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Perceptions, approaches, and needs of Czech GPs in the management of patients with persistent somatic symptoms: the results of a nationwide cross-sectional survey

Martin Seifert[1,2*], Antonin Sebela[1,3] and Tim Olde Hartman[4]

Abstract

Background General practitioners (GPs) perceive patients with persistent somatic symptoms (PSS) as frustrating and difficult to manage. Patients commonly express dissatisfaction with the care they receive and often feel stigmatised and not taken seriously. Some Czech GPs use the option of extra psychosomatic education which focuses on better understanding and management of patients with PSS.

Objectives To explore perceptions of Czech GPs, with and without additional psychosomatic training, regarding the care of patients with PSS, their beliefs, approaches in the management, and their organisational and educational needs.

Methods A nationwide cross-sectional survey study among Czech GPs exploring experiences, perceptions, and needs in managing patients with PSS was conducted. Statistical and qualitative approaches were performed to analyse the data.

Results A total of 152 GPs (37 with and 115 without additional psychosomatic training) participated in this survey (response rate 20,3%). GPs struggle with negative emotions, communication with patients, diagnostic uncertainty, patients' lack of understanding, the workload these patients generate, lack of specialized care, and other problems of the healthcare system. They call for more psychosomatic education and communication training. This should include theoretical explanatory models, Balint groups, and other kinds of supervision or peer groups. GPs with additional psychosomatic training feel more confident and competent caring for these patients, compared to GPs without such additional training ($OR = 4.1$; 95% $CI = 1.85–9.11$); $p < 0.005$). Furthermore, they view PSS patients as less burdensome ($OR = 4.69$; 2.11–10.4; $p < 0.001$).

Conclusions GPs struggle with caring for patients with PSS. GPs with additional psychosomatic education indicate that they have more confidence and competence. Czech GPs call for more time and reimbursement when caring for patients with PSS, more psychosomatic training, better availability of specialized psychosomatic care, and better interdisciplinary cooperation.

Keywords Persistent somatic symptoms, Medically unexplained symptoms, General practice, Qualitative analysis, Psychosomatic, Doctor-patient communication, Diagnostic uncertainty

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*Correspondence:
Martin Seifert
martin.seifert@lf3.cuni.cz
Full list of author information is available at the end of the article

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Key messages

Caring for patients with PSS:

GPs struggle with negative emotions, patients' lack of understanding, diagnostic uncertainty, excessive workload, and problems in the healthcare system.

GPs with additional psychosomatic training feel more competent and less burdened.

GPs call for more psychosomatic and communication training, the availability of specialised psychosomatic care, and interdisciplinary cooperation.

Introduction

Patients with persistent somatic symptoms (PSS) make up a significant proportion of patients in general practice, and can be very burdensome for doctors as well as the whole health and social care system [1, 2]. These patients are functionally impaired and at risk of potentially harmful and unnecessary examinations and treatments [3]. Furthermore, these patients represent a time, administrative, and often emotional burden to primary care practice, as GPs face difficulties in explaining what is troubling the patient and in providing relief [4, 5]. Patients with PSS commonly express dissatisfaction with the care they receive from their doctor, and often feel stigmatised and not taken seriously [6].

Although there is no strict gatekeeping healthcare system in place, most patients in the Czech Republic will first visit their GPs when they experience any symptoms. Therefore, GPs in the Czech Republic are often confronted with patients with persistent symptoms. Czech primary care guidelines on the management of patients with PSS are available to support GPs in the management of these patients [7]. Recently, a new and updated guideline for GPs, *Functional and persistent somatic symptoms: Psychosomatic approach,* was issued [8]. Furthermore, a minority of Czech GPs take extra courses in basic psychosomatic care or even specialize in psychosomatic medicine. This specialization is based on multiple courses, internships, self-experience, writing an original research paper, and an oral exam.

Although the basic principles and needs for the management of patients with PSS are present and in place in the Czech primary healthcare system [9], we do not know how Czech GPs manage patients with persistent somatic symptoms in daily practice and what their perceived competencies are. Furthermore, it is unknown how GPs with additional psychosomatic training experience the care for patients with PSS compared to GPs without such an additional training.

Therefore, we developed an on-line survey study among Czech GPs to explore their experience with the care of patients with PSS, their approaches in the management of these patients, and their organisational and educational needs [10].

Methods

Study design and setting

Our study was a cross-sectional study based on an online survey. We developed the survey based on an extensive literature review and discussions with stakeholders, particularly patients with PSS, GPs with and without psychosomatic education, psychosomatic and psychiatric specialists, and the authors of the PSS guidelines. The initial version of the survey questionnaire was sent to six GPs who were asked to reflect and comment on it. Their comments and reflections were incorporated in the final version of the survey questionnaire.

