

Risk factors of anxiety and depressive symptoms in female patients experiencing intimate partner violence

Hanna Karkuła-Juchnowicz^{1,2}, Paulina Łukasik³,
Justyna Moryłowska-Topolska¹, Paweł Krukow¹

¹Department of Clinical Neuropsychiatry Medical University of Lublin

²I Department of Psychiatry, Psychotherapy and Early Intervention, Medical University of Lublin

³Public Regional Psychiatric Hospital in Radecznica

Summary

Aim. The aim of the study was to find factors associated with higher severity of anxiety and depressive symptoms in female patients experiencing intimate partner violence (IPV).

Method. The study was conducted in six randomly selected primary healthcare centers in Lublin province. The HADS (Hospital Anxiety and Depression Scale) and a structured questionnaire designed by the authors were administered to a total of 350 consecutive female patients visiting a GP. Fully completed questionnaire forms were obtained from 200 women. 102 (51%) participants who confirmed experiencing IPV ultimately made up the study cohort. Sequential models were created using backward stepwise multiple regression to investigate the potential risk and the protective factors associated with higher severity of anxiety and depressive symptoms in the study group.

Results. 68% and 56% of the participants respectively had positive scores on the HADS anxiety and depression subscales. Living in a small town or in the countryside was associated with higher scores on the anxiety subscale ($b = -1.18$, $p = 0.003$), but not on the depression subscale. Chronic physical illness ($b = 2.42$, $p = 0.013$; $b = 2.86$, $p = 0.015$), being unemployed ($b = 0.58$, $p = 0.024$; $b = 0.69$, $p = 0.008$), and exposure to economic violence ($b = 3.97$, $p < 0.001$; $b = 3.88$, $p = 0.001$) were associated with higher scores on both subscales of the HADS. The fact of receiving financial support ($b = 2.67$, $p = 0.002$; $b = 2.68$, $p = 0.003$) was a protective factor against both kinds of symptoms. Exposure to physical violence was associated with higher scores on the depression subscale ($b = 3.09$, $p = 0.005$), but not on anxiety subscale.

Conclusions. The type of violence and socioeconomic characteristics were more strongly associated with anxiety and depressive symptoms in women experiencing IPV than demographic variables.

Key words: intimate partner violence, anxiety, depression

Introduction

The impact of violence on the mental health of a victim is commonly known [1]. There are many studies on intimate partner violence (IPV) and the mental problems it causes, such as depression [2–4], restlessness and anxiety disorders [5], posttraumatic stress disorder [6–8], social phobia [9] and sleep disturbances [10].

Depression is the most frequently studied aspect of poor mental health related to IPV [4, 11]. It was also one of the first effects of violence on mental health identified by researchers [12]. The prevalence of depression in the population of female victims of IPV is estimated to represent a wide range of values from 34.7% to 63% of respondents [2, 13, 14].

Anxiety is another phenomenon very often associated with IPV [11]. In a study by Vos et al. [14], the prevalence of anxiety in women experiencing IPV was estimated at 27.3%, while in studies carried out in domestic violence shelters among women victims of violence, even 77% of the respondents reported anxiety in the past 12 months compared to 6.1% of women in the general population [15]. Even though anxiety is not a necessary criterion for diagnosing a depressive episode, it is very closely associated with the picture of depression [16], therefore, it seems justified to carry out parallel studies of symptoms of anxiety and depression in the same population.

Aim

The aim of the study was to identify factors associated with higher rates of anxiety and depression in women experiencing IPV.

Material

The study included 350 consecutive female patients visiting a GP. The eligibility criteria for inclusion in the study were as follows: 1. provision of written informed consent to participation in the study; 2. age over 18 years; 3. stable medical condition. Further analysis was conducted using data obtained from 200 women who had returned fully completed questionnaire forms within the time limit of the study. Experiencing intimate partner violence was confirmed by 102 (51%) women and it was them who ultimately made up the study cohort.

Method

The study was conducted successively in six Primary Healthcare (PHC) centers in Lublin province, randomly selected according to the following principle: 2 rural centers (Tereszpol and Lukowa), two centers in towns of less than 5 thousand inhabitants (Frampol and Tarnograd) and two centers in district towns (Bilgoraj and Janow Lubelski). The duration of the study in each of the centers was four weeks. During the

first two weeks, sets of questionnaire forms were distributed among patients, and over the remaining two weeks, the patients who preferred to complete their questionnaires at home could return completed forms to the clinic.

