Fibromyalgia and disability adjudication: No simple solutions to a complex problem

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BACKGROUND: Adjudication of disability claims related to fibromyalgia (FM) syndrome can be a challenging and complex process. A commentary published in the current issue of *Pain Research & Management* makes suggestions for improvement. The authors of the commentary contend that: previously and currently used criteria for the diagnosis of FM are irrelevant to clinical practice; the opinions of family physicians should supersede those of experts; there is little evidence that trauma can cause FM; no formal instruments are necessary to assess disability; and many FM patients on or applying for disability are exaggerating or malingering, and tests of symptoms validity should be used to identify malingerers.
OBJECTIVES: To assess the assertions made by Fitzcharles et al.
METHODS: A narrative review of the available research literature was performed.
RESULTS: Available diagnostic criteria should be used in a medicolegal context; family physicians are frequently uncertain about FM and/or biased; there is considerable evidence that trauma can be a cause of FM; it is essential to use validated instruments to assess functional impairment; and the available tests of physical effort and symptom validity are of uncertain value in identifying malingering in FM.
CONCLUSIONS: The available evidence does not support many of the suggestions presented in the commentary. Caution is advised in adopting simple solutions for disability adjudication in FM because they are generally incompatible with the inherently complex nature of the problem.

Key Words: *Adjudication; Disability; Fibromyalgia; Law*

La fibromyalgie et l’évaluation de l’invalidité : l’absence de solution simple à un problème complexe

HISTORIQUE : Les demandes de prestations d’invalidité liées à la fibromyalgie (FM) peuvent constituer un processus difficile et complexe. Une analyse publiée dans le présent numéro de *Pain Research & Management* présente des suggestions pour améliorer la situation. Les auteurs de l’analyse prétendent que les critères diagnostiques passés ou actuels de la FM sont inutiles en pratique clinique, que l’avis des médecins de famille devrait avoir préséance sur celui des experts, que peu de données probantes démontrent que les traumatismes peuvent provoquer la FM, qu’il ne faut aucun instrument pour évaluer l’invalidité, que de nombreux patients atteints de FM qui ont droit à des prestations d’invalidité ou qui en réclament exagèrent ou fabulent et qu’il faudrait utiliser des tests de validité des symptômes pour repérer les simulateurs.
OBJECTIFS : Évaluer ces assertions.
MÉTHODOLOGIE : Les chercheurs ont effectué une analyse narrative des recherches publiées.
RÉSULTATS : Les critères diagnostiques disponibles devraient être utilisés dans un contexte médicolégal : souvent, les médecins de famille ne sont pas certains du diagnostic de FM ou ont un point de vue biaisé. De nombreuses données probantes démontrent que les traumatismes peuvent causer la FM. Il est essentiel d’utiliser des instruments validés pour évaluer l’invalidité fonctionnelle. Enfin, les tests disponibles sur l’effort physique et la validité des symptômes n’ont pas de valeur pour déterminer la simulation de FM.
CONCLUSIONS : Les données probantes disponibles n’appuient pas de nombreuses suggestions présentées dans l’analyse. Il faut faire preuve de prudence avant d’adopter des solutions simples pour évaluer l’invalidité en cas de FM, car celles-ci sont généralement incompatibles avec la complexité du problème.

There is a general consensus that fibromyalgia (FM) is frequently associated with severe impairment of function leading to inability to engage in gainful employment. Data supporting this view are derived from various populations and geographical locations. In a study involving patients at six rheumatology centres in the United States, Wolfe et al (1) found that 26.5% were receiving disability payments. Winkelmann et al (2) surveyed 299 patients with FM recruited from physician offices in France and Germany; approximately 26% of the French and 28% of the German patients reported early retirement or unemployment due to FM. In a Scottish centre, 46.8% of patients with FM reported that that they had lost their job because of this condition, compared with 14.1% of those without FM (3). In a Canadian community study, 26% of FM cases were receiving some form of disability payment (4). Furthermore, individuals with FM who remain in the work force have a higher rate of absenteeism and a lower work output than workers without FM (5).