Questionnaire

Our survey questionnaire consisted of 32 questions: 10 questions that provided information about demography, psychosomatic education, and the types of practices of the GPs, 3 questions explored the GPs' interest in participation on further research, and 19 questions focusing on the GPs´ experience with patients with PSS, their approach to these patients, and the GPs´ organisational and educational needs. Most questions were multiple-choice questions, while 3 questions were open-ended without any text limitations: (i) How and by what means do you identify these "non-organic" patients?; (ii) What are you most lacking to be able to provide patients with unexplained symptoms with the care you want?; and (iii) What do you find most difficult when caring for patients with unclear difficulties?

Although the term "persistent somatic symptoms" (PSS) was proposed by the Euronet-Soma group [11] and approved at the EAPM conference in Vienna in June 2022, we used the term "medically unexplained symptoms" (MUS) in our questionnaire in order to prevent misunderstandings about the group of patients under research as Czech general practitioners are more used to the term MUS. In common practice, Czech healthcare professionals as well as patients speak mostly about 'psychosomatic' problems or symptoms.

Participants and recruitment

Most active Czech GPs are members of the Czech Society of General Practice. The on-line survey was sent by the secretariat of the society to a random sample of 800 e-mail addresses which were selected by computer randomization out of the 5071 e-mail addresses of the members. The final study sample was 749 ($n=749$) as 51 e-mail addresses turned out to be non-functional. A reminder was sent a month later. As Czech GPs have the possibility of additional psychosomatic training, two groups of participants could be identified: (i) GPs with completed or ongoing psychosomatic specialization and GPs indicating the application of psychosomatic methods in daily practice (PGPs), and (ii) GPs who don´t fulfil the criteria for PGPs (regular GPs).

Statistical analysis

The multiple-choice questions were analysed quantitatively, using descriptive and correlational statistical analysis. Descriptive statistics are presented by means, standard deviations (SDs), or proportions. The distribution of each variable was tested by kurtosis and skewness analysis, using interval -1 to $+1$ as indicator of approximate normal distribution [12]. For categorical data, we used Pearson´s chi square test to examine the differences between the two study groups (PGP vs. regular GP), with Fisher exact tests used for the post-hoc analysis[13]. In addition, we used the Bonferroni correction for multiple comparisons in post hoc analysis ($p=0.05$/ number of comparisons). Independent two-sample t-tests were conducted for data at the interval level of measurement. The statistical significance for all tests was set at $p<0.05$, apart from the post-hoc tests. For significant between group differences, we calculated the effect sizes using Cohen's d or Odds Ratios with confidence intervals. All statistical procedures were done in SPSS software version 23.

Qualitative analysis

The open-ended questions were thematically analysed using an inductive-deductive, semantic, and realistic approach according to Braun and Clarke [14]. The first author (MS), a GP with a specialization in psychosomatic medicine and psychotherapy, read the answers on the open-ended questions multiple times to familiarize himself with the data. Then he inductively created semantic-thematic codes for all the answers on the open-ended questions and assigned these codes to all responses. A GP trainee (LP) and two medical students (EC, MAR) deductively coded the responses by making use of the semantic-thematic codes. In multiple joint meetings with all the researchers, the codes assigned were discussed. In cases of discrepancies, clarification and in-depth meaning of the provided codes was sought for consensus regarding the codes. In cases where reaching consensus was difficult, a GP with psychosomatic education and practice (TJ) reflected on the discussions of the research team to facilitate clarification and consensus decision-making.

After reaching full consensus regarding the codes, the research team grouped the codes into themes, and back-checked that all responses were included and that the responses corresponded with the title of the themes. An experienced GP and senior researcher (TOH) was involved in the reflection and discussion regarding the naming and meaning of the themes.

Results

Participants characteristics

In total, 152 GPs (29 male, 122 female, 1 of unidentified sex) completed the questionnaire (response rate 20,3%) including the open-ended questions. GPs of different ages, years of experience, regions, urbanization (rural, suburban, urban), and types of practice (solo, group) were included. We identified 37 (24%) GPs with additional psychosomatic training (PGPs) and 115 (76%) regular GPs. Most of the respondents ($n=85$; 56%) had never attended a Balint group (a specific form of structured group case supervision focusing mainly on communication and relationship issues in practice). The participants' characteristics are presented in the Table 1.