The study was approved by the Bioethics Committee of the Medical University of Lublin (no. KE-0254/166/2011).

Research tools

The study was conducted using the following instruments:

1. A structured questionnaire designed by the authors which included questions about socio-demographic data such as age, place of residence, educational attainment, source of income, as well as questions in which the patient was asked to evaluate her financial and housing situation. Moreover, the participants responded to questions about the kind of IPV they had experienced throughout their lives, and were asked whether they suffered from a chronic physical illness and whether they received institutional financial aid.
2. The presence of anxiety and depression symptoms in the patients was determined using the Hospital Anxiety and Depression Scale (HADS) [17], which contains fourteen items in two subscales: Anxiety and Depression. Each item is scored 0 to 3 points. The scoring range is the same for the Anxiety and the Depression subscales. Scores of 0–7 points are considered normal, 8–10 are suggestive of anxiety or depression, and 11–21 points correspond to a positive result. The HADS allows one to assess anxiety and depression in both in-patients and out-patients. The HADS has been translated into Polish and adapted to Polish conditions, becoming a reliable research tool for the assessment of depression and anxiety in patients with psychosomatic disorders [18].

Data analysis

Correlation between the rates/severity of symptoms of anxiety and depression was determined using the Spearman's rank correlation coefficient. Further statistical analyses were performed using a procedure described by Wong et al. [3], which consists in developing four-stage models of the relationships between various types of independent variables and the severity of symptoms of anxiety, on the one hand, and depression, on the other, in women experiencing IPV. The models were developed using backward stepwise multiple regression. First, the variables were divided into four groups: 1. demographic variables: age, place of residence, marital status, educational attainment, and presence of a chronic disease; 2. socio-economic variables: source of income, assessment of financial situation, and assessment of housing conditions; 3. receiving institutional financial aid; 4. variables regarding the type of experienced violence (physical, psychological, sexual, and economic). It was hypothesized that the variables in group 1 can affect the variables in groups 2, 3 and 4; the variables

in group 2 can affect the variables in group 3; and group 3 variables can influence the variables from group 4. The results were considered statistically significant at $p < 0.05$.

Results

Characteristics of the study group

Ultimately, the study group consisted of 102 women who had experienced IPV. The mean age of the participants was 45.83 ± 10.69 ; most of them had a secondary education (59.8%) or higher education (21.6%). 81.4% of the respondents were married and 59.8% lived in rural areas. More than half (52.9%) of them were employed. As many as 82.4% reported a chronic physical disease. The largest percentage of respondents rated their financial situation and living conditions as fair (47% and 59.8%). 31.4% received institutional financial aid. The prevalence of physical, psychological, sexual, and economic violence in the study group was 75%, 92%, 21%, and 65%, respectively. Detailed characteristics of the study group is given in Table 1.

Table 1. Characteristics of study participants

Variable	N	%
Age in years (mean)	45.83 ± 10.69	–
Educational attainment		
Higher	22	21.6%
Upper secondary	61	59.8%
Lower secondary	2	1.9%
Primary	17	16.7%
Marital status		
Single	5	4.9%
Married	83	81.4%
Divorced	11	10.8%
Widowed	3	2.9%
Place of residence		
Rural area	61	59.8%
Small town of up to 20 thousand inhabitants	30	29.4%
Town of 20–50 thousand inhabitants	10	9.8%
Town of more than 50 thousand inhabitants	1	0.9%
Chronic disease		
Yes	84	82.4%
No	18	17.6%

table continued on the next page

Source of income		
Employment	54	52.9%
Odd jobs/seasonal jobs	12	11.8%
Farming	16	15.7%
Disability pension	5	4.9%
Retirement pension	9	8.8%
Financially supported by others	6	5.9%
Financial situation		
Very poor	4	3.9%
Poor	31	30.4%
Fair	48	47.0%
Good	16	15.7%
Very good	3	2.9%
Housing situation		
Very poor	1	0.9%
Poor	14	13.7%
Fair	61	59.8%
Good	21	20.6%
Very good	5	4.9%
The patient receives financial aid		
Yes	32	31.4%
No	70	68.6%

The rates of anxiety and depression in the study group

68% of the women in the cohort had a positive score on the HADS Anxiety subscale, and 30% were diagnosed with severe anxiety (more than 15 points). As far as the Depression subscale is concerned, 56% of the respondents had a positive score and 17% suffered from severe depression (over 15 points). The two variables were strongly correlated (Spearman's $r = 0.69$, $p < 0.001$).

