National Board of Examinations - Journal of Medical Sciences
Volume 3, Issue 12, Pages 1493–1511, December 2025
DOI 10.61770/NBEJMS.2025.v03.i12.007

ORIGINAL ARTICLE

Family Burden and Burnout Correlates in Spouses of Persons with Alcohol Dependence, Bipolar Disorder and Schizophrenia

Senthil Kumar Arumugam Subramanian[1,*]

[1]*Department of Psychiatry, Thanjavur Medical College, Thanjavur, Tamil Nadu*

Accepted: 20-November-2025 / Published Online: 4-December-2025

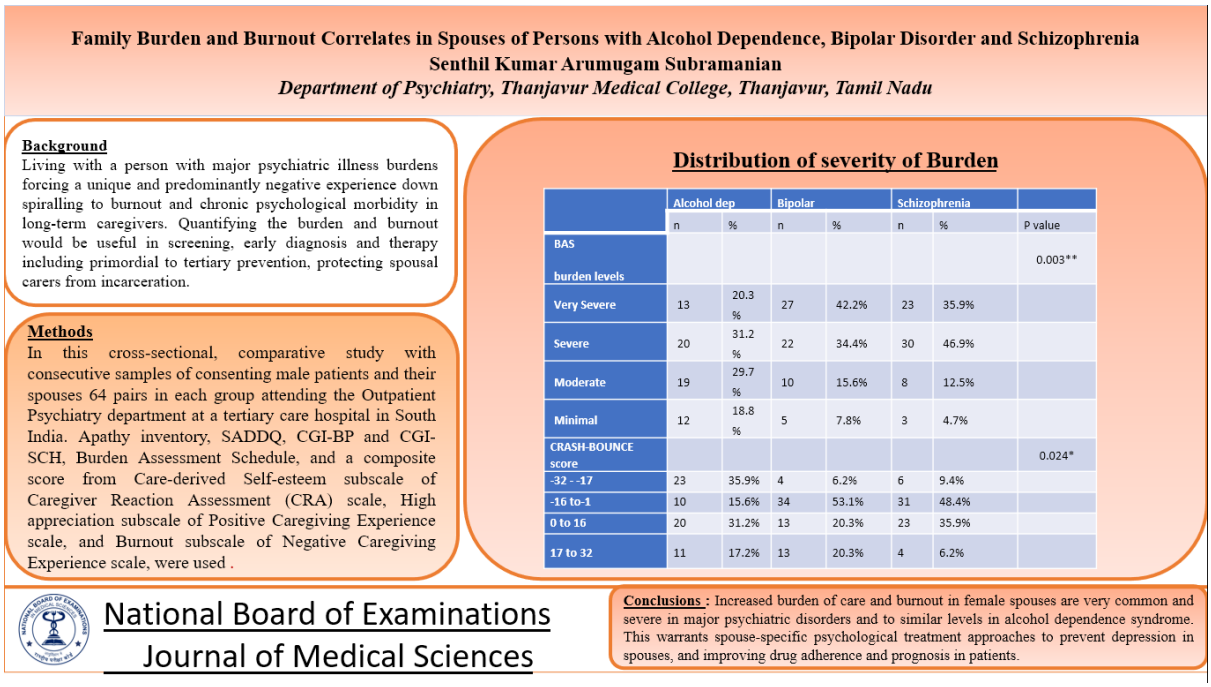
Abstract

Introduction: Living with a person with major psychiatric illness burdens forcing a unique and predominantly negative experience down spiralling to burnout and chronic psychological morbidity in long-term caregivers. Quantifying the burden and burnout would be useful in screening, early diagnosis and therapy including primordial to tertiary prevention, protecting spousal carers from incarceration. **Aims:** The objective was to estimate burden and burnout correlates of caregiving experience, and study their association with severity of illness, apathy and duration of caregiving, among female spouses of persons with alcohol dependence syndrome, bipolar affective disorder and schizophrenia. **Materials and Methods:** In this cross-sectional, comparative study with consecutive samples of consenting male patients and their spouses 64 pairs in each group attending the Outpatient Psychiatry department at a tertiary care hospital in South India. Apathy inventory, SADDQ, CGI-BP and CGI-SCH, Burden Assessment Schedule, and a composite score from Care-derived Self-esteem subscale of Caregiver Reaction Assessment (CRA) scale, High appreciation subscale of Positive Caregiving Experience scale, and Burnout subscale of Negative Caregiving Experience scale, were used. **Results:** Total burden, and burden in 'spouse's mental health' dimension was higher both in bipolar and schizophrenia groups. Spouses perceiving increased apathy had higher burden scores in schizophrenia group, and lower in alcohol group. As duration of caregiving increased beyond 18 years in carers of alcohol dependents, the initial low burden scores spiked to become on par with other groups. Burnout experience was frequent in alcohol group. There was a positive correlation between burden and positive experience (overcoming burnout) with statistical significance, only in schizophrenia group. Burden and positive experience correlated positively with illness severity in all three groups, the most in alcohol group. **Conclusion:** Increased burden of care and burnout in female spouses are very common and severe in major psychiatric disorders and to similar levels in alcohol dependence syndrome. This warrants spouse-specific psychological treatment approaches to prevent depression in spouses, and improving drug adherence and prognosis in patients.

Keywords: Apathy, Burden, Burnout, Caregiving Experience, Alcohol dependence, Bipolar disorder, Schizophrenia

*Corresponding Author: Senthil Kumar Arumugam Subramanian
Email: wentvale@gmail.com

Graphical Abstract



Introduction

Role of family in caregiving is one of the most significant factors in determining the course and outcome in major psychiatric disorders. Spouses as individuals bound with each other by a relationship that is psychological, social and biological. Persons with enduring illness can still be enlivened by eternal and materialistic interdependence, sharing and support, especially offering guidance and solace. A caregiving spouse may encounter more burden in psychological, financial, security and sexual dimensions [1] due to illness, when compared to other caregivers from family.