Quantitative results

The GPs in our study estimated that on average 35% (SD = 20%) of their patients presenting with physical complaints had a psychosomatic (non-organic) aetiology. However, PGPs indicated that they more frequently encounter patients with a psychosomatic aetiology compared to regular GPs (47% vs. 31% respectively; $p<0.001$; Cohen´s d = 0.86; 95% CI = 0.48–1.24). PGPs seem to feel significantly more confident and competent when working with PSS patients than regular GPs (65% vs. 32% respectively; $p<0.005$; Odds Ratio = 4.11; 95% CI = 1.85–9.11). PGPs also experience PSS patients as significantly less burdensome and more enjoyable to work with (54% vs. 21% respectively; $p<0.001$; Odds Ratio = 4.69; 95% CI = 2.11–10.4). However, on average, GPs experience feelings of emotional burden and time-consuming care for these patients ($n=106/152$; 70%). More quantitative results are presented in Table 2.

Study participants were asked about their usual diagnostic procedure for a patient in whom they suspected PSS. However, we found no significant difference in the distribution of responses between the two groups of GPs ($p=0.6$). For more detailed information see Table 2. However, our findings show that: a) regular GPs are more likely to respond that they first carefully rule out organic causes and then address the psychosocial aspects with patients compared to PGPs (31% versus 19% respectively); b) regular GPs are also more likely to refer patients to specialists than PGPs (10% versus 3% respectively); and c) PGPs tend to open up the psychosocial aspects of the symptoms from the beginning of the diagnostic process together with ruling out the organic causes (47% vs. 31% respectively). Most of the respondents (89%) indicated that they would like to attend Balint groups regularly if they were available. Testing for

Table 1 Demographic and professional characteristics of the respondents

	Total sample (n=152)	**Psychosomatic GPs (n=37)**	**Regular GPs (n=115)**	**p-value**
Age; mean (SD)	45 (14)	46 (11.0)	46 (12.0)	0.8[a]
Sex; n (%)				
Man	29 (19)	8 (22)	21 (18)	0.7[b]
Woman	122 (80)	29 (78)	93 (81)	
Not provided	1 (1)	0 (0)	1 (1)	
Years of experience; n (%)				
In preparation for the specialization	9 (6)	1 (3)	8 (7)	0.9[b]
0-5 years	42 (28)	11 (30)	31 (27)	
6-10 years	40 (26)	11 (30)	29 (25)	
11-20 years	21 (14)	5 (14)	16 (14)	
21 and more	40 (26)	9 (24)	31 (27)	
Type of practice; n (%)				
Single practice	104 (68)	26 (70)	78 (68)	0.8[c]
Shared practice	48 (32)	11 (30)	37 (32)	
Place of practice; n (%)				
Capital or regional city	61 (40)	15 (41)	46 (40)	0.8[c]
Other city over 5000 inhabitants	66 (43)	16 (43)	50 (43)	
Municipality up to and including 5000 inhabitants	25 (16)	6 (16)	19 (17)	
Additional specific qualifications n (%)				
No	93 (61)	12 (32)	81(70)	**<0.01**[c]
Psychosomatic medicine	4 (3)	4 (11)	0 (0)	**<0.01**[c]
Psychotherapeutic training	5 (3)	5 (14)	0 (0)	**<0.01**[c]
Completed the 18-days course Basic Psychosomatic Care	7 (5)	7 (19)	0 (0)	**<0.01**[c]
In preparation for the specialization in Psychosomatic medicine	2 (1)	2 (5)	0 (0)	0.06[c]
Alternative education in psychosomatic care	16 (11)	16 (43)	0 (0)	**<0.01**[c]
Other qualifications	46 (30)	11 (30)	35 (30)	1.0[c]
Therapeutical methods used in daily practice; n (%)				
Psychotherapy	7 (5)	7 (19)	0 (0)	**<0.01**[c]
Psychosomatic consultation or therapy	14 (9)	14 (38)	0 (0)	**<0.01**[c]
Family therapy	4 (3)	4 (11)	0 (0)	**<0.01**[c]
Acupuncture or other Chinese medicine methods	8 (5)	4 (11)	4 (3)	0.01[c]
Homeopathy	10 (7)	4 (11)	6 (5)	0.3[c]
Other methods that do not fall within the normal activities of GP according to the Czech guidelines	14 (9)	7 (19)	7 (6)	0.04[c]
Ever attended a Balint group?; n (%)				
Never	85 (56)	5 (14)	80 (70)	**<0.01**[b]
Once	44 (29)	9 (24)	35 (30)	
Multiple times	23 (15)	23 (62)	0 (0)	

GP = General practitioner; n = number; SD = standard deviation; a. t-test; b. Chi-square; c. Fisher exact test

multiple comparison using the Bonferroni correction didn't affect the results.

