

# The impact of mental disorders on workload in primary care

## Psichikos sutrikimų poveikis pirminės sveikatos priežiūros apkrovai

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### SUMMARY

**Background.** The general practitioners (GPs) state that patients with mental health problems make heavy demands on their available time. To what extent these perceived problems correspond with reality needs more investigation.

**Objectives.** To investigate the impact of the presence of mental disorders on GP's workload, expressed in number of visits, and number of specialists involved reported by primary care patients.

**Methods.** Data were derived from a cross-sectional survey in primary-care. For 12-week period, all patients' contacts with primary-care physician and other health care professionals were registered by using visits' frequency questionnaire. Current mental state was evaluated by using the Mini International Neuropsychiatric Interview (MINI). Workload measures were the number of visits, number of specialist(s) involved, reported by patients. Patients with documented psychiatric diagnoses established by GP were compared to patients with only somatic diagnosis, and patients with a mental disorder established by MINI were compared to patients without respective diagnosis.

**Results.** More than half (53.6%) of patients attending their GP had a current mental disorder during the previous 12-week period established by MINI. Most frequent mental disorders were generalized anxiety disorder (10.7%), major depressive disorder (8.1%) and suicidal ideation (8.5%). Patients with documented mood disorder diagnosed by GP visited psychiatrist about nine fold more often (adjusted OR=9, 2.7–29.5) than patients without respective disorder. Patients with documented mood disorder diagnosed by GP had been consulted by more specialists and had more contacts with them compared with patients with only somatic problems. Patients with current major depressive episode diagnosed by MINI visited psychiatrist more than four times frequently (adjusted OR=4.1, 1.6–10.4) than patients without respective diagnosis.

**Conclusion.** The presence of a mental disorder of any kind was significantly associated with patients' visits number so we can suppose also with GPs workload in primary care. Further research is needed to clarify possible association between patients' reported visits and statistical numbers confirmed by physicians to comprehensively evaluate GPs' workload.

**Keywords.** Primary care, general practitioner, workload, mental disorder, patient.

### SANTRAUKA

**Įvadas.** Šeimos medicinos gydytojai (ŠMG) teigia, kad pacientai, turintys psichikos sveikatos sutrikimų, didina jų darbo krūvį. Kokiu mastu ši problema atitinka tikrovę, reikalingi išsamūs tyrimai.

**Tikslas.** Įvertinti psichikos sutrikimų buvimo sąsają su šeimos gydytojų darbo krūviu, išreikštu gydytojų specialistų ir kontaktų su pacientais skaičiumi, pagal besikreipiančių į pirminės sveikatos priežiūros grandį pacientų apklausą.

**Metodai.** Skerspjūvio tyrimas atliktas pirminės sveikatos priežiūros grandyje. Pacientų apklausos metu buvo pildomas apsilankymų dažnio klausimynas: 12 savaičių laikotarpiu buvo registruojami pacientų apsilankymai pas šeimos gydytojus ir kitus sveikatos priežiūros specialistus. Dabartinė psichikos sveikatos būklė buvo įvertinta naudojant MINI tarptautinę neuropsichiatrinę apklausą (MINI). Darbo krūvis buvo vertinamas apsilankymų pas šeimos gydytojus skaičiumi, gydytojų specialistų ir kontaktų su jais skaičiumi. Pacientų, kuriems šeimos gydytojai nustatė psichiatrinę diagnozę, duomenys buvo palyginti su pacientų, turinčių tik somatinius sutrikimus, duomenimis. Duomenys pacientų, kurių psichikos sutrikimai buvo nustatyti pagal MINI, buvo lyginami su pacientų be atitinkamos diagnozės duomenimis.

**Rezultatai.** Daugiau nei pusė (53,6 proc.) pacientų, besikreipiančių į ŠMG, buvo nustatytas dabartinis psichikos sutrikimas pagal MINI. Dažniausi psichikos sutrikimai buvo generalizuotas nerimo sutrikimas (10,7 proc.), dabartinis didžiosios depresijos epizodas (8,1 proc.) ir mintys apie savižudybę (8,5 proc.). Pacientai, kuriems buvo ŠMG diagnozuotas nuotaikos sutrikimas, lankėsi pas psichiatrą apie devykis kartus dažniau (OR=9,0; 2,7–29,5), nei pacientai, neturintys atitinkamo sutrikimo. Pacientai, kuriems buvo ŠMG diagnozuoti nuotaikos sutrikimai, buvo konsultuojami skirtingų gydytojų specialistų ir turėjo daugiau kontaktų su jais, nei pacientai tik su somatinėmis problemomis. Pacientai, kuriems diagnozuota depresija, lankėsi pas psichiatrą keturis kartus dažniau (OR=4,1; 1,6–10,4) nei pacientai, neturintys atitinkamos diagnozės.