While a carer provides the skeleton for the patient's progress, burden gives negative caregiving experience invoking social distortions and compulsive adaptations, ultimately reducing the couple's quality of life.

The initial apprehension about the indifference in their eternal companion turns into a prolonged grief, when the spouses gradually becomes aware of the chronicity of the illness. They get puzzled with uncertainty, and sense a curse forbidden with an eternal solitude. They may feel stigmatized, and emote shame, guilt, anger from a sense of having been deceived.

Caregiving disrupts one's personal lifestyle and routine, forcibly alters his or her preferences, dampens enthusiasm and energy in pursuing one's own fantasies and career.

Burden occurring out of privilege or traditional family role, volunteering or compulsion, with altruistic, symbiotic or materialistic facets, evoke a subjective sense of fulfilment as a positive caregiving experience.

Alcohol use disorders and bipolar illness [2] are the second and third leading cause of disability among psychiatric illnesses worldwide. Prognosis worsen drastically with insufficient or inappropriate care, and drug non-compliance [3].

These disorders run a chronic course needing long-term maintenance treatment, and may directly affect patients' personal care, perception of reality, social interaction, functional productivity and personality (aggressive or suicidal behaviour) -often with a hostile reaction towards normal events and innocuous, nonspecific or caring actions of spouses and family members. Overwhelming demands and the resulting embarrassment and interpersonal conflicts increase subjective burden.

In studies by Vohra et al. [4] and Chadda Rakesh et al. [5], both carers of persons with bipolar disorder and schizophrenia felt similar pattern of burden, more in the family routine, finance, leisure and family interaction dimensions. Mueser et al. found more family burden due to manic symptoms than for positive and negative symptoms while comparing carers of patients with bipolar disorder and schizophrenia [6].

Fadden et al reported restricted leisure time increased the burden significantly in the carers who sense doing larger than their fair share in maintaining the marriage [7].

In a study by Perlick et al on 623 caregivers with the baseline data of CATIE, high scores in burden domains like carer routine disruption and resource demands, problematic behaviour, functioning level of activities of daily living and perceived support, were associated with caregiver age and symptom severity, and were the strongest predictors of burden [8], similar to their other study in bipolar disorder [9]. In the latter, misery, irritability, lack of emotional interaction and withdrawal most frequently complicated distressing behaviour in addition.

Indian studies in spouses of persons with schizophrenia found significant association with mental and physical health, especially more fatigue, frustration, anxiety and isolation. Additional financial, treatment, caring routine and social responsibilities over and above the domestic roles added to the excess burden [10]. In addition, self-stigma and level of income determined the high burden in schizophrenia as much as in autism spectrum disorder [11].

Illness severity and patient's apathy

Apathy refers to a reduced interest, involvement in interpersonal relationships, initiative and concern, and flattening of affect. Apathy and other negative symptoms in the patient profoundly contribute to the spouse's perception of appreciation by the patient [12]. It poses difficulties in care, treatment and burden with negative outcomes over time. An interview by Baronet showed poor patient interaction influenced subjective burden the most in carers of mental illnesses [13].

Mueser and Provencher found in carers of persons living with schizophrenia that the negative behaviour like apathy negatively correlated with objective burden [14].

In a study by Mills, odd, disinhibited, or apathetic behaviour, caused more difficulties than daily routine; poor communication in patients was associated with higher burden than express talk [15]. Apathy is typical in depressive phase of bipolar disorder, and chronic schizophrenia. The manic grandiosity, distractibility and disregard dampens the fervour of the carer as does the salience observed in alcohol dependence syndrome. Such apathetic behaviour has a negative impact on motivation for caregiving.

In a study by Pompili et al in primary caregivers over a 48 years period, patients behaviour and patient role deficits caused higher distress in bipolar disorder [3].

Spousal impact in chronic illnesses

Lifespan of unmarried persons with schizophrenia is considerably less compared to that of married persons. This portrays the role of spouses in the prognosis in patients.

Negative symptoms including alogia, avolition, a motivation, flattening of affect, and generalized mental slowing, also tend to frustrate a primary caregiver. This is more so when the latter's subjective burden is not acknowledged, and the patients' repelling nonchalance and delusional behaviour wipes off any lingering resilience. Volunteering as a primary caregiver when the spouse has the option of moving away from the patient doubles the burden up with feelings of frustration from the self-imposed entrapment, overwhelming any gratification from caregiving.

Factors predicting caregiver burden

Other determinants of burden include duration of caregiving, time spent for caregiving, severity of illness, prior hospitalizations, and income [16]. These impact on the carer's innate resiliency, negative caregiving experience, and the propensity for burnout. EPSILON study concluded burden increased with greater duration of caregiving the patients with schizophrenia [17].

Higher burden correlated negatively with emotion-based coping [7] and also drug adherence and treatment outcome in bipolar patients [9]. It was also associated with insufficient self care, lower resilience, higher burnout and enthusiasm in managing emergent problems in alcohol dependents and persons with schizophrenia [8].

Resiliency, vulnerability and factors in burnout

Bouncing back from transient insufficiencies in managing burden is an innate strength denoted by "resiliency". Persistent uncontained burden without any props or channels of de-escalation, dries out caregiver's coping repertoire and gives a sense of insufficiency and vulnerability. When compounded with significant life events, vulnerability lets helplessness in, and the perceived colossal mental fatigue results in a burnout. Resilience was inversely related to the severity of alcohol dependence, history of domestic violence, and severity of depression in wives [18]

Burnout is an acute stress reaction characterized by sense of being overwhelmed, exhaustion, anxiety, depression, and impairment in work performance. This is compensated with immature mechanisms furthering emotional over-involvement, and other expressed emotions, especially critical about patients' unresponsiveness and despise [19].

