

The prevalence of common mental disorders in the population of adult Poles by sex and age structure – an EZOP Poland study

Andrzej Kiejna¹, Patryk Piotrowski¹, Tomasz Adamowski¹,
Jacek Moskalewicz², Jacek Wciórka², Jakub Stokwizewski²,
Daniel Rabczenko³, Ronald C. Kessler⁴

¹Department of Psychiatry, Medical University of Wrocław.
Head: prof. dr hab. n. med. A. Kiejna

²Research Department on Alcoholism and Toksykomania,
Institute of Psychiatry and Neurology, Warsaw
Head: dr n. hum. J. Moskalewicz

³National Institute of Public Health – National Department of Hygiene
Head: prof. dr. hab. n. med. M. J. Wysocki

⁴Department of Health Care Policy, Harvard Medical School, Boston, MA, USA

Summary

Aim. The article presents lifetime (LT) prevalence of common mental disorders (CMD) in accordance with the DSMIV classification, based on assessment of representative population sample of 10,081 Poles aged 18–64.

Methods. Computer based WHO CIDI3.0 was adapted for the Polish population according to WMH protocol. The survey was performed by certified and supervised interviewers.

Results. Out of the 18 CMDs analyzed the most common was alcohol abuse, significantly more often in males (18.6%) than in women (3.3%), ($p < 0.01$). The second most common disorder was panic attacks, also more frequent in women (8.5%) than in men (3.9%), ($p < 0.01$). Similarly, depression occurred in women (4.0%) two times more often than in males (1.9%), ($p < 0.01$). GAD, agoraphobia, panic disorder, specific phobia ($p < 0.01$), and dysthymia ($p < 0.05$) were also more prevalent in women. On the other hand, alcohol abuse, alcohol and drug dependence ($p < 0.01$), and hypomania ($p < 0.05$) were more common in males. For most analyzed

EZOP project was supported by Iceland, Liechtenstein and Norway through funding from the EEA Financial Mechanism and the Norwegian Financial Mechanism. EZOP project was co-financed by Ministry of Health. Authors were not subjected to any influence from sponsors during research and development.

disorders significantly higher prevalence was found in the older age groups. Social phobia, specific phobias, and drug abuse occurred most often in men from the youngest group. No statistically significant differences related to age were found for the prevalence of hypomania both in men and women.

Conclusions. Indices of prevalence obtained in the EZOP Poland study differ from the indices of prevalence of mental disorders described earlier in other countries. Lower values were found in Poland for affective disorders and some anxiety disorders. Only alcohol abuse was diagnosed more often than in other studies using similar methods except Ukraine, where this disorder was diagnosed with similar frequency.

Key words: EZOP Poland, common mental disorders, prevalence of mental disorders

Introduction

The available informations regarding the prevalence of mental disorders in psychiatric institutions in Poland are based on data included in healthcare facilities that are gathered and published by the Institute of Psychiatry and Neurology. It is not possible, however, to estimate the prevalence of disorders in the total population, i.e. also among persons who have never been treated in psychiatric institutions, based on these data. Solid knowledge of those epidemiological indices is particularly important in the period of planning the modernisation and development of healthcare. Even more so since these are long-term processes, so they should take into consideration the expected health condition of the population as well as the present. In Poland changes psychiatric healthcare system were made in relation to art. 2 of the Mental Health Protection Act as part of the National Mental Health Protection Program [1].

The actions are in accordance with the priorities of the World Health Organisation (WHO) [2], and they are aimed at improving the health of societies through better recognition of risks, health promotion, better quality of services, and greater availability of services. The study ‘Epidemiology of mental disorders and access to mental health care EZOP – Poland’ is a key element of those actions. Once the study had been performed, it was possible to assess the prevalence of common mental disorders (CMD) in the population of adult Poles [3]. Methodology of the study is presented in detail in other publication [4].

Aim

In this paper, authors present lifetime (LT) prevalence estimates of selected common mental disorders in accordance with the DSM-IV classification in relation to sex and age. These estimates were established by the EZOP project which applied

the electronic version of the Composite International Diagnostic Interview (CIDI) v. 3.0 [5, 6].

Material and Method

Study sample characteristics

Performed statistical analysis was based on two-stage randomisation of the Polish population aged 18–64. The socio-demographic characteristics of the study subjects is presented in Table 1.

49.6% of the study sample was constituted by men (95% CI 48.9–50.3) and 50.4% by women (95% CI 49.7–51.1). Four age groups were discerned: 18–29, 30–39, 40–49, and 50–64 years. The proportion of the total sample constituted by respondents in individual age groups was 28.1% (95% CI 27.4–28.7), 22.2% (95% CI 21.5–22.9), 18.7% (95% CI 18.2–19.2), and 31% (95% CI 30.4–31.7), respectively. The smallest number of respondents, 12.1%, had lower secondary general education (95% CI 11.5–12.8), while the largest number, 38.3%, had secondary education (95% CI 37.5–39.2), with a slightly smaller number, 32.3%, with vocational education (95% CI 31.4–33.2). 16.7% (95% CI 16.0–17.4) declared bachelor or master degrees; the value among women was 19.3% (95% CI 18.3–20.3) and for men it was 14.1% (95% CI 13.2–15.0). Regarding marital status, the largest number of respondents, 56.1%, were married, 23.4% were single, 9.6% had non-marital partners, 5.9% were divorced or separated, and 4.8% were widowed. 59.4% of respondents were employed at the time of study.