Qualitative results

GPs' struggle when caring for patients with PSS

We were able to identify 6 themes with regards to the struggle GPs experience in their daily care for patients with PSS: (i) GPs' negative emotions, (ii) patients' lack of understanding and awareness, (iii) difficulties in doctor-patient communication, (iv) diagnostic uncertainty, (v) problems with the workload, and (vi) problems in the healthcare system. Below we elaborate on these six themes, and present the needs that GPs indicated regarding the struggles they experience.

Table 2 GPs´ perception and management of their patients with PSS

	Total sample (n=152)	Psychosomatic GPs (n=37)	Regular GPs (n=115)	p-value
Proportion of patients coming to GP whose physical complaints are primarily psychosomatic; % **(SD)**				
	35 (20)	47 (23)	31 (17)	**<.001[a]**
Proportion of patients who intentionally simulate their physical complaints; **%** (SD)				
	14 (14)	13 (13)	14 (14)	0.7[a]
Diagnostic process; n (%)				
Exploring potential psychosocial causes while conducting basic examination for organic factors	58 (38)	17 (46)	41 (36)	0.6[b]
Basic lab and physical examination before exploration of psychosocial causes	44 (29)	11 (30)	33 (29)	
Ruling out possible organic causes by a thorough examination	30 (20)	6 (16)	24 (21)	
Referring the patient to medical specialists for ruling out organic causes	12 (8)	1 (3)	11 (10)	
Addressing the psychosocial roots of the patient´s problems from the beginning and avoiding all examinations for some time as a prevention of "overdiagnosis".	0 (0)	0 (0)	0 (0)	
Other	8 (5)	2 (5)	6 (5)	
GPs' beliefs about recovery of patients with PSS; n (%)				
Anyone can achieve full health with the right treatment	27 (18)	10 (27)	17 (15)	0.08[b]
The condition of most patients can improve significantly	90 (59)	18 (49)	72 (63)	
1/3 improve, 1/3 unchanged, 1/3 worsens	26 (17)	5 (14)	21 (18)	
Small chance of improvement, condition is often permanent or progressive.	2 (1)	0 (0)	2 (2)	
In most cases, patients with persistent unexplained symptoms have no chance of recovery.	0 (0)	0 (0)	0 (0)	
Other	7 (5)	4 (11)	3 (3)	
GPs' confidence; n (%)				
Fully confident	10 (7)	5 (14)	5 (4)	**0.005[b]**
Sometimes in doubt	51 (34)	19 (51)	32 (28)	
Often insecure, sometimes helpless	80 (53)	12 (32)	68 (59)	
Mostly helpless, often despair	8 (5)	0 (0)	8 (7)	
GPs experience; n (%)				
These patients are exhausting	14 (9)	1 (3)	13 (11)	**<.001[b]**
These patients are demanding	92 (61)	15 (41)	77 (67)	
These patients are interesting and enjoyable	42 (28)	18 (49)	24 (21)	
These patients are a joy and a refreshment	2 (1)	2 (5)	0 (0)	
Referrals; n (%)				
Medical specialist	19 (13)	3 (8)	16 (14)	0.6[c]
Psychiatry	41 (27)	7 (19)	34 (30)	0.3[c]
Psychology	64 (42)	11 (30)	53 (46)	0.09[c]
Psychotherapy	39 (26)	13 (35)	26 (23)	0.1[c]
Psychosomatic specialist	12 (8)	4 (11)	8 (7)	0.5[c]
Psychosomatic multidisciplinary clinic	10 (7)	5 (14)	5 (4)	0.06[c]
Alternative care outside the health care system	6 (4)	1 (3)	5 (4)	1.0[c]

GP = General practitioner; n = number; SD = standard deviation; a. t-test; b. Chi-square; c. Fisher exact test Significant results are bold

GPs' negative emotions

GPs expressed negative convictions towards their patients with PSS. *‘Personality wise, I don’t like these ‘whiners’’* (F, 44, RGP). They feel under pressure to investigate more, to name the patient’s disease, and they also experience emotional pressure when a patient comes again and again. *‘They are often ‘emotional blackmailers’* (F, 51, RGP).*’* One senior female GP wrote that she feels ‘*early frustration with patients who show no understanding of their problems*.’ Another GP expressed ‘*a lack of patience and empathy on my part. … caring for these patients is exhausting*’ (M, 44, RGP). According to the GPs, some patients with PSS are never satisfied. *‘They are rarely satisfied with the diagnostic and therapeutic process …it´s frustrating…’* (F, 44, RGP). Some GPs expressed that they have prejudices against these patients, and at the same time they try not to show them. They struggle with '*pigeonholing the patients*,' '*... self-management, not to show disrespect' (F, 33, RGP)*, '*don't give in to personal prejudices*' (M, 67, RGP with a second specialization in internal medicine).