High scores of impairment on certain functional questionnaires are associated with work disability. Thus, the Health Assessment Questionnaire (HAQ) has been shown to be a good predictor of social security disability in the United States (6), while a Canadian study reported that high Fibromyalgia Impact Questionnaire (FIQ) scores were associated with higher rates of work disablement (4).

These high rates of partial or total work disability have, not surprisingly, given rise to the contention that functional impairment in FM is poorly documented and exaggerated (7). Litigation appears to be common. A review of a legal database in Canada between 1986 and 2003 found 194 case judgments in English pertaining to FM (8). The authors point out that when a condition is poorly understood and when a person “is subjectively reporting pain there can be considerable controversy over what is acceptable or credible in the determination of disability…” (8).

The question of FM-related disability continues to be argued in front of various adjudicators including the law courts, arbitrators, the two levels of Canadian federal tribunals assessing appeals on rulings made under the Canada Pension Plan, provincial Social Benefits Tribunals (such as the one for the Ontario Disability Support Program) and tribunals assessing appeals against rulings made under Workers’ Compensation legislation.

In the current issue of *Pain Research & Management*, Fitzcharles et al (9), in an article entitled ‘Adjudication of fibromyalgia syndrome: Challenges in the medicolegal arena’ (pages 287-292), make recommendations designed to help adjudicators arrive at a fair and accurate assessment of disability in FM. We believe that several assertions made in this article and the conclusions drawn by the authors require a careful and critical assessment.

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Fitzcharles et al (9) review a series of decisions made by the Workplace Safety and Insurance Appeals Tribunal (WSIAT), the body to which Ontario workers can appeal against decisions taken by the Ontario Workplace and Safety Insurance Board. The authors use these WSIAT decisions to illustrate what they perceive to be weaknesses in the adjudication of disability claims for FM. These include: the lack of objective clinical evidence for a diagnosis of FM; the undue weight given to such a diagnosis as opposed to an assessment of functional impairment; the undue reliance of WSIAT on 'expert' opinion rather than the opinion of family physicians; the paucity of evidence with regard to the role of trauma as a cause of FM; the disregard of factors predisposing to FM; the importance of assessing the claimant's/plaintiff's effort to overcome functional impairment by adherence to an appropriate program of rehabilitation; malingering; and the appropriate qualifications and role of the 'expert'.

We will examine and evaluate each of these points below.

1. THE EVIDENCE FOR FM

FM is a common condition observed worldwide (10). Its prevalence is estimated to range between 2% and 8% (10-12). There is a strong genetic predisposition (10,11). Recent reviews have summarized evidence that in FM there are several abnormalities related to central nervous system sensitization to pain, including abnormal spinal cord wind-up, a marked increase in cerebrospinal fluid levels of neurotransmitters such as substance P and nerve growth factor, and a decrease in pain inhibition (11-13). Recent studies have also shown evidence of a peripheral neuropathy, which further contributes to the abnormal pain processes responsible for the widespread pain of FM (14-17). Despite such well-documented evidence, some physicians have still not accepted FM as a valid clinical entity (18-21).

The criteria used for the diagnosis of FM until 2010 were the classification criteria (CC) of the American College of Rheumatology (22) and, since then, with increasing frequency, the American College of Rheumatology preliminary diagnostic criteria (PDC) (23). The CC require the presence of at least three sites of pain: one on each side of the body, one above and one below the waist and one in the centre of the body, as well as the presence of at least 11 of 18 tender points (TPs) of FM (22). The TPs are an indication of allodynia, a characteristic of FM (24). Elicitation of the TPs on physical examination is dependent on the patient's response and is, therefore, not considered by some to be strong objective evidence (24). Apparently, many physicians have been poorly instructed or not instructed whatsoever on how to elicit TPs, and do not use them (23,24). Furthermore, commonly occurring features of FM, such as fatigue, nonrefreshing sleep and cognitive problems, were not included in the CC. The PDC offer a wider definition of FM. It should be noted that the authors whose article introduced the PDC specifically stated that the PDC were not meant to replace the CC (23). There is a large overlap between patients diagnosed either by the CC or by the PDC. Notwithstanding differences of opinion regarding the value of the CC versus the PDC, both are widely recognized methods of determining whether a patient has FM.