While gruelling caregiving moulds the fizzed out clayey self into an unhappy, displeased and grumpy personality, better coping and support groups and therapy may be needed to revitalize self-esteem and appreciate life.

Negative experience and burnout

Zarit [20] estimated that 25% to 50% of caregivers meet major depression criteria. Caregivers perceiving extreme stress and burnout are shown ageing prematurely, and reduction of a mean of 10 years from their lifespan [21]. Christakis

and Salaman [22] estimated that in female spouses of patients the mortality risk was increased by 44% while it is 35% in case of male spouses. This risk for extreme ramifications form the rationale for this study.

Aim

To compare the caregiver burden, and net caregiving experience (burnout propensity) between female spouses of males with alcohol dependence syndrome, bipolar affective disorder and schizophrenia. To study the association between severity of illness, duration of caregiving, and apathy as perceived by spouses, and the burden and net caregiving experience/burnout, between these three groups. Primary hypothesis was that there will be no difference in burden and burnout between the caregivers.

Materials and Methods

After institutional ethical committee approval, sample for the study was drawn from male patients with female spouses attending the outpatient psychiatry department at Government Stanley Medical College Hospital, Chennai. It was a cross-sectional, comparative study with convenient consecutive sampling of 64 male patients diagnosed with alcohol dependence, 64 with bipolar affective disorder, and 64 with schizophrenia, along with their female spouses who were fulfilling the study criteria, and consented in writing for participation.

Inclusion criteria included males with more than 10 years duration of alcohol dependence or schizophrenia or bipolar affective disorder, satisfying ICD10 criteria for their corresponding diagnoses, along with their female spouses who are providing care for the patients for more than 10 years duration, all with age more than 20 years, and who provided informed consent for the study. Exclusion criteria included patients and spouses with chronic general medical or neurological illness, patients with other psychiatric conditions, and those related by consanguinity.

After obtaining informed consent from the participants, a semistructured proforma was used to collect the relevant sociodemographic details and clinical profile. Severity of illnesses were measured by: Short Alcohol Dependence Data Questionnaire – SADDQ, Clinical Global Impressions - CGI-BP bipolar patients version –severity scale, and Clinical Global Impressions - CGI-SCH schizophrenia – severity scale, for the corresponding patient groups. Spouses were then assessed with Apathy inventory –caregiver version, Burden Assessment Scale BAS. SPSS20.0 was used for statistical analysis.

Short Alcohol Dependence Data Questionnaire, SADDQ [23] is an instrument to measure the severity of alcohol dependence. It has 15 items, with Likert scoring from 0-never to 3-nearly always. A total of 30 and above shows high dependence severity.

Clinical Global Impression CGI-BP [24] and CGI-SCH [25] are used to assess change in severity and improvement, in both clinical and research settings. The CGI-BP, a user-friendly scale for the assessment of bipolar symptoms, and long-term outcome, is a useful tool for the assessment of the efficacy of several treatments. CGI-SCH scale is a valid, reliable instrument to evaluate severity and treatment response in schizophrenia. Correlation between the CGI-SCH and PANSS scores was high (0.75), and was highest for positive and negative symptoms.

Apathy Inventory (IA)[26] is used in the assessment of: emotional blunting, lack of initiative, lack of interest (based on Marin's syndrome criteria). Of the caregiver and patient-based assessments based on the Y/N format, caregiver version was used here. With a total score of 36, it has better reliability than other apathy rating scales (test-retest 0.96, interrater 0.99); it has been validated in Alzheimer's disease and Parkinson's disease, and other neuropsychiatric conditions. It has a concurrent validity comparable with apathy subscale of Neuropsychiatric inventory.

Burden Assessment Schedule (BAS)[27] by Thara et al to assess subjective burden on caregivers of chronic mentally ill. It has nine domains: spouse related, physical and mental health, external support, caregivers routine, support of patient, taking responsibility, other relations, patients behaviour and caregivers strategy. A total of 40 items were rated on a 3-point scale marked 1-3. Severity can be classified into minimum (40-60), moderate (61-80), severe (81-100), and very severe (above 100).

A composite caregiver reaction, experiences and burnout score (CRASH-BOUNCE score) was given to the spouses using the Care-derived Self-esteem subscale of Caregiver Reaction Assessment (CRA-S) scale, Positive Caregiving Experience(H), and the Burnout subscale of Negative caregiving experience (Bou-NCE) (Table 1a,b). Developed by Given et al. [28] CRA has been used in carers of cancer and neuropsychiatric patients, and has good psychometric properties. Burnout is assessed with how exhausted the caregivers are by the time they go to bed, how overwhelmed are they with things to do, how shrunken is their private time, and how pessimistic and stuck is the task despite their hard work. These items used in studies by Ingersoll-Dayton & Raschick [29], and Lin [30]. Positive caregiving experience included how much did the caregiving make them feel good about themselves and appreciate life more. These subscales have good reliability and validity (α = 0.90 and 0.78). A positive CRASH-BOUNCE score is posited to imply positive net caregiving experience, while negative score imply negative experience i.e. burnout in the carers.

Table 1a. A composite utility caregiver burnout-experience score: The CRASH-BOUNCE score

Item no.	**Items of CRA-S: The Caregiver Reaction Assessment scale: Self-esteem – care-derived subscale** (Given et al., 1992)	Cronbach's α=0.73 (Nijboer et al, 1999)
1	Caring for my partner is important to me.	0.54
2	I enjoy caring for my partner.	0.51
3*	Caring for my partner makes me feel good.	0.50
4	I feel privileged to care for my partner.	0.54

5	I resent having to care for my partner.	0.58
6	I really want to care for my partner.	0.51
7	I will never be able to do enough caregiving to repay my partner.	0.83
	Item for H: *H*ighheld-life subscale of Positive Caregiving Experience (Lin, Fee & Wu, 2012)	
1.	Caregiving made me appreciate life more	α = 0.78

Likert scale for each item, 1-2-3-4-5 for1= Strongly disagree, 2= Disagree, 3= Neither disagree nor agree, 4= Agree, and 5= Strongly agree respectively, for CRA-S and H items, 2-4-6-8-10 respectively for BouNCE items. Reverse scoring for items 5&7 in CRA-S subscale.