GPs called for more education and training in psychotherapeutic technics, communication, and emotional management to cope with these negative emotions. In particular, they stated that they would appreciate more offers of courses on emotional communication, Balint groups, and other kinds of supervision as well as peer groups.

Patients' lack of understanding and awareness

GPs stated that they struggle with the patients' lack of understanding and awareness of the possible psychosomatic mechanisms causing their symptoms. *'More awareness: 'I don't have any stress!' is the most common answer, but they are not able to imagine what stress means and how it can manifest itself´* (F, 51, PGP). GPs often emphasized that they struggle to convince the patients that they don´t have a serious organic disease. Patients are usually clinging to an organic cause of their symptoms. *'Usually patients ask for a 'disease' that could be treated (surgery, medication)'* (F, 37, RGP). *´Some patients are disappointed when a test is negative' (F, 37, RGP).*

GPs also note that attitudes in society, including the stigma connected to psychosomatic issues, contribute to communication barriers and the complexity of the problem*: 'Awareness in the general public, where at the first mention of psychosomatics the patient thinks I'm making a fool of him and downplaying the problem' (F, 36, RGP). 'There is still a stigma of psychosomatic problems, patients want to treat the 'body'' (F, 42, RGP).* They see the problem of the stigmatization in the healthcare system.

GPs call for better public awareness of functional and psychosomatic health issues, accepting the non-organic aetiology of the problems, and the patients´ willingness to resolve things psychosocially. *'Psychosomatic and depressive disorders need to be known to the medical and lay public and seen as an equal health problem'* (M, 55, RGP). *'Acceptance of the influence of psychological stress on physical health by professional authorities—especially by the Czech Medical Chamber'* (M, 60, PGP).

Communication (explaining, persuading, motivating)

Many answers of the GPs regarding the struggles they experience in caring for patients with PSS were about communication. Explaining to the patients what might be causing their symptoms is very difficult for many doctors. '*I lack the words to adequately explain the psychosomatic nature of the problem'* (F, 42, RGP).

One GP struggles to *'figure out where their problems stem from... ask about private things in their personal life' (F, 36, RGP).* Persuading takes time and requires patience on both sides: *'to gradually and non-violently convince them of the psychological share in their problems during the visits, so that they understand and accept it'* (F, 46, RGP).

Motivating the patients to self-helping actions is also a demanding task according to the GPs: *'Explain to them that the solution to their problem is mainly up to them, that there is no magic pill*,' as well as *'long-term motivation of the patient to improve his lifestyle*,' as one GP stated (M, 61, RGP).

The GPs also struggle with setting boundaries in the investigations of the symptoms: *´They are insistent on more and more examinations´* (F, 37, RGP). On the other hand, GPs struggle to convince patients to consult a psychiatrist or a psychotherapist. *'Explain to the patient what is going on and persuade him to see a psychiatrist'* (M, 66, RGP).

Considering the expressions like *´convince´* or *´persuade´* that the GPs used when describing their communication with patients with PSS as well as their willingness to explain the symptoms properly, we think that the doctors are getting engaged with the patients and they feel under emotional pressure during the consultations. These expressions may; however, also indicate the signs of a paternalistic type of doctor-patient relationship without dedicating time and energy to the exploration of the patient´s perspective.

The GPs expressed a strong need for communication training and basic education in psychotherapy and psychosomatics, including theoretical explanatory models. *'I lack psychotherapy training with at least the basics of conducting therapy'* (F, 31, RGP). *'Knowledge of psychosomatic mechanisms ... basic knowledge of psychology to improve my approach to the patient'* (F, 39, RGP). *'Knowing how to communicate with the patient and how to explain that it is psychosomatic'* (F, 33, RGP). The GPs also mentioned a need for sharing their experience of difficult consultations with colleagues.

Diagnostic uncertainty

In many answers, the GPs expressed their fear of missing an organic disease: *'My uncertainty, whether I had actually overlooked an organic aetiology*' (F, 44, RGP). One older, experienced male GP with psychosomatic education expressed: *'my own feeling is that I have nowhere to turn for advice, that I cannot discuss the patient with any colleague, that I am overlooking a symptom that could mean a real physical illness and am harming the patient´* (M, 66, PGP).

A few doctors mentioned that they would like to avoid overdiagnosis; however, it is not easy for them facing their own and their patient´s uncertainty.