Variables associated with severity of anxiety

Backward stepwise multiple regression showed that 5 out of the 13 considered factors were related to the severity of symptoms of anxiety (Table 2).

In stage I of the analysis, among the five demographic variables taken into account, only the place of residence (a rural area and a small town) ($b = 2.86$, 95% CI = -1.94 to

-0.41, $p = 0.003$), and the fact of being chronically ill ($b = 3.09$, 95% CI = 0.95–5.24, $p = 0.005$) were found to be associated with higher scores on the HADS anxiety subscale. The remaining demographic variables, age, marital status and educational attainment, were not significantly related to higher severity of anxiety.

In stage II of the analysis, the following variables were tested: source of income, subjective assessment of financial situation and subjective assessment of housing situation. Among these, only source of income proved to significantly determine ($b = 0.58$, 95% CI = 0.08–1.08, $p = 0.024$) the severity of anxiety in women experiencing IPV. Subjects who were unemployed and were financially dependent on other persons were observed to experience higher severity of anxiety compared to women who had a job. The patients' assessment of their financial situation and housing situation was not significantly associated with the severity of anxiety symptoms.

In stage III, in which the fact of receiving institutional financial aid was taken into account, it was determined that women who received financial aid had lower severity of anxiety ($b = 2.67$, 95% CI = 0.96–4.38, $p = 0.002$).

In the final, IV stage of the analysis, in which the type of violence experienced by the patients was considered, it turned out that only experiencing economic violence ($b = 3.97$, 95% CI = 2.37–5.5, $p < 0.001$) was significantly related to higher severity of anxiety.

Table 2. The results obtained using backward stepwise multiple regression for symptoms of anxiety in women experiencing IPV

	b	CI	P
Stage 1 (n = 102)			
Place of residence	-1.18	-1.94 to -0.41	0.003
Chronic disease (no/yes)	3.09	0.95 to 5.24	0.005
Stage 2			
Source of income	0.58	0.08 to 1.08	0.0245
Stage 3			
Financial aid (yes/no)	2.67	0.96 to 4.38	0.002
Stage 4			
Economic violence	3.97	2.37 to 5.5	< 0.001

b – estimate rate; CI – confidence interval

Variables associated with severity of depression

It was demonstrated that 6 of the 13 factors taken into account were related to the severity of depression in women experiencing violence (Table 3).

In stage I of the analysis, among the five demographic variables taken into account, only the presence of a chronic physical disease was significantly related ($b = 2.89$, 95% CI = 0.59–5.15, $p = 0.015$) to the patients' higher scores on the HADS depression

subscale. The other demographic variables – age, place of residence, marital status and educational attainment, were not significantly associated with higher severity of depression in the patients.

In stage II of the analysis, the following variables were tested: source of income, subjective assessment of financial situation and subjective assessment of housing situation. Source of income ($b = 0.69$, 95% CI = 0.18–1.2, $p = 0.008$) and assessment of housing conditions ($b = -1.60$, 95% CI = -2.71 to -0.49, $p = 0.005$) were significantly related to severity of depression: the subjects who did not have a job and were dependent on other people as well as those who assessed their own housing situation as poorer had a greater severity of depression.

In stage III, in which the fact of receiving institutional financial aid was taken into account, it was determined that women who received financial aid had less severe depression ($b = 2.68$, 95% CI = 0.94–4.41, $p = 0.003$).

In the final, IV stage of the analysis, in which the type of abuse experienced by the patients was considered, it was determined that experiencing economic violence ($b = 3.88$, 95% CI = 0.52–4.31, $p = 0.001$) and physical violence ($b = 2.42$, 95% CI = 2.15–5.6, $p < 0.013$) was associated with a significantly greater severity of depression.

