

Spousal burden in partners of patients with major depressive disorder and bipolar disorder

Joanna Borowiecka-Karpiuk¹, Dominika Dudek², Marcin Siwek²,
Rafał Jaeschke²

¹ Community Treatment Team – Dr J. Babinski Specialist Hospital in Krakow
Director: lek. K. Wrzesień

² Affective Disorders Unit, Psychiatry Department of Jagiellonian University
Medical College in Krakow
Head: prof. dr hab. n. med. D. Dudek

Summary

Objective: The objective of this study was to investigate the relationship between the burden level of spouses of patients in the symptomatic remission state of the major depressive disorder (MDD; 60 patients) or bipolar disorder (BD; 65 patients) and coping styles.

Methods: The Involvement Evaluation Questionnaire was used to assess the burden magnitude. Coping styles were evaluated by the Coping Inventory for Stressful Situation. Information concerning patients' clinical histories, a marriages characteristics and sociodemographic data were obtained from a structured clinical interview.

Results: There were significant levels of the perceived burden in spouses of patients with either BD or MDD. In both groups the burden level was significantly higher for spouses with worse appraisal of the marital adjustment and functioning. A positive correlation between higher perceived level of burden and emotion-focused coping style was found in both groups. For the problem-oriented coping style a negative correlation with the perceived burden level was found in the BD group only. The quality of 'current sexual satisfaction' was significantly lower among the spouses of BD patients. The sense of illness-driven deterioration of the quality of their sexual lives implied higher level of total and objective burden of spouses in the MDD sample. This was not the case among the spouses of patients diagnosed with BD.

Conclusions: Spouses of patients with affective disorders should be offered with opportunities of training in more effective methods of coping (including problem-solving methods) with an illness of a family member, in order to decrease the level of burden.

Key words: bipolar disorder, major depressive disorder, spousal burden

Introduction

Family burden is considered to be a multidimensional problem, most frequently defined in terms of the influence exerted by the situation of an illness on a patient's

caregiver, and in the context of its emotional, psychological, physical and economic consequences [1, 2]. It is the important difficulty encountered by spouses of patients with affective disorders (being the most predominant group of the patients' caregivers). Perlick et al. [3] revealed that spouses of subjects with bipolar disorder (BD) experienced more severe burden in comparison to other relatives and generational family members. This was also the case among the caregivers of patients with other affective disorders [3-6], as well as in the partners of individuals with subthreshold mood symptoms in course of BD (since the above-mentioned symptoms are known to be related to significant distress, social withdrawal, changes in social or occupational roles, and fear of the anticipated relapses of the disorder) [7]. However, data on the specific issue of spousal burden in this diagnostic cluster is scarce.

In the research on the family burden a growing attention is paid to opportunities and methods of coping with problems resulting from the life with a family member suffering from mental disorders (including affective disorders) [8]. The perceived burden in an aspect of coping is a resultant of an interaction between one's appraisal of requirements one should meet, one's possibilities and resources to cope with them and methods used to cope with stress. A coping style is a distinctive tendency to use certain strategies in various stressful situations, which is specific to any given individual. In other words, it is a habitual use of a set of definite strategies to remove or diminish stress level. The styles have been further divided into categories: task-oriented (i.e. a prominent tendency towards facing the problem head on, by taking necessary measures of solving a problem), emotion-oriented (characterized by wishful thinking, daydreaming, and focusing on one's emotions), and avoidance-oriented coping style (observed in those individuals who tend to avoid experiencing and thinking of a stressful situation) [9-12].

The aim of this study was to examine the relationship between the severity of family burden in spouses of remitted patients with either major depressive disorder (MDD) or bipolar disorder (BD), and coping styles of either patients or their partners. The relationship between the level of sexual satisfaction within a marriage and the magnitude of spousal burden has also been analysed.