Fitzcharles et al (9) criticize the WSIAT decisions on the grounds of their reliance on the CC for a diagnosis of FM, but offer no reasonable alternative other than the criteria in the Canadian Guidelines for Diagnosis and Treatment of FM (25). The latter criteria are imprecise and rated by their authors themselves as 5D on a scale that ranges from 1A (highest level of evidence) to 5D (lowest level of scientific evidence, based on opinion only) (25). Poorly defined criteria (25) will confuse not only adjudicators but also any health professional that deals with FM.

That weakness aside, the Canadian Guidelines were not published until 2013 and the PDC were not published until the late spring of 2010, while WSIAT is criticized for decisions made between June 2006 and December 2011 (9,26). It would appear that one of the several shortcomings of the WSIAT was their lack of prescience.

With regard to the concern outlined by Fitzcharles et al (9), that a diagnosis of FM is not based on objective criteria (7,18-21), it should be noted that FM does not stand alone in this respect. There are several medical conditions that are diagnosed only on the basis of a patient history without supporting evidence of physical signs, laboratory or imaging abnormalities. These include migraine headaches, trigeminal neuralgia and reversible cerebral vasoconstriction syndrome (27-29). It is unclear to us why FM is sometimes dismissed as lacking validity when these other disorders are well accepted.

We disagree that the use of either CC or PDC should be restricted to research. There may be conditions in which such restrictions apply to diagnostic criteria, especially if their use requires unusual skills or procedures that are difficult to access because they are expensive or invasive. None of these restrictions pertain to either CC or PDC.

Finally, Fitzcharles et al (9) point out that although a diagnosis of FM is required, it is "often more relevant in the delivery of care to focus on the intensity of symptoms and their effect on global functioning" (9). This is a statement that is true for all chronic diseases and does not diminish the value of a diagnosis.

2. THE FAMILY PHYSICIAN AND FM

Fitzcharles et al (9) are concerned with the apparent neglect by WSIAT of the family physician's role in assessing the FM plaintiff's functional impairment, and possible antecedent or current factors contributing to that impairment (9). We agree that reports by knowledgeable health professionals familiar with the patients, be they family physicians, occupational therapists, physiotherapists, psychologists or others, can greatly contribute to the information required by adjudicators. We are also aware that many family physicians lack good knowledge of this condition. Thus, in a recent Canadian study, 36% of family physicians expressed doubt about their ability to diagnose FM, and 23% believed that FM patients were malingerers (21). Uncertainty about FM is widespread; in a survey of physicians from six European countries, South Korea and Mexico, 78% of primary care physicians were not always comfortable diagnosing FM (30). Furthermore, we have no details about the quality of the evidence obtained from family physicians by WSIAT in reaching its decisions. How often were the family physician's notes available? Were they legible? Sufficiently detailed? Appropriately timed? The conclusion reached by the authors of the article that first analyzed the WSIAT decisions (26) that "assigning considerable weight to both diagnosis and attribution of cause to the specialist is therefore contrary to recommended medical practice" is not supported by facts.

3. TRAUMA AND FM

Fitzcharles et al (9) review some of the evidence with respect to the role of physical trauma as a possible cause of FM. This has been and continues to be a contentious issue (31,32). Trauma as a potential causative or aggravating factor in FM may come up in adjudicating procedures relating to workers' compensation, in disability claims or in civil litigation.

There is increasing epidemiological evidence that physical trauma is followed by FM to a statistically significant extent. Wynne-Jones et al (33) prospectively studied a large British cohort of individuals involved in a motor vehicle collision (MVC), and found that 8% who did not have pre-MVC chronic widespread pain (CWP) had developed such pain within the following year. FM is a condition characterized by CWP; there is a high degree of overlap between these two clinical entities. In a British study, previously published by some of the same authors, only 2% of those without previous CWP had developed this problem over seven years (34). Thus, the incidence of post-MVC CWP appears to be very high when compared with what one would expect in the general population. Pre-MVC health, health behaviour and older age were significant predictors of post-MVC CWP. A United States study that included 859 individuals involved in MVCs over a six-week period examined those who were litigating and those who were not; 4% of the latter group and 14% of the former group had FM-like symptoms (35).