Table 3. The results obtained using backward stepwise multiple regression for symptoms of depression in women experiencing IPV

	b	CI	p
Stage 1 (n = 102)			
Chronic disease (no/yes)	2.86	0.59 to 5.13	0.015
Stage 2			
Source of income	0.69	0.18 to 1.2	0.008
Housing situation	-1.60	-2.71 to -0.49	0.005
Stage 3			
Financial aid (yes/no)	2.68	0.94 to 4.41	0.003
Stage 4			
Economic violence	3.88	0.52 to 4.31	0.001
Physical violence	2.42	2.15 to 5.6	0.013

b – estimate rate; CI – confidence interval

Discussion

The rates of depression among women experiencing intimate partner violence range from 35.7% to 63% [2]. A meta-analysis of results of 18 studies on this subject showed that the prevalence of depression in women who had experienced violence was 47.6%, a proportion that is significantly higher than that estimated for the general

population (18.6%) [19]. In a study by Vos et al. depression was the most common health effect of IPV, and its prevalence was estimated at 34.7% [14].

Women who had had recent experiences of IPV, were 2.3 times more likely to report some sort of depressive symptoms and had higher rates of anxiety, hostility and anger than women who had never been abused by their partner [20].

Bonomi et al. observed that women who had experienced intimate partner violence had twice as high a risk of anxiety disorders as women with no history of IPV [13].

In this study, the prevalence of symptoms of anxiety and depression was relatively high: 68% of women had a positive score on the HADS anxiety subscale and 56% had positive HADS depression scores. The discrepancies regarding the prevalence of anxiety and depression reported by different authors may have many causes, including the type of used instruments (in our case, a self-assessment screening scale) and the group of surveyed women (in our study, patients of PHC centers in one of the poorest regions of Poland).

We demonstrated a strong relationship between the severity of symptoms of anxiety and depression in the study group – similar results were obtained by Pico-Alfonso et al. [21].

Living in a smaller settlement (a rural area and a small town) was associated with a greater severity of anxiety. Presence of a chronic disease significantly contributed to a greater severity of both the symptoms of anxiety and depression. The remaining studied demographic variables, such as age, marital status and educational attainment, had no significant effect on the severity of symptoms of anxiety and depression.

Wong et al., in their study from 2011, showed that younger age of women was associated with higher rates of depression [3]. As far as the relationship between the level of educational attainment and the presence of symptoms of depression is concerned, literature data are inconsistent. Kamimura et al., for example, pointed out that higher levels of educational attainment are associated with greater severity of depression [22], whereas the results obtained by Wong et al. indicate that the level of educational attainment is a protective factor against depression [3]. In our study, we found no relationship between the severity of symptoms of anxiety and depression, on the one hand, and the patients' level of educational attainment, on the other.

An important predictor of the occurrence of both depressive symptoms and symptoms of anxiety was the presence of a chronic physical illness. Previous studies, though focused primarily on physical symptoms experienced by the patients, also confirmed the impact of physical health on the severity of symptoms of depression in women experiencing IPV [22, 23].

Another group of variables we investigated in our study were socioeconomic characteristics: source of income, assessment of financial situation, and assessment of housing situation. Women who were unemployed and were financially dependent on others as well as those who assessed their housing situation as poorer were observed to have a greater severity of depression. Higher rates of anxiety were only associated with the first of those variables and were not related to housing situation.

Interestingly, assessment of financial situation was not significantly associated with either severity of anxiety or severity of depression. Many studies have confirmed the role of a poorer socioeconomic status as a risk factor for depression in abused women [24–26].

Those women who received financial aid showed a lower severity of anxiety and depressive symptoms, which is in line with the results of other studies [3, 25].

In the final stage of the study, we analyzed the influence of the type of experienced violence on the severity of symptoms of anxiety and depression. Experiences of physical violence were associated with a greater severity of depressive symptoms and experiences of economic violence were associated with greater severity of anxiety and depression.

These results highlight the role that economic factors play in the occurrence of symptoms of anxiety and depression in the investigated group of women. Also in the earlier stages of the analysis, variables such as a type of source of income and the fact that a patient was receiving institutional financial aid were significantly associated with the severity of both anxiety and depression. It is worth noting that the participants came from one of the poorest regions of Poland, with the lowest GDP [27].

The results of previously published studies related to the impact of the type of experienced violence on the occurrence of symptoms of depression are very diverse [28, 29]. For instance, according to Campbell et al., the strongest risk factors are sexual and physical violence [30]. Chen et al. pointed to the special importance of sexual violence compared to physical violence [31]. According to other studies, the most significant factor influencing the occurrence of depression is psychological abuse [3], with domination–isolation being a more important factor than emotional–verbal violence [24].

Other factors reported in the literature that could potentially be related to the occurrence of depression in victims of violence include the severity and chronicity of exposure to violence [2, 32]. Similarly, Ludermir et al. observed a greater severity of anxiety symptoms in women exposed to more severe or more serious violence for longer time periods [33].