The analysis was performed using the ‘complex samples’ procedure of the SPSS 19 software. The χ^2 test for contingency tables was used to compare differences in the distribution of prevalence between selected categories, taking into consideration the complex method of sample randomisation. The significance level was set at 5%. The obtained results were weighted post stratification, since the structure of the sample was different from the population structure regarding features such as: sex, age, place of residence, and province. To reduce the burden of respondents and to reduce the time used for interviews, the study was divided into two parts [5]. All respondents participated in the first part, in which the prevalence of the major psychopathologic symptoms of most diagnostic units and somatic symptoms was evaluated – Part 1 (N=10081). Respondents with confirmed lifetime mental disorders and an appropriate proportion of the remaining respondents participated in the second part – Part 2 Subsample (N=4000). If the interviewer failed to contact a chosen person, he retried to contact them four times. Part 1 and Part 2 terms are in accordance with World Mental Health Survey Initiative terminology.

Table 2. The socio-demographic characteristics of the study subjects

| | Overall weighted | | | Men weighted | | | Women weighted | | | Number unweighted |
|--|------------------|---------------------|----------|--------------|---------------------|----------|----------------|---------------------|----------|-------------------|
| | % (95% CI) | Number in thousands | Mean age | % (95% CI) | Number in thousands | Mean age | % (95% CI) | Number in thousands | Mean age | |
| | | | | | | | | | | |
| Overall | 100 | 25826.1 | 39.89 | 10081 | 12803.6 | 39.51 | 4883 | 13022.5 | 40.26 | 5198 |
| Age | | | | | | | | | | |
| < 29 years | 28.1 (27.4–28.7) | 72444.8 | 23.28 | 2895 | 36884.3 | 23.14 | 1465 | 35560.5 | 23.41 | 1430 |
| 30–39 years | 22.2 (21.7–22.8) | 57418.6 | 34.17 | 2119 | 29032.2 | 34.16 | 1069 | 28386.5 | 34.19 | 1050 |
| 40–49 years | 18.7 (18.2–19.2) | 48275.1 | 44.28 | 1874 | 24124.6 | 44.36 | 938 | 24150.4 | 44.2 | 936 |
| > 50 years | 31.0 (30.4–31.7) | 80122.6 | 56.36 | 3193 | 37995 | 56.42 | 1411 | 42127.7 | 56.31 | 1782 |
| Education | | | | | | | | | | |
| Lower secondary general education | 12.1 (11.5–12.8) | 31283.8 | 40.83 | 1283 | 16397.7 | 38.88 | 659 | 14886.1 | 42.98 | 624 |
| Vocational education | 32.3 (31.4–33.2) | 83301.6 | 43.87 | 3280 | 49346.8 | 43.58 | 1890 | 33954.9 | 44.29 | 1390 |
| Secondary school | 38.3 (37.5–39.2) | 99014.3 | 37.58 | 3837 | 43568.7 | 36.16 | 1645 | 55445.6 | 38.69 | 2192 |
| Bachelor or master degree | 16.7 (16–17.4) | 43171.5 | 36.67 | 1621 | 18040.2 | 36.86 | 662 | 25131.3 | 36.54 | 959 |
| Mental status | | | | | | | | | | |
| Married | 56.1 (55.2–56.9) | 144775.9 | 44 | 5643 | 68957.8 | 45.23 | 2606 | 75818.1 | 42.88 | 3037 |
| In a relation | 9.6 (9.1–10.1) | 24774.7 | 31.81 | 939 | 12637.8 | 32.85 | 472 | 12136.9 | 30.73 | 467 |
| Divorced/ Separated | 5.9 (5.4–6.3) | 15156.8 | 47.89 | 576 | 6484.1 | 48.27 | 240 | 8672.6 | 47.6 | 336 |
| Widow/ Widower | 4.8 (4.5–5.2) | 12510.6 | 56.94 | 514 | 2676.4 | 58.38 | 102 | 9834.1 | 56.55 | 412 |
| Single | 23.4 (22.7–24.1) | 60408.2 | 27.75 | 2384 | 37141.9 | 28.23 | 1458 | 23266.3 | 26.98 | 926 |
| Vacational status | | | | | | | | | | |
| Employed | 59.4 (58.5–60.3) | 153379.6 | 39.27 | 5881 | 83299.4 | 39.29 | 3148 | 70080.3 | 39.24 | 2733 |
| Student | 7.2 (6.7–7.7) | 18511.4 | 20.6 | 734 | 9105 | 20.49 | 359 | 9406.5 | 20.71 | 375 |
| Household | 5.5 (5.1–6.0) | 14288.2 | 38.96 | 574 | 346.3 | 47.31 | 13 | 13941.8 | 38.76 | 561 |
| Retired | 9.0 (8.5–9.5) | 23151.5 | 59.63 | 949 | 8628.8 | 59.11 | 330 | 14522.7 | 59.94 | 619 |
| Other including unem- ployed and on pension | 18.9 (18.2–19.7) | 48930.4 | 40.07 | 1943 | 26656.6 | 40.25 | 1033 | 22273.9 | 39.86 | 910 |
| Place of stay | | | | | | | | | | |
| Village | 37.8 (37.2–38.5) | 97712.4 | 39.71 | 4287 | 49081.2 | 39.12 | 2102 | 48631.2 | 40.3 | 2185 |
| City > 50 000 | 24.3 (23.7–25.0) | 62791.1 | 40.18 | 2387 | 31551.5 | 40.08 | 1169 | 31239.6 | 40.28 | 1218 |
| City 50 000 – 200 000 | 16.8 (16.2–17.3) | 43290 | 40.13 | 1587 | 21309.3 | 39.89 | 762 | 21980.7 | 40.37 | 825 |
| City > 200 000 | 21.1 (20.6–21.6) | 54467.6 | 39.69 | 1820 | 26094 | 39.25 | 850 | 28373.6 | 40.09 | 970 |

Results

Lifetime prevalence rates of common mental disorders in the adult population of Poles by DSM-IV are shown in Table 2 [7].