The GPs also stated, in different ways, that they struggle to search for the origin of the presented symptoms: *'figure out where the problem stems from'* (F, 36, RGP). Furthermore, they indicated that they lack quick test possibilities for excluding organicity, as well as practical screening tools for PSS and functional symptoms: *'Simple screening and diagnostic tools that work'* (M, 40, PGP). The GPs expressed a need for shorter waiting times for specialised care as this shortens the time-period of the diagnostic uncertainty both in doctors and in patients. *'Easier availability of specialists´ examinations ... then it is easier to bring the patient to a possible psychological aetiology of the symptoms more quickly.'* (F, 48, RGP with a second specialization in internal medicine from Prague).

This theme reopens the question of whether it is more the patients or the doctors who push for more investigations. Our results cannot answer this question. However, we may clearly feel that the diagnostic uncertainty is another strong emotionally burdening factor that can play a role in the consultations and their outcomes.

Workload

Many GPs expressed the burden they suffer from caring for patients with PSS. There are lots of these patients: *'the amount of them...'* (F, 39, PGP), and they come repeatedly: *'frequent attendance of these patients in the office'* (F, 36, RGP). Consultations with these patients are long and often ineffective according to the GPs: *'... with psychosomatic patients it's usually an hour or more, so I spend time with them at the expense of myself´* (F, 37, RGP).

The road to recovery is mostly long and uncertain, and it requires a lot of energy from the caring doctors: *'It is time-consuming and beyond GP's capabilities'* (F, 56, PGP).

Lack of time was one of the most common issues raised by GPs. The GPs call for more time to care for these patients and extra reimbursement: *'I lack an adequate code for performance of psychosomatic care in general practice – to reimburse the half hour to hour of work that this situation may require, possibly repeatedly'* (M, 31, PGP). Furthermore, according to GPs, the organization of the practice can be a problem as well as a solution: '*Reducing the administrative work and more teamwork. When the district is a 'one-man show,' it is difficult to do superior care or individualized medicine*' (M, 33, RGP).

The GPs wish to have more energy to engage in care for their patients with PSS: *'the energy to engage in conversations'* (M, 38, PGP), *'a certain degree of personal energy and satisfaction'* (M, 31, PGP).

Problems with the health care system

GPs lack the specialized care for their patients with PSS: *'Unavailability of necessary care such as psychiatrists and psychotherapists'* (F, 35, RGP). GPs call for psychosomatic specialists or centres that would be easily accessible: *'a functioning centre that deals with psychosomatic patients and that offers a possibility of consultations nearby´* (F, 48, RGP). *'A larger network of psychosomatic colleagues across specialities to which patients could be directed'* (M, 31, PGP).

According to the GPs, they struggle with the doctor shopping of patients with PSS as a result of the missing gate-keeping function in the Czech health care system. *'If I do not write them the required request for certain examinations, they either bypass me somehow or register with another doctor'* (F, 52, RGP). *'They consult specialists repeatedly without informing them that they have already been examined elsewhere'* (F, 55, PGP).

GPs also recognize a problem in the state network and social care system: *'A foothold in the legal system—illegal abuse and artificial prolongation of work disability by the patient'* (F, 48, RGP).

They call for better interdisciplinary cooperation *'possibility of consulting with colleagues'* (F, 48, RGP) or *'a Balint group'* (F, 34, RGP), and better availability of specialists in mental health, particularly psychosomatic centres, to prevent doctor shopping. Furthermore, they call for the support of the medical authorities as well as the legal system.

Discussion

Summary of main findings

The GPs estimate that about one-third of their patients consulting with physical complaints have a psychosomatic origin, and these numbers are even higher in GPs with a special interest and education in psychosomatic medicine. These GPs feel significantly more confident and competent caring for these patients. Furthermore, they experience PSS patients as significantly less burdensome and more enjoyable to work with. The diagnostic process seems not to differ between regular GPs and GPs with additional psychosomatic training.

The GPs struggle with their negative emotions, their patients' lack of understanding and awareness, and connected stigmatising attitudes in the society, as well as their communication with these patients, particularly with the explanation of the symptoms and setting boundaries of the investigations. Additional problems include diagnostic uncertainty, the workload these patients generate, and the way the healthcare system is (not) organised for these patients. They call for more psychosomatic education and training in psychotherapeutic technics. This should include theoretical explanatory models, Balint groups, and other kinds of supervision or peer groups. Shorter waiting times, better availability of specialised (psychosomatic) care, and better interdisciplinary cooperation would also facilitate them in taking care for these patients. Furthermore, there is an urgent need for more time and extra reimbursement to manage these patients more adequately.