Materials and methods

We included into the study 60 married couples where one of the spouses suffered from MDD and 65 couples where one of the spouses suffered from BD. The patients were recruited at the Affective Disorders Outpatient Clinic. The inclusion criteria for patients were as follows: age 18–65, informed consent for participation in the trial, fulfilment of ICD-10 diagnostic of MDD or BD, symptomatic remission. Inclusion criteria for spouses were: age 18–65, informed consent for participation in the trial, no previous psychiatric treatment. In order to be included in the study spouses were supposed to share their household. The exclusion criteria were: a rejection of consent for participation in the trial, addiction to alcohol or any other substance (except of nicotine), diagnosis of dementia, mental retardation, and serious somatic or neurological illness. The study was being performed in the years 2007–2009.

Data regarding patients' clinical history, marriage characteristics and sociodemographic factors were obtained from a structured clinical interview. The current symptom severity was rated on the Hamilton Depression Rating Scale (HDRS₁₇, cut-off score of 7 pts.) [13], and the Young Mania Rating Scale (YMRS, cut-off score of 6 pts.) [14]. To evaluate the level of the spouses' burden, as well as its dimensions and sub-dimensions the Involvement Evaluation Questionnaire (IEQ) was used [15-17]. Coping styles of patients and their spouses were determined on the basis of the Coping Inventory for Stressful Situations (CISS), which distinguishes between the following three coping styles: task-oriented (TO), emotion-oriented (EO) and avoidance-oriented (AO) [18-20].

The relation between the burden and the coping style was analysed in a two-fold way. At first, on the basis of the CISS scores, the predominant coping style had been determined, and the indices of burden have been compared between groups differing in terms coping styles. Secondly, the analysis correlation between the IEQ and CISS scores has been performed.

For statistical analyses of the data gathered the Statistica software (ver. 6.0 and 8.0) were used [21].

Every patient was examined only once during the study.

Sociodemographic characteristics of the groups

125 married couples were enrolled in the trial. The analysed groups did not differ in terms of age, level of education, place of living, employment status and family income per capita. As for sociodemographic factors, the only statistically important difference between groups was sex distribution within the groups, but this finding remains consistent with epidemiological data on MDD and BD [22].

Comparison of the most important sociodemographic data regarding MDD and BD populations has been presented in Table 1.

Table 1. Comparison of the selected sociodemographic factors between the MDD the BD samples.

	MDD		p	BD	
	Spouses	Patients		Spouses	Patients
Number of subjects	60	60		65	65
female	15 (25%)	45 (75%)	p=0,034* ^a	28 (43.1%)	37 (56.9%)
male	45 (75%)	15 25%	p=0,034* ^a	37 (56.9%)	28 (43.1%)
Age	51.3 ± 7.1	49.6 ± 7.4	NS	48.3 ± 9.3	48.7 ± 7.9
female	48.9 ± 6.9	49.4 ± 7.7	NS	46.8 ± 9.1	48.3 ± 7.9
male	52.1 ± 7.1	50.4 ± 6.6	NS	49.4 ± 9.5	49.3 ± 7.9
Education					
higher	14 (23.3%)	11 (18.4%)	NS ^a	16 (24.6%)	15 (23.1%)

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secondary	42 (70.0%)	47(78.3%)	NS ^a	47 (72.3%)	48 (73.8%)
elementary	4 (6.7%)	2 (3.3%)	NS ^a	2 (3.1 %)	2 (3.1%)
Living place					
town ≥100 000	27 (45.0%)	27 (45.0%)	NS ^a	27 (41.6%)	27 (41.6%)
town <100 000	14 (23.3%)	14 (23.3%)	NS ^a	22 (33.8%)	22 (33.8%)
village	19 (31.7%)	19 (31.7%)	NS ^a	16 (24.6%)	16 (24.6%)
Employment status					
working	45 (75%)	25 (41.7%)	NS ^a	47 (72.3%)	18 (27.7%)
not working	15 (25%)	35 (58.3%)	NS ^a	18 (27.7%)	47 (72.3%)
disability pension		26			39
Monthly income per capita	171 ± 107 €		NS ^b	186 ± 172 €	

* denotes statistical significance (p <0.05)

NS – statistically non-significant (p ≥0.05)

^a Chi² test

^b t-Student test

BD – bipolar disorder

MDD – major depressive disorder

Results

Family burden of spouses

In both groups the level of burden was significant. There were no statistically significant differences between BD and MDD groups in the level of burden, as well as in its dimensions and sub-dimensions, except of the sub-dimension of ‘supervision’ (more pronounced in the BD group). But in this sub-dimension the level of the perceived burden is not significant (average value <1). The highest levels of burden in both groups were connected with such sub-dimensions as ‘worrying’ (subjective) and ‘urging’ (objective). It was connected with fear concerning safety of a patient, his/her general health and therapy, worries about his/her future as well as with problems concerning encouraging a patient and helping him/her take care of themselves. It was also connected with the need to check whether a patient takes prescribed medicines and keeps a proper diet and taking up patient’s duties (Tab. 2).