**Išvados.** Bet kokio psichikos sutrikimo buvimas buvo reikšmingai susijęs su pacientų apsilankymų skaičiumi, kas didino ir ŠMG darbo krūvį. Ateityje reiktų įvertinti galimas sąsajas tarp subjektyvių pacientų apklausos rezultatų ir objektyvios gydytojų patvirtintos statistikos.

**Raktažodžiai.** Pirminė sveikatos priežiūra, šeimos medicinos gydytojas, darbo krūvis, psichikos sutrikimai, pacientas.

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## INTRODUCTION

Increasing demands on general practice over the past years – not just a heavier workload but the increasing complexity and intensity of work – have been reported [1]. GPs report that patients' psychosocial problems play a part in 20% of all consultations [2]. GPs complain about the workload that patients' mental health problems induce: consultations with patients with psychosocial problems may be more time-consuming [3-6] under and the perceived burden is higher [7]. A higher workload due to patients' mental health problems is, for example, expressed in longer consultations [4, 8-11] and a higher contact rate for patients with mental health problems [9, 10]. The prevalence of mental disorders in primary care in Europe has been estimated to range approximately between 20% and 55% [12-14]. The most prevalent mental disorders presenting in primary care settings are depression, 5% to 20% [13], generalized anxiety disorder, 4% to 15%, [15], harmful alcohol use and dependence, 5% to 15% [16] and somatization disorders 1% to 5% [17]. Despite this high prevalence, primary care practitioners have difficulties in detecting about one third of those with mental health problems [18-20] and often have limited time to obtain a psychiatric history [21, 22]. General practitioners (GPs) treat more than 90 per cent of patients with mental disease [23].

Recognition of a patients' psychological problems by a general practitioner (GP) is important and challenging because it is the first critical step towards finding the appropriate care for the patient [11]. It has been shown that patients with mental health problems contact their general practice more often than patients with physical problems [8]. Additionally, discussing a patient's mental health problems requires specific communication skills that encourage the patients to disclose their psychological problems [24]. GPs report that mental health care is one of the components of their job that places particular demands on their time and increases their perceived burden [7]. And the GP workload has been for a while one of the most important already an important topic because GPs often raise concerns about their increasing workload and lack of time with their patients [7, 25].

The background to this subject is that dealing with patients' mental disorders is an essential part of the GP's job, although these problems are perceived as being very demanding. In this paper we investigate how mental disorders affect GPs workload in primary care.

## METHODS

### Subjects

A cross-sectional study of adults attending a primary care center was performed. During a 4-week period all (N=583) patients who visited their primary care physician were consecutively invited to participate in the study. The approval to conduct biomedical research was given by the Lithuanian Bioethics Committee. All patients gave their written consent. Response rate was 85% (N=496). Any acute status which required urgent medical care was the only one restriction on the patients' selection. For each patient sociodemographic data were obtained (age, sex, marital status and occupation). Number of patients' self-reported contacts with GP, psychiatrist and other

specialists (cardiologist, gastroenterologist, dermatologist and other) per last 12 weeks was registered.

### Measurements

Workload measures were the self-reported number of visits to primary care specialist, number of specialists involved in the patient's care. For screening of mental disorders in primary care we chose MINI [26, 27]. The MINI is a standardized and structured diagnostic interview that provides an extensive evaluation of psychiatric diagnoses according to the DSM-IV-TR criteria [28] and ICD-10 criteria, and is widely used in clinical trials and for non-research purposes [29]. The MINI is a validated instrument for evaluation of mental disorders in psychiatric populations and in general medical populations [30]. Administration of these modules of the MINI takes from 2 to 20 minutes, depending on the presence and complexity of psychiatric diagnoses.

### Statistical analysis

Patients diagnosed with one or more mental disorders by MINI were compared to patients without respective diagnosis. Univariate analyses relied on parametric (Student's t-test) or non-parametric (Mann-Whitney's test) methods depending on the distribution of the characteristic considered. Multiple logistic regression was used for analysis; a probability value of <0.05 was considered significant. Social and demographic covariates in the analyses included age, sex, education (any post-secondary vs not), marital status (currently married vs not). The Statistical Package for Social Sciences for Windows program ver. 17.0 was used for statistical analysis.

## RESULTS

Patient characteristics (N=496) included in our analyses are given in Table 1. The response rate was 85%. The mean age of the participants was 48.7±17.2 (range 18–89) years.