The level of interview completion (RR – response rate) in the study throughout the country was 50.4%.

The lifetime (LT) prevalence of particular CMDs (alcohol abuse, alcohol dependence, psychoactive substances abuse, psychiatric substances dependence, major depressive disorder, minor depressive disorder, dysthymia, bipolar I disorder, bipolar II disorder, mania, hypomania, panic attacks, agoraphobia with/without panic attacks, agoraphobia without panic attacks, panic disorder, specific phobia, social phobia, generalised anxiety disorder) in accordance with the DSM-IV classification, by sex and age structure is presented below and shown in Table 2.

Lifetime alcohol abuse was found in 10.9% (95% CI 9.9-12.0) of persons aged 18–64, living in Poland. It was significantly more common in men 18.6% (95% CI 16.7-20.6) than in women 3.3% (95% CI 2.7-4.1) ($p<0.01$). The problem occurred statistically least frequently before the age of 29 compared to men aged 30–49 ($p<0.01$). Among women, alcohol abuse was significantly more common in the group aged 30–39 than in women aged over 50 ($p<0.01$).

Lifetime alcohol dependence was confirmed in 2.2% (95% CI 1.8–2.7) of adult Poles. Dependence was significantly more common in men 4.1% (95% CI 3.3-5.1) than in women 0.4% (95% CI 0.2-0.7) ($p<0.01$). Moreover, the proportion of alcohol-dependent men increased with age from 1.6% (95% CI 1.0–2.7) for twenty-year-olds to 6.5% after the age of 50 (95% CI 4.8–8.8), reaching statistical significance of difference ($p<0.01$) between these two age groups. Psychoactive substances abuse (except alcohol and nicotine) was confirmed in 1.3% (95% CI 1.0–1.6%) of adults in Poland. It was statistically more common among men 1.8% (95% CI 1.3-2.5) than among women 0.8% (95% CI 0.5-1.1), ($p<0.01$). Substances dependence was found in 0.2% (95% CI 0.1–0.4) of the studied population. In both sexes the prevalence of addiction was dependent on age ($p<0.05$). Major depressive disorder with hierarchy was found in 3.0% (95% CI 2.7–3.3); it was significantly more frequent in women 4.0% (95% CI 3.5-4.6) than in men 1.9% (95% CI 1.6-2.4), $p<0.01$. Prevalence in men was not age-related, while in women major depressive disorder occurred significantly more frequently after the age of 50: 5.5% (95% CI 4.6–6.5) than in women aged 18–29: 2.7% (95% CI 2.1–3.4) and 30–39: 3.3% (95% CI 2.4–4.2), ($p<0.01$).

The prevalence of minor depressive disorder was very low in the Polish population, with the general index of 0.4% (95% CI 0.3–0.5), it occurred equally often in all ages and both sexes.

Lifetime dysthymia was found in 0.6% (95% CI 0.5-0.9) of adult residents of Poland. The disorder was confirmed more often in women: 0.9% (95% CI 0.6-1.2) than in men: 0.4% (95% CI 0.2–0.9), ($p<0.05$). In women prevalence was age-related;

Table 2. The prevalence of various mental disorders in the population of adult Poles by sex and age structure.

