

# The workload of GPs: patients with psychological and somatic problems compared

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

**Objectives.** To investigate the effect of patients with psychological or social diagnoses on GP's workload, expressed in time investments.

**Methods.** Data were derived of a cross-sectional National Survey in General Practice, conducted in The Netherlands in 2000–2002. For a year, all patient contacts with a representative sample of 104 general practices were registered. Patients diagnosed with one or more diagnoses in ICPC (International Classification of Primary Care) chapter 'Psychological' or 'Social' ( $n = 37\ 189$ ) were compared to patients with only somatic diagnoses ( $n = 189\ 731$ ). A subdivision was made in diagnoses depression, anxiety, sleeping disorders, stress problems, problems related to work or partner and 'other psychological or social problems'. Workload measures are the consultation frequency, number of diagnoses and episodes of illness of the patients involved.

**Results.** Patients in all categories of psychological or social problems had almost twice as many contacts with their general practice as patients with only somatic problems. They received more diagnoses and more episodes of illness were shown. Patients with psychological or social diagnoses also contacted their general practice about their somatic problems more frequently, compared to patients with only somatic problems.

**Conclusion.** Patients with psychological or social problems make heavy demands on the GP's workload, for the greater part due to the increase in somatic problems presented.

**Keywords.** Consultation frequency, general practice, mental health care, time, workload.

## Introduction

GPs are usually patients' first contact with health care in The Netherlands, as they are in the UK, Ireland and Denmark.<sup>1</sup> They also play an important part in mental health care.<sup>2</sup> Recognition and diagnosis of psychological or social problems, often followed by treatment, are common tasks for a Dutch GP. Recent findings of the Dutch National Survey of General Practice show that about 8% of all diagnoses in general practice concern psychological or social diagnoses.<sup>3</sup> In fact, GPs in The Netherlands have a core position in mental health care, because government policy is directed at treating as many psychological and social problems as possible in primary health care. GPs have been reluctant to accept such a position because of the perceived lack of support

from primary care psychologists, social work or other primary care counselling facilities and because of adverse referral possibilities to secondary mental health care. Additionally, they mention the time-consuming nature of patients with mental problems.<sup>9,10</sup> The latter point is essential because GPs complain a lot about increasing workload and insufficient patient time, a development that seems to be international.<sup>4–8</sup> Lack of time is one of doctors' main complaints and particularly in respect of psychosocial care GPs state that patients consume a lot of their available time. In a nationwide survey among 1336 Dutch GPs about psychological and psychosocial care, 58% reported problems in this respect.<sup>9</sup> Similarly, in a British survey among GPs, psychiatric and psychological services were reported as one of the four main impact factors on GPs' workload.<sup>10</sup> To what extent these perceived problems correspond with reality needs more investigation.

In this paper we investigate the effect of patients with psychological or social problems on GPs' workload, expressed in time investments. We aim to compare GPs'

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workload caused by patients with psychological or social problems to the workload caused by patients without our defined psychological or social problems, by considering whether patients with psychological or social problems contact their doctors more often and reveal more problems, resulting in more time investments of the GP. We distinguish between five prevalent categories of psychological and social problems of patients in general practice: depression, anxiety, sleeping disorders, stress problems and problems related to work or a partner. In addition, a category with 'other psychological or social problems' is used. In earlier research several authors have demonstrated that patient characteristics like sex, age, kind of insurance, ethnicity, education level and employment status may influence GPs' workload;<sup>11–15</sup> they are included here in the analysis.

## Methods

The data for this study were collected within the framework of the second Dutch National Survey of General Practice (DNSGP-2), conducted in The Netherlands in 2000–2002.<sup>17</sup>

During a one-year period, 195 GPs in 104 practices kept an electronic record of all the contacts they had with their patients, by means of a computer system that was added to their standard practice computer. The GP recorded the diagnoses of their patients and any prescriptions and referrals. Diagnoses were coded according to the International Classification of Primary Care (ICPC).<sup>16</sup> Afterwards episodes of illness were constructed in which one or more contacts concerning the same problem or illness were integrated. Patient characteristics, including age, sex, kind of insurance (public versus private), ethnic background (Western versus non-Western), employment status (employed or not) and education (none, primary school, secondary school, higher vocational training/university), were gathered from a registration form that was sent to all patients on the lists of the participating practices. The Dutch National Survey sample is representative for the Dutch population of patients, GPs and practices.<sup>17</sup> Selection of the 104 practices was based on three stratification criteria: region; level of urbanisation; and practice type (single-handed or group). Privacy of the participating persons is guaranteed and in accordance with Dutch legislation. Patients were informed about the study prior to data collection.<sup>17</sup>