In Table 2 the main reasons for consultation are presented, with cardiovascular (22.6%), musculoskeletal system and the connective tissue problems (13.5%) and respiratory system (12.7%), being the most frequently cited. A mental problem as the main reason to the GP visit was not mentioned. Documented psychiatric diagnoses had 15.7 percent of patients, including more prevalent mood disorder (5.2%), insomnia (5%), and anxiety disorder (2.2%). Patients with a documented psychiatric diagnosis established by GP were on average significantly ( $p<0.01$ ) older ( $55\pm16$  years) than those in the only somatic group ( $47\pm17$  years), especially patients with sleep disorders ( $62\pm14$  years;  $p<0.001$ ). In general, they were more often female (73% vs 61%), especially patients

*Table 1. Socio-demographic characteristics of the primary care patients (N=496)*

| Characteristics                   | n (%)               |
|-----------------------------------|---------------------|
| Age, mean (range)                 | 48.7 (17.2) (18–89) |
| Female                            | 311 (62.7)          |
| Marital status, currently married | 330 (66.5)          |
| Education, any postsecondary      | 384 (77.4)          |
| Employed                          | 322 (64.9)          |

Table 2. Clinical characteristic of the primary care patients

| Characteristic                                   | n (%)      |
|--------------------------------------------------|------------|
| The main reason for the consultation             |            |
| Cardiovascular system                            | 112 (22.6) |
| Acute colds                                      | 11 (2.2)   |
| Musculoskeletal system and the connective tissue | 67 (13.5)  |
| Digestive system                                 | 31 (6.3)   |
| Respiratory system                               | 63 (12.7)  |
| Eye                                              | 10 (2.0)   |
| Endocrine (Diabetes mellitus)                    | 3 (0.6)    |
| Administrative reason                            | 97 (19.6)  |
| Other                                            | 102 (20.6) |
| Psychiatric treatment                            | 118 (23.8) |
| Documented psychiatric disorders by GP           | 78 (15.7)  |
| Including:                                       |            |
| Psychosis                                        | 4 (0.8)    |
| Mood disorder                                    | 26 (5.2)   |
| Anxiety disorder                                 | 11 (2.2)   |
| Insomnia                                         | 25 (5)     |
| Other                                            | 12 (2.4)   |
| Current mental disorders by MINI                 | 266 (53.6) |
| Major depressive episode                         | 40 (8.1)   |
| Generalized anxiety disorder                     | 53 (10.7)  |
| Panic disorder                                   | 13 (2.6)   |
| Social phobia                                    | 13 (2.6)   |
| Posttraumatic stress disorder                    | 8 (1.6)    |
| Suicidal ideation                                | 42 (8.5)   |
| Excessive alcohol use                            | 191 (38.5) |

GP – general practitioner

MINI – Mini International Neuropsychiatric Interview

with mood disorders (92%). Patients with documented psychiatric diagnosis were more often unemployed (54% vs 32%,  $p<0.001$ ), especially patients with mood disorders (46%,  $p<0.05$ ) and insomnia (72%,  $p<0.001$ ) diagnosed by GP. In general, the patients' characteristics in the specific categories of documented psychiatric diagnoses reflected the same differences compared to the only somatic group of patients as the total group of psychiatric diagnoses. Patients with 'other psychiatric diagnoses' and with sleep disorders were less well educated than patients with only somatic problems ( $p<0.001$ ) (data not shown).

More than half (53.6%) of people attending their GP had a current mental disorder established by MINI. Most frequent mental disorders established by MINI were generalized anxiety disorder (10.7%), major depressive disorder (8.1%) and suicidal ideation (8.5%) (Table 2).

Table 3 summarizes the mean 12-week contact frequency reported by patient and number of specialists for consultation among patients with only somatic diagnoses and patients with documented psychiatric disorders diagnosed by GP. A distinction is made between patients with documented psychiatric disorders in the category 'mood disorder' and 'only

Table 3. The mean 12-week contact frequency and number of specialists among patients with only somatic diagnoses and patients with documented psychiatric disorder diagnosed by GP

| Documented psychiatric disorder | Number of the specialists Mean (SD) | Contact frequency Mean (SD) |
|---------------------------------|-------------------------------------|-----------------------------|
| No (Only somatic problems)      | 1.14 (0.99)                         | 2.10 (2.43)                 |
| Psychosis                       | 1.75 (1.25)                         | 2.25 (1.71)                 |
| Mood disorder                   | 1.81 (1.17)*                        | 4.50 (4.73)*                |
| Anxiety disorder                | 1.64 (1.03)                         | 2.54 (1.80)                 |
| Insomnia                        | 1.64 (0.76)                         | 3.32 (2.54)                 |
| Other                           | 1.87 (1.72)                         | 2.37 (2.44)                 |

\* $p<0.05$  compared with "only somatic problems" by general practitioner

somatic problem'. Patients with "mood disorder" contacted more specialists and had more contacts with them, compared to patients with only somatic problems (number of specialist, 1.81 vs 1.14; number of contacts, 4.50 vs 2.10, both  $p<0.05$ ).