Our study has several limitations:

1. The use of a self-assessment scale entails subjectivity of evaluation of the patients' mental state and provides the possibility of evaluating and analyzing the symptoms of depression and anxiety but not depressive disorders or anxiety disorders as disease entities.
2. The relatively small sample size and the low percentage of returns (200 out of the 350 sets of distributed questionnaires) could have affected the results.
3. The region in which the study was carried out is one of the poorest in Poland, which may also have affected the results regarding the impact of the participants' financial situation and institutional financial aid received by them.

In the future, we plan to conduct research involving a larger group of women living in other regions of Poland.

Conclusions

1. In the studied group of women experiencing violence, a stronger association was demonstrated between the type of violence and socioeconomic characteristics and the severity of symptoms of anxiety and depression than demographic variables.
2. Paying attention to the risk factors for the occurrence of symptoms of anxiety and depression in women experiencing IPV may contribute to a better prognosis and play a role in the prophylaxis and treatment of mental disorders in this group of patients.

References

1. Salom CL, Williams GM, Najman JM, Alati R. *Substance use and mental health disorders are linked to different forms of intimate partner violence victimization*. Drug Alcohol Depend. 2015; 151(1): 121–127.
2. Bonomi AE, Thompson RS, Anderson M, Reid RJ, Carrell D, Dimer JA. et al. *Intimate partner violence and women's physical, mental, and social functioning*. Am. J. Prev. Med. 2006; 30(6): 458–466.
3. Wong JY, Tiwari A, Fong DY, Humphreys J, Bullock L. *Depression among women experiencing intimate partner violence in a Chinese community*. Nurs. Res. 2011; 60(1): 58–65.
4. Lagdon S, Armour C, Stringer M. *Adult experience of mental health outcomes as a result of intimate partner violence victimization: a systematic review*. Eur. J. Psychotraumatol. 2014; 5.
5. Heise L, Garcia-Moreno C. *Violence by intimate partners*. In: Krug EG, Dahlberg LL, Mercy JA, Zwi AB, Lozano R. ed. *World report on violence and health*. Geneva: World Health Organization; 2002. p. 89–121.
6. Dąbkowska M. *Obecność objawów zaburzenia stresowego pourazowego (PTSD) a poziom lęku u ofiar przemocy domowej*. Psychiatr. Prakt. Ogólnolek. 2007; 7(3): 145–149.
7. Dąbkowska M. *Czynniki socjodemograficzne i kliniczne a nasilenie objawów PTSD u ofiar przemocy ze strony bliskiego partnera*. Neuropsychiatr. Neuropsychol. 2009; 4(2): 90–97.
8. Kamimura A, Nourian MM, Assasnik N, Franchek-Roa K. *Intimate partner violence-related experiences and mental health among college students in Japan, Singapore, South Korea and Taiwan*. Int. J. Soc. Psychiatry 2016; 62(3): 262–270.
9. Dąbkowska M. *Ocena wybranych funkcji poznawczych u ofiar przemocy domowej*. Psychiatr. Pol. 2007; 41(6): 837–849.
10. Pigeon WR, Cerulli C, Richards H, He H, Perlis M, Caine E. *Sleep disturbances and their association with mental health among women exposed to intimate partner violence*. J. Womens Health 2011; 20(12): 1923–1929.
11. Dillon G, Hussain R, Loxton D, Rahman S. *Mental and physical health and intimate partner violence against women: a review of the literature*. Int. J. Fam. Med. 2013; 313909. <http://www.hindawi.com/journals/ijfm/2013/313909/> [retrieved: 17.05.2016].
12. Stein MB, Kennedy C. *Major depressive and post-traumatic stress disorder comorbidity in female victims of intimate partner violence*. J. Affect. Disord. 2001; 66(2–3): 133–138.