In a study involving survivors of a train crash in Israel, eight of 53 (15%) developed FM (36), an incidence rate that is much higher than the reported prevalence rates for FM (10-12).

Whiplash-associated disorder (WAD) is frequently associated with CWP. Holm et al (37) followed 266 patients with WAD and found that 20 (7.5%) experienced continuing widespread pain at 12 months. Buskila et al (38) reported that 20 of 102 patients who had experienced a neck injury developed FM, in contrast to one of 59 who had experienced leg fractures (38). Robinson et al (39) studied 326 patients with WAD. The authors were concerned that FM may be overdiagnosed in WAD if one used the CC because WAD would presumably be associated with a higher number of TPs in the neck and shoulder girdle areas. Thus, they introduced an adjustment for assessing these particular TPs. However, even with this adjustment, they found that 8% of the subjects satisfied the CC at approximately six months of follow-up. One study that has been cited as contradicting an increase in the incidence of FM in WAD (9) lacks the required statistical power (40).

A recent extensive review of the literature has shown that central nervous system sensitization occurs in WAD (41), which may explain why WAD patients are more prone to developing FM.

Train crashes, WAD and MVCs are well-defined events and, therefore, allow one to track the development of symptoms that may follow. Work-related injuries may be more difficult to define. In a prospective survey of British workers who did not have CWP at the onset of the study, McBeth et al (42), using repeat questionnaires, found that 5.6% of respondents reported CWP at 12 months, and 9.4% at 36 months. Workplace factors such as pushing/pulling heavy weights, repetitive wrist movements and kneeling were significantly associated with the onset of symptoms. Psychological factors, such as a high score on the illness behaviour scale, also significantly contributed to developing CWP. In a study involving newly employed workers, CWP was reported in 15% at 12 months and 12% at 24 months after they had started (43). Physical factors, such as lifting weights, pushing/pulling of heavy weights, prolonged squatting, and working with hands at or above shoulder level, were risk factors for developing CWP. Psychosocial factors, such as monotonous work and low social support, were again important in leading to CWP.

It has been suggested that certain aspects of physical work could give rise to central pain sensitization (32). The above evidence would lend some support to this, especially in individuals with certain psychosocial susceptibilities.

Psychological and social factors can trigger FM (10-13). In turn, FM can result in social and psychological distress (44). We agree with Fitzcharles et al (9) that these changes may contribute to impaired function in FM. Nevertheless, we believe that there is sufficient epidemiological evidence to acknowledge that physical trauma – or psychological trauma, as in the case of post-traumatic stress disorder (45) – can be linked to FM. We agree that an adjudicator should look for preinjury susceptibility, if such evidence is available. The problem is that of quantifying such evidence. In research involving groups, such as studies using multiple regression analyses, one can assign a statistical weight to the contributions of illness behaviour or work dissatisfaction as predictors of disability. Although such estimates apply to groups, they are inexact when applied to individual cases.

