol.1, 2nd edition 2003 Jaypee Brothers Medical Publishers (P) Ltd
- Gopinath, P.S. & Chaturvedi, S.K. (1992) Distressing behaviour of schizophrenics at home. Acta Psychiatrica Scandinavia, 86, 185-188.
- Black et al; (1988) Schizophrenia, and schizophreniform disorder ; Talbott text book of psychiatry.
- Coyne et al (1997) Journal of clinical psychology (55) 347-352.
- Bauserman et al 1995; Journal of Behavioural assessment 17, 231-249.
- Möller-Leimkühler A.M. (2005) Burden of relatives and predictors of burden. Baseline results from the Munich 5-year-follow-up study on relatives of first hospitalized patients with schizophrenia or depression. European Archives of Psychiatry and Clinical Neuroscience 255, 223-231.
- Kishor M., Pandit, L. V., & Raguram, R. (2013). Psychiatric morbidity and marital satisfaction among spouses of men with alcohol dependence. Indian Journal of Psychiatry, 55(4), 360-365.