Table 2. Comparison of the level of the perceived burden between the BD and MDD samples.

	Mean score (BD)	SD (BD)	Mean score (MDD)	SD (MDD)	p
Burden level	1,35	0,70	1,19	0,51	0,151
Objective	1,20	0,91	0,99	0,70	0,075

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urging	1,62	1,00	1,39	0,82	0,133
supervision	0,77	0,63	0,58	0,40	0,046*
Subjective	1,51	0,72	1,44	0,48	0,618
tension	1,12	0,81	1,04	0,48	0,473
worrying	1,89	0,96	1,85	0,83	0,845
t-Student test					

* denotes statistical significance ($p < 0.05$)

BD – bipolar disorder

MDD – major depressive disorder

Neither within nor between BD and MDD groups were significant inter-gender differences in terms of the severity of the burden perceived. Thus, the gender imbalance in the research groups (Tab.1) did not influence the observed level of burden. We found no relationship between sociodemographic factors and the scale of the perceived burden.

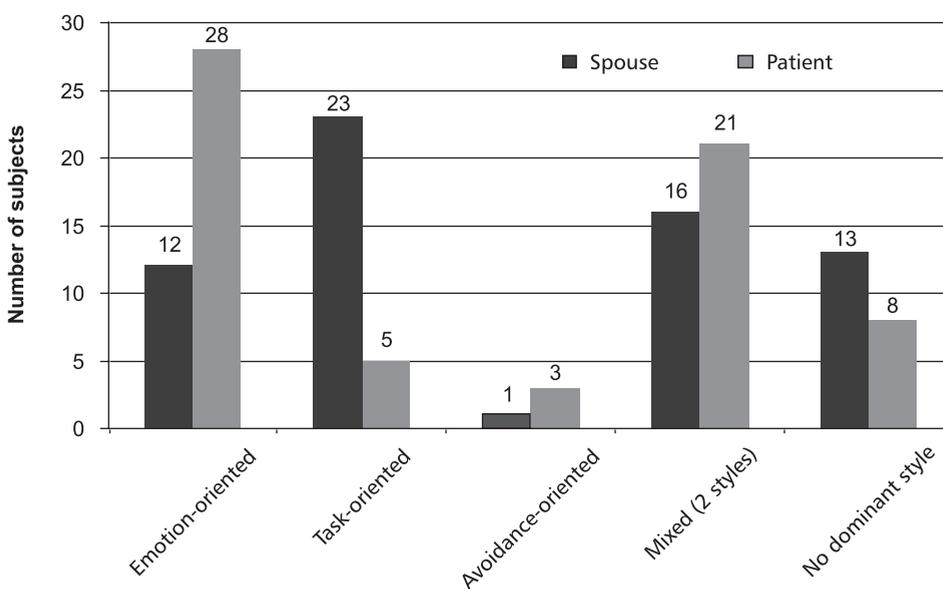


Figure 1. Predominant coping styles for spouses and patients in the BD sample.

*Spouses' burden and coping style**The BD sample.*

The distribution of predominant coping styles among patients with BD and their spouses is presented in Figure 1.

The average level of burden (except of the sub-dimension of 'supervision') was significantly higher for spouses with the predominant EO style as compared to spouses with TO style. Higher level of objective burden and its sub-dimension of 'urging' was observed in spouses of patients with predominant EO coping style compared to patients exhibiting with TO style. There was no significant difference in terms of the subjective burden. Notably, in spouses with a predominant TO style the values of subjective burden and its sub-dimensions of 'urging' and 'tension' did not reach problematic levels (Tab. 3).

