Psychological and psychiatric causes of fatigue

Assessment and management

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BACKGROUND Fatigue is a common presentation in general practice and its diagnosis and management can be a source of frustration to both doctor and patient. Although it may exist independently of other diagnoses, and in conjunction with physical disorders, fatigue is strongly associated with psychological disorders.

OBJECTIVE We propose an approach to the diagnosis and management of the psychological and psychiatric causes of fatigue, and present two clinical cases to highlight some of the discriminating features.

DISCUSSION Psychological causes should be considered in all patients with fatigue. Awareness of the range of causes of fatigue, experience in using readily available screening tests to detect psychological disorders, and knowledge of the recommended management regimens will facilitate the delivery of quality care to patients and the reduction of the morbidity associated with the underlying conditions.

Fatigue is a common presenting symptom in general practice. A recent survey of Australian general practitioners found that 'weakness/tiredness' accounted for 1.1% of all encounters.[1] Furthermore, a study of 1593 adult patients attending Australian general practices reported 25% had three or more symptoms of fatigue lasting for at least two weeks.[2]

Fatigue can be classified as:

- physiological (ie. fatigue which can normally be expected in a mentally and physically healthy individual when an imbalance in exercise, rest or diet exists'[3]
- acute (not explainable by physiological fatigue, present for fewer than six months and not resolving with bed rest), and
- chronic (present for six or more months).[4]

Chronic fatigue syndrome (CFS) is accompanied by several other symptoms[5] (see the article by Campbell Murdoch page 882 this issue).

The diagnosis and management of fatigue is often a challenge. Clinical practice tends to rely upon diagnostic tests to assist in the process of making definitive diagnoses for patients, yet this can create difficulties when considering poorly defined disorders, or disorders without simple treatment options.[6] Examples of such conditions in which fatigue is a common symptom include CFS, fibromyalgia and irritable bowel syndrome. The extent to which patients with tiredness are investigated with pathological tests is high, even though most tests do not yield a significant clinical diagnosis.[7]

Although fatigue may exist independently of

Table 1. Hickie's rational approach to the assessment and management of psychological conditions in general practice[9]

1. Identify the common somatic and psychological presentations of distress and the psychosocial environment within which such presentations occur.
2. Recognise that behavioural constructs (eg. depressed mood, panic attacks, chronic fatigue) require specific treatments independent of the final diagnosis.
3. Determine the degree of immediate risk to self and others.
4. Assess comorbid medical factors.

Table 2. Differential diagnoses to consider in patients with prolonged fatigue

- Medical causes
- Prescribed medications
- Primary sleep disorder
- Alcohol/marijuana abuse
- Psychiatric causes
  - dysthymic disorder
  - major depression
  - adjustment disorder
  - post-traumatic stress disorder
  - generalised anxiety disorder
  - somatisation disorder
- Psychological causes
  - chronic stress – home/work/ relationship/ financial/ legal etc.
  - perceived or real disempowerment over major life decisions

Table 3. Suggested approach to the diagnosis and management of fatigue

Diagnosis

- Careful history of the presenting complaint and other personal and medical history including:
  - a detailed history of the fatigue itself: onset, duration, variability over time, sleep cycle/sleep cycle reversal, situational triggers, aggravating and relieving factors
  - the identification of intercurrent stressors
  - substance abuse (including caffeine, alcohol and illicit drugs)
  - work and home relationships
- Physical examination
- If psychiatric disorder suspected:
  - confirm diagnosis using rating scales such as SPHERE 12/Hamilton Anxiety/Depression (HAD) (scales are useful in diagnosis and for monitoring progress)
  - explore personal/cultural attitudes toward mental health issues
- Appropriate pathological investigations (resist temptation to over investigate)

Management if a psychological/psychiatric cause for fatigue is identified

- Cognitive behavioural therapy (CBT), alone or in combination with antidepressants is essential. Factors to incorporate in CBT program are:
  - schedule regular appointments
  - adopt an open, encouraging style
  - patient to keep a sleep/exercise record
  - give specific instructions on a gradually increasing exercise program
  - encourage persistence with program even if fatigued
  - discourage bursts of extra activities on days when feeling well/more energised
  - educate to expect setbacks and slow but gradual recovery
  - discourage attention to particular symptoms; show patient that attention to a particular symptom may increase its prominence
  - teach relaxation techniques, encourage participation in yoga, Tai-Chi or meditation classes
  - teach healthy sleeping habits
  - educate the patient's partner and family on the process of rehabilitation
- Consider use of an appropriate antidepressant if indicated (eg. RIMAs* are useful in fatigue states, 5HT2** antagonists in generalised anxiety states, and SSRIs*** in suspected primary depression). All have low side effect profiles, low toxicity and moderate efficacy. If they are ineffective seek advice, consider increasing dose, resist temptation to keep switching medications
- Avoid benzodiazepines
- Involve specialists only if intercurrent major medical or psychiatric pathology suspected (ie. protect patients from getting caught in the medical maelstrom!)