Strengths and limitations

This is the first study exploring the perceptions of GPs regarding the care of patients with PSS in the Czech Republic, and one the few ones in the wider central and eastern Europe region. Furthermore, it is the first study exploring the differences between regular GPs and those with psychosomatic education regarding the perceptions and management strategies in the care of these patients. The combination of detailed demographic and closed and open-ended questions resulted in in-depth information about the respondents and their experiences. All respondents who took the questionnaire completed it. Although we did not do a sample size calculation, we are convinced that the number and diversity of respondents and the response rate were reasonable and satisfactory for this exploratory study. As the response rate was about 20%, which is a quite expected rate for survey studies among healthcare professionals, there might be some selection bias in our sample. Therefore, the quantitative results should be interpreted with caution. However, as we managed to include a balanced representation of all subgroups of the respondents (different ages, years of experience, all regions of the country, urbanization, and types of practice) this added rigor to the qualitative part of our study, as we were able to explore a broad range of opinions regarding the care of patients with PSS in the Czech Republic. We must note; however, that our explorative cross-sectional analysis has limitations in its ability to detect strong associations between GP group membership and the distribution of responses in our quantitative questionnaire. We aimed to make our results easy to interpret. Therefore, we chose chi-square tests instead of a multivariate statistic approach. Performing a multivariate analysis would help us to detect possible confounding variables (age, gender, years of experience, etc.). However, there was no statistically significant difference observed in these variables between our study groups.

Another limitation is the use of a not validated questionnaire, as such a questionnaire is lacking. Therefore, content and construct validity are not known. However, as we developed the questionnaire in collaboration with patients, GPs, and specialists within psychosomatics and psychiatry, the questionnaire holds face validity.

We intentionally used different terms related to PSS in the questionnaire to stimulate the feelings and memories of the practice of the respondents and not to stick to one term that is not well known and accepted among Czech GPs. However, based on the answers and our in-depth qualitative analysis, we believe that this language issue has not influenced the answers but rather broadened the scope resulting in a diverse and broad palette of views and opinions of GPs regarding PSS.

Qualitative data from an on-line survey questionnaire data may be limited in its volume and depth. However, a large portion of the answers were longer than a couple of words and the responses were rich in data. Although data from in-depth interviews might result in a more in-depth understanding, 152 answers on 3 different questions supplemented with the open answers to the multiple-choice questions provided us with a reasonable amount of data. Furthermore, as the respondents were able to respond anonymously, this should have resulted in more honest answers.

Comparison with the literature

The difficulties and frustrations Czech GPs experience is in line with findings in other studies [4, 5]. Although the GPs in our study estimated that one-third of their patients presenting with physical complaints had a psychosomatic (non-organic) aetiology, estimates of the prevalence in primary care differ highly between studies, ranging from 3 to 60% depending on the case definition and study method used [15, 16]. A recent study by Houwen et al. showed that when asking GPs after each consultations whether or not the consultation was about MUS, 10% of the consulting patients could be identified as such [17]. Our finding that GPs with psychosomatic training report an even higher prevalence during their consultation hours might on the one hand be caused by the fact that these GPs are more focused and educated to recognize these patients at an early stage and, on the other hand, by the fact that patients with PSS might search for a GP with specific communication skills.

We did not find a statistically significant difference between the two groups of GPs regarding the diagnostic process. However, it seems that PGPs tend to open the psychosocial aspects of the symptoms from the beginning of the diagnostic process more often. This approach is consistent with the latest Czech, Dutch, and WONCA guidelines on the management of patients with MUS/PSS in primary care [8, 18].

The time and emotional burden that GPs experience when managing these patients is well known [5, 19, 20]. Our study suggests that GPs with psychosomatic education have fewer negative emotions and feel more confident when encountering these patients in daily primary care practice. This is in line with, for example, the findings of Dowrick et al. who studied the effect of reattribution training in English GPs [21]. Considering the design of our study, we cannot say whether it is the effect of the psychosomatic education, the special personal characteristics of the GPs who decide to invest in this type of education, or some other factors. GPs who choose to do specialist training in psychosomatics may have a stronger interest in patients with PPS and; therefore, feel more competent and confident in working with them.

The GPs' expressions of 'convince' and 'persuade' to describe their communication with patients with PSS might be a sign of GPs' willingness to explain the symptoms properly as there seems to be a lack of understanding at the patients' side. However, they may also indicate difficulties in the doctor-patient relationship in which GPs are not fully aware of or align with the patient's perspective.