Table 3. Comparison of the burden level in patients and spouses with predominant TO and EO coping styles in the BD sample.

	Spouse			Patient		
	TO	EO	p	TO	EO	p
Burden	1,03 ± 0,7	2 ± 0,41	0,000	1,21 ± 1,59	0,55 ± 0,69	0,252
Objective	0,91 ± 0,87	1,67 ± 0,54	0,003	0,55 ± 1,44	0,46 ± 0,77	0,009
supervision	1,17 ± 0,97	2,43 ± 0,63	0,000	0,7 ± 1,98	0,45 ± 0,99	0,008
urging	0,66 ± 0,77	0,92 ± 0,45	0,296	0,4 ± 0,89	0,47 ± 0,55	0,071
Subjective	1,19 ± 0,83	2,3 ± 0,71	0,000	1,86 ± 1,76	0,88 ± 0,89	0,785
tension	0,81 ± 0,75	1,93 ± 0,74	0,000	1,56 ± 1,36	0,98 ± 0,79	0,629
worrying	1,57 ± 0,91	2,68 ± 0,68	0,001	2,17 ± 2,17	0,78 ± 0,98	1

* denotes statistical significance ($p < 0.05$)

BD – bipolar disorder

EO – emotion-oriented coping style

TO – task-oriented coping style

In the overall sample of the BD patients' spouses there was a positive correlation between the burden level and the tendency towards using the emotion-oriented coping style, as well as negative correlation between the spousal burden severity and the propensity towards the task-oriented coping style. We also noticed a positive correlation between the spousal burden level and patients' tendency towards using the emotion-oriented coping style.

In table 4 correlations (as expressed by relevance levels of respective coefficients) between the level of spousal burden in the BD sample and the patients'/spouses' tendency of using specific coping styles is shown.

Table 4. Relevance levels of correlation coefficients between the level of spousal burden in the BD sample and the tendency of using specific coping styles.

Coping style	Spouse			Patient		
	TO	EO	AO	TO	EO	AO
Burden	-0,002	<0,001	NS	NS	0,026	NS
Objective supervision	-0,006	0,037	NS	NS	0,003	NS
urgency	-0,001	0,039	NS	NS	0,010	NS
Subjective tension	NS	NS	NS	NS	<0,001	0,022
worrying	-0,003	<0,001	NS	NS	NS	NS
	-0,002	<0,001	NS	NS	NS	NS
	-0,013	0,002	NS	NS	NS	NS

NS – statistically non-significant ($p \geq 0,05$)

AO – avoidance-oriented coping style

EO – emotion-oriented coping style

TO – task-oriented coping style

BD – bipolar disorder

The MDD sample.

The distribution of predominant coping styles among patients with MDD and their spouses is presented in Figure 2.

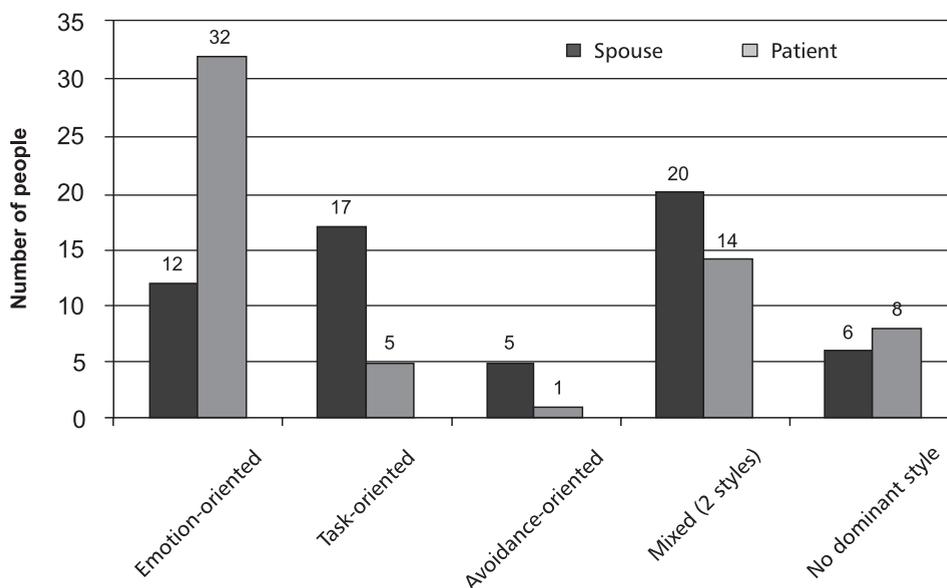


Figure 2. Predominant coping styles for spouses and patients in the MDD sample.

