

Fibromyalgia and the therapeutic relationship: Where uncertainty meets attitude

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BACKGROUND: Fibromyalgia remains underdiagnosed and suboptimally treated even though it affects an estimated 3.3% of Canadians. The present study examines knowledge and attitudinal challenges affecting optimal care.

METHODS: A mixed-methods approach was employed. Discussion groups, semistructured interviews and a quantitative online survey (five-point scale) were conducted (June 2007 to January 2008). Participants included 189 general practitioners (GPs) and 139 specialists (anesthesiologists, neurologists, psychiatrists, psychiatrists and rheumatologists) distributed across Canada. Participants included 18 patients to enrich the scope of the findings.

RESULTS: GPs reported insufficient knowledge and skill in diagnosing fibromyalgia, with not all believing it to be a diagnosable condition (mean 3.74/5). Twenty-three per cent of GPs and 12% of specialists characterized fibromyalgia patients as malingerers. They further reported a lack of knowledge and skill in treating fibromyalgia (mean 2.73/5), including the pain, sleep disorders and mood disorders related to the condition (mean 3.32/5). Specialists shared these challenges, although to a lesser degree – “We are not trained to treat distress and suffering” (Specialist). Attitudinal issues centred around frustration (mean 3.91/5) and negative profiling of fibromyalgia patients (mean 3.06/5 and 1.99/5).

CONCLUSIONS: Findings revealed the presence of GP attitudinal and confidence challenges in caring for fibromyalgia patients. As care of fibromyalgia patients moves to general practices, these fundamental competencies must be addressed to assure that all patients receive the quality of care necessary to manage their disease and to empower physicians to be more professionally effective. As stated by one patient, “Why are we being penalized for having this disability?”

Key Words: Doctor-patient relationship; Fibromyalgia; Mixed-method research; Pain; Patient profiling; Qualitative research

Effective patient-physician therapeutic relationships present challenges to patients and physicians in caring for patients with fibromyalgia, an often underdiagnosed, undertreated (1) and misunderstood disorder (2). Fibromyalgia affects an estimated 3.3% of Canadians (3), of which an estimated 1.1% are diagnosed (4). The female-to-male ratio is estimated to be 3.8:1 (3). However, in spite of American College of Rheumatology (ACR) (2) and Canadian Consensus (5) guidelines intended to clarify fibromyalgia, clear parameters to guide diagnosis and monitoring remain lacking.

Fibromyalgia symptoms and causes are not sufficiently clear to guide diagnosis and monitoring. Patients with fibromyalgia

La fibromyalgie et la relation thérapeutique : Une rencontre entre l'incertitude et l'attitude

HISTORIQUE : La fibromyalgie demeure sous-diagnostiquée et son traitement est sous-optimal, même si elle touche une proportion estimative de 3,3 % de Canadiens. La présente étude porte sur les connaissances et les obstacles liés aux attitudes ayant une incidence sur des soins optimaux.

MÉTHODOLOGIE : Les chercheurs ont privilégié une démarche mixte. Ils ont organisé des groupes de discussions, des entrevues semi-structurées et une enquête quantitative électronique (échelle de cinq points) entre juin 2007 et janvier 2008. Les participants se répartissaient entre 189 omnipraticiens (OP) et 139 spécialistes (anesthésistes, neurologues, physiatres, psychiatres et rhumatologues) répartis un peu partout au Canada. Dix-huit patients s'ajoutaient aux participants, pour enrichir la portée des résultats.

RÉSULTATS : Les OP ont déclaré des connaissances et des compétences insuffisantes pour diagnostiquer la fibromyalgie, et ils ne pensaient pas tous qu'il s'agissait d'une maladie diagnosticable (moyenne de 3,74/5). Ainsi, 23 % des OP et 12 % des spécialistes qualifiaient les patients atteints de fibromyalgie de simulateurs. Ils ont également déclaré un manque de connaissances et de compétences pour traiter la fibromyalgie (moyenne de 2,73/5), y compris la douleur, les troubles du sommeil et les troubles des humeurs liés à la maladie (moyenne de 3,32/5). Les spécialistes partageaient ces difficultés, mais à un moindre degré – « Nous ne sommes pas formés pour traiter la détresse et la souffrance » (spécialiste). Les obstacles liés aux attitudes étaient axés sur la frustration (moyenne de 3,91/5) et le profilage négatif des patients atteints de fibromyalgie (moyenne de 3,06/5 et 1,99/5).