4. ASSESSMENT OF FUNCTIONAL IMPAIRMENT IN FM

We agree that assessing the severity of symptoms and their effect on self-care, work and leisure activities is crucial in determining how well the applicant/plaintiff with FM functions. There are several instruments specifically designed to assess function in FM. These include the Stanford HAQ, the FIQ, particularly its subsequent modification, the revised FIQ, and the 36-item Short-Form Health Survey (46-50). The HAQ (46) and the modified FIQ (48) appear to be the instruments most frequently used in both research and in clinical settings to obtain standardized, quantitative measures of function in FM. Fitzcharles et al (9) reject them as “not useful in clinical practice or the medicolegal setting”. Several reasons are given for this rejection: the questionnaire responses may “project accentuated symptom severity”; “function pertaining to daily activities …should be examined”; and “simple questioning combined with patient narrative is a reliable outcome…” (9). These reasons are unconvincing. As with any of the functional questionnaires used in the context of chronic pain, such as the HAQ in rheumatoid arthritis or the Western Ontario and McMaster Universities Osteoarthritis Index in osteoarthritis of the hip or knee (51), the patient may ‘accentuate symptom severity’, ie, exaggerate or even lie. If patients are dissimulating on a questionnaire, it seems likely that they will do so when questioned informally about their daily activities, or in any other patient narrative. Furthermore “the simple questioning combined with patient narrative” will vary widely, is not standardized and has no proven clinical value. The authors cite the work by Cöster et al (52) to support their opinion. The citation is inappropriate – the study compared a population sample of FM patients with one of CWP patients using several instruments, including the FIQ and the 36-item Short-Form Health Survey. There was a marked difference between FM and CWP patients. We do not understand why this is interpreted as invalidating the use of FIQ or HAQ in assessing function in FM.

Additional useful information in assessing the extent of disability may require the employer’s description of the patient’s work duties, the possibility of making changes to these duties, evaluations by a knowledgeable occupational therapist of the patient’s ability to cope with the demands of their home life and possible changes to ease these demands. As is the case for any type of chronic pain disorder, psychological assessments should also be conducted (53).

We agree with the views of Fitzcharles et al (9) that adjudicators faced with a request for disability payments by patients with FM must assess whether the patients have been treated in an appropriate manner for their FM. Such treatments may include medications such as pregabalin, gabapentin, duloxetine and tramadol, but should also include nonpharmacological treatments such as education, aerobic and strengthening exercises, and cognitive behavioural therapy (11,12). However, adjudicators should also be aware that, similar to other chronic pain conditions, powerful treatments for FM are not yet available. The effect sizes of all currently available treatments are only small to moderate (11,12,54-56). Furthermore, if the patients’ physicians are unfamiliar with optimal therapy for FM and have used ineffective treatments, should disability benefits be denied? This problem is likely to be common given the evidence indicating deficits in knowledge of FM among family physicians (21,30). Fitzcharles et al (9) state that the courts “will assess whether a person has made reasonable effort to mitigate illness by adherence to medical recommendations promoting self-motivation, active participation and application of good lifestyle practices”. How are these factors to be assessed and monitored? “Active participation” in what? What is meant by “good lifestyle practices”? The authors go on to state that participation should be offered in a rehabilitative program that “emphasizes physical activity, modulation of stressors and tempering of ‘fear of hurt’…” (9). We think that these are good suggestions, but they raise certain questions. Who is to offer such programs? Who is to pay for them? How does one assess such programs? What success rate, ie, avoidance of work disability or return to work, can one expect?

We agree that it is desirable for a patient with FM to remain in the workforce, if possible. Sometimes this can be achieved if the patient and the employer can make adjustments to the hours of work and/or change in shifts, or have the patient assigned to less-demanding tasks. Applying for disability, workers’ compensation or litigating for lost income are time consuming, stressful and can be expensive. Embitterment is frequently noted in those who undergo a disability examination (57). Unfortunately, applying/suing for disability is all too often necessary. Fitzcharles et al (9) state that patients with FM who work have a better quality of life and less severe symptoms. An alternative interpretation is that those who have less severe symptoms are more likely to be working. There is no evidence that working leads to higher functioning. It is also unlikely that an employer would wish to continue employing individuals with high levels of functional impairment.

5. EXPERT TESTIMONY

Fitzcharles et al (9) reviewed the hierarchy of evidence available in peer-reviewed publications ranging from meta-analyses to anecdotal reports. We agree that the quality of scientific evidence submitted to adjudicators should be the highest available. There will frequently be disagreement among experts regarding the proper grading of such evidence. We assume, for instance, that Fitzcharles et al (9) believe that the Fibromyalgia Guidelines are of high quality (25) because the "recommendations were based on a rigorous appraisal of the available literature that was clearly outlined". We note, however, that of the 46 recommendations, 26 were based on opinion only (the lowest grade).