There were no significant differences in terms of the overall level of burden between spouses with predominant EO or TO styles. Neither were there any relevant differences in the burden severity between partners of patients with predominant EO or TO styles (Tab. 5).

Table 5. Comparison of the spouses' burden level for patients and spouses with predominant TO and EO coping styles in the MDD sample.

Coping style	Spouse			Patient		
	TO	EO	p	TO	EO	p
Burden	1,05 ± 0,58	1,41 ± 0,32	0,063	1,13 ± 0,56	1,2 ± 0,55	0,803
Objective	0,87 ± 0,68	1,19 ± 0,45	0,131	0,74 ± 0,45	0,99 ± 0,66	0,402
supervision	1,22 ± 1	1,76 ± 0,64	0,111	0,95 ± 0,65	1,46 ± 0,95	0,289
urging	0,51 ± 0,36	0,63 ± 0,26	0,347	0,53 ± 0,25	0,53 ± 0,37	0,967
Subjective	1,31 ± 0,66	1,66 ± 0,49	0,055	1,57 ± 0,77	1,48 ± 0,59	0,665
tension	0,92 ± 0,52	1,3 ± 0,46	0,052	1,31 ± 0,4	0,96 ± 0,49	0,173
worrying	1,7 ± 0,79	2,03 ± 0,52	0,213	1,83 ± 1,15	2 ± 0,69	0,708

The level of statistical significance was set at $p < 0.05$.

EO – emotion-oriented coping style

TO – task-oriented coping style

MDD – major depressive disorder

In the spouses of patients with MDD we found a positive correlation between the overall burden level, as well as subjective and objective burden levels, and the tendency to use the EO style. Concurrently there were no significant correlations between the spousal burden severity and the patients' tendency towards using either EO or TO styles (Tab. 6).

Table 6. Relevance levels of the correlation coefficients between the level of the spouses' burden and the tendency to use a specific coping style in the MDD sample.

Coping style	Spouse			Patient		
	TO	EO	AO	TO	EO	AO
Burden	NS	0,023*	NS	NS	NS	NS
Objective	NS	0,047*	NS	NS	NS	NS
supervision	NS	NS	NS	NS	NS	NS
urging	NS	NS	NS	NS	NS	NS
Subjective	NS	0,039*	NS	NS	NS	NS

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tension	NS	0,020*	NS	NS	NS	NS
worrying	NS	NS	NS	NS	NS	NS

* denotes statistical significance ($p < 0.05$)

NS – statistically non-significant ($p \geq 0.05$)

AO – avoidance-oriented coping style

EO – emotion-oriented coping style

TO – task-oriented coping style

MDD – major depressive disorder

Spouses' burden and the level of their sexual satisfaction

The influence of various levels of sexual satisfaction within the marital relationship on the burden experienced by the spouses has been analysed as well.

The spouses have been rating their general sense of sexual satisfaction on a scale of 0–100. The evaluation related both to the past and present satisfaction.

The spouses have also been judging the scale of the impact exerted specifically by their partners' affective disorder on the quality of sexual relationship. The populations analysed were stratified according to the perception of change of sexual satisfaction subsequently to the outbreak of partner's disorder.

The BD sample

The mean level of 'past satisfaction' experienced by spouses of the patients with BD was $77,8 \pm 16,8$ pts., while the estimated 'current satisfaction' was equal to $38,8 \pm 30,1$ pts., indicating a substantial decrease in the quality of sexual life related to the diagnosis of BD. However, there was no relationship between the perception of change in the quality of sexual satisfaction and the level of overall burden or its dimensions (Tab. 7).