### Measures

Registration data from 99 of 104 practices were suitable for analysis; 5 practices were eliminated because of incompleteness of registration. All adult patients ( $\geq 18$  years) that contacted their general practice during the year are included in the study. Patients were categorised according to their ICPC diagnoses in the National

Survey contact registration. Patients that received one or more diagnoses in ICPC chapter P 'Psychological' or Z 'Social' ( $n = 37\,189$ ) were compared to patients without diagnoses in ICPC chapter P or Z ( $n = 189\,731$ ). Obviously, patients with psychological or social diagnoses may also have somatic diagnoses. The group of patients without our defined psychological or social diagnoses, are in this paper referred to as patients with only somatic diagnoses.

A further distinction was made between patients in five prevalent categories of P and Z diagnoses:

- Depression (P76 'Depression' and P03 'Depressive feeling')
- Anxiety (P74 'Anxiety disorder' and P01 'Anxious, nervous feeling')
- Sleeping problems (P06 'Sleeplessness, sleeping disorder')
- Stress (P78 'Nervous breakdown' and P02 'Acute stress reaction')
- Social problems (Z05 'Partner problems' and Z12 'Problems in working situation')

Because of co-morbidity, patients may be categorised in more than one P or Z category; 17.7% of the patients received two or more diagnoses in the selected categories. For the sake of completeness, a category of other psychological/social diagnoses was added. Other psychological/social diagnoses include tobacco and alcohol abuse, problems with loss of a partner, dementia and disturbances of memory or concentration. The annual contact frequency, number of diagnoses and episodes of illness per patient were calculated from the National Survey contact registration data. The number of diagnoses is the total frequency that a patient receives a diagnosis; the same diagnosis may occur several times. A contact, diagnosis or episode was defined as 'psychological/social' when the GP made a diagnosis in ICPC chapter P or Z.

### Statistical analysis

Comparison of the patient characteristics of the different groups of patients was made using Pearson chi-square and *t*-tests. A one-way analysis of variance was used to compare means of consultation frequency, number of diagnoses and number of episodes of illness of the groups. Patient characteristics that showed differences between the psychological/social and the only somatic group ( $P \leq 0.01$ ) were included in analysis of variance as covariates because of their supposed effect on GPs' workload. A Bonferroni post hoc test was applied to determine which means differ significantly.

## Results

Patient characteristics included in our analyses are given in Table 1. Patients with a psychological or social diagnosis are on average significantly older ( $P < 0.01$ )

TABLE 1 Characteristics of patients (aged ≥18) with only somatic diagnoses, patients with psychological/social diagnoses and patients within 6 categories of psychological/social diagnoses

Patient characteristics	Patients with only somatic diagnoses (n = 137 832–189 731)	Patients with psychological/social diagnoses (n = 26 589–37 189)	Depression (n = 5936–8227)	Anxiety (n = 5713–7869)	Sleeping problems (n = 5790–7727)	Stress (n = 3477–4951)	Social problems (n = 2055–2959)	Other psychological/social problems (n = 7540–10 923)
Mean age (SD)	37.03 (22.48)	46.68 (21.06)*	48.27 (17.79)*	48.90 (18.64)*	57.12 (19.96)*	43.90 (15.36)*	41.56 (11.80)*	40.93 (25.00)*
% female	53.3%	61.4%*	68.0%*	68.5%*	67.8%*	63.0%*	56.3%*	51.5%*
% public insurance	66.8%	73.7%*	75.0%*	75.4%*	73.6%*	73.0%*	71.9%*	74.1%*
% non-Western	5.8%	5.3%*	4.7%*	4.5%*	3.8%*	6.7%**	6.2%	6.4%*
% unemployed	1.3%	2.3%*	2.8%*	2.3%*	2.0%*	2.0%*	2.1%*	2.6%*
Education								
1 'none'	16.6%	7.6%*	2.0%*	3.4%*	3.8%*	2.0%*	0.8%*	19.6%*
2 'primary school'	18.6%	23.8%	23.3%	26.2%	32.7%	16.0%	11.3%	23.6%
3 'secondary school'	49.1%	53.1%	58.1%	56.6%	49.6%	60.0%	65.1%	44.8%
4 'higher vocational training /university'	15.6%	15.5%	16.7%	13.8%	14.0%	22.1%	22.8%	12.0%

\* P < 0.01; \*\* P < 0.05 compared to patients with only somatic diagnoses.

