Understanding the nature of cancer-related fatigue

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Fatigue is one of the most frequently reported symptoms of cancer and is also a consequence of anticancer treatment. There are a variety of tools available to measure fatigue but investigations into effective management have been inconclusive.

Fatigue is a nebulous concept, difficult to define and intensely personal. It is considered to be one of the most frequently reported symptoms in patients with cancer and is also a consequence of anticancer treatment (Stone et al, 1999). However, the evidence for the prevalence of cancer-related fatigue is highly inconsistent. Estimates of the occurrence of fatigue in cancer patients range from 49 per cent to 99 per cent.

What is fatigue?
Numerous studies have struggled to define fatigue, with one review article listing 10 alternatives (Barton-Burke, 1998). Definitions appear to concentrate on the physical aspects of fatigue, for example Magnusson et al (1999) describe fatigue as a decrease in an individual’s strength and performance. Similarly, patients and their families often talk of a decrease in vitality, lack of energy and muscular weakness.

One author who has spent many years researching fatigue reports that individuals use words such as ‘beaten’, ‘wiped out’, ‘pooped’, ‘lousy’, ‘drained’ and ‘sluggish’ when describing how they are feeling (Winningham, 2001).

However, a review of the literature suggests that fatigue is more than simply a physical problem. There are clear emotional, psychological and social consequences of fatigue. Richardson and Ream (1996) found that psychological and emotional distress were more commonly reported consequences of fatigue than were physical manifestations.

Their comprehensive definition has been used by numerous researchers in different studies. They define fatigue as ‘a subjective, unpleasant symptom which incorporates total body feelings creating an unrelenting overall condition which interferes with an individual’s ability to function to their normal capacity’.

Causes and effects
There is general agreement that fatigue is a multifactorial and multidimensional phenomenon. There are biological, psychological, social and personal factors that influence the onset, impact, expression, duration and severity of the fatigue experience. At its worst, fatigue can have a serious impact on patients’ quality of life and their ability to perform their daily activities. Potter (2004) found that simple everyday tasks such as personal care, walking, caring for their home, cooking and eating become an uphill struggle.

The aetiology of fatigue is complex and it is a challenge to separate its causes and effects. Early research into the phenomenon suggested that fatigue was an inevitable consequence of advancing disease. More recently, however, Coackley et al (2002) revealed that there are many possible causes of fatigue and suggested that it can occur at any stage of the disease process. Possible causes include malnutrition, cachexia, pain, weight loss, toxic metabolites, sleep deprivation, infection, anaemia, drug therapy, inactivity, bedrest, social, psychological and spiritual factors.

There is evidence that fatigue is a common complaint of individuals receiving treatment for cancer. Numerous studies demonstrate that fatigue increases over a course of radiotherapy, peaking during the last week of treatment.

Only a few descriptive studies have reported the pattern of fatigue in patients receiving chemotherapy. However, they provide some evidence that fatigue is highest 1–2 weeks following a treatment dose and then gradually decreases only to rise again following the next dose.

References


Assessment
Until recently fatigue has not been measured routinely in cancer care. It has normally been found as one item on a scale measuring functional status or evaluating mood, or as an item in a toxicity report. In the past couple of years, several instruments have been developed for the assessment of fatigue.

There is no single preferred model – some tools still require validation and fatigue itself may impose limitations on assessment.

The Pearson-Byars Fatigue Feeling Checklist consists of 13 items that describe energy levels. The scale is brief, has proven reliability and can discriminate between patients and healthy volunteers. However, this instrument utilises a three-point scale that may not provide enough variability for the assessment of different levels of fatigue. Two subscales of the Profile of Mood States (POMS) have been used to assess fatigue in patients with cancer.

The POMS-Fatigue and the POMS-Vigour instruments use descriptive words defining fatigue on a five-point assessment scale. They are brief but have limited validity and reliability. The Functional Assessment of Cancer Therapy-Fatigue (FACT-F) scale was designed to measure the fatigue symptoms of patients with anaemia. The scale has proved to be valuable and reliable. However, it is rather long.

Other scales were designed to portray more than one dimension of fatigue, including the Piper Fatigue Self Report Scale, the Multidimensional Fatigue Inventory and the Fatigue Symptom Inventory.

The Fatigue Simple Scoring System (Coackley et al, 2002) appears to be the most suitable instrument to use in clinical practice. It offers a validated, uncomplicated short tool that identifies patients with fatigue and recommends interventions depending on the severity of the symptoms (Table 1).

Patients identified as having level 1 symptoms require monitoring, while those who experience level 2/3 symptoms warrant a more detailed fatigue assessment, which incorporates a full history and appropriate investigations.

It has been suggested that due to the subjective nature of fatigue, it is best measured by directly talking with the patient and exploring their physical, psychological and social issues (Winningham, 2001). However, nurses must be aware that this is a descriptive process with no measurement and no framework for effective evaluation.

Some patients can be reluctant to complain of fatigue. Cella et al (1998) conducted a cross-sectional study that investigated patient-related barriers in patients with cancer and Aids.

They found that treatment futility, fear of disease progression, desire to be a ‘good patient’, fear of distracting the doctor and fear of jeopardising cancer treatment were barriers to communicating their symptoms to health professionals.