Table 1b: A composite utility caregiver burnout-experience score: BouNCE score, and Net Caregiving Experience/burnout score calculation

	Items for BouNCE: ***B***urn***ou***t subscale of ***N***egative ***C***aregiving ***E***xperience (Ingersoll-Dayton & Raschick, 2004)	Cronbach's alpha
1	I am exhausted when I go to bed at night.	α = 0.90 (Lin, Fee & Wu, 2012)
2	I have more things to do than I can handle.	
3	I do not have time just for myself.	
4	I work hard as a caregiver but never seem to make any progress.	
Positive Caregiving Experience (***CRA-S***elf-esteem +***H***-PCE), PCE score (max. 40)		
Negative Caregiving Experience (***B***urn***ou***t-***NCE***), NCE score (max. 40)		
Net Caregiver *CRASH-BOUNCE* score, PCE minus NCE (range -32 to +32).		

Results

Mean age of patients was around 36 to 38 yrs and that of spouses was 33 to 34 yrs, in all the groups (Table 2). About two-thirds of the patients across the alcohol, bipolar and schizophrenia groups (59 vs 73 vs 65% respectively) had completed secondary school. All the three groups had almost equal proportions (around 30-35% each) in the three family types *viz.* nuclear, extended and joint. About 61, 64 and 56.3% of patients had an annual family income 120,000 Rupees or more. About 54.6, 46.9 and 57.8% of spouses in the three groups respectively had not completed secondary schooling. The differences between the groups in all the above parameters were not significant. More spouses contributed for half or more of the family income in the bipolar group than others (61 vs 73 and 65%), difference being statistically significant.

Table 2. Distribution of Sociodemographic variables

	Alcohol dependence	Bipolar disorder	Schizophrenia	p value
Age of Patients, mean (SD)	38.44 (5.08)	37.66 (6.36)	36.48 (5.78)	0.159
Age of Spouses, mean (SD)	33.89 (3.99)	34.08 (5.52)	33.64 (4.81)	0.875
Age distribution_ patient, n (%)				
<=35 YRS	25 (39.1)	32 (50)	26 (40.6)	0.113
36-40 YRS	26 (40.6)	20 (31.2)	26 (40.6)	
41-45 YRS	8 (12.5)	5 (7.8)	12 (18.8)	
46-50 YRS	3 (4.7)	3 (4.7)	0 (0)	
> 50 YRS	2 (3.1)	4 (6.2)	0 (0)	
Age_distribution __spouse, n (%)				
<=35 Yrs	36 (56.2)	42 (65.6)	41 (64.1)	0.609
36-40 Yrs	25 (39.1)	14 (21.9)	20 (31.2)	
41-45 yrs	3 (4.7)	5 (7.8)	1 (1.6)	
46-50Yrs	0 (0)	2 (3.1)	1 (1.6)	
>50 Yrs	0 (0)	1 (1.6)	1 (1.6)	
Education, n (%)				
upto Secondary	26 (40.7)	17 (26.6)	22 (34.4)	0.565
High school	30 (46.9)	34 (53.1)	37 (57.8)	
Graduate	8 (12.5)	13 (20.3)	5 (7.8)	
Spouse education, n (%)				
upto Secondary	35 (54.6)	30 (46.9)	37 (57.8)	0.609
High school	15 (23.4)	21 (32.8)	18 (28.1)	
Graduate	14 (21.9)	13 (20.4)	9 (14.1)	
Family type, n (%)				
Nuclear	21 (32.8)	23 (35.9)	24 (37.5)	0.978
Extended	23 (35.9)	22 (34.4)	20 (31.2)	
Joint	20 (31.2)	19 (29.7)	20 (31.2)	

Annual family income, n (%)				
< INR 60,000	12 (18.8)	12 (18.8)	10 (15.6)	0.77
INR 60,000-120,000	13 (20.3)	11 (17.2)	18 (28.1)	
INR 120,000-180,000	22 (34.4)	26 (40.6)	24 (37.5)	
> INR 180,000	17 (26.6)	15 (23.4)	12 (18.8)	
Spouse contribution_income_1yr, n (%)				
<10 %	2 (3.1)	8 (12.5)	8 (12.5)	0.045 *
11-25%	6 (9.4)	0 (0)	0 (0)	sig
26-50%	17 (26.6)	9 (14.1)	14 (21.9)	
51-75%	11(17.2)	16 (25)	12 (18.8)	
Over 75%	28 (43.8)	31 (48.4)	30 (46.9)	

Though spouses in the alcohol group with >18 years of caregiving were more than other groups (28% vs 9 and 20%), the difference was statistically insignificant, and the groups were comparable (Table 3).

Table 3: Caregiving duration and frequency of hospitalizations.

	Alcohol	Bipolar	Schizophrenia	*P* value (*significant if p<0.05)
Duration of caregiving n (%)				
10-13 yrs	37 (57.80)	41 (64.10)	37 (57.80)	0.194
14-17 yrs	9 (14.10)	17 (26.60)	14 (21.90)	
18-21 yrs	12 (18.80)	4 (6.20)	9 (14.10)	
>21 yrs	6 (9.40)	2 (3.10)	4 (6.20)	

Frequency of psychiatric admissions - past 10 yrs				
>6	5 (7.8)	8 (12.5)	13 (20.3)	0.727
5 to 6	19 (29.7)	21 (32.8)	17 (26.6)	
3 to 4	25 (39.1)	22 (34.4)	23 (35.9)	
1 to 2	9 (14.1)	9 (14.1)	7 (10.9)	
0	6 (9.4)	4 (6.2)	4 (6.2)	

The frequency of hospital admissions in past 10 years was high in schizophrenia group (20% vs 8 and 12% having more than six admissions), though it was not statistically significant.