The MDD sample

The mean level of 'past sexual satisfaction' exhibited by the spouses of the subjects diagnosed with MDD was $83,2 \pm 17,6$ pts., while the mean 'current satisfaction' was as high as $50,5 \pm 29,6$ pts. We observed significantly higher indexes of both total and objective burden among those spouses of MDD subjects who admitted the influence of their partners' disorder on the level of sexual satisfaction (Tab. 7).

Table 7. Comparison of the mean levels of the perceived burden between the patients' spouses who did not experience the change of quality of sexual satisfaction due to the illness, and those who did recognize such a change.

	'Has the quality of your sexual satisfaction changed subsequently to the outbreak of your partner's disorder?'		p
	Yes, it has.	No, it has not.	
BD sample	N = 44	N = 21	
IEQ total burden (\pm SD)	1,4 \pm 0,7	1,3 \pm 0,6	0,590
IEQ objective burden (SD)	1,2 \pm 0,8	1,2 \pm 0,7	0,742
urging	1,6 \pm 1,0	1,6 \pm 0,9	0,965
supervision	0,8 \pm 0,7	0,7 \pm 0,5	0,391
IEQ subjective burden (SD)	1,6 \pm 0,9	1,4 \pm 0,7	0,532
tension	1,2 \pm 0,9	1,0 \pm 0,7	0,311
worrying	1,9 \pm 1,0	1,8 \pm 0,8	0,815
MDD sample	N = 36	N = 24	
IEQ total burden (SD)	1,3 \pm 0,6	1,0 \pm 0,4	0,032*
IEQ objective burden (SD)	1,1 \pm 0,6	0,8 \pm 0,4	0,011*
urging	1,6 \pm 0,8	1,1 \pm 0,7	0,011*
supervision	0,7 \pm 0,5	0,5 \pm 0,2	0,054
IEQ subjective burden (SD)	1,5 \pm 0,6	1,3 \pm 0,4	0,257
tension	1,1 \pm 0,5	0,9 \pm 0,4	0,051
worrying	1,9 \pm 0,9	1,8 \pm 0,8	0,653
t-Student test			

* denotes statistical significance ($p < 0.05$)

SD – standard deviation

BD – bipolar disorder

MDD – major depressive disorder

IEQ – Involvement Evaluation Questionnaire

Discussion

Spouses' burden and the affective disorders

The level of the burden (especially the subjective one) perceived by the spouses of patients in the symptomatic remission period is significant. However, neither any statistically relevant differences in the level of the spouses' burden nor in its objective and subjective dimensions were found between BD and MDD group. This remains

partly in line with the results of Chakrabarti et al., who showed that the family burden of the relatives of patients suffering from affective disorders was significant, but the diagnosis of BD implied heavier burden compared to MDD [5]. According to Post this may be the case due to the characteristics of BD: earlier onset, more frequent affective episodes, longer total time of the occurrence of severe symptoms, and higher risk of suicide [23]. However, data on the familial burden during remissions of BD are scarce. In one of a few papers on this subject, Reinares et al. [7] pointed that during a remission period some factors bound to the illness might exist and affect patients and their caregivers (e.g. social exclusion, change of the roles, relapses of anxiety).

Our findings suggest that family burden is not related to sociodemographic factors, thus replicating results obtained by Baronet [24], Chadda et al. [25] and Reinares et al. [7]. On the other hand, Möller-Leimkühler and Obermeier found that feminine partners of depressive patients tend to experience heavier burden [26].

Spouses' burden and coping style

We found that the EO coping style (in comparison to other styles) was related to higher level of burden in both groups. In the BD sample the EO style was related to heavier burden (both subjective and objective one), as compared to MDD group. For spouses preferring the TO coping style the level of the burden and its subjective and objective dimensions was lower in the BD group. No relation between AO coping style and the level of burden was found. Because of a very limited number of subjects with a predominant AO style among the patients and their spouses (both in BD and MDD sample), no statistical analyses of the relationship between this style and the level of burden were conducted.

When discussing the patients' coping styles, a higher level of spouses' burden was related to the use of EO style by the patients. This relationship, however, was observed in the BD group only. In neither of the samples the patients' preference of using the TO or AO styles was related to the severity of spousal burden.