TABLE 2 Mean annual scores on workload indicators among patients (aged ≥18) with only somatic diagnoses, patients with psychological/social diagnoses and patients within 6 categories of psychological/social diagnoses

Workload measure	Patients with only somatic diagnoses (n = 127 163)	Patients with psychological/social diagnoses (n = 25 324)	Depression (n = 5746)	Anxiety (n = 5536)	Sleeping problems (n = 5484)	Stress (n = 3401)	Social problems (n = 2006)	Other psychological/social problems (n = 6948)
Contact frequency, of which:								
psychological/social contacts	4.06	7.45*	8.91*	8.72*	8.93*	7.35*	6.72*	6.40*
somatic contacts	—	2.25	3.45	2.93	2.66	2.57	2.32	1.64
diagnosis-specific contacts	3.83	4.80*	4.91*	5.31*	5.80*	4.39*	4.10*	4.42*
Number of diagnoses, of which:								
psychological/social diagnoses	4.70	9.04*	10.89*	10.54*	11.15*	8.80*	8.23*	7.70*
somatic diagnoses	—	2.32	3.60	3.05	2.81	2.70	2.47	1.67
specific P or Z diagnosis	4.44	6.26*	6.68*	6.95*	7.80*	5.67*	5.42*	5.66*
Number of episodes of illness, of which:								
psychological/social episodes	3.04	5.22*	5.71*	5.77*	6.20*	5.21*	5.02*	4.67*
somatic episodes	—	1.25	1.50	1.46	1.47	1.43	1.40	1.07
diagnosis specific episodes	3.04	3.97*	4.21*	4.32*	4.73*	3.78*	3.62*	3.60*

\* P < 0.01 compared to patients with only somatic diagnoses.

than those in the only somatic group, especially patients with sleeping problems. In general they are more often female, publicly insured and more often have a Western nationality. Patients with psychological or social problems are more often unemployed and more highly educated. In general the patients' characteristics in the specific categories of psychological and social diagnoses reflect the same differences compared to the only somatic group of patients as the total group of psychological and social diagnoses. Only patients with stress or 'other

psychological/social problems' more often have a non-Western ethnic background (P > 0.01). Patients with 'other psychological or social diagnoses' are less well educated than patients with only somatic problems, while patients with psychological/social problems are generally more highly educated than the only somatic group.

Table 2 presents the mean annual contact frequency, number of diagnoses and episodes of illness of patients with only somatic diagnoses and patients with psychological/social diagnoses, as a result of analysis of variance.

A distinction is made between patients with psychological/social diagnoses in the five selected psychological and social categories of diagnosis and a category 'other psychological and social problems'. The means in Table 2 have been adjusted for the patient characteristics age, sex, kind of insurance, ethnicity, unemployment and education. Means are compared to the group of patients with only somatic problems. Because of co-morbidity, the patients in different groups of psychological/social diagnoses are not mutually exclusive. Comparisons between the 5 categories of diagnosis were not therefore tested.

Patients with psychological or social problems had almost twice as many contacts a year with their general practice as patients with only somatic problems (7.45 versus 4.06 contacts). They received more diagnoses from their GP than patients with only somatic problems—9 versus nearly 5 diagnoses a year—and more episodes of illness are shown. The higher contact rates in the group of patients with psychological or social diagnoses cannot be attributed to the 'extra' contacts and diagnoses caused by their psychological and social diagnoses. Patients with psychological or social diagnoses also contact their general practice more frequently about their somatic problems, compared to patients with only somatic diagnoses. Patients in all categories differ significantly from the only somatic group in contact rate, number of diagnoses and episodes. The finding that patients with psychological or social diagnoses also have more contacts and diagnoses concerning their somatic problems is valid for all the selected diagnosis categories. Patients with sleeping problems contact their general practice most frequently, particularly as a result of contacts concerning somatic problems. Patients with depression and anxiety diagnoses are also frequent consulters. Within the group of patients with psychological or social problems, they have the most contacts with psychological/social diagnoses in general but also concerning their depression or anxiety. Patients with stress or social problems have the fewest contacts (psychological/social as well as somatic contacts) with their practice.