| DSM-IV Disorder | Number (unweighted) N*(P1), N**(P2) | Men | | | | | | Women | | | | | | Overall N*=10081 N**=4000 | p-value | DEFF | | | | |
|---------------------------|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|------------------------|----------|---------------------------|---------|-------|-------|--------|-------|--------|
| | | 18-29 | | 30-39 | | 40-49 | | 50-64 | | 18-29 | | 30-39 | | | | | 40-49 | | 50-64 | |
| | | N* | 95% CI | N* | 95% CI | N* | 95% CI | N* | 95% CI | N* | 95% CI | N* | 95% CI | | | | N* | 95% CI | N* | 95% CI |
| Alcohol abuse | N** | 13.0 (95% CI 10.7-15.9) | 20.1 (95% CI 16.3-24.6) | 24.6 (95% CI 20.6-29.1) | 19.1 (95% CI 15.8-22.9) | 18.6 (95% CI 16.7-20.6)** | 3.2% (95% CI 2.3-4.4) | 5.6% (95% CI 4.0-7.9) | 2.7 (95% CI 1.6-4.6) | 2.3% (95% CI 1.6-3.1) | 3.3 (95% CI 2.7-4.1)** | 10.9 (95% CI 9.9-12.0) | 9.9-12.0 | N**=513 | p<0.01 | 1.140 | | | | |
| Alcohol dependence | N** | 1.6 (95% CI 1.0-2.7) | 2.7 (95% CI 1.6-4.4) | 5.5 (95% CI 3.5-8.6) | 6.5 (95% CI 4.8-8.8) | 4.1 (95% CI 3.3-5.1)** | 0.1 (95% CI 0.0-0.5) | 0.4 (95% CI 0.3-0.4) | 0.6 (95% CI 0.5-0.7) | 0.6 (95% CI 0.4-1.1) | 0.4 (95% CI 0.2-0.7)* | 2.2 (95% CI 1.8-2.7) | 1.8-2.7 | N**=121 | p<0.01 | 1.003 | | | | |
| Drug abuse | N** | 2.3 (95% CI 1.4-3.7) | 2.0 (95% CI 1.0-4.2) | 1.1 (95% CI 0.7-1.6) | 1.7 (95% CI 1.1-2.6) | 1.8 (95% CI 1.3-2.5) | 0.2 (95% CI 0.1-0.5) | 0.9 (95% CI 0.7-1.1) | 1.0 (95% CI 0.4-2.8) | 1.0 (95% CI 0.6-1.5) | 0.8 (95% CI 0.5-1.1) | 1.3 (95% CI 1.0-1.6) | 1.0-1.6 | N**=74 | p<0.01 | 0.860 | | | | |
| Drug dependence | N** | 0.0 (95% CI 0.0-0.3) | 0.3 (95% CI 0.3-0.4) | 0.7 (95% CI 0.1-3.6) | 0.1 (95% CI 0.0-0.5) | 0.2 (95% CI 0.1-0.6)* | 0.1 (95% CI 0.1-0.1) | 0.2 (95% CI 0.2-0.2) | 0.2 (95% CI 0.1-0.2) | 0.4 (95% CI 0.2-0.9) | 0.2 (95% CI 0.1-0.4)* | 0.2 (95% CI 0.1-0.4) | 0.1-0.4 | N**=15 | p>0.05 | 0.746 | | | | |
| Major depressive disorder | N* | 1.5 (95% CI 1.1-2.2) | 1.9 (95% CI 1.9-2.5) | 1.8 (95% CI 1.2-2.8) | 2.4 (95% CI 1.8-3.2) | 1.9 (95% CI 1.6-2.4) | 2.7 (95% CI 2.1-3.4) | 3.3 (95% CI 2.5-4.2) | 4.4 (95% CI 3.4-5.6) | 5.5 (95% CI 4.6-6.5) | 4.0 (95% CI 3.5-4.6)** | 3.0 (95% CI 2.7-3.3) | 2.7-3.3 | N**=297 | p<0.01 | 1.019 | | | | |
| Minor depressive disorder | N* | 0.3 (95% CI 0.1-0.8) | 0.7 (95% CI 0.4-1.3) | 0.1 (95% CI 0.0-0.7) | 0.3 (95% CI 0.1-0.7) | 0.4 (95% CI 0.2-0.6) | 0.3 (95% CI 0.1-0.8) | 0.5 (95% CI 0.2-1.2) | 0.8 (95% CI 0.5-1.3) | 0.3 (95% CI 0.1-0.7) | 0.4 (95% CI 0.3-0.7) | 0.4 (95% CI 0.3-0.5) | 0.3-0.5 | N**=38 | p>0.05 | 1.061 | | | | |
| Dysthymia | N** | 0.3 (95% CI 0.1-0.8) | 0.6 (95% CI 0.1-4.0) | 0.3 (95% CI 0.1-1.2) | 0.5 (95% CI 0.3-1.0) | 0.4 (95% CI 0.2-0.9) | 0.4 (95% CI 0.2-0.8) | 1.1 (95% CI 0.9-1.3) | 1.0 (95% CI 0.5-1.8) | 1.1 (95% CI 0.8-1.4) | 0.9 (95% CI 0.6-1.2)* | 0.6 (95% CI 0.5-0.9) | 0.5-0.9 | N**=48 | p<0.05 | 0.734 | | | | |
| Bipolar I disorder | N* | - | - | - | - | 0.1 (95% CI 0.0-0.2) | - | - | - | - | 0.1 (95% CI 0.0-0.2) | 0.1 (95% CI 0.1-0.2) | 0.1-0.2 | N**=8 | p>0.05 | 1.065 | | | | |
| Bipolar II disorder | N* | - | - | - | - | 0.1 (95% CI 0.0-0.2) | - | - | - | - | 0.1 (95% CI 0.1-0.3) | 0.1 (95% CI 0.1-0.2) | 0.1-0.2 | N**=8 | p>0.05 | 1.113 | | | | |