More spouses in bipolar and schizophrenia groups had severe burden levels than alcohol group (76% and 82% vs 51%) and the difference was statistically significant (Table 4).

Table 4. Distribution of severity of Burden, and Burnout-Burnout-Experience (CRASH-BOUNCE scores):

	Alcohol dep		Bipolar		Schizophrenia		
	n	%	n	%	n	%	P value
BAS burden levels							0.003**
Very Severe	13	20.3%	27	42.2%	23	35.9%	
Severe	20	31.2%	22	34.4%	30	46.9%	
Moderate	19	29.7%	10	15.6%	8	12.5%	
Minimal	12	18.8%	5	7.8%	3	4.7%	
CRASH-BOUNCE score							0.024*
-32 - -17	23	35.9%	4	6.2%	6	9.4%	
-16 to-1	10	15.6%	34	53.1%	31	48.4%	
0 to 16	20	31.2%	13	20.3%	23	35.9%	
17 to 32	11	17.2%	13	20.3%	4	6.2%	

Spouses had frequent very severe (-32 to -17) negative experience scores (caregiving reaction/experience minus burnout, the CRASH-BOUNCE scores) in alcohol dependence than other two groups (35% vs 6 and 9%).

Total burden scores, and burden with 'spouse's physical and mental health' dimension was higher both in bipolar and schizophrenia groups (Table 5). Bipolar group had the most burden related to 'patient-related' (marital deficits) dimension. Schizophrenia group had the most burden in 'the taking responsibility' (for financial needs) and 'the other relations' (family stability and affording friendships) dimensions. These findings were statistically significant.

Table 5. Comparison of Burden Domains

Burden domains	Alcohol dep		Bipolar disorder		Schizo-phrenia		
	Mean (SD)	95% C.I.	Mean (SD)	95% C.I.	Mean (SD)	95% C.I.	F
BAS spouse related	8.69 (2.74)	8.00-9.37	13.36 (2.19)	12.81-13.90	11.47 (2.83)	10.76-12.18	52.172***
BAS mental health	12.33 (3.67)	11.41-13.24	16.23 (2.28)	15.66-16.80	16.56 (1.63)	16.15-16.97	49.969*
BAS support	8.08 (2.73)	7.40-8.76	9.77 (2.70)	9.09-10.44	10.09 (2.90)	9.37-10.82	9.681
BAS routine	12.53 (2.43)	11.92-13.14	13.34 (2.21)	12.79-13.90	13.42 (1.48)	13.05-13.79	3.597
BAS pt support	9.48 (2.33)	8.90-10.07	8.98 (2.14)	8.45-9.52	8.39 (2.12)	7.86-8.92	3.967
BAS responsibility	6.78 (2.19)	6.24-7.33	8.75 (2.62)	8.09-9.41	10.91 (1.37)	10.57-11.25	60.408*
BAS other relations	7.16 (1.90)	6.68-7.63	7.52 (1.35)	7.18-7.85	8.27 (1.06)	8.00-8.53	9.432**
BAS pt behavior	8.84 (2.33)	8.26-9.43	9.00 (2.22)	8.45-9.55	10.42 (1.60)	10.02-10.82	11.235
BAS strategy CG	7.66 (2.64)	7.00-8.32	8.20 (2.20)	7.65-8.75	8.61 (2.35)	8.02-9.20	2.534
BAS total	81.55 (16.88)	77.33-85.76	94.17 (15.67)	90.84-98.66	98.20 (14.97)	94.46-101.94	19.663*

significant p value, * $p<0.05$; ** <0.01; *** <0.001

Total burden scores for the female spouse carers increased suddenly after 18 years of duration of caregiving in alcohol group, while the perceived burden eased off substantially after 21 years in bipolar and schizophrenia groups (Table 6). Burden scores progressively increased in all three groups as patients' apathy increased, and were the highest in schizophrenia group, and the lowest in the alcohol group. These ANOVA findings were found to be statistically significant in alcohol

dependence group compared to the other two groups as per Tukey's HSD ad-hoc tests. There was no significant difference between the bipolar and schizophrenia groups. Burden scores were high in schizophrenia, and increased proportionately with increase in severity of illness in all groups; they were more condensed and normal (SD <3 vs 16) in bipolar and schizophrenia groups compared to the alcohol group. These differences in patterns were statistically significant between each of the groups.

Table 6. Burden scores w.r.t. Caregiving duration, apathy, and illness severity

Dependent Variable: BAS total burden score ANOVA								
Duration_of_ caregiving	Alcohol Dep Mean, (n)	SD	Bipolar Mean, (n)	SD	Schizo phrenia Mean (n)	SD	df, F[p]	Tukey HSD Post-Hoc Test#
10-13 Yrs	73.00 (37)	14.88	96.35 (34)	13.17	95.30 (37)	16.81	6 5.67**	a** bs bs
14-17 Yrs	77.14 (9)	14.25	96.88 (16)	13.84	102.07 (14)	8.38		
18-21 Yrs	100.83 (12)	12.91	92.29 (7)	15.87	110.00 (9)	14.67		
>21 Yrs	94.09 (6)	13.27	79.29 (7)	21.55	98.89 (4)	8.76		
Total	82.58 (64)	17.37	94.17 (64)	15.30	98.20 (64)	14.97		
Apathy Inventory								
severe apathy	94.57 (23)	9.40	101.67 (15)	7.55	112.50 (16)	4.60	6 6.59***	a*** bs bs
moderate	83.75 (12)	12.18	91.32 (19)	17.50	99.97 (32)	8.80		
mild	73.95 (22)	16.03	84.45 (20)	13.87	81.64 (11)	10.98		
no apathy	68.29 (7)	24.69	87.81 (10)	2.10	77.60 (5)	20.53		
Total	82.58 (64)	17.37	94.17 (64)	15.30	98.20 (64)	14.97		