## Discussion

In this paper we investigate the relative contribution of patients with psychological or social problems to the GP's workload, expressed in time investments. Results show that patients with psychological or social problems make heavy demands on the GP's workload. They contact their practice almost twice as often compared to patients with only somatic problems and they receive more diagnoses overall. More episodes of illness are shown, which demonstrates that they have a greater variety of problems. The most prominent finding in this study is that the higher contact frequency of patients with mental problems can be attributed to contacts concerning both psychological and social problems as

well as somatic problems: the results demonstrated that patients with psychological or social problems also have more contacts with their general practice with regard to their somatic problems. Patients with sleeping disorders are the most frequent consulters, mainly caused by their somatic problems, but patients with depression or anxiety have the most contacts concerning their specific depression and anxiety diagnoses.

The finding that patients with mental problems contact their general practice more frequently is confirmed by other recent research. Sturmberg showed that psychosocial health problems of patients increase the demand for health care<sup>18</sup> and another study has demonstrated that patients with depressive symptoms or anxiety have higher contact rates than other patients.<sup>19</sup>

The result that patients with psychological or social diagnoses also contact their practice more often concerning their somatic problems may be due to patterns that merit further attention. Firstly, as other authors have also demonstrated, patients with psychological or social problems show co-morbidity: they are less healthy and more burdened with somatic problems in addition to mental problems.<sup>20–22</sup> Furthermore, it is well known that psychological/social problems are often expressed in somatic complaints.<sup>23</sup> Thirdly, it is possible that psychological and social problems are symptoms of a higher burden of disease in general. And finally, it's also well conceivable that patients who contact their doctor more often—due to mental or somatic problems—are also able to discuss other problems as well. When they are already in contact with their doctor concerning a problem, it's more easy to bring about another problem as well. If a doctor-patient relationship is once established, patients may be more willing, or even stimulated by their GP, to supply their other complaints as well. Unfortunately, causes and effects of these possible explanations are unclear, due to the cross-sectional design of the study.

A development that merits some attention is the trend to advocate psychiatric screening in the community to detect cases of psychiatric illness. This might influence a GP's workload, caused by the increase of 'recognised' psychiatric patients. The effectiveness of this kind of screening is unambiguous up till now.<sup>24,25</sup> In The Netherlands, psychiatric screening and disease management programmes are uncommon activities; it might not have influenced the Dutch GPs included in our study.

### *Methodological considerations*

Workload measures in this paper are presented after adjustment for other patient characteristics that might influence the GP's workload. This results in differences in the GP's workload between the 'only somatic' and 'psychological/social' patients that might be attributed to their diagnoses, rather than other characteristics. In spite of the fact that corrections make it possible to demonstrate the independent influence of a patient's

diagnosis on the GP's workload, it is useful to realise that there are relationships between patient characteristics in 'real life', and combinations of some characteristics might increase the pressure on GPs' time.

Another point to be noted is that, because contact frequency has been used as the central workload indicator, all contacts are weighted the same, whereas in practice the workload will fluctuate between different contacts. The higher contact rates of patients with mental problems affect GPs' workload in a general sense, by demanding more time, but disregards the GP's workload specifically in relation to contacts with patients with mental problems. Our next study will specify GPs' workload in consultations of patients with mental problems.

The results in this paper support GPs' claims that dealing with patients with mental problems is more time-consuming than with patients with only somatic problems, especially due to the increase in their somatic problems. This does not mean that they have to blame patients with mental problems for their extra demands. As all patients, they deserve the care they need, as far as possible.

In countries where GPs have a gate keeping role, as in The Netherlands, the GP is the first contacted health professional for patients with mental problems. A good network of other psychological health care services may be of help to provide referral possibilities or to advise the GP. But, due to the complex combination of both somatic and mental problems of patients, the GP is often the person assigned to assess and integrate patients' problems. Efforts to support the GP in mental health care are—in addition to the availability of appropriate referral possibilities—found in training of GPs. Special attention to psychosocial care and referral skills in (vocational) training of GPs, may be of help to reduce GPs' workload.

## Declaration

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**Ethical approval:** This study was carried out in accordance with Dutch privacy legislation. Privacy rules and regulations were deposited at the Dutch Data Protection Authority.

**Conflicts of interest:** none.

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