* RIMA = reversible inhibitor of monoamine-oxidase-A
** 5HT2 = serotonin antagonists
*** SSRI = selective serotonin reuptake inhibitor

other diagnoses,[8] it is usually associated with physical and/or psychological disorders (see Case history 1, 2). For example, prolonged fatigue is strongly associated with concurrent psychological disorder (70% of general practice patients reporting three or more symptoms of fatigue lasting for at least two weeks also had a psychological disorder as determined by their responses to the 'general health questionnaire').[2]

Assessment and management of psychological causes of fatigue

A biopsychosocial approach to the diagnosis and management of fatigue is essential, as is establishing a positive ongoing therapeutic doctor-patient relationship. Hickie's rational approach to the assessment and management of psychological conditions in general practice is useful to consider in presentations of fatigue (Table 1).[9] Table 2 lists differential diagnoses to consider in prolonged fatigue, while Table 3 provides a suggested approach to the assessment and management of fatigue. Both Table 2 and 3 focus on the common psychiatric and psychological causes and their management.

Screening tests are available to assist the diagnostic process. The 12 item Somatic and Psychological Health Report (SPHERE) questionnaire is a convenient screening tool with acceptable validity and reliability specifically designed for use in general practice to identify common mental disorders.[10] (See Figure 1 in Fits, faints and funny turns by Hugh Morgan and Grant Blashki, AFP, April 2003). Once the presence of a psychological disorder is suspected, knowledge of the DSM IV criteria[11] can be used to assist the diagnostic process.

Evidence based treatment regimens can be implemented for specific diagnoses, however, it is important to recognise that treatment strategies can be adopted without a formal diagnosis (Table 1).[9] The '3 Step Mental Health Process Plan' (an initiative of the Better Outcomes in Mental Health Care) provides information to assist GPs to conduct mental health assessments, plans and reviews.[12] The Mental Health Strategy website(http://www.mentalhealth.gov.au/boimhc) provides a training and practice manual for GPs that includes a description of the proven psychological treatments suitable for primary care.

Case history 1 – Mary

Mary was a 28 year old advertising executive married to David, a senior public servant. She presented with a 12 month history of chronic tiredness, frequent tearfulness, recurrent urinary tract infections and 25 kg weight gain. Mary described having worked long hours (up to 16 hours per day) for the preceding 18 months, having little time for exercise, and surviving largely on take away meals. She was finding it increasingly difficult to get out of bed each day. She was preoccupied with feelings of guilt, concerned that she might let her clients down, worried about her family's reaction to her infrequent attendance at family get togethers, and frustrated by her inability to juggle her various responsibilities.

Mary's significant medical history revealed irregular periods, recurrent urinary frequency and occasional dysuria. She was a nonsmoker, a rare social imbiber of alcohol and she had no history of illicit substance usage. She had no individual or family history of psychiatric or major medical disorders. Premorbidly she was a hard working, quite compulsive individual who believed in putting 'a thousand percent' into the job.
She believed that it was important to succeed and feared letting others down. She expressed great anxiety that her gynaecological and medical problems might prevent her from conceiving.

Positive findings on examination were a mildly enlarged liver and a body mass index of 35. Her glucometer reading was 12, and a dipstick urine test showed 2+ of glucose, nil protein, nil ketones, and nil blood. Her mood was depressed and her affect tearful. There were no other positive signs of psychological distress.

The SPHERE 12 rating scale symptom profile classified Mary on both the psychological and physical subscales. The Beck Depression Inventory (BDI) scored 28, suggesting the presence of significant depression. Pathology tests were performed. Complete blood count, erythrocyte sedimentation rate, thyroid stimulating hormone and serum pregnancy test were all negative. Liver function tests revealed a raised gamma glutamyl transferase. Hepatitis serology was negative and serum ferritin was within normal limits. Hormonal studies indicated likely anovulatory cycles, however, there was no other evidence of polycystic ovarian syndrome. An upper abdominal ultrasound confirmed a slightly enlarged liver with widespread fatty infiltrates. Electrolytes were normal and fasting blood sugar level was 10 mmol/L.