table continued on the next page

| | | | | | | | | | | | | | | | |
|--|----|-------------------------|-------------------------|-------------------------|--------------------------|---------------------------------------|-------------------------|-------------------------|--------------------------|----------------------------|---------------------------------------|-------------------------------------|-------------------------------------|--------|-------|
| Mania | N* | - | - | - | - | - | - | - | - | - | - | 0.1 (95% CI 0.0-0.2) N***=4 | 0.1 (95% CI 0.0-0.2) N***=8 | p>0.05 | 1.065 |
| Hypomania | N* | 0.5 (95% CI 0.3-1.0) | 0.2 (95% CI 0.1-0.5) | 0.5 (95% CI 0.3-1.2) | 0.2 (95% CI 0.1-0.6) | 0.4 (95% CI 0.2-0.6) N***=17 | 0.3 (95% CI 0.2-0.5) | 0.5 (95% CI 0.3-0.9) | 0.2 (95% CI 0.1-0.4) | 0.2 (95% CI 0.1-0.4) | 0.3 (95% CI 0.2-0.5) N***=14 | 0.3 (95% CI 0.2-0.5) N***=31 | 0.3 (95% CI 0.2-0.5) N***=31 | p>0.05 | 1.044 |
| Panic attack | N* | 2.9 (95% CI 2.1-4.0) | 2.4 (95% CI 1.8-3.2) | 3.3 (95% CI 2.4-4.4) | 6.4 (95% CI 5.5-7.6) | 3.9 (95% CI 3.4-5.5)** N***=186 | 5.7 (95% CI 4.7-6.8) | 7.0 (95% CI 5.8-8.4) | 9.5 (95% CI 7.9-11.4) | 11.4 (95% CI 10.1-12.8) | 8.5 (95% CI 7.8-9.3)** N***=435 | 6.2 (95% CI 5.8-6.7) N***=621 | 6.2 (95% CI 5.8-6.7) N***=621 | p<0.01 | 1.060 |
| Agoraphobia with/without panic disorder | N* | 0.2 (95% CI 0.1-0.4) | - | 0.3 (95% CI 0.1-0.6) | 0.1 (95% CI 0.1-0.1) | 0.1 (95% CI 0.1-0.3)* N***=6 | 0.3 (95% CI 0.2-0.6) | 0.4 (95% CI 0.3-0.7) | 0.3 (95% CI 0.1-1.0) | 0.3 (95% CI 0.2-0.6) | 0.3 (95% CI 0.2-0.6) N***=17 | 0.2 (95% CI 0.2-0.4) N***=23 | 0.2 (95% CI 0.2-0.4) N***=23 | p<0.01 | 1.040 |
| Agoraphobia without panic disorder | N* | - | - | 0.1 (95% CI 0.1-0.9) | - | 0.0 (95% CI 0.0-0.2) N***=1 | 0.3 (95% CI 0.1-0.5) | 0.2 (95% CI 0.1-0.5) | 0.3 (95% CI 0.1-1.0) | 0.3 (95% CI 0.1-0.5) | 0.3 (95% CI 0.2-0.5) N***=13 | 0.1 (95% CI 0.1-0.2) N***=14 | 0.1 (95% CI 0.1-0.2) N***=14 | p<0.01 | 1.079 |
| Panic disorder | N* | 0.2 (95% CI 0.1-0.6) | - | - | 0.5 (95% CI 0.3-0.8) | 0.2 (95% CI 0.1-0.4)** N***=10 | 0.3 (95% CI 0.1-0.6) | 0.2 (95% CI 0.1-0.5) | 0.3 (95% CI 0.1-0.8) | 0.8 (95% CI 0.5-1.3) | 0.4 (95% CI 0.3-0.7)** N***=23 | 0.3 (95% CI 0.2-0.5) N***=33 | 0.3 (95% CI 0.2-0.5) N***=33 | p<0.01 | 1.019 |
| Specific phobia | N* | 2.9 (95% CI 2.2-3.7) | 1.6 (95% CI 1.0-2.4) | 2.3 (95% CI 1.7-3.3) | 1.8 (95% CI 1.3-2.6)* | 2.2 (95% CI 1.8-2.6)* N***=106 | 4.0 (95% CI 3.2-5.1) | 4.7 (95% CI 3.8-5.9) | 5.3 (95% CI 4.1-6.8) | 4.6 (95% CI 3.9-5.5) | 4.6 (95% CI 4.1-5.2) N***=236 | 3.4 (95% CI 3.1-3.8) N***=342 | 3.4 (95% CI 3.1-3.8) N***=342 | p<0.01 | 1.029 |
| Social phobia | N* | 1.9 (95% CI 1.4-2.6) | 1.4 (95% CI 0.9-2.0) | 1.2 (95% CI 0.7-2.1) | 0.6 (95% CI 0.3-0.9) | 1.2 (95% CI 1.0-1.6)** N***=62 | 2.1 (95% CI 1.5-2.9) | 1.5 (95% CI 1.0-2.3) | 1.7 (95% CI 1.1-2.7) | 1.3 (95% CI 0.9-1.7) | 1.6 (95% CI 1.3-2.0) N***=82 | 1.4 (95% CI 1.2-1.7) N***=144 | 1.4 (95% CI 1.2-1.7) N***=144 | p>0.05 | 1.031 |
| Broad generalised anxiety disorder | N* | 0.2 (95% CI 0.1-0.6) | 0.4 (95% CI 0.3-0.6) | 1.1 (95% CI 0.6-1.9) | 1.0 (95% CI 0.7-1.3) | 0.6 (95% CI 0.4-0.9)** N***=29 | 0.6 (95% CI 0.4-0.9) | 1.8 (95% CI 1.3-2.6) | 1.6 (95% CI 1.0-2.7) | 2.0 (95% CI 1.5-2.6) | 1.5 (95% CI 1.2-1.9)** N***=78 | 1.1 (95% CI 0.9-1.3) N***=107 | 1.1 (95% CI 0.9-1.3) N***=107 | p<0.01 | 0.981 |

N* - number unweighted (P1)
 N** - number unweighted (P2)
 N*** - number unweighted
 * p<0,05
 ** p<0,01

dysthymia was least frequent in women before the age of 30: 0.4% (95% CI 0.2-0.8) and occurred in 1.1% of the group aged 30–39 (95% CI 0.9–1.3), ($p < 0.05$).

Lifetime bipolar disorder type I was found in 0.1% (95% CI 0.1-0.2) of adult residents of Poland, equally frequently in both sexes. Similarly, bipolar disorder type II occurred in 0.1% of men and women (95% CI 0.1-0.2).

Lifetime manic episode was less frequent, with the general prevalence index of 0.1% (95% CI 0.0-0.2) independent of age.

