

IN-DEPTH REVIEWS

Chronic fatigue syndrome: it's tiring not knowing much—an in-depth review for occupational health professionals

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Fatigue is an incredibly common symptom in medical settings. In the Office of National Statistics Survey 2000 [1], a degree of limiting fatigue was reported by 27% of working-age adults. Although it is claimed that about three-quarters of these patients in primary care go on to develop chronic symptoms, this is at odds with the reported point prevalence of only up to 3%. The vast majority of this fatigue falls within the 'medically unexplained' [2] category yet does not meet the diagnostic criteria for chronic fatigue syndrome (CFS). Even those that might do are often not diagnosed as such by physicians [3]. As Ranjith ([4], this issue) demonstrates, there are several sets of different diagnostic criteria that make this difficult area even more complex. A primary agreement seems to be the requirement for the fatigue to have lasted for 6 months or more and to be associated with a substantial degree of impairment. It is this impairment that is the primary reason for occupational health involvement. Further symptoms must co-occur with the fatigue over the 6 month period (impaired memory or concentration, sore throat, tender glands, aching or stiff muscles, post-exertional fatigue, multi-joint pain, unrefreshing sleep and new headaches), although the actual number required fluctuates. Other clinically important physical causes preclude diagnosis, as do underlying serious psychiatric conditions such as schizophrenia. The common co-morbidity with anxiety and depression does not rule out the diagnosis and has complicated research, treatment and policy.

A lot of published work covers either less severe conditions or those with shorter duration. These conditions receive labels such as 'chronic-fatigue like

syndrome' or 'idiopathic chronic fatigue'. A recent review covered work in Holland amongst this group of subjects within two large studies [5]. The papers in this current review concentrate on the more tightly defined CFS. This diagnostic label assumes no underlying aetiology, unlike terms such as post-viral fatigue syndrome or myalgic encephalomyelitis (ME). It is generally accepted that the label is probably a catch-all and covers a set heterogeneous conditions, but the lack of any robust pathological process or diagnostic test makes a syndromal approach the most widespread. This has drawbacks as the syndrome overlaps considerably with other so called 'functional illnesses' such as fibromyalgia or irritable bowel syndrome. Despite contrasting definitions 20–70% of the patients with fibromyalgia meet diagnostic criteria for CFS and 35–70% of CFS patients could be diagnosed with fibromyalgia [6,7]. Even with tightly defined criteria CFS is not unusual within occupational medicine, and physicians will be called upon in several capacities. Decisions on fitness for employment and return to work, advice to employers and managers regarding expectations, eligibility for ill-health retirement, coverage by the disability discrimination act (DDA) and potential workplace adjustments, and liaising with primary and specialist services are required.

As Ranjith [4] shows, early perceptions of association with high socio-economic class ('yuppie flu') have not been borne out, although CFS appears to be more common amongst women. High rates of psychiatric illness and other functional disorders are common. In virtually every other area of aetiology and pathology, results have been strikingly inconsistent, even with more tightly defined populations. Some infections, e.g. Epstein–Barr virus (EBV), are associated with a greater subsequent risk of developing CFS, but there is no specific agent that has been identified and many patients have no evidence of viral infection. Neuroendocrine and immune studies suggest hypothalamo–pituitary–adrenal

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axis abnormalities [8] and a ‘chronic low-level immune system activation’, respectively, that may be linked, but again there is little specificity. Even the widely reported cognitive problems are not well supported. Individuals appear to possess normal global intellectual abilities [9], but there is a modest deficit in working memory and poor learning of new information [10]. Co-existing psychiatric disorder may contribute to this.

Prognosis of the disorder is hampered by a lack of agreement on several issues, particularly definitions, but is unhelpfully often described as ‘variable’. Although many primary care patients with unexplained fatigue of shorter durations recover within a year (around one-third persisting), the prognosis of those in secondary care is worse. As the naturalistic studies reviewed by Cairns and Hotopf show ([11], this issue), full recovery from CFS is rare: no more than 48% in any study and a median of 7%. Symptomatic improvement rates are higher, and increase with time, but around one-fifth of subjects deteriorate even from a generally debilitated baseline. More loosely defined chronic fatigue has a better prognosis, around 25% fully recovering and half improving.

