The psychological perspective: a professional view

S Newman

Psychological issues surrounding the care of patients with cardiovascular disease are many and diverse. This paper discusses three main areas: cognitions, emotions, and social support. The examples given relate primarily to post-myocardial infarction patients but the concepts discussed are relevant to other aspects of cardiovascular disease. Patients’ cognitions can influence early help seeking for symptoms of myocardial infarction, attendance at cardiac rehabilitation, behaviour change, and return to work. Depression and anxiety are common following myocardial infarction and can be associated with increased mortality. Mood changes must therefore be addressed as part of the cardiac rehabilitation programme. Social support also plays an important part in cardiac rehabilitation.

It is often assumed by health care professionals that patients come to them without preconceptions and will accept and understand their opinions and interpretations of events. This view is perhaps somewhat naive. Patients are not passive repositories of information. They have cognitions (beliefs) about their illnesses and their health and what they can do about them. They actively construct models of their illness and recovery, and these influence their behaviour. Thus, a patient who has had a myocardial infarction has views about what a heart attack is and what has caused it. They interpret the information that health professionals provide in relation to their own beliefs about their illness.

Patients’ cognitions also affect their interpretation of the symptoms of a first myocardial infarction. This is important because it can lead to delay in seeking treatment. The issue for health professionals is to achieve a balance between alerting people too much to normal sensations so that they overwhelm the health service (for example, the “worried well” seeking reassurance) or constraining them to the extent that they do not seek help promptly when serious symptoms occur.

Some patients will interpret their first symptoms of a myocardial infarction as “indigestion” or “wind” while others will recognise their serious nature. It is clear that people’s perceptions about their symptoms will influence their help-seeking behaviour. Several factors have been shown to be associated with early help seeking (table 1). Patients who have a family history of myocardial infarction, or who know somebody who has had a myocardial infarction, will have some understanding of the problem and this might lead them to seek help early. The strength of the pain also influences early help seeking. In addition, patients who considered breathlessness to be associated with a heart attack called for an ambulance quicker than those who did not link this symptom with heart attack—they had a view about what symptoms were important and that led them to initiate a call for help. People who had a tendency to look to others for advice also called for help early on. In this respect, it is of interest to observe that however carefree someone is about their own health, if asked for advice by another person, in this context “should I call an ambulance?”, people tend to be more conservative and to prompt the person to take action.

At the extreme end of post-myocardial infarction cognitions is “cardiac invalidism”. People holding these beliefs take the view that any sort of activity will induce another myocardial infarction. They avoid exertion and consequently their fitness declines. This leads to symptoms from the lack of fitness, which they interpret as evidence of further cardiac problems, which leads to a further limiting of activity and a downward spiral.

Table 1  Factors associated with early help seeking

<table>
<thead>
<tr>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal experience through a family history of heart disease</td>
</tr>
<tr>
<td>Strength of pain</td>
</tr>
<tr>
<td>Considering breathlessness to be associated with a heart attack</td>
</tr>
<tr>
<td>Seeking advice of others</td>
</tr>
</tbody>
</table>

PATIENTS’ BELIEFS

All patients have beliefs about the cause of their illness and these have a direct effect on the likelihood of behaviour change after infarction. The most commonly held view is that the myocardial infarction was caused by stress. Other common beliefs are that it was caused by lifestyle or by heredity. Not surprisingly, those who believe their myocardial infarction was related to their genes tend to take the view that there is nothing that can be done, “so I can carry on smoking, I can carry on eating”. If it is considered to be caused by stress, they may feel that there is something they can do and, indeed, there is good evidence about the utilisation of stress management. But it is those people who believe that lifestyle was the direct cause of their myocardial infarction who are the most likely to make, and to persist in, behaviour changes.

Patients’ cognitions also affect attendance at cardiac rehabilitation programmes. A significant number of patients do not attend rehabilitation programmes and the reasons for this have been examined. In addition to physical barriers, such as transport problems and the need to take time off work, people hold beliefs about whether rehabilitation is valuable, even though they have never experienced it. Generally, it is those who feel that...
it is not valuable or that they are unable to change their behaviour who will not attend. In some cases, family members do not support participation and this has a strong influence on attendance—as discussed below, family support is very important in encouraging attendance.

Some people hold the strong belief that there is nothing that they can do to influence the course of their cardiac disease and they are unlikely to attend rehabilitation programmes. Conversely, there are good data to show that people who feel that they can influence the course of their disease are the ones who go to rehabilitation. Attendance is also more likely among patients who believe that lifestyle played a part in their heart attack.

Patients’ cognitions also affect the timing of their return to work. Those who feel that their disease did not have very serious consequences are likely to return to work more quickly. Patients also have beliefs about the time course of their illness, with those who believe their illness will not last too long being more likely to return to work.