Fitzcharles et al (9) criticize at length the use by WSIAT of a discussion paper on FM by Dr DA Gordon (58). The purpose of such discussion papers is, according to WSIAT, to provide a "broad and general overview of a medical topic…". WSIAT cautions that these papers are not peer reviewed, that they do not necessarily represent the views of the Tribunal and that they are open to challenge. The discussion papers are introductions to a lay audience – ie, members of the Tribunal panels – to certain areas of medicine that may be relevant in their deliberations. They are not meant for a scientific readership. We strongly suspect that if there were no such papers, members of the panel would be inclined to seek information on Google, or Wikipedia. Interestingly, Dr Gordon's discussion paper agrees with many opinions of Fitzcharles et al (9), particularly with respect to the relation of work and trauma to FM. We are puzzled by the censorious tone adopted by the authors in dealing with this matter.

We agree that the testifying expert should be free of bias, although that is a tall order given the extent of disagreement on FM among physicians (7,18-21,59). The very least one should ask from experts is that they not act as champions for the party that is paying their professional fees. In Ontario, for example, both the College of Physicians and Surgeons and the courts demand that physicians testifying as experts be objective and impartial.

The Supreme Court of Canada has attempted to define what constitutes expert testimony (60,61). The United States Supreme Court has made similar attempts in the Daubert case, but there continue to be difficulties in evaluating expert testimony, largely because most adjudicators and/or juries lack the scientific background required to fully understand the available evidence (62).

6. TESTS OF SYMPTOM EXAGGERATION

Fitzcharles et al (9) suggest "feigning or exaggeration of symptoms may be common in claimants alleging disability due to FM". First, it is important to distinguish between these two constructs. 'Feigning' of symptoms is malingering. Malingering can be ascertained by a clinician's direct observation of inconsistent behaviour on the part of the malingerer, by photographic evidence of such behaviour, by testimony of reliable witnesses, by self-admission of malingering or admission of such by an accomplice. The likelihood of such ascertainment is low. Assessment of malingering in the medicolegal context is both complex and a longstanding source of controversy among pain researchers. Various methodologies have been suggested for evaluating malingering. Often, these rely on determining the effort the subject displays in completing one or more tests. Exaggeration of symptoms may result from factors other than feigning such as pain, fatigue, depression and, perhaps, an unconscious need to seek legitimization of symptoms in the context of 'disbelief' by others.

In a systematic review of the literature, Fishbain et al (63) concluded that there is inconsistent evidence for malingering in patients with chronic pain. Much of the evidence adduced for malingering consisted of what was perceived to be poor effort in physical tasks such as handgrip measurements and isometric strength testing; that evidence was deemed to be inadequate. Neuropsychologists have also developed effort tests to assess malingering in chronic pain patients. This approach relies on the concept of 'improbability' (64). The basis for determining 'improbability' is the use of one or more effort measures in patients suspected of malingering and then comparing the results obtained with those of similar patients who have objective pathology. Referred to as 'criterion groups validation' (65), the logic is that if those who are seeking compensation fail a test of memory that, for example, even five-year-old children and those with psychotic or neurological disorders (except dementia) can pass, they are displaying insufficient effort and likely malingering.

Such tests are labelled symptom validity tests (SVTs) and performance validity tests (PVTs). Individual tests tend to have high false-positive rates; ie, a positive test may identify many individuals who are not malingering as malingerers (66-68). It has, therefore, been recommended that if PVTs or SVTs are to be used in the evaluation of malingering, at least two such tests should be given (68). Some researchers have recommended the use of at least five tests (67). When multiple measures are used, the likelihood of falsely categorizing an individual as a likely malingerer decreases substantially. Certainly, this approach has merit but also some limitations.