Although GPs´ struggles in communication with patients with PSS and diagnostic uncertainty have already been described in the literature [17, 22, 23], our study added specific problems such as motivating and persuading patients, setting boundaries, the negative influence of the "doctor shopping" of these patients, and the lack of mental-health and psychosomatic specialists. Czachowski et al. described similar results of their focus group study with Polish GPs: the negative emotions of the GPs, insufficient training in the management of patients with MUS and the lack of guidelines, limited resources, limited access to specialists, and the lack of a multidisciplinary primary care team among others [24]. Topics like insufficient training or limited access to specialists and lack of a multidisciplinary primary care team were repeated in our study.

Furthermore, the need for public awareness regarding psychosomatic issues was raised. This is a very important topic. Von dem Knesebeck et al. showed that it is worth studying public beliefs about psychosomatic problems [25]. The stigmatising attitudes in society reported by our respondents were described in another work of Von dem Knesebeck et al. [26]. These findings show that the problematic issues connected to caring for patients with PSS might be country-specific, and so the research also needs to be country-specific. However, the most important issues appear everywhere.

Implications for daily practice and future research

Regarding education and clinical practice, our findings suggest that it is important to provide the possibility of easily accessible psychosomatic education and communication training to all GPs and GP trainees and give them a chance to develop their skills and competencies. We propose that educating doctors about the realistic goals of care for patients with PSS could significantly reduce the burden and frustration the GPs indicate [8, 9, 27]. It is important to optimize the healthcare system for these patients: more psychosomatic specialists and available psychotherapy, prevention of doctor shopping by gatekeeping in primary care, and sharing of information between healthcare providers, as well as accessible multidisciplinary consultations, for example within collaborative care networks [28]. Employers, doctor associations, or local groups of GPs should organize more supervision and peer groups. Furthermore, there is an urgent need for more time and extra reimbursement to manage these patients more adequately. This is currently in progress in the Czech Republic, as a new performance of Psychosomatic intervention is reimbursed to GPs with extra psychosomatic education. Raising public awareness about psychosomatic mechanisms, e.g. by a state-run informative web portal, is essential.

Regarding research, more in-depth exploration about the differences in consultation skills between regular and 'psychosomatic' GPs is needed as this could guide further improvement of the care for patients with PSS. The effect of different types of psychosomatic education on the perceptions of GPs as well as of their patients, needs to be explored more deeply. Furthermore, a qualitative patient-centred study will help to understand the reasons, background, and processes of patients' doctor shopping and their expectations from GP care. A study with stakeholders exploring the possibilities of a change of the healthcare system and the obstacles could add to this to secure the availability and higher quality of care for patients with PSS. We believe that our findings are applicable to most of the healthcare systems as primary care physicians are generally the main ones caring for patients with PSS.

Conclusion

Czech GPs experience an emotional and time burden, patients' lack of understanding, diagnostic uncertainty, and an increased workload during consultations with patients with PSS. However, there is much room to improve the care for these patients as well as the feelings of their doctors connected to management of these patients. This improvement can be found in extra psychosomatic training, better availability of psychosomatic care, and more time for patients with PSS. GPs with additional psychosomatic education indicate that they have more confidence and competence.

Abbreviations

GP	General practitioner
PGPs	General practitioners with additional psychosomatic training or applying psychosomatic methods in their daily practice
Regular GPs (RGPs)	General practitioners without additional psychosomatic training or practice
F	Female

M	Male
PSS	Persistent somatic symptoms
MUS	Medically unexplained symptoms
EAPM	European Association of Psychosomatic Medicine
SD	Standard deviation
WONCA	World Organization of National Colleges, Academies and Academic Associations of General Practitioners / Family Physicians

Supplementary Information

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Supplementary Material 1

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Authors' Contribution

MS was the main designer of the survey and he conducted the piloting of the survey. He also made the literature review and led many explorative activities among his colleagues and other stakeholders. He was the main analyser of the qualitative data. AS participated in the design process of the survey, he provided technical as well as methodological help during the collection of the data and during the statistical analysis. TOH provided methodological help during the qualitative analysis. All authors participated in writing the article, while MS was the main author. All authors read and approved the final manuscript.

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Data Availability

The datasets used and analysed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

The study was approved by the Ethics committee of the National institute of mental health as a part of a bigger qualitative study that is still ongoing. The approval does not include any reference number. All participants of the study gave their consent to participate in the survey after reading a thorough informed consent document providing them with all information about the study and handling with the data. The Czech version of the informed consent document is available at the corresponding author upon request.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Author details

[1]Division of General Practice, 3rd Faculty of Medicine, Charles University, Prague, Czechia. [2]1st Faculty of Medicine, Charles University, Prague, Czechia. [3]National Institute of Mental Health, Klecany, Czechia. [4]Department of Primary and Community Care of the Radboud University Medical Center, Radboud University Medical Center, Nijmegen, Netherlands.

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