The general prevalence of hypomania in life was 0.3% (95% CI 0.2-0.5). Hypomania occurred more frequently in men: 0.4% (95% CI 0.2-0.6), but the difference was not statistically significant. In both sexes, the prevalence of hypomania was not related to age.

Lifetime panic attacks were found in 6.2% (95% CI 5.8-6.7) of the total population. Disorders meeting the DSM-IV diagnostic criteria were found in 8.5% (95% CI 7.8-9.3) of women and in 3.9% (95% CI 3.4-4.5) of men. Both in men and women, prevalence was significantly age-related ($p < 0.01$) and the age increase for comparison between age groups from youngest to oldest was statistically significant.

Agoraphobia with/without panic disorder occurred in 0.2% (95% CI 0.2-0.4) of the population, significantly more often in women: 0.3% (95% CI 0.2-0.6) than in men: 0.1% (95% CI 0.1-0.3), ($p < 0.01$). In men, the prevalence of this disorder was age-related ($p < 0.05$). Lifetime agoraphobia without panic disorder, on the other hand, was found in 0.1% (95% CI 0.1-0.2) of residents of Poland, also significantly more often in women: 0.3% (95% CI 0.2-0.5), ($p < 0.01$).

Panic disorder occurred in 0.3% (95% CI 0.2-0.5) of the population, significantly more frequently in women: 0.4% (95% CI 0.3-0.7) than in men: 0.2% (95% CI 0.1-0.4), ($p < 0.01$). In both sexes, prevalence was age-related ($p < 0.01$), and in women the index was highest in the 50+ age group at 0.8% (95% CI 0.5-1.3).

Specific phobia occurred in 3.4% (95% CI 3.1-3.8) of Poles, significantly more frequently in women: 4.6% (95% CI 4.1-5.2) compared to men: 2.2% (95% CI 1.8-2.6) ($p < 0.01$). In men, this disorder occurred most frequently in the youngest group ($p < 0.05$).

It was determined in the study that lifetime social phobia concerned 1.4% (95% CI 1.2-1.7) of Poles aged 18–64, more often women: 1.6% (95% CI 1.3-2.0) than men: 1.2% (95% CI 1.0-1.6), ($p > 0.05$). This disorder was less frequent with age, diagnosed in 1.9% (95% CI 1.4-2.6) of the youngest group, compared to 0.6% (95% CI 0.3-0.9) of men aged over 50, ($p < 0.01$).

Lifetime generalised anxiety disorder was found in 1.1% (95% CI 0.9-1.3) of the studied population, significantly more often in women: 1.5% (95% CI 1.2-1.9) than in men: 0.6% (95% CI 0.4-0.9), ($p < 0.01$). Among men, this disorder was most frequent in the group aged 40–49: 1.1% (95% CI 0.6–1.9), significantly more frequent ($p < 0.01$) than in the youngest group: 0.2% (95% CI 0.1-0.6). In women, it occurred significantly least frequently ($p < 0.01$) in the youngest group: 0.6% (95% CI 0.4-0.9) compared to the older groups.

Summary

The prevalence CMDs classified according to the DSM-IV among adult residents of Poland, determined using the CIDI questionnaire for most LT disorders, was higher in women than in men. The highest prevalence indices were determined for panic attacks, specific phobias and depression. The observed differences in disorder prevalence in men and women were statistically significant. In the case of panic attacks, depression, and generalised anxiety disorder, higher prevalence indices with statistically significant differences between values concerned older age groups. On the other hand, the prevalence index for specific phobias was highest among men in the youngest group. The prevalence of dysthymia in the general population is below one percent and the index value is statistically significantly higher (and age-related) for women than for men. Bipolar I and II disorders occurred in a similar percentage (0.1%). The index for hypomania was slightly higher (0.3%); the disorder was more frequent in men and was not dependent on age groups. The differences found were not statistically significant. Lifetime agoraphobia with/without panic anxiety occurred in 0.3% of the studied population, more frequently in women. Among men, the prevalence of agoraphobia with panic anxiety was age-related; in both cases the differences were statistically significant.

Alcohol abuse was the most frequent category of LT CMDs, with a clear difference of prevalence in men (18.6%) and in women (3.3%). The highest indices were determined for the group aged 30–49 for men and for the group aged 30–39 for women. Alcohol dependence prevalence index was ten times higher in men than in women (4.1% vs 0.4%) and was highest in the group aged 50+. Differences for each analysed variable were statistically significant.

Psychoactive substances abuse was two times more frequent in men (1.8%) than in women (0.8%). Psychoactive substances dependence (with the general prevalence index of 0.2%) was highest in men aged 40–49 and in women aged 50+. Differences between the analysed indices were statistically significant.

Discussion

So far, data on the prevalence of mental disorders in Poland have come from statistical yearbooks of the Institute of Psychiatry and Neurology prepared on base of official documents reported by healthcare institutions. It was assumed that they were sufficient for creating healthcare policies for psychiatry as they only included severe disorders and only those treated in institutionalised healthcare. As much as this statistics may be useful for the analysis of psychiatric care needs, their value for epidemiological purposes is limited. This is primarily because they do not include undocumented mental disorders (including an increasing number of patients treated in the private sector of healthcare), both with severe and milder course, but also due to the lack of standards for clinical diagnostic methods, e.g. the use of structured questionnaires. The use of such tools would enable the diagnosis of a wider context of etiological factors and disorder