CONCLUSIONS : Les résultats ont révélé la présence d'obstacles liés à l'attitude et à la confiance chez les OP à l'égard des soins aux patients ayant une fibromyalgie. Puisque les soins des patients atteints de fibromyalgie sont en voie d'être transférés à la pratique générale, il faut transmettre ces compétences fondamentales afin de s'assurer que tous les patients reçoivent la qualité de soins nécessaires pour prendre en charge leur maladie et habiliter les médecins à être plus efficaces sur le plan professionnel. Comme l'a déclaré un patient : « Pourquoi sommes-nous pénalisés parce que nous avons cette incapacité ? »

experience moderate to severe levels of diffuse and chronic pain that may stem from a variety of sources (2). No underlying, measurable, pathophysiological abnormalities have been identified despite numerous studies examining the etiology of the illness (6). Emotional, psychological and socioeconomic components further complicate diagnosis (2), as does the similarity in symptoms to those of hypothyroidism, multiple sclerosis, myasthenia gravis, rheumatoid arthritis and systemic lupus erythematosus (2,5) – all of which may contribute to misdiagnosis. Finally, the disease is associated with comorbidities such as sleep disturbance (7), depression (8), cognition dysfunction (9) and sexual dysfunction (10). Medically

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unexplained physical symptoms remain incompatible with medical thinking, with its emphasis on measurable facts, despite the fact that they are associated with high levels of morbidity and social costs (11). Consequently, many patients are left with inadequate treatment for their physical symptoms.

Compounding physical symptoms is the emotional distress experienced by patients, which is often overlooked by physicians (11). Patients experience concern that they may not recover or may deteriorate further. Even though the illness may be blurry to the eyes of many physicians, the pain is very real to the patient.

Ongoing research using advanced imaging techniques has identified changes in brain activity (12) in blood flow in single-photon emission computed tomography and functional magnetic resonance imaging studies (13-15), and in altered responses to stimuli of varying intensities, both painful and painless. Evidence is mounting that fibromyalgia involves differences in the processing of pain (16-18), particularly in the processing of sensory input and painful stimuli (19,20). A genetic basis for the syndrome has also been explored (21). However, no underlying measurable or pathophysiological causes have been confirmed (6), rendering the condition incompatible with medical/scientific models that emphasize measurable criteria (11). Psychological components, mood disorders and socioeconomic components further complicate diagnosis (2), and may be misunderstood by physicians (11,22). Debate continues among physicians regarding whether fibromyalgia is a credible diagnosis at all (23-25), ranking among the lowest in credibility of conditions in a survey of physicians and medical students (26).

With no clear standardized explanation or cure for fibromyalgia, and unsupportive attitudes of their physicians, patients are at risk for descent into a 'culture of fibromyalgia' (27), which can become a self-fulfilling prophecy in which patients wrongfully believe that there is no cure and, therefore, engage in counterproductive behaviours such as developing sedentary patterns to prevent increased pain and seeking disability benefits. This pattern of behaviour generates antipathy toward patients who are seen as unwilling to help themselves, culminating in an attitude termed 'fibroism' (26,28). This is further exacerbated by the combination of the high proportion of women diagnosed with fibromyalgia and increased sensitivity of women to pain (29), which contribute to fibromyalgia patients being labelled based on stereotypes of women's suffering (27,30). In turn, patients become resentful toward the physician, who may be perceived as unsympathetic or as belittling their experience of pain as psychological and of less importance (31). This can create a downward spiral of frustration, in which patients and physicians are unable to collaborate together effectively.

To gain a better understanding of the nature of the patient-provider relationship in fibromyalgia, and the underlying knowledge and attitudinal challenges, a national, multi-disciplinary needs assessment was undertaken with the following research objectives:

1. To assess challenges in providing care to people with fibromyalgia, focusing on knowledge, skill, attitudes and clinical practice behaviours of practising Canadian physicians in providing care for people with fibromyalgia;

2. To assess targeted health care providers' issues, challenges and perspectives regarding patient profiles, prioritization and needs that affect health care providers' effectiveness in this therapeutic domain; and
3. To identify and determine educational needs and inform the development of educational and performance improvement initiatives in providing care for people with fibromyalgia.

METHODS

A mixed-methods approach was used, including both qualitative (discussion groups and semistructured interviews) and quantitative (online survey) data collection techniques to enhance trustworthiness of findings (32,33). A triangulated research design combined data sources and collection methods to examine the same phenomena (33-35), strengthening the validity of the evidence.