Our results remain in line (at least to some extent) with the findings presented by Chakrabarti and Gill [27], who investigated strategies of coping (instead of the styles). They observed that the strategies that focus on solving problems (e.g. searching for information about illness, positive communication with a patient and better social commitment) had led to a decrease in the caregiver's burden level. In the comparison of the caregivers of patients with BD and with schizophrenia it was found that the BD caregivers used problem solving strategies more often than the caregivers of schizophrenic patients who frequently used strategies focused on emotions. Such a difference may be due to the fact that the care over BD patients is more likely to be provided by spouses rather than parents (implying more mature approach to illness-related problems), as opposed to the population of schizophrenic patients [28, 29]. Similar conclusions can be drawn also from other studies regarding caregivers of patients with schizophrenia. Accordingly, there are data available suggesting that the use of the strategies focusing on emotions or involving pressure on a patient

and high level of criticism were related to the higher level of caregivers' burden [30, 31]. Scazufca and Kuipers [32] also pointed that for caregivers of mentally ill patients problem-oriented ways of coping implied lower level of burden, as compared to emotion- and avoidance-oriented ways of coping. On the contrary, having investigated caregivers of patients with BD or schizophrenia Chadda et al. [25] concluded that using of avoidance-oriented strategies correlates positively with various burden-related factors, such as mental and physical health of a caregiver, taking over patient's duties, and a change within the relationship. It was shown that changing coping styles may diminish burden in caregivers of patients with schizophrenia [33]. More research on this issue is required in the BD population.

There are very few studies concerning the relationship between the level of spouses' burden and patients' coping styles, nor there is a scarcity of data on the consequences of patients' coping style for themselves. Goossens et al. [34] found that BD patients used less active and more avoidance-oriented styles in comparison to the healthy population. Males took up activities more easily, but aimed at a social withdrawal, while females expressed emotions and searched for social support more easily. The depressive female patients used the EO most frequently and the AO style was the rarest one, while healthy women predominantly used the TO coping style [35].

There is a need for more studies on the problem of relationships between caregivers' burden and the longitudinal course of BD.

Spouses' burden and the level of sexual satisfaction

The diagnoses of either BD or MDD were related to significant decrease in the mean level of sexual satisfaction perceived by the patients' spouses. While neither of the groups did differ in terms of the level of 'past sexual satisfaction', the quality of 'current satisfaction' was significantly lower in the BD sample ($p=0,031$). This difference was even more pronounced among the specific subgroup of spouses who perceived the deterioration in their sexual satisfaction as being illness-related (BD: 28%, MDD: 46%; $p=0,002$).

Regardless of the subjective perception of the disorder's impact on the level of their sexual satisfaction, the spouses of patients with BD did not differ in respect of the quantity of total burden and its dimensions. However, those spouses of subjects diagnosed with MDD who had a sense that the illness had deteriorated the quality of their sexual lives, suffered due to a higher level of total and objective burden, particularly in the sub-dimension of 'urging'. In both groups (BD and MDD), spouses who perceived the disorder as the cause of deterioration in their sexual satisfaction experienced similar burden magnitude (both in terms of total burden and its dimensions).

Medication side-effects (decreased libido or increased body weight), perceived lack of self-attractiveness and/or sense of partner's unattractiveness, general problems in marital relationship, and higher perceived level of burden may all contribute to lower quality of sexual life suffered by spouses of patients with affective disorders.

The problem of decreased sexual satisfaction is present both during remissions and acute episodes, but in the latter case the scale of the issue discussed is much more pressing. The level of sexual satisfaction experienced by the spouses of patients with mania is lower compared to the partners of depressive subjects [4, 36, 37].

Limitations

1. A moderate number of subjects.
2. Exclusion of patients in acute illness episodes.

Practical remarks

In terms of the practical implications, our study remains in line with the main body of evidence on the issue of spousal burden. Accordingly, it is important to offer spouses of patients with affective disorders opportunities to be trained in more effective methods of coping (including problem-solving methods) with an illness of a family member. Such training could decrease the level of spouses' burden.

Acknowledgments

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Address:

Rafał Jaeschke, Affective Disorders Unit, Psychiatry Department of Jagiellonian University Medical College
31-501 Krakow, Kopernika Street 21