Table 4 describes the results of a multiple logistic regression analysis, to test the age, gender and education adjusted relationship between documented psychiatric disorders diagnosed by GP and subjective workload (number of visits) of GP, psychiatrist or other specialists, reported by patients.

Patients with documented mood disorder diagnosed by GP visited nine fold more often psychiatrist (adjusted OR=9.0, 2.7–29.0) than patients without respective disorder (Table 4).

Table 5 describes the results of a multiple logistic regression analysis, to test the age, gender and education adjusted relationship between unrecognized current mental disorders established by MINI and subjective workload (number of visits) of GP, psychiatrist or other specialists.

The number of visits per 12 week reported by patient to GP, psychiatrist or other specialist was higher among patients with unrecognized MDE and GAD than among patients without respective mental disorder. Patients with panic disorder as established by the MINI visited psychiatrist about three times more often (adjusted OR=2.9, 1.2–7.6) and patients with MDE more than four times more often (adjusted OR=4.1, 1.6–10.4) than patients without respective diagnosis (Table 5).

## DISCUSSION

Data on the impact of mental disorders on primary care doctors' workload are scarce. To our knowledge, there are no studies done to evaluate the impact of mental disorders' to GPs' workload in primary care in Lithuania. This was the first study to evaluate primary care patients' reported visits' numbers to several doctors, also their GPs in relation to mental diagnoses as time investment and workload needed to address for the management of their health issues in primary care. There was one study done recently in Lithuania to evaluate primary care doctors' attitude towards their diabetic patients' self-assessed glycemic control (SAGC) practices in relation to GPs' workload, working conditions, stress, tiredness, fatigue and perceived supervisor's support [31, 32].

Patients with mental disorders are one of the most complex challenges to face in general practice. We found that primary

## Research reports

**Table 4. The association between documented psychiatric disorders diagnosed by GP and the number of visits to physicians during 12-week period**

| Documented psychiatric disorder | GP<br>OR (95% CI) | P            | Psychiatrist<br>OR (95% CI) | P                | Other specialist<br>OR (95% CI) | P            |
|---------------------------------|-------------------|--------------|-----------------------------|------------------|---------------------------------|--------------|
| Psychosis                       | 0.76 (0.31–1.88)  | 0.562        | –                           | –                | 1.09 (0.60–1.98)                | 0.771        |
| Mood disorder                   | 1.40 (1.16–1.71)  | <b>0.001</b> | 9.03 (2.75–29.5)            | <b>&lt;0.001</b> | 1.30 (1.06–1.61)                | <b>0.012</b> |
| Anxiety disorder                | 1.03 (0.72–1.46)  | 0.871        | 2.42 (0.81–7.25)            | 0.112            | 0.07 (0.61–1.55)                | 0.912        |
| Insomnia                        | 1.14 (0.93–1.39)  | 0.221        | 1.17 (0.17–8.01)            | 0.881            | 1.11 (0.85–1.44)                | 0.451        |
| Other                           | 0.88 (0.52–1.49)  | 0.640        | 2.4 (0.83–7.4)              | 0.100            | 1.16 (0.77–1.73)                | 0.482        |

GP – general practitioner; OR=odds ratio; CI – confidence interval

Adjusted for age, gender, education, marital status

Other specialist: cardiologist, gastroenterologist, dermatologist, LOR, other

care patients had a high demand for referrals and physician contacts. Patients with documented mood disorder diagnosed by GP had more contacts with their GP and psychiatrist compared to patients without documented mood disorder. More than half of primary care patients attending their GP had unrecognized current mental disorder during the previous 12 weeks. Patients with unrecognized mental disorders also contacted their GP about their somatic problems more frequently, compared to patients with only somatic diagnoses.

Recognition and diagnosis of mental health or social problems, often followed by treatment, are common tasks for a Lithuanian GP. In present study, of the all respondents over half were diagnosed as having at least one current mental disorder. Point prevalence of MDE and of GAD was found to be 8% and 11%, respectively. Overall, 14% of the respondents were positive for GAD and/or MD. These results are largely in line with recent findings of the Dutch National Survey of General Practice which show that about 8% of all diagnoses in general practice concern psychological or social diagnoses [33].