13. Bonomi AE, Anderson ML, Reid RJ, Rivara FP, Carrell D, Thompson RS. *Medical and psychosocial diagnoses in women with a history of intimate partner violence*. Arch. Intern. Med. 2009; 169(18): 1692–1697.
14. Vos T, Astbury J, Piers LS, Magnus A, Heenan M, Stanley L. et al. *Measuring the impact of intimate partner violence on the health of women in Victoria, Australia*. Bull. World Health Organ. 2006; 84(9): 739–744.
15. Helfrich CA, Fujiura GT, Rutkowski-Kmitta V. *Mental health disorders and functioning of women in domestic violence shelters*. J. Interpers. Violence 2008; 23(4): 437–453.
16. Gałęcki P, Świącicki Ł. ed. *Kryteria Diagnostyczne z DSM-5 Desk Reference*. Wrocław: Urban & Partner; 2015.
17. Zigmond AS, Snaith RP. *The Hospital Anxiety and Depression Scale*. Acta Psychiatr. Scand. 1983; 67: 361–370.
18. Karakuła H, Grzywa A, Śpila B, Baszak J, Gieroba A, Kosikowski W. et al. *Zastosowanie Skali Łęku i Depresji – HADS w chorobach psychosomatycznych*. Psychiatr. Pol. 1996; 30(4): 653–668.
19. Golding JM. *Intimate partner violence as a risk factor for mental disorders: a meta-analysis*. J. Fam. Violence 1999; 14(2): 99–132.
20. Jarvis KL, Gordon EE, Novaco RW. *Psychological distress of children and mothers in domestic violence emergency shelters*. J. Fam. Violence 2005; 20(6): 389–402.
21. Pico-Alfonso MA, Garcia-Linares IM, Celda-Navarro N, Blasco-Ros C, Echeburúa E, Martinez M. *The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide*. J. Womens Health 2006; 15(5): 599–611.
22. Kamimura A, Ganta V, Myers K, Thomas T. *Intimate partner violence and physical and mental health among women utilizing community health services in Gujarat, India*. BMC Womens Health 2014; 14: 127.
23. Nicolaidis C, Curry M, McFarland B, Gerrity M. *Violence, mental health, and physical symptoms in an academic internal medicine practice*. J. Gen. Intern. Med. 2004; 19(8): 819–827.
24. Hazen AL, Connelly CD, Soriano FI, Landsverk JA. *Intimate partner violence and psychological functioning in Latina women*. Health Care Women Int. 2008; 29(3): 282–299.
25. Mburia-Mwalili A, Clements-Nolle K, Lee W, Shadley M, Wei Y. *Intimate partner violence and depression in a population-based sample of women: can social support help?* J. Interpers. Violence 2010; 25(12): 2258–2278.
26. Wong JYH, Fong DYT, Tiwari A. *Depression in women experiencing intimate partner violence*. In: Olisah V. ed. *Essential notes in psychiatry*. Silver Spring, MD: InTech; 2012. p. 187–198. <http://www.intechopen.com/books/essential-notes-in-psychiatry/depression-in-women-experiencing-intimate-partner-violence> [retrieved: 17.05.2016].
27. GUS. *Wstępne szacunki produktu krajowego brutto według województw w 2014 r.* <http://stat.gov.pl/obszary-tematyczne/rachunki-narodowe/rachunki-regionalne/wstepne-szacunki-produktu-krajowego-brutto-wedlug-wojewodztw-w-2014-r-4,3.html> [retrieved: 17.05.2016].
28. Lown EA, Vega WA. *Intimate partner violence and health: self-assessed health, chronic health, and somatic symptoms among Mexican American women*. Psychosom. Med. 2001; 63(3): 352–360.

29. Coker AL, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM. et al. *Physical and mental health effects of intimate partner violence for men and women*. Am. J. Prev. Med. 2002; 23(4): 260–268.
30. Campbell JC, Kub J, Belknap RA, Templin TN. *Predictors of depression in battered women*. Violence Against Women 1997; 3(3): 271–293.
31. Chen PH, Rovi S, Vega M, Jacobs A, Johnson MS. *Relation of domestic violence to health status among Hispanic women*. J. Health Care Poor Underserved 2009; 20(2): 569–582.
32. Carbone-López K, Kruttschnitt C, Macmillanc R. *Patterns of intimate partner violence and their associations with physical health, psychological distress, and substance use*. Public Health Rep. 2006; 121(4): 382–392.
33. Ludermir AB, Schraiber LB, D'Oliveira AFPL, França-Junior I, Jansen HA. *Violence against women by their intimate partner and common mental disorders*. Soc. Sci. Med. 2008; 66: 1008–1018.

Address: Justyna Moryłowska-Topolska
Department of Clinical Neuropsychiatry
Chair of Psychiatry
Medical University of Lublin
20-439 Lublin, Głuska Street 1