The design of discussion group guides and semistructured individual interview guides was based on a comprehensive literature review. Discussion groups lasted half a day and individual interviews lasted approximately 60 min. Data were audiorecorded and transcribed.

A quantitative survey was developed based on substantive findings of the qualitative study phase. Items were rated on a five-point Likert scale.

Discussion groups and interviews were conducted from June to September 2007; survey data were collected from September 2007 to January 2008. Ethical approval (Institutional Review Board Services, Aurora, Ontario) was obtained.

Subjects

Participants included 189 general practitioners (GPs) (family physicians and GPs), 139 specialists (rheumatologists, psychiatrists, neurologists, physiatrists and anesthesiologists), two nurses and 18 patients (Table 1). Purposive sampling ensured that the sample was representative of the target audience of practising Canadian physicians (33,35).

Physician participants in all groups were identified from lists and approached via fax, e-mail and online invitation. Those who expressed interest in participating were screened based on inclusion criteria assessing the percentage of patients with fibromyalgia (pain experts, greater than 10%; nonpain experts, greater than 5%; and GPs, greater than 1%), and distributions of years in practice, practice location and sex. Patients were approached via brochures in participating physicians' offices, newspaper advertisements and patient advocate groups. Inclusion criteria were based on diagnosis (longer than six months) and having been seen by a health care professional for fibromyalgia at least twice in the previous year. Recruitment for the two phases was conducted separately. Participants were recruited for the first phase, qualitative data collection and analysis of the first phase was completed, and then recruitment was conducted for the second phase. Appropriate financial compensation was provided for participation.

Thirty-two participants took part in the qualitative phase and 296 took part in the quantitative online survey (Table 1). Practices were generally located in private clinics in urban centres distributed across Canada but concentrated in Quebec and Ontario (generalists, 53%; and specialists, 61%). Eighty-one per cent of generalists practised in private clinics and 3% practised in hospitals; 49% of specialists practised in private

clinics and 36% practised in hospitals. Fibromyalgia was well represented in participants' practices: 75% of survey participants saw 11 or more fibromyalgia patients in their practices.

Patient participants were predominantly women living in urban centres, concentrated between the ages of 41 to 60 years, with 22% diagnosed with fibromyalgia for fewer than six years and 66% diagnosed between six and 15 years previously. Sixty-one per cent were followed predominantly by their family physician for their fibromyalgia.

Analysis

Qualitative analysis: Coding of qualitative data was based on grounded theory, in which concepts are drawn from the data (36). Initially, open coding was performed (37), reviewing the data in detail based on the conceptual framework and research questions identified above. Coders were experienced qualitative researchers, including coauthors SH, GM, KC and SM.

Coding categories were then grouped into related themes (eg, Knowledge of diagnostic criteria; Attitude toward patients with fibromyalgia) and subthemes (eg, Knowledge of diagnostic criteria – challenges in knowledge of criteria, and challenges in application of criteria; Attitude toward patients with fibromyalgia – frustration with inability to engage patients, and negative profiling). Themes were validated among coders and discrepancies were resolved through discussions until concordance was achieved.

Quantitative analysis: Quantitative data were analyzed using nonparametric testing (Mann-Whitney) (SPSS 12.0 software, SPSS Inc, USA).

RESULTS

Challenges in knowledge and skill in assessing and managing the constellation of symptoms and comorbidities associated with fibromyalgia are detailed below, followed by characterization of the attitudes toward fibromyalgia and patients with fibromyalgia.

Definition and diagnosis

Attitudinal issues began with physicians questioning the validity of fibromyalgia itself and the effect of these doubts on interactions with patients, as exemplified by the following GP:

I'm not convinced, how can I convince somebody?
That's my problem with fibromyalgia, I'm not convinced at all. (GP)

Participants further commented on the lack of clarity of the definition of fibromyalgia:

It's a fuzzy concept. It's a fuzzy clinical situation. It's fuzzy. (Specialist)

A total of 41% of GPs and 37% of specialists reported unclear diagnostic criteria as a barrier in their identification of fibromyalgia (Table 2). A total of 35% of GPs lacked confidence in using the American College of Rheumatology (ACR) criteria; significantly fewer specialists did so (26%).