Severity_ of_illness§								
High	92.32 (22)	13.47	100.81 (51)	1.94	105.23 (43)	3.75	4 2.76**	a*** b* s*
Medium	80.75 (36)	16.21	77.42 (7)	2.28	89.38 (16)	1.76		
Low	57.83 (6)	5.31	57.33 (6)	0.73	66.20 (5)	1.32		
Total	82.58 (64)	17.37	94.17 (64)	15.30	98.20 (64)	14.97		

§ SADDQ score in alcohol dependence group: High (score 20-45), Medium (10-19), Low (1-9); CGI-BP score in bipolar group, and CGI-SCH score in schizophrenia group: High (score 7,6), Medium (5,4), Low (3,2,1);
# single letter denotes the group is significantly different from the other groups;
"a" alcohol dependence group; "b" bipolar disorder group; "s" schizophrenia group;
[p] significant p value; * p<0.05; ** <0.01; ***<0.001

Only spouses with schizophrenia patients had moderately positive correlation between their burden and net experience levels (i.e. lower relative burnout) with statistical significance (Table 7). Burden correlated positively with illness severity in all three groups with statistical significance. Net experience more positively correlated with illness severity in the alcohol group, and less positive (higher relative burnout) in other groups.

Table 7. Correlation between Burden, Reaction-Experience-Burnout, and Illness severity

	Alcohol dependence		Bipolar disorder		Schizophrenia	
Correlation coefficient	CRASH-BOUNCE score **τb**	Severity of illness **ρ**	CRASH-BOUNCE score **τb**	Severity of illness **ρ**	CRASH-BOUNCE score **τb**	Severity of illness **ρ**
Burden type	.088 (.45)	.899 (<.001)***	.058 (.64)	.639 (.047)*	.308 (.002)**	.769 (.037)*
CRASH-BOUNCE score	1	.846 (.001)**	1	.545 (.039)*	1	.468 (.036)*

ρ, Spearman **ρ**; **τb**, Kendall's tau-b;
* p<0.05; ** <0.01; ***<0.001, significant p value

In alcohol group, many (10/22) with just moderate burden had very severe net burnout-experience (more scores of -32 to -17), but in bipolar and schizophrenia groups only few (1/27;5/23) with very severe burden had very severe burnout-experience

(-16 to -1) only mostly. Similarly in alcohol group even those (23/35) with medium to high illness severity had very severe burnout-experience, but only few (4/49;6/43) with high illness severity showed very severe burnout in other groups. Both these findings were statistically significant (Table 8).

Table 8a. Distribution of Reaction-Experience-Burnout w.r.t. Illness severity

		Alcohol dep		Bipolar		Schizophrenia	
Illness Severity	CRASH BOUNCE score	n	%	n	%	n	%
High	-17_-32	11	17.19%	4	6.25%	6	9.37%
	-1_-16	7	10.94%	30	46.88%	24	37.5%
	0-16	3	4.69%	6	9.38%	12	18.75%
	17-32	1	1.56%	9	14.06%	1	1.56%
Medium	-17_-32	12	18.75%	0	0.00%	0	0.00%
	-1_-16	3	4.69%	4	6.25%	4	6.25%
	0-16	16	25%	4	6.25%	9	14.06%
	17-32	5	7.81%	2	3.13%	3	4.69%
Low	-17_-32	0	0.00%	0	0.00%	0	0.00%
	-1_-16	0	0.00%	0	0.00%	3	4.69%
	0-16	1	1.56%	3	4.69%	2	3.13%
	17-32	5	7.81%	2	3.13%	0	0.00%
Severity Chi² tests	***(df, X²)***	*df= 6*	*X²= 31.44***	*df=6*	*X²= 13.21**	*df=6*	*X²= 13.37**

* p<0.05; ** <0.01; ***<0.001, significant p value

Table 8b. Distribution of Caregiver-Experience-Burnout w.r.t. Burden severity types

		Alcohol dep		Bipolar		Schizophrenia	
BAS burden severity type	CRASH BOUNCE Score	n	%	n	%	n	%
Very Severe	-17_-32	2	3.13%	1	1.56%	5	7.81%
	-1_-16	2	3.13%	14	21.88%	13	20.31%

	0-16	0	0%	3	4.69%	5	7.81%
	17-32	0	0%	9	14.06%	0	0%
Severe	-17_-32	8	12.5%	3	4.69%	1	1.56%
	-1_-16	6	9.38%	16	25%	13	20.31%
	0-16	11	17.19%	3	4.69%	13	20.31%
	17-32	1	1.56%	0	0%	3	4.69%
Moderate	-17_-32	10	15.63%	0	0%	0	0%
	-1_-16	2	3.13%	4	6.25%	3	4.69%
	0-16	6	9.38%	4	6.25%	4	6.25%
	17-32	4	6.25%	2	3.13%	1	1.56%
Minimal	-17_-32	3	4.69%	0	0%	0	0%
	-1_-16	0	0%	0	0%	2	3.13%
	0-16	3	4.69%	3	4.69%	1	1.56%
	17-32	6	9.38%	2	3.13%	0	0%
BAS type Chi² tests	*(df, X²)*	*df =9*	*X²=21 .23**	*df=9*	*X²=22. 79***	*df=9*	*11.82*

* p<0.05; ** <0.01; ***<0.001, significant p value

Discussion

All three groups had comparable patient and spouse demographic characteristics like age, education, family type, earnings and duration of caregiving, as the differences were statistically non-significant. In caregivers of patients with schizophrenia burnout scores were higher with lack of support during caregiving [31].