There are very limited data available on effort testing in FM. A study by Gervais et al (69) assessed symptom exaggeration in patients who were said to have FM (without specifying how the diagnosis was made), comparing those who had applied for, or were receiving, compensation with those who were not. A significantly greater number of those in the former category failed one or both of the effort tests that were administered. However, as the authors note, the motivation for poorer performance among the disabled group was unclear. The weaknesses of this study were that the individuals assessed comprised a convenience sample and the experimenters were not fully blinded with regard to patient group membership. Furthermore, while percentages are given for failure on either of the two SVTs used, it is not clear how many failed both tests; the latter is important because there is a high false-positive rate if only one test is used (66-68). A second study investigating symptom exaggeration in patients with FM (70) included 30 patients receiving disability and 13 applying for disability; four patients on disability and three applying failed two PVTs. Of the 40 patients not receiving disability, four failed two PVTs; the authors did not provide a good explanation for the latter finding. They also found that PVT performance was associated with greater impairment on measures of pain, sleep disturbance and fatigue, and suggested that higher scores on these measures likely reflect a general tendency to exaggerate all symptoms, not just those that are cognitively based.

A third study provided evidence that in a nonmedicolegal community sample of 54 individuals with FM, none failed the Test of Memory Malingering, a commonly used SVT (71). Test of Memory Malingering scores were unrelated to measures of pain or depression. However, in addition to the small sample size, all of the participants volunteered for the research project, which raises questions about whether the sample was representative of the broader population of individuals with FM.

To our knowledge, the key criterion group for tests of malingering – those who have been shown through other means to be malingering – has never been included in a study assessing effort testing for malingering. Such tests allow clinicians to make probability statements about whether a given individual is similar to groups of individuals who are asked to simulate exaggeration of cognitive problems (patients or university students), have ongoing insurance claims or have documented medical explanations for their poor performance effort. Notwithstanding the value of such information, the only way to definitively prove malingering is to catch an individual in a lie. Although the term 'malingering' is often used interchangeably with 'insufficient effort' and 'exaggeration', the conclusion that an individual is malingering "requires multiple sources of converging evidence, and the systematic ruling out of probable alternative explanations" (72). Moreover, as Aronoff et al (73) point out: "It is likely that we will be forced to acknowledge that there is no test, nor is there likely to be a test, that is 100% accurate in its ability to identify each case of malingering vs. honest effort."

In our view, it is too early to conclude that 'feigning' or symptom exaggeration is common in FM disability claimants, and it is especially important to differentiate between feigning (malingering) and symptom exaggeration.

CONCLUSION

In their abstract, Fitzcharles et al (9) refer to "… the prevalent social concept of disablement due to FM". We are unaware of the existence of such a "prevalent social concept" except in the minds of those who deny the validity of FM (19,74). On the other hand, patients with FM believe that spouses, family, colleagues and society in general do not accept their disease (75), and that their illness is frequently invalidated in the work environment (76). Fitzcharles et al cite a figure of 35% "disablement for FM in North America". This figure is higher than what has been generally found (1,2,4,6), and is based on only one United States observational study involving 203 patients with FM recruited from 20 different practices (77). Nonetheless, we agree that FM can frequently result in work disability. Fitzcharles et al (9) state that such disablement figures are extreme when compared with other chronic illnesses.

Unfortunately, chronic conditions involving musculoskeletal pain are associated with high disability rates. A recent review found that 30% to 40% of patients with rheumatoid arthritis had to stop working (78). A prospective study involving primary care patients in Britain showed premature work loss in 23.6% of patients with osteoarthritis (79). A Canadian prospective study that examined primary care patients who had stopped work because of low back pain found that 8.3% had not returned to work at two years, 10.8% had tried but had failed to continue working at the two-year mark, and 22.4% had only partial success (functional limitations and some days of work loss) at two years (80). Other chronic painful conditions show worse outcomes. It is particularly interesting to examine the loss of work in patients with painful small-fibre neuropathy (SFN), which occurs in association with various diseases. The diagnosis is usually made by history and patient responses to sensory testing on physical examination, although some new, objective diagnostic tools can now be used for confirmation (81). A study involving 100 patients with SFN found that 49% were retired, 23% were disabled and 7% were unemployed (79). This condition is of additional interest because it appears that many patients with FM may experience some form of SFN (14-17). In view of the above, we do not agree that disablement figures for FM are "extreme" (9).