And it does have some criteria, and it's complex, and we definitely don't understand it as well as we need to. (GP)

TABLE 1
Sample distribution

Physicians	n (%)	Patients	n (%)
Specialty		Main health care provider	
Family physicians/ general practitioners	189 (58)	Family physician/ general practitioner	11 (61)
Rheumatologists	39 (12)	Specialist	6 (33)
Psychiatrists	31 (9)	Other	1 (6)
Neurologists	26 (8)	Sex	
Physiatrists	23 (7)	Male	3 (17)
Anesthesiologists	18 (6)	Female	15 (83)
Other	2 (1)	Location	
Sex		Urban (>500,000)	13 (72)
Male	235 (73)	Suburban (100,000– 500,000)	4 (22)
Female	87 (27)	Rural (<100,000)	1 (6)
Main work setting		Age, years	
Private clinic	221 (69)	≤40	2 (11)
Hospital	56 (18)	41–50	5 (28)
Other settings	43 (13)	51–60	9 (50)
Location of main practice		≥61	2 (11)
Urban (>500,000)	231 (72)	Years since diagnosis	
Suburban (100,000– 500,000)	41 (13)	<6	4 (22)
Rural (<100,000)	49 (15)	6–10	8 (44)
Region		11–15	4 (22)
Atlantic	24 (8)	≥16	2 (11)
Quebec	54 (18)		
Ontario	132 (44)		
Prairies	60 (20)		
British Columbia	33 (11)		
Number of patients with fibromyalgia (survey)			
≤10	77 (25)		
11–25	70 (22)		
26–50	87 (28)		
51–75	14 (4)		
76–100	25 (8)		
101–199	18 (6)		
≥200	22 (7)		

A total of 36% of GPs expressed doubts about their ability to diagnose fibromyalgia; significantly fewer specialists did so (25%) (Table 2). Two-thirds of participants (63% of GPs and 66% of specialists) characterized fibromyalgia as diagnosable. However, many commented on the subjectivity of the assessment:

It's very subjective, so this is just based on a faith in patients saying [...] "It hurts; my [...] is sore". But you don't have a measure of how much you can press the [tender] point. (GP)

Treatment and management

Participants reported lack of knowledge of treatment options (30% of GPs and 24% of specialists):

There's a few drugs that have been tried and nothing seems to really work too well and that's it. (GP)

Patients echoed this uncertainty on the part of their physicians:

TABLE 2
Ratings of challenges and barriers in diagnosing, treating and relating to patients with fibromyalgia: Online survey responses

Diagnosis	Total (n=328)	GPs (n=189)	Specialists (n=139)	Z	P
Agreement with statements: 1 = completely disagree, 5 = completely agree					
Use of ACR criteria in practice	3.59±1.03	3.65±1.02	3.51±1.05	-1.05	0.29
Fibromyalgia is diagnosable	3.74±0.93	3.73±0.90	3.75±0.98	-0.39	0.70
Statement represents a barrier: 1 = not at all, 5 = to a great extent					
Unclear diagnostic criteria/guidelines	3.08±1.11	3.16±1.11	2.97±1.093	-1.18	0.24
Confidence in using ACR criteria in diagnosis	2.83±1.09	2.97±1.06	2.64±1.10	-2.50	0.01
Ability to diagnose fibromyalgia	2.91±1.09	3.08±1.05	2.66±1.10	-3.11	0.002
Treatment					
Statement represents a barrier: 1 = not at all, 5 = to a great extent					
Knowledge of treatments	2.73±1.05	2.87±1.03	2.52±1.04	-2.80	0.01
Knowledge of monitoring treatment response	3.07±1.06	3.21±1.10	2.87±0.99	-2.77	0.01
Knowledge of monitoring tools	3.45±0.95	3.59±0.89	3.23±1.00	-3.32	0.00
Ability to evaluate response to treatment	3.01±1.01	3.12±1.02	2.85±0.98	-2.24	0.03
Therapeutic relationship					
Agreement with statements: 1 = completely disagree, 5 = completely agree					
Fibromyalgia patients are not proactive	3.06±0.92	3.04±0.93	3.09±0.91	-0.75	0.75
Fibromyalgia patients are malingerers	1.99±1.06	2.13±1.11	1.79±0.93	-2.52	0.01
Fibromyalgia patients are time consuming, frustrating	3.91±0.90	4.02±0.86	3.75±0.92	-2.54	0.01
Statement represents a barrier: 1 = not at all, 5 = to a great extent					
Ability to provide psychological support	3.32±1.23	3.35±1.20	3.28±1.28	-0.37	0.71
Ability to establish a positive working relationship	2.88±1.15	2.92±1.159	2.82±1.15	-0.75	0.46
Ability to manage patients' expectations	3.52±1.02	3.57±1.020	3.45±1.03	-1.07	0.28
Ability to establish successful communication and dialogue	2.72±1.10	2.71±1.087	2.73±1.11	-0.21	0.836
Ability to quantify disability for insurance purposes	3.85±1.20	4.02±1.165	3.59±1.21	-3.28	0.001
Knowledge and skill in completing disability applications	3.53±1.22	3.78±1.147	2.85±1.23	-4.36	0.00