In the study about 82% and 76% spouses had severe levels of burden in schizophrenia and bipolar disorder groups, compared to around 51% from alcohol dependence group. These results were identical to those from comparison studies by Swapna et al in South India [32] between alcohol and bipolar (45% and 66% severe burden). Over 80% of the caregivers of persons with schizophrenia showed moderate burden in the study by Liang et al. [33].

Total burden, and burden in 'spouse's mental health' dimension was higher both in bipolar and schizophrenia groups. The higher burden severity in schizophrenia caregivers were comparable to the study by Kumar et al. [10].

The spouses had higher burden levels in 'spouse(patient) related' dimension among bipolar group, while other findings were similar to previous studies [5] where caregivers from bipolar and schizophrenia groups suffered similar levels of burden and had a positive correlation with domains like 'physical and mental health,' 'caregivers' routine,' 'taking responsibility.'

The mean burden score in spouses of persons with schizophrenia was

77.7±1.5, similar to that in the alcohol dependence group (78.4±1.7) in a study by Kumar et al. [34].

Conjugal carers of patients exhibiting increased apathy had burden levels higher in schizophrenia group than alcohol group in the Liang et al study [33]. In a study by van Reekum et al. severity of psychotic symptoms and apathy are related to higher levels of carer burden, and impact drug responses in schizophrenia [35]; in few other studies, burden was higher with such associated factors in bipolar affective disorder [36] than in alcohol dependence syndrome. As duration of caregiving increased beyond 18 years in carers of alcohol dependents, the initial low burden scores spiked to become on par with other groups. Burnout experience was severe and more frequent in alcohol group.

There was a moderate positive correlation between burden and positive experience (overcoming burnout) with statistical significance, only in schizophrenia group. Burden and positive experience correlated positively with illness severity in all three groups, the most in alcohol group. Greater scores of hopefulness and self-esteem in the caregiver correlated with lower family burden perception [37]. Correlation between negative caregiver reaction and higher burnout scores reflected similar results from studies on chronic mental and physical illnesses [28,38].

Conclusion

Though female spouses of persons with schizophrenia and bipolar groups had profound burden of care, more spouses of alcohol dependents showed the highest burnout experience.

Severity of illness significantly correlated with the burden observed in the spouses in all the three groups, while burden increased with perceived apathy in schizophrenia and bipolar groups. Less burden and more burnout scores in alcohol group implied hidden and unexplored detrimental factors worsening the burnout. More burden but lesser burnout levels in schizophrenia and bipolar groups validated higher self-gratification and appreciation from caregiving.

The study differentiated high burden concerns in female spouses of persos with major psychiatric disorders like bipolar disorder and schizophrenia, from severe burnout concerns in alcohol dependence. This warrants family-focused psychological treatment approaches, and targeted economic and social supportive measures for spouses including group support. This would prevent psychiatric morbidity in spouses, and improving treatment adherence and prognosis in patients of alcohol dependence, bipolar disorder and schizophrenia.

Limitations

The authors acknowledge the need to substantiate the findings from this study with larger standardized sample size, including more patients and spouses in above 50 years of age group, and effect of physical constraints due to age on care, peri/post-menopausal physical and psychological factors, and personality traits, on the burden.

Statements and Declarations

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for profit sectors.

Conflict of interest

The authors declare there were no conflict of interests.

References

1. Lam D, Donaldson C, Brown Y, Malliaris Y. Burden and marital and sexual satisfaction in the partners of bipolar patients. Bipolar Disord. 2005;7:431–440.
2. Global Status Report on Alcohol and health. World Health Organization (WHO). Geneva. 2014.
3. Maurizio Pompili et al. Impact of living with bipolar patients: Making sense of Caregivers' burden. World J. Psychiatry. 2014; 4(1): 1-12.
4. Vohra AK, Garg S, Gaur DR. A study of burden on families of schizophrenia and depressive disorders: Indian J Psychiatry 2000; 42:33.
5. Chadda RK, Singh TB, Ganguly KK. A prospective study of relationship of caregivers' mental health with the perceived burden and coping in schizophrenia and bipolar affective disorder. Indian J Soc Psychiatry 2010;25:45 51.
6. Mueser KT, Webb C, Pteiffer M, Gladis M, Levinson DF. Family burden of schizophrenia and bipolar disorder: perceptions of relatives and professionals: Psychiatr Serv. 1996; 47:507-511.
7. Fadden G, Bebbington P and Kuipers L. The burden of care: The impact of functional psychiatric illness on the patient's family. Br J Psychiatry 1987; 150:285-292.
8. Perlick D, Rosenbeck R, Kaczynski R, Swartz M. Special section on CATIE baseline data. Psychiatric Services 2006;57:1117-26.
9. Perlick D, Miklowitz DJ, Lopez N et al. Family–founded treatment for caregivers of patients with bipolar disorder. Bipolar Disord. Sep. 2010;12(6):627-637.
10. Kumar S, Mohanty S. Spousal burden of care in schizophrenia: J Indian Acad Appl Psychol. 2007;33(2):189-194.
11. Yıldız M, Demir Y, Kırcalı A, İncedere A. Caregiver Burden in Schizophrenia and Autism Spectrum Disorders: A Comparative Study. Psychiatry Investig. 2021 Dec;18(12):1180-1187. Doi: 10.30773/pi.2021.0165. Epub 2021 Dec 8. PMID: 34872240; PMCID: PMC8721291.
12. Aarsland D, Cummings JL. Neuropsychiatric differences between Parkinson's disease with dementia and Alzheimer's disease. Intl J Geriatric Psychiatry 2001;16:184-191.
13. Baronet AM. Factors associated with caregiver burden in mental illness: A critical review of the research literature. Clin Psychol Rev. 1999; 19(7):819-841.
14. Provencher HL, Mueser KT. Positive and negative symptom behaviour and caregiver burden in the relatives of persons with schizophrenia: Schizophr Res. 1997; 26:71-80.
15. Mills E. Living with Mental Illness: A Study in East London, London: Routledge & Kegan Paul; 1962.
16. Trivedi S, Chandrashekaran R, Venugopalan M. An epidemiologic study of psychiatric morbidity in rural area of Pondicherry. Abstracts 41st annual Conference of Indian Psychiatric Society, 1988.