Mary's initial diagnosis and management

Mary had developed type 2 diabetes mellitus and fatty liver, contributed to by her unhealthy lifestyle. Her weight gain had created an ideal environment for the development of her other difficulties. Her attitude to work and unrealistic self expectations had locked her into a vicious cycle of adverse psychological and physical behaviours. Her fatigue was likely due to a combination of these factors. Following discussions with her GP, Mary decided to cease work and began a program of dietary and graduated exercise modification. Mary also began a course of CBT, to help identify the distorted belief systems that underlay her difficulties. An antidepressant was offered but declined. Mary kept an exercise and diet diary which she reviewed weekly with her GP for two months,

and monthly thereafter. Over the course of her CBT, she was able to reassess her lifestyle choices and personal goals and adopt more helpful ways of relating to others. After 12 months, Mary had returned to her premorbid weight, resolved her fatty liver, and become normoglycaemic. She returned to a 40 hour a week job. Mary returned to her GP six months later for management of her first pregnancy.

Comment

Mary's case highlights the importance of formulating each case broadly so that comorbidity is understood globally and psychosocial contributions to physical presentations are considered and addressed in management. It also highlights the importance of educating and empowering patients to be responsible for their wellbeing. Mary was an intelligent woman who worked hard to change once she had been helped to see the adverse contributions of her own behaviours. Working with her GP she was able to achieve a very positive health outcome.

Case history 2 – Jane

Jane was a 36 year old married woman with four teenage daughters. She and her family lived in a town in the far northwest of her state. She presented to a GP complaining of severe tiredness that she said was so bad she was spending up to 20 hours per day in bed. In the course of the interview she revealed feelings of inadequacy and a sense of letting down her family. She complained of aching joints and muscles, persistent nausea, intermittent diarrhoea, chronic headaches, abdominal bloating and poor concentration. Her symptoms had been present for more than one year and were said to be worsening. Jane had already consulted a large number of doctors (including GPs, rheumatologists, neurologists and infectious disease physicians) and expressed great dissatisfaction at their failure to find and treat an identifiable cause despite extensive investigations. She had been prescribed analgesics and low dose antidepressant medications without effect.

Jane gave a past history of being seen at her local child health clinic for recurrent school refusal. There was a suggestion that she may have suffered postpartum depression after the birth of her third child but this had resolved without specific treatment. Her other past medical history was unremarkable. She was an intermittent smoker, tending to smoke when 'things became too much'. There was no history of alcohol or marijuana usage. Her mother had been treated for a depressive episode.

Jane described herself as always shy, frequently anxious, and very reliant on her husband and mother for assistance. She stated that her mother was her best friend and that her other social contacts had fallen by the wayside through her period of illness. Jane described her husband as supportive but said that she felt guilty about the domestic load he had assumed. Her daughters were doing well in school but Jane was worried about the dangers for them now that they had all started dating regularly.

Examination revealed an extremely well groomed woman who was moderately agitated. Jane complained of widespread body pain caused by gentle palpation, however, the rest of her physical examination was unremarkable. Throughout the consultation Jane recurrently returned to the theme of her frustration at the lack of a diagnosis and her concern that others could not see her distress despite her feeling so unwell. She expressed despair at her future and fear that her symptoms were worsening. She was not actively suicidal but quite nihilistic. There were no psychotic features present.

The SPHERE 12 rating scale symptom profile showed high scores on both physical and psychological distress. Jane rated highly on both the BDI and HADs suggesting a significant but mixed picture of anxiety and depression. Extensive pathology tests had previously been performed and were not repeated.

Jane's initial diagnosis and management

The initial course of management involved explaining that identifiable organic causes for patient distress are not always found. Jane's GP reassured her that she need not fear a serious cause, suggested that her symptoms might be part of a psychiatric condition, and emphasised that mental disorders were capable of causing pain equal to or greater than that of purely organic origin.