Data presented as mean ± SD. Items were rated on five-point Likert scales indicating level of agreement with the statement presented or extent to which the statement provided describes a barrier to practice. Results are presented for the entire sample as well as for general practitioners (GPs) and specialists separately. Nonparametric testing (Mann-Whitney) was performed. ACR American College of Rheumatology

They all prescribe different medication because they don't really know what it is. The medication they give you is harmful to begin with, they make you worse than you are. (Patient)

Use of opiates was identified as a component of the management of fibromyalgia pain, with concern expressed about side effects and dependency on narcotics:

You're getting yourself into a vortex of side effects and perhaps drug dependencies and drug overuse and misuse and abuse. (GP)

Physician participants generally did not turn to nonpharmaceutical interventions, expressing frustration with lack of patient adherence to programs:

They say they want to get better, but they don't help themselves get better. (Specialist)

Participants reported that they believed they could no longer help these patients:

They have a chronic illness, chronic pain, and I see them when something new or unmanageable is going on. There's no point. There's nothing more I can offer them. (Specialist)

Knowledge of monitoring tools emerged as an important challenge, as reported by 65% of GPs and 43% of specialists. Ratings of challenges in the management of fibromyalgia were

significantly higher for GPs compared with specialists (Table 2). The ambiguity of fibromyalgia and lack of familiarity with emotional issues were characterized:

We are used to clinical markers of disease in our work, usually. And here the markers are distress and suffering, and we are not trained to treat distress and suffering. (Specialist)

One-half of participants (51% of GPs and 50% of specialists) identified their inability to offer psychological support to patients as a barrier to care (Table 2). Overall, 66% of GPs and 53% of specialists reported that they should be doing more to help their patients with fibromyalgia. The patients agreed:

What can health professionals do for me? Real short. Don't tell me to cope. Tell me how to cope. (Patient)

I don't think we're being followed – I think we're following them! (Patient)

However, 23% of GPs and 12% of specialists agreed with a statement that fibromyalgia patients are malingerers, with GPs agreeing significantly more strongly (Table 2). Seventy-six per cent of GPs and 64% of specialists (significantly fewer; Table 2) described fibromyalgia patients as time consuming and frustrating. These patients stated the following:

I think bottom line is no one really wants to look at it. It's a lot of work, it's very unrewarding, you don't really

see any concrete results. It's always like a constant decline, so it becomes very unsatisfying as a result. (GP)

A proportion of fibromyalgia patients apply for and receive disability benefits, with the insurance application process creating additional barriers for participants (66% to 72% of GPs and 42% to 61% of specialists; Table 2). This process was further characterized as having a negative impact on successful therapeutic outcomes:

If the patient is in present litigation and seeking disability – you cannot get better if you have to prove that you are ill. (Specialist)

Patients shared this frustration with their own ongoing disability:

I should be healthy, I should be working [...] they need to help you out, make you better, not just say, 'This is it, you're stuck with this for your life.' (Patient)

Participants expressed understanding that the patients' experience of fibromyalgia illness was difficult and affected their illness behaviours:

You immediately know they have fibromyalgia, often, even before they say anything, just from the way they're behaving, and their personality. I find the fibromyalgia patients [...] tend to be under a lot of stress, they tend to cope poorly, they have a lot of depressive [...] It just shows. (Specialist)

Others held the patients accountable for their ongoing symptoms and pain, and need for support, interventions and relief.

There are patients who really adopt their illness and they want to live with it, they want to keep it up. (Specialist)

Patients become aware of this attitude:

I've seen maybe six rheumatologists [...] They don't want to be bothered with you. (Patient)

Physicians often described the therapeutic relationship as unidirectional, with patients expected to follow physicians' instructions:

Define the limits – that's so important. I like that term. That we can't cure them; that we don't fall in with them; that they don't direct [...] what type of pain pills they need or what type of treatment. (GP)

Patients perceived the medical expectation that they be 'good' patients and reacted to this expectation:

We should be saving that energy to do positive things, but right now [...] you have to defend. Why should we have to do it? Like why are we being penalized for having this disability? (Patient)

It's a no-win situation with doctors. (Patient)

Identifying patients who would be 'worth it' was identified as a need by participants:

Is there a screening method, a psychological profiling of sorts that say: this is a patient worth working with and these are patients that [aren't]? (GP)

In summary, fibromyalgia is characterized by undefined pathophysiology, uncertainty about diagnostic criteria, lack of knowledge regarding effective and safe treatments, and the need for a broad range of support and intervention that physicians are ill equipped to provide. These factors combine to create a climate of mismatched perceptions and unmet needs on the parts of both patients and physicians in the treatment of fibromyalgia.