17. Boland R, Verduin M. Kaplan and Sadock's Comprehensive Textbook of Psychiatry 11th Edition: Lippincott Williams & Wilkins (LWW) ISBN: 978-1-97-517573-3: Philadelphia, P.A. 2024.
18. Sreekumar S, Subhalakshmi TP, Varghese PJ. Factors associated with resilience in wives of individuals with alcohol dependence syndrome. Indian J Psychiatry. 2016 Jul-Sep;58(3):307-310. doi: 10.4103/0019-5545.192025. PMID: 28066009; PMCID: PMC5100123.
19. Ogilive AD, Morant N, Goodwin GM. The burden of informal caregivers of people with bipolar disorder: Bipolar Disord. 2005; 7:25-32.
20. Zarit S. Assessment of Family caregiver. A Research Perspective. 2006.
21. Epel ES et al. "Premature ageing and stress". From the Proceedings of the National Academy of Sciences, Dec 2004: vol. 101, No.49.
22. Christakis N, Salamon S. "Carer's mortality in stressful events". New England Journal of Medicine, 2006.
23. Davidson R, Raistrick D. The validity of the Short Alcohol Dependence Data (SADD) Questionnaire: A short self-report questionnaire for the assessment of alcohol dependence. British Journal of Addiction 1986;81:217-222.
24. Spearing MK, Post RM, Leverich GS, Brandt D, Nolen W. Modification of the Clinical Global Impressions (CGI) Scale for use in bipolar illness (BP): the CGI-BP. Psychiatry Res 1997; 73(3):159–71.
25. Haro JM, et al. Assessment of remission in schizophrenia with the CGI and CGI-SCH scales. Acta Psychiatr Scand. 2006;115(2):163-4.
26. Robert PH, Clairet S, Benoit M, Koutaich J, Bertogliati C, Tible O, Caci H, Borg M, Brocker P, Bedoucha P. The Apathy Inventory: assessment of apathy and awareness in Alzheimer's disease Parkinson's disease and Mild cognitive impairment. International Journal of Geriatric Psychiatry, 17: 1099 – 1105, 2002.
27. Thara R, Padmavati R, Kumar S et al. Instrument to assess burden on caregivers of chronic mentally ill. Indian Journal of Psychiatry. 1998;40:21-29.
28. Given CW, Given B, Stommel M, Collins C, King S, Franklin S. The caregiver reaction assessment (CRA) for caregivers to persons with chronic physical and mental impairments. Res Nurs Health. 1992 Aug;15(4):271-83.
29. Lin IF, Fee HR, Wu HS. Negative and positive caregiving experiences: A closer look at the intersection of gender and relatioships. Fam Relat. 2012;61(2):343–358. Doi:10.1111/ j.1741-3729.2011.00692.x
30. Ingersoll-Dayton B, Raschick M. The relationship between care-recipient behaviors and spousal caregiving stress. The Gerontologist. 2004; 44:318–327. [PubMed: 15197286]
31. Demirbas H, Ozel Kizil ET. Burnout and Related Factors in Caregivers of outpatients with Schizophrenia. Insights Depress Anxiety 2017; 1: 001-011.
32. Swapna B, Sudarshan CY, Begum S. Burden on caregivers in bipolar affective disorder and alcohol. Int J Biol Med Res. 2012;3:1992–7.

33. Liang F, Du H, Liu X, Zheng M, He C. Factors associated with caregiver burden among family members of persons with schizophrenia in urban communities of China. Int J Psychiatry Med. 2025 Jul;60(4):378-394. doi: 10.1177/00912174241292702
34. Kumar S, Ravan JR, Thakur B, Banerjee A. Factors related to high caregiver burden of wives of patients with alcohol dependence syndrome: A case-control study from Eastern India. J Family Med Prim Care. 2024 Oct;13(10):4628-4633. doi: 10.4103/jfmpc.jfmpc_476_24.
35. van Reekum R, Stuss DT, Ostrander L. Apathy: Why care? The Journal of Neuropsychiatry and Clinical Neurosciences. 2005;17(1):7–19. https://doi.org/10.1176/jnp.17.1.7
36. Magliano L, Orrico A, Fiorillo A, Del Vecchio H, Castiello G, Malangone C, IMDS Working Group. Family burden in bipolar disorders: results from the Italian Mood Disorders Study (IMDS). Epidemiology and Psychiatric Sciences, 2009;18(2):137-146.
37. Clari R, Headley J, Egger J, Swai P, Lawala P, Minja A, Kaaya S, Baumgartner JN. Perceived burden and family functioning among informal caregivers of individuals living with schizophrenia in Tanzania: a cross-sectional study. BMC Psychiatry. 2022 Jan 4;22(1):10. doi: 10.1186/s12888-021-03560-0.
38. Nijboer C, Triemstra M, Tempelaar R, Sanderman R, van den Bos GA. Measuring both negative and positive reactions to giving care to cancer patients: Psychometric qualities of the caregiver reaction assessment (CRA). Soc Sc & Med, 1999;48:1259–1269.