course or comorbid somatic and mental illnesses. Data are available in literature that indicates e.g. the effect of non-medical factors, such as reimbursement policies, on the prevalence of registered cases of schizophrenia [8]. Therefore, a population-based study was necessary for a comprehensive evaluation of mental disorder prevalence. EZOP Poland is the first cross-sectional epidemiological study using the CIDI structured diagnostic questionnaire, performed on a sample representative for the population of the country aged 18–64. Due to the lack of similar epidemiological studies in Poland, the obtained results must be interpreted based on the results of studies performed in other countries [9, 10]. In the past several surveys have been performed in the Polish population showing vast diversity of prevalence neurotic disorders 4–30 % [11–15]. However methodological differences and long time horizon since data have been gathered do not allow any conclusions. Although the methodological assumptions of the World Mental Health Survey Initiative (WMH) were maintained during the EZOP Poland study, the prevalence of CMDs in the Polish population differs from the earlier reports from different countries [16–18]. The prevalence of major depressive disorder was estimated at 21,0% in France (n=2894, with response rate=46%), at 17.9% in the Netherlands (n=2372, with RR=56.4%), at 14.6% in Ukraine (n=4725, with RR=78.3%), at 14.1% in Belgium (n=2419, with RR=50.7%), at 10.6% in Spain (n=5473, with RR=78.6%), at 9.9% in Germany (n=3555, with RR=57.8%), at 9.9% in Italy (n=4712, with RR=71.3%), and at 9.8% in Israel (n=4859, with RR=73%) [17, 18]. In the cited studies, higher CMD prevalence indices including depression were reported in countries in which the response rate was higher. There are reports indicating that persons refusing to participate in the study suffer more intensely from mental disorders than study participants [19, 20]. This phenomenon might help explain the unexpectedly low CMD prevalence estimate in the EZOP Poland study, as the response rate was 50.4%. In the study carried out in Ukraine, where the response rate was very high (RR 78.3%), the demonstrated prevalence indices for affective and anxiety disorders were also higher than in Poland (LT major depressive disorder 14.6%, panic disorder 1.9%, social phobia 2.6%) [18]. Discrepancies in the prevalence of depressive disorders in various countries can be due to natural differences in the prevalence of a disorder or from different interpretation of the severity of symptoms considered as the cut-off point when using different tools [21, 22]. Significant discrepancies were also reported in the prevalence of depression among elderly Europeans, with values from 8.8% to 23.6% [23]. A meta-analysis of the EURODEP project (a sample of 13808 patients) revealed a high reporting rate of depression symptoms in five centers (Amsterdam, Berlin, Munich, London, Verona) and a low reporting rate in four centres (Dublin, Iceland, Liverpool, Saragossa), with significant differences in severity [24].

Depression is often linked with functioning disorders, but the intensity of this relation may vary. Simon et al. demonstrated that the effect of depression on disability (evaluated using the Social Disability Schedule) was slight in studies with high prevalence of depression (evaluated using the CIDI) [21]. The CIDI tools section used in the EZOP-Poland study that evaluated the functioning in the last 30 days included

a number of questions regarding difficulties in professional functioning, everyday life, and their presentation in four dimensions: cognitive, motor, individual, and social. Although the depression prevalence factor was relatively low in Poland, functioning disorders leading to the feeling of ‘complete inability to work and perform everyday activities’ was identified in 13.5% of study participants and the symptoms persisted for an average of 5.8 days. 12.2% of participants declared the need to remain in bed for at least half of the day (3,4 days a month, on average). Regarding symptoms, the study identified the feeling of intense despondency (‘nothing cheers me up’) in 40.2% of participants, the feeling of powerlessness in 39%, the feeling of lost hope in 29.4%, and the feeling of lost self esteem in 20.8%. Functioning disorders and symptoms of depression were determined for the last 30 days [4]. The question how subjective sense of mental health and its influence on daily living is expressed in operationalized diagnostic criteria of affective disorders is still opened. Subthreshold but interfering with personal functioning psychiatric symptoms may not fulfill toolkit’s criteria to make definite diagnosis. While interpreting the results one have to keep in mind likelihood of country specific limited willingness to answer items regarding trauma experiences. Similar observations were made in other studies as well, with differences in reported depression symptoms despite using identical diagnostic criteria for major depressive disorder [22]. The unexpectedly low prevalence of depressive disorder in the EZOP Poland study requires additional interpopulation assessment of the depression section items in accordance with the differential item functioning (DIF) theory [25]. Analyses performed this far revealed no errors in the construction of the Polish version of CIDI 3.0 in relation to the screening section and to the section evaluating the presence and severity of depressive symptoms. None of the diagnostic section items lead in an unexpected way and significantly to the rejection of depression diagnosis ($p < 0.01$).

In six countries participating in the ESEMeD study (cites above), the most frequent mental disorders included: depressive disorders (12.8%), specific phobias (7.7%), alcohol abuse (4.1%), and dysthymia (4.1%). In Poland, on the other hand, the most frequently diagnosed disorders were alcohol abuse (10.9%), panic attacks (6.2%), specific phobias (3.4%), and major depressive disorder (3.2%) [17]. In Poland and Ukraine, where the prevalence of alcohol abuse was estimated at 10.0%, the coefficient for this disorder was the highest in all studied countries [26].

The prevalence of anxiety disorders does not differ significantly from the results of earlier studies in European countries.

References:

1. Ustawa o ochronie zdrowia psychicznego z dnia 19 sierpnia 1994 r. Dz. U. 1994 nr 111 poz. 535 <http://isap.sejm.gov.pl/DetailsServlet?id=WDU19941110535>, access 02.05.2014.
2. *Mental Health Action Plan for Europe. Facing the Challenges, Building Solutions.* http://www.euro.who.int/__data/assets/pdf_file/0013/100822/edoc07.pdf, access 02.05.2014.