DISCUSSION

Findings of this mixed-method needs assessment identified gaps in knowledge and skill in diagnosing fibromyalgia. One-quarter of GPs and one-tenth of specialists described fibromyalgia patients as malingerers. Some participant GPs believed that it is not a diagnosable condition, in contrast with those who expressed knowledge and skill in diagnosing the disorder. As well, there were reports of lack of knowledge and skill in treating fibromyalgia, including pain and other clinical features of the condition. These challenges were also identified in the group of specialists, although to a lesser degree. This is consistent with findings of previous research describing diagnostic and treatment gaps in care of fibromyalgia patients (1,38,39) and identifying attitudes of frustration toward the disease and its sufferers. Of particular concern is the discussion by some participants of the use of opiates in managing pain. Research evidence suggests that opiates are of limited use for fibromyalgia patients (40-42), yet findings indicate that this questionable management strategy is being used despite evidence to the contrary.

Attitudes expressed in the current study described interplay of these challenges and attitudes in which physicians expressed gaps in knowledge of how to diagnose and manage fibromyalgia. There was some further expression of uncertainty that fibromyalgia exists and blaming of patients for malingering. When confronted with patients who experienced symptoms that were nebulous and difficult to quantify, physicians themselves experienced frustration with patients' ongoing demands for relief and support, partly due to their perceived lack of skills and knowledge regarding therapeutic interventions to help their patients. This contributed to profiling of fibromyalgia patients (28) and 'fibroism' (26). Patients reported sensing this antipathy, contributing to a spiral of mutual impatience and intolerance. Patients described needing not only medical treatment but also psychosocial support that they do not receive.

Ability to communicate with patients and to advocate on their behalf is within the Communicator and Health Advocate roles of the CanMEDS (43) framework of the Royal College of Physicians and Surgeons of Canada. These abilities are fundamental to an effective therapeutic relationship. The importance of communication and psychosocial skills is highlighted in a condition such as fibromyalgia, in which pathophysiology, diagnostic testing and treatment are imprecise. As care of fibromyalgia falls increasingly within the mandate of GPs (44), the need for skill in relational and communication abilities grows, as does skill in providing not only physical but also emotional support. The collaborative doctor-patient approach has been identified as critical in managing

fibromyalgia (11), centring around problem identification and patients' needs. Communication skills (45) are indispensable in this process (43).

The identification of attitudinal and communication challenges in the management of fibromyalgia suggests targets for performance improvement initiatives. Exposure of health care providers to the patients' experiences and goals in managing fibromyalgia would provide the basis for common understanding of patient behaviours. GPs and specialists with the necessary knowledge, skill and attitudes to provide appropriate care for patients with fibromyalgia could act as role models of competence of the effectiveness of positive, supportive attitudes toward these patients. This understanding would serve to guide physicians in providing psychosocial support as well as medication and pain control.

Limitations

The results of the present study are based on self-report, which introduces the possibility of inaccuracies due to erroneous self-assessment. However, this is consistent with the objective of the research, which was to assess subjects' perceptions of gaps, barriers and attitudes. Self-evaluation has been found to be subject to inaccuracies and, therefore, may need to be supported by objective data in determining true practice gaps and areas for performance improvement (46). In the present study, triangulation of findings across focus groups, interviews and

survey data was used to strengthen the trustworthiness of the findings. The physician sample was predominantly male, which may have affected the findings related to fibromyalgia, with its sex-based influences. It should also be emphasized that the specialist group was presented as a single group in the present analysis. In fact, it is a heterogeneous group.

CONCLUSIONS

The findings of the present mixed-methods study have identified attitudinal and confidence challenges in the care of fibromyalgia patients, particularly in diagnosis, treatment, patient communication and the therapeutic relationship of GPs. As care of fibromyalgia patients moves to general practices, these fundamental competencies of the CanMEDS framework must be addressed to ensure that all patients receive the quality of care necessary to manage their disease. Performance improvement initiatives should be tailored to underlying attitudinal and confidence issues related to care of patients with fibromyalgia and their impact on the therapeutic relationship.

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