We have cited evidence that suggests that work-related trauma or other trauma – eg, WAD – can lead to the development of CWP or FM. We agree that psychological and/or social factors can contribute to the evolution and aggravation of FM symptoms, but the extent to which they do is difficult to evaluate accurately in individual cases. We agree that adjudicators dealing with FM must use assessments on the basis of probability applicable to civil litigation (that is, a chance >50%) rather than the more rigorous proof required in medical science. The alternative would be the denial of almost all claims for disability by plaintiffs/applicants with FM. We do not believe this to be justified.

We have pointed out that there are tools for assessing functional impairment in FM such as the FIQ or HAQ (44,46). Admittedly, these tools depend on the truthfulness and accuracy of the respondents' answers. Fitzcharles et al (9) repeatedly caution against trusting such responses. The impression conveyed is that it is best to disbelieve FM patients on these matters. And yet, as Fitzcharles et al correctly point out, it is not the diagnosis of FM, but the extent to which it affects function that is important. How, then, is the adjudicator to assess work disability?

We are puzzled by the reluctance of the authors to accept the extant diagnostic criteria for FM on the grounds that these should be reserved for research. We respectfully suggest that the section of the Canadian FM guidelines relating to diagnosis is vague and lacks validation (25). We agree that the testimony, if available, of the family physician can be important, but one must be mindful that many family physicians are uneasy with a diagnosis of FM or are prejudiced (21,30).

Much of the Fitzcharles et al (9) article recapitulates the arguments raised in an article previously published by three of the authors on decisions made by the WSIAT (26). We have attempted to address the points raised in that publication and repeated again in Fitzcharles et al. We are intrigued to notice that although that article was very critical of WSIAT, Dr Fitzcharles (first author of both articles under discussion) is cited as agreeing with the tribunal decisions in 77% of cases (26). We doubt that one could achieve higher agreement rates in most FM cases that come up for adjudication.

We have briefly reviewed the place of effort testing in assessing disability in FM and have pointed out the limitations of such tests. Although they are useful in the context of neurocognitive assessment, their relevance to individuals with pain disorders, including FM, is unclear. Individuals seeking compensation for FM are typically disabled by limitations in their physical capacities rather than cognitive functioning and, thus, assessment of malingering or exaggeration should be based on performance of physical activities. As we have seen, there are no evidence-based assessment procedures that can be used in this respect.

Fitzcharles et al (9) suggest using poorly defined criteria for diagnosis, dismiss the use of well-tested instruments for assessing function, present selective evidence minimizing the contribution of trauma to the development of FM and casts doubt on the role of the expert. The authors advocate a very skeptical approach to claims made by patients with FM on disability, or applying for it, to the point of suggesting widespread malingering in such cases. We believe that the article presents a highly biased view of FM, and that reading it will not help adjudicators in arriving at fair and well-informed decisions.

Finally, although patients who claim that their FM resulted from injury may have incentives to do so, it is important to be mindful that they are not the only players in medicolegal contexts that may benefit from such 'moral hazards' (82). Many parties in these systems have monetary incentives that may result in exaggeration or deceit. Creating policies that disadvantage injured claimants may incentivize insurance plan administrators. Employers are vulnerable to incentives such as avoidance of increased insurance rates and health care costs. Personal injury lawyers receive monetary incentives for either minimizing or exaggerating the plaintiffs' disabilities. Medicolegal consultation fees reward physicians and other health care providers.

For the foreseeable future, adjudicators involved in assessing disability claims in the context of FM will have to continue to render decisions based on probability and plausibility, rather than certainty. Those who believe otherwise would do well to keep in mind Henry Mencken's observation: "Explanations exist; they have existed for all time; there is always a well-known solution to every human problem — neat, plausible, and wrong." (83)

DISCLOSURES: Manfred Harth has received honoraria from Pfizer and AbbVie (<$10,000). He is an assessor for the Workplace Safety and Insurance Appeals Tribunal. He has been involved as an expert in independent medical evaluations, for both plaintiffs and defense, in cases of fibromyalgia. Warren Nielson has been involved as an expert in independent psychological evaluations, both for plaintiffs and defense, in cases of fibromyalgia. He has also received honoraria from Pfizer (<$10,000).

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