The GP explored Jane's pattern of fatigue and asked her to keep a record of sleep and activity levels. An appointment was made for the following week. In the interim Jane's GP telephoned the regional psychiatrist who advised adding in a selective serotonin re-uptake inhibitor (SSRI) antidepressant, and arranged to see Jane for a series of back-to-back appointments over a few days. During these consultations, Jane was instructed in a specific graduated exercise program, and taught the fundamentals of CBT, relaxation techniques and sleep hygiene. She was discouraged from focussing on specific physical symptoms. Jane was maintained on antidepressants and took regular low doses of a nonsteroidal anti-inflammatory drug (NSAID) for her muscle pains. The potential for setbacks was emphasised but Jane was discouraged from ceasing her graduated exercise activities even if she experienced a flare up of physical symptoms.

Given Jane's geographic isolation, her follow up psychiatric appointments were widely spaced. However, she saw her GP weekly initially (extending to fortnightly visits over the following 12 months). Jane's GP maintained regular telephone contact with her psychiatrist to review Jane's progress and management plan. Jane's husband was encouraged to attend appointments intermittently to assist his understanding of the approach to management.

Comment

Jane's case highlights the overlap between psychiatric syndromes and physical presentations. It considers the difficulties in managing a patient who is searching for an acceptable medical label. Additionally, it highlights the difficulty but not the impossibility of managing patients in remote areas and coordinating care with other health colleagues.

Conclusion

Psychological and psychiatric disorders are common causes of fatigue, and optimal patient care requires that GPs consider these causes in all patients presenting with fatigue. Awareness of the range of causes, experience in using readily available screening tests, and knowledge of the recommended management regimens (including recognition that treatment strategies can be adopted without a formal diagnosis) will facilitate the delivery of quality care to patients, and the reduction of the morbidity associated with the underlying conditions. Of paramount importance to achieving optimal outcome is a thorough psychosocial history, the establishment of a supportive doctor-patient relationship, and commitment to ongoing patient review.

SUMMARY OF IMPORTANT POINTS

- There is a strong association between fatigue and psychological disorders.
- Psychological/psychiatric causes should be considered for all presentations of fatigue.
- Awareness of the range of causes of fatigue and experience in using readily available screening tests facilitates the detection of psychological disorders.
- Treatment strategies can be adopted without a formal diagnosis.
- The establishment of a supportive doctor-patient relationship and a commitment to ongoing patient review are paramount to optimising health outcomes.

Conflict of interest: none.

References

1. Britt H, Miller G C, Knox S, et al. General practice activity in Australia 2000-2001. In: General Practice Series No. 8. Canberra: Australian Institute of Health and Welfare, 2001.
2. Hickie I B, Hooker A W, Hadzi-Pavlovic D, Bennett B K, Wilson A J, Lloyd A R. Fatigue in selected primary care settings: Sociodemographic and psychiatric correlates. Med J Aust 1996; 164(10):585–588.
3. Katerndahl D A. Fatigue of uncertain etiology. Fam Med Rev 1983; 1.
4. Ruffin M T, Cohen M. Evaluation and management of fatigue. Am Fam Physician 1994; 50(3):625–634.
5. Fukuda K, Straus S E, Hickie I, Sharpe M C, Dobbins J G, Komaroff A. The chronic fatigue syndrome: A comprehensive approach to its definition and study. International Chronic Fatigue Syndrome Study Group. Ann Intern Med 1994; 121(12):953–959.
6. Lloyd A R, Hickie I B, Loblay R H. Illness or disease? The case of chronic fatigue syndrome. Med J Aust 2000; 172(10):471–472.
7. Gialamas A, Bielby J J, Pratt N L, Henning R, Marley J E, Roddick J F. Investigating tiredness in Australian general practice: do pathology tests help in diagnosis? Aust Fam Physician 2003; 32(8):663–666.
8. Van der Linden G, Chalder T, Hickie I, Koschera A, Sham P, Wessely S. Fatigue and psychiatric disorder: Different or the same? Psychol Med 1999; 29(4):863–868.
9. Hickie I B. Primary care psychiatry is not specialist psychiatry in general practice. Med J Aust 1999; 170(4):171–173.
10. Hickie I B, Davenport T A, Hadzi-Pavlovic D, et al. Development of a simple screening tool for common mental disorders in general practice. Med J Aust 2001; 175 (Suppl):S10–S17.
11. Diagnostic and statistical manual of mental disorders: DSM-IV-TR. 4th edn. Washington, DC: American Psychiatric Association, 2000.
12. Commonwealth of Australia Department of Health and Ageing. Better outcomes in mental health care initiative. Canberra: Health Services Division, Commonwealth Department of Health and Ageing, 2002.

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