### TABLE 1. FATIGUE SIMPLE SCORING SYSTEM

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>No fatigue</td>
</tr>
<tr>
<td>1</td>
<td>Fatigue present, but not affecting daily life</td>
</tr>
<tr>
<td>2</td>
<td>Fatigue present and having moderate effect on daily life</td>
</tr>
<tr>
<td>3</td>
<td>Fatigue present and having an overwhelming effect on daily life</td>
</tr>
</tbody>
</table>

Management
For many years fatigue has been viewed as an inevitable symptom associated with cancer. In practice, nurses and other health care professionals have focused on other distressing symptoms that can be alleviated.

Gradually the mood is changing and research on fatigue management is gaining momentum, although studies have largely concentrated on patients undergoing chemotherapy and radiotherapy. To date, only a small number of these studies have been evaluated through empirical research and there is conflicting evidence relating to the effectiveness of management strategies.

Nevertheless, management strategies can be of some use in supporting patients with fatigue, although it must be remembered that fatigue is a very personal experience and measures that benefit some individuals may not be useful in others.

Fatigue management strategies can be roughly divided into three stages:

- Treating underlying causes of fatigue;
- Treating fatigue directly;
- Managing the consequences of fatigue.

There is some consensus in the literature that identifying and treating the potential underlying physiological and psychological causes of fatigue is beneficial. Studies have shown that treating anaemia with blood transfusions or erythropoietin has significantly reduced fatigue and improved individuals’ quality of life (Cella et al, 1998).

Similarly, if fatigue is related to dehydration, malnutrition or vitamin deficiencies, the administration of fluids and consultation with a dietitian may improve the patient’s nutritional status and help to alleviate fatigue (Winningham, 2001). The appropriate treatment of infection and other physical symptoms such as pain may also improve energy levels.

Conversely, centrally acting drugs for pain management, such as opioids, may cause fatigue and if the consequences of fatigue are sufficiently distressing, reducing the dose of the opioid might be indicated. Of equal importance is the appropriate diagnosis and treatment of depression, both for its own sake and because fatigue can be a symptom of...
Guided reflection

Use the following points to write a reflection for your PREP portfolio:

- Write about where you work and your experience of patients with cancer;
- Outline why you decided to reflect on this article for your CPD;
- Summarise any new information you have learnt;
- Describe how this will impact on your future practice;
- What will you do to follow up this learning?

**REFERENCES**


**BOX 1. GUIDELINES FOR MANAGING PATIENTS WITH CANCER-RELATED FATIGUE**

- Encourage patients to talk about their experience of fatigue, how it affects their activities of daily living and the emotional consequences.
- Interventions should be grounded in a comprehensive assessment of the severity of symptoms, followed by a full clinical examination.
- Distinguish between acute fatigue, which is usually associated with cancer treatment, and chronic fatigue, which is more difficult to treat and is associated with advancing disease.
- Identify and treat reversible causes of fatigue.
- Provide written information for patients and their carers about the nature of fatigue and simple coping strategies.
- Reassess fatigue levels at regular intervals, depending on the severity of the symptoms.
- Consider the use of a patient diary and encourage patients to monitor their symptoms and any interventions that they find helpful/unhelpful.
- Prepare the patient and their family for treatment-related fatigue, when symptoms are likely to occur, the duration of fatigue and coping mechanisms.
- Provide advice on eating regular, small, well-balanced meals on a regular basis, the importance of a ‘good night’s rest’ (avoiding napping during the day) and the benefits of exercise.
- Encourage individuals to undertake activities in the morning before their energy levels begin to diminish.
- Consider the use of physiotherapy/occupational therapy for patients whose quality of life would be enhanced by such interventions.
- Consider drug management of fatigue where appropriate.
- Keep up to date with current research on the management of fatigue.

This condition, although the cause and effect of these two symptoms remain unclear.

Pharmacological and non-pharmacological strategies have been used to directly manage fatigue. Drug management includes the use of steroids, psychostimulants and antidepressants. Non-pharmacological strategies are more difficult to evaluate and there is insufficient information to accurately inform nursing practice.

Strategies that patients have reported as helpful centre on a need to understand what is happening to them (Potter, 2004). Individuals spoke of being relieved when nurses gave them a chance to discuss and explore issues surrounding this phenomenon.

Nurses must also be aware that fatigue affects the whole family and that any management strategies must include them. Family members may interpret fatigue to mean that the patient is ‘giving up’ and thus it is vital that nurses educate and empower both the carers as well as the individual. However, a study by Coackley et al (2002) suggested that most nurses consider their level of education regarding cancer-related fatigue to be inadequate. This needs to be addressed if improvements in patient care are to be achieved.

There is little reference in the literature to the spiritual consequences of fatigue, yet in a study by Potter (2004) the spiritual aspects of fatigue were found to cause considerable distress. Patients struggled to cope with feelings of hopelessness as they tried to maintain their identity and fulfil their role in society.

Nurses can alleviate some of patients’ distress by spending time listening to them and channelling their fears and worries into meaningful discussion about living with fatigue. The use of a patient diary may help both the nurse and patient to discern a pattern to the fatigue or identify specific activities that are associated with increased levels. This information may be useful in developing a management plan that modifies specific activities but allows the patient to participate in family life. However, during the advanced stages of illness, the nurse must change the focus of discussion and facilitate the process of living with the fatigue of dying.

**Conclusion**

Fatigue is a complex, common and distressing symptom that clearly needs more research. It presents nurses with real challenges when faced with assessing and managing the care of cancer patients.

It is important that nurses raise the profile of fatigue and encourage patients to discuss their problems and concerns. They should measure individuals’ level of fatigue, ideally using a defined measurement tool, and evaluate the effectiveness of management strategies.