Our study confirmed previous findings that mental disorders, with depressive and anxiety disorders being the most frequent, are prevalent but poorly recognized in PC settings [34, 35]. The present study highlights the high prevalence of

mental disorders amongst primary care patients who consult in primary care setting. GPs spend the majority of their time in direct patient care. GPs are usually patients' first contact with health care in the Lithuania, as they are in the UK, Ireland and Denmark [36]. They also play an important part in mental health care.

Mental health services are an essential element of the health care services continuum. The finding that patients with mental disorders contact their general practice more frequently is confirmed by other recent research. Studies have shown that psychosocial health problems of patients increase the demand for health care [9] and another study have shown that patients with depressive symptoms or anxiety have higher contact rates than other patients [37].

The result that patients with mental disorders contact their primary care centers more often concerning their somatic problems may be due to patterns that merit further attention. Firstly, as other authors have also demonstrated, patients with mental disorders show comorbidity: they are less healthy and more burdened with somatic problems in addition to mental problems [38–40]. Furthermore, it is well known that mental disorders are often expressed in somatic complaints [41]. Thirdly, it is possible that psychological problems are

**Table 5. The association between current mental disorders established by MINI and the number of visits to physicians during 12-week period**

| Current mental disorders established by MINI <sup>a</sup> | GP<br>OR (95% CI) | P            | Psychiatrist<br>OR (95% CI) | P            | Other specialist <sup>b</sup><br>OR (95% CI) | P                |
|-----------------------------------------------------------|-------------------|--------------|-----------------------------|--------------|----------------------------------------------|------------------|
| Major depressive episode                                  | 1.25 (1.06–1.46)  | <b>0.006</b> | 4.1 (1.6–10.4)              | <b>0.003</b> | 1.28 (1.06–1.54)                             | <b>0.011</b>     |
| Any anxiety disorder                                      |                   |              |                             |              |                                              |                  |
| Generalized anxiety disorder                              | 1.21 (1.04–1.39)  | <b>0.011</b> | 2 (0.92–4.36)               | 0.080        | 1.42 (1.19–1.71)                             | <b>&lt;0.001</b> |
| Panic disorder                                            | 1.15 (0.86–1.53)  | 0.351        | 2.97 (1.16–7.58)            | <b>0.023</b> | 1.22 (0.91–1.64)                             | 0.180            |
| Social phobia                                             | 0.85 (0.55–1.31)  | 0.470        | 1.27 (0.29–5.45)            | 0.751        | 0.94 (0.56–1.56)                             | 0.802            |
| Posttraumatic stress disorder                             | 0.99 (0.62–1.58)  | 0.982        | –                           | –            | 1.13 (0.73–1.73)                             | 0.591            |
| Suicidal ideation                                         | 1.03 (0.86–1.24)  | 0.720        | 1.18 (0.36–0.85)            | 0.782        | 1.14 (0.93–1.39)                             | 0.220            |
| Excessive alcohol use                                     | 0.88 (0.77–0.99)  | 0.042        | 0.084 (0.01–0.70)           | 0.022        | 0.84 (0.71–1.00)                             | 0.841            |

MINI – Mini International Neuropsychiatric Interview

GP – general practitioner; OR, odds ratio; CI – confidence interval

<sup>a</sup> In the same contacts, somatic diagnoses may also have been made

Adjusted for age, gender, education, marital status

<sup>b</sup> cardiologist, gastroenterologist, dermatologist, LOR, other

symptoms of a higher burden of disease in general [8]. The role of GPs often involves understanding and dealing with both a number of individual illnesses of one patient and treating that patient as the whole person who lives in a social context at the same time. For this group of patients there will often be a number of other health care professionals involved; and GP's management role will therefore include being a coordinator, facilitator and advocate.

Our study used self-reported measures which may increase the likelihood of response bias. However, these findings which suggest untreated mental disorders seem consistent with other local published studies that used different tools [8, 10, 42].

## CONCLUSIONS

The presence of a mental disorder of any kind was significantly associated with patients' visits number so we can suppose also with GPs workload. Mental health issues are frequently unrecognized in primary care and contribute to increased utilization of health-care resources overall. Comorbid mental disorders are common among primary care patients, with unrecognized depression and anxiety being the most frequent. Improving mental health treatment requires enhancing the ability of the primary care physician to screen, treat and appropriately manage the psychiatric care given to patients. More studies are needed to evaluate GPs' workload in relation to mental disorders in primary care.

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