Rimes and Chalder ([12], this issue) reiterate the findings of other recent treatment reviews: the two treatments for which there is the greatest weight of evidence are cognitive behavioural therapy (CBT) and graded exercise therapy (GET). A current Cochrane Review is adding more evidential weight to GET [13]. Neither presumes to tackle any supposed ‘cause’ of CFS. The latter is based upon a number of studies supporting a model of physical deconditioning prolonging disability, while the former focuses on factors that maintain disability. However, GET is associated with less patient acceptance and higher dropout rates than controls in trials, while many with CFS object to the psychological inferences of a ‘talking therapy’. A third approach, pacing, whereby individuals manage their energy expenditure within an ‘envelope’, lacks any trial support. Despite this, it is considered helpful by many patients and patient groups and was recommended by the Government working party on ME/CFS. A major multi-centre RCT (PACE: Pacing, Activity, and Cognitive behaviour therapy; a randomized evaluation) is currently underway comparing these three treatments, although one ME charity has called for it to be stopped [14]. Drug treatments have little or no supporting evidence beyond limited effects of hydrocortisone and immunoglobulins associated with significant side-effects. Anti-depressants are no use for CFS but appear effective for co-morbid psychiatric disorder. Complementary therapies are extremely popular and crying out to be evaluated in a systematic way. Access to specialist care is considered a major problem. The independent working party’s report to the CMO, although beset by disagreements, concurred that more specialists were required. An £8.5 million

programme to develop 12 countrywide centres and 28 satellite multidisciplinary support to primary care was announced earlier this year.

When asked for advice, occupational health staff often have to apply research-based indicators. The different groups, settings and treatment approaches in the studies and a common lack of replication make this difficult. There appear few concrete predictors of prognosis or treatment outcome. When examined, the majority of the studies suggest long duration, older age, co-morbid psychiatric disorder and more severe fatigue as predicting a worse outcome, but having less effect on the results of treatment.

Both prognosis and treatment reviews allude to the importance of patients’ beliefs, information supplied by clinicians and others, coping skills and not focussing on the symptoms, probably more so than in many other chronic conditions. Contentiously, patients attributing their condition to a physical cause generally, although not in every study, have a poorer prognosis and are less responsive to CBT or GET. These treatments also appear less acceptable to such patients. As with other chronic conditions, perceived control over symptoms is associated with a greater likelihood of recovery. The potential for occupational physicians to have an effect in these areas is discussed at the end of Rimes and Chalder’s paper [12].

Despite the impact of the condition on work performance, employment and benefit receipt, these are rarely assessed systematically. When examined, one- to two-thirds of the study subjects are not working and less than 30% of these have returned to work at the end of the study. Unsurprisingly (for occupational physicians at least), working/benefit status is an important determinant of recovery, even adjusting for condition severity: being out of the workforce makes recovery less likely. Making disability claims or taking medical retirement also predicts poorer treatment outcome, although this may reflect condition severity.

CFS was one of the first conditions tested under the DDA [15] and is certainly included as a qualifying condition. In general, most patients meeting diagnostic criteria would be considered as having a ‘substantial’ impairment. A claimant whose major impairment was the requirement to ‘take a nap’ on the way to work did not pass this criterion. Workplace adjustments might include changing site or hours, working from home, frequent breaks, extra support or alleviation of some physical tasks. However, for severely affected individuals, the level of adjustment required may be more than what a court would consider ‘reasonable’. The case above [15], where the individual required 18 h sleep a day, proved difficult to accommodate. However, the important issue is for the responsible and litigation-aware employer to take steps to ascertain what adjustments might be made, in

consultation with the individual and possibly clinicians, and then consider how reasonable they are, given their resources.

Despite some disagreement over diagnostic criteria, CFS is a recognized illness. Established cases, especially those in secondary care, do not have a particularly good prognosis or response to treatment, although predicting this at the individual level is difficult. Treatments and suggested aetiologies abound, often with little scientific evidence. The evidence that exists is often contentious and patients and professionals frequently find themselves having different opinions. As a result of this, policy, practice and research is often fragmented and driven by dogma. There is little information on many of the issues that interest those advising organizations: what are the effects of the workplace on determining fatigue or influencing absence and return to work of those with chronic fatigue? Which people with early-unexplained fatigue are likely to become chronic? If we can identify them, can we prevent this? In the UK, the research is often clinically based. The Dutch approach with the Maastricht population cohort study [16] should help, although it has not assessed likely important issues such as illness attribution and motivation. Taking a long term view and including an assessment of work, conditions, benefit/retirement entitlement and support as well as clinical and psychological characteristics will require a tailored approach from clinicians, who should hopefully be better informed in the near future.

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