3. Wang PS, Berglund P, Kessler RC. *Recent care of common mental disorders in the United States: prevalence and conformance with evidence-based recommendations*. J Gen Intern Med. 2000; 15(5): 284-92.
4. Moskalewicz J, Kiejna A, Wojtyniak B. eds. *Epidemiologia zaburzeń psychiatrycznych i dostęp do psychiatrycznej opieki zdrowotnej – EZOP Polska*; Instytut Psychiatrii i Neurologii, Warszawa 2012.
5. Kessler RC, Üstün TB. *The World Mental Health (WMH) survey initiative version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI)*. Int J Methods Psychiatr Res. 2004; 13: 93-121.
6. Haro JM, Arbabzadeh-Bouchez S, Brugha TS et al. *Concordance of the Composite International Diagnostic Interview Version 3.0 (CIDI 3.0) with standardized clinical assessments in the WHO World Mental Health Surveys*. Int J Methods Psychiatr Res. 2006; 15(4):167-80.
7. *American Psychiatric Association. Diagnostic and Statistical Manual 4th Edition*. Washington DC: American Psychiatric Association Press; 1994.
8. Kiejna A, Misiak B, Zagdańska M et al. *Money matters: does the reimbursement policy for second-generation antipsychotics influence the number of recorded schizophrenia patients and the burden of stigmatization?* Soc Psychiatry Psychiatr Epidemiol. 2014;49(4): 531-9.
9. Wittchen HU, Jacobi F. *Size and burden of mental disorders in Europe – a critical review and appraisal of 27 studies*. European Neuropsychopharmacology. 2005;15:357–376.
10. Wittchen HU, Jacobi F, Rehm J et al. *The size and burden of mental disorders and other disorders of the brain in Europe 2010*. Eur Neuropsychopharmacol. 2011; 21(9): 655-79. DOI: 10.1016/j.euroneuro.2011.07.018.
11. Bizoń Z. *Neurotyczność i nerwice a niektóre cechy społeczno-demograficzne*. W: *Wybrane zagadnienia patologii społecznej*. GUS, Warszawa 1975: 18.
12. Heniesz J. *Badania psychiatryczno-społeczne w płockim rejonie uprzemysłowionym. Pamiętnik II Konf. Polsko-Czeskiej*. Kolobrzeg 1967; 62.
13. Leder S, Kuliszkiwicz D et al. *Rozpowszechnienie zaburzeń nerwicowych wśród pracowników handlu miasta Warszawy a czynniki społeczne*. Psychiatr. Pol. 1968; 2(4): 413.
14. Kiejna A, Wojtyniak B et al. *Samopoczucie ludności Polski w badaniu przeprowadzonym przez Główny Urząd Statystyczny – analiza wstępna*. Psychiatr. Pol. 2000; 34 (1): 21.
15. Aleksandrowicz JW, Świątek L. *Częstość występowania zaburzeń nerwicowych*. Psychoterapia 1985; 3(53): 21.
16. Waraich P, Goldner EM et al. *Prevalence and incidence studies of mood disorders: a systematic review of the literature*. Canadian Journal of Psychiatry. 2004; 49:124–138.
17. Alonso J, Angermeyer MC, Bernert S et al. ESEMeD/MHEDEA 2000 Investigators, *European Study of the Epidemiology of Mental Disorders (ESEMeD) Project. Prevalence of mental disorders in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project*. Acta Psychiatr. Scand. 2004; 109 (Suppl. 1): 21–27.
18. Bromet EJ, Gluzman SF, Paniotto VI et al. *Epidemiology of psychiatric and alcohol disorders in Ukraine: findings from the Ukraine World Mental Health survey*. Soc Psychiatry Psychiatr Epidemiol. 2005; 40(9): 681-90.
19. De Graaf R, Bijl R, Smit F et al. *Psychiatric and sociodemographic predictors of attrition in a longitudinal study. The Netherlands Mental Health Survey and Incidence Study (NEMESIS)*. Am J Epidemiol 2000; 152: 1039–1047.

20. Murray CJL, Lopes AD, eds. *The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected*. Cambridge: Harvard University Press; 1996.
21. Simon GE, Goldberg DP, Von Korff M et al. *Understanding cross-national differences in depression prevalence*. *Psychol Med*. 2002; 32(4):585-94.
22. Chang SM, Hahm BJ, Lee JY et al. *Cross-national difference in the prevalence of depression caused by the diagnostic threshold*. *J Affect Disord*. 2008;106(1-2):159-67
23. Copeland JR, Beekman AT, Dewey ME et al. *Depression in Europe. Geographical distribution among older people*. *Br J Psychiatry* 1999; 174:312-21.
24. Copeland JR, Beekman AT, Braam AW et al. *Depression among older people in Europe: the EURODEP studies*. *World Psychiatry* 2004; 3:45-9.
25. Hidalgo MD, López-Pina JA. *Differential item functioning detection and effect size: a comparison between logistic regression and Mantel–Haenszel procedures*. *Educ. Psychol. Meas*. 2004; 64: 903–915.
26. *The WHO World Mental Health Survey Consortium. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health surveys*. *JAMA* 2004; 291:2581–2590.

Address: Patryk Piotrowski
Department of Psychiatry, UM in Wrocław
50-367 Wrocław, Wybrzeże L. Pasteura 10