From the above it is clear that patients’ cognitions about heart disease:
- influence early help seeking for symptoms
- influence behaviour change
- influence attendance at cardiac rehabilitation
- influence return to work.

It is possible to alter cognitions to reduce the impact of myocardial infarction, but exacting these changes involves more than simply providing information. Figure 1 shows data from a study that tackled patients’ cognitions. It shows the cumulative proportion of patients not working for an intervention group who had had their cognitions assessed and addressed soon after entrance into the rehabilitation programme, compared with a control group. The intervention group had significant improvement in terms of return to work.

**PATIENTS’ MOOD POST-MYOCARDIAL INFARCTION**

Examination of mood should be a central part of caring for patients after a myocardial infarction. Depression and depressive symptoms are common. Major depression has been reported in about 15–23% of patients, which is three times higher than in the baseline population. Major depression also persists—in about 95% of those who were depressed post-myocardial infarction it is still present at six months and in 70% at 12 months. Depression is an independent predictor of mortality, being associated with three to four times increased cardiac mortality. In addition, higher levels of depressed mood are associated with a decreased likelihood of attendance at cardiac rehabilitation and with a decreased likelihood of behaviour change.

**Learning points**

- It is important to ask patients with cardiovascular disease what they understand about their illness
- Ask them how they feel to try to ascertain their mood
- Try to involve the closest family member in your discussions, as they can provide valuable support and encouragement

Attempts to reduce depression post-myocardial infarction have had mixed success and this is clearly an issue that needs increased focus. One study showed that reduction in depression post-rehabilitation was associated with lower mortality over a nine year follow up period.

Anxiety is probably the earliest and the most intense psychological response to myocardial infarction. About 60% of patients will show high anxiety and this persists to 12 months in about 40% of patients. Persistent anxiety is associated with recurrent cardiac events, demonstrating again the central role of mood in driving clinical outcome. It has been suggested that anxiety exerts its effects through an increased physiological response to stress. In some studies, anxiety has been associated with increased mortality. Anxiety following myocardial infarction is associated with reduced quality of life. Interestingly, it is also associated with increased attendance at cardiac rehabilitation. Attempts have been made to reduce anxiety by trying to reduce people’s uncertainty (which is difficult) and, more importantly, by providing support. There is some evidence of efficacy but this is limited.

Mood changes following myocardial infarction inhibit behaviour and behaviour change. There is a need for review of how these problems are tackled in rehabilitation programmes. It is essential that health professionals routinely assess mood and they are unlikely to attend rehabilitation programmes. Attendance is also more likely among patients who believe that lifestyle played a part in their heart attack.

**IMPORTANCE OF SOCIAL SUPPORT**

The concept of social support refers to the perception of emotional and practical support provided by others. There is clear evidence for the benefit of such support. In general population epidemiological studies, higher perceived levels of social support are associated with reduced mortality and morbidity.

Social support is presumed to be beneficial by providing a buffer against stress.

The role of family members must be considered in the context of post-myocardial infarction care. Rehabilitation programmes should address the anxieties of family members and assist them to provide appropriate support and encouragement to the patient. Family members can support individuals when they are not on the rehabilitation programme. Since such programmes may involve attendance twice a week for three hours—that is, six hours a week—there is clearly a central role for family support.

The emotional needs of patients’ partners must not be neglected. Partners of individuals who have had a myocardial infarction have extremely high anxiety, in many cases higher than that of the patient, which restricts and reduces their ability to provide support. It is also important to recognise the social support that is provided by health care professionals.

**CONCLUSION**

Psychological issues surrounding the care of patients with cardiovascular disease are many and diverse. How people think about their illnesses has a major influence on their behaviour. These cognitions can be changed. It is essential to consider the effect of illness on a patient’s mood and issues such as anxiety and depression must be firmly placed in the context of cardiac rehabilitation. An integrated programme is
needed which covers physical symptoms, behavioural issues, the belief systems, information, and mood. Social support, from family members and from health care professionals, plays an important part in cardiac rehabilitation.

REFERENCES


DISCUSSION

Professor Martin Cowie: Would you advise health care professionals to emphasise the lifestyle explanation for cardiovascular disease or do you think that that risks passing value judgments on patients, making them or their partners feel guilty about past choices, and so distancing the health care professional from the patient?

Professor Newman: I think that rather than looking backwards in terms of what caused the cardiovascular disease, we should emphasise that the patient might be able to wield a degree of influence over what happens in the future. Keeping fit, losing weight, giving up smoking, and so on, will all have advantages in the future. Focusing primarily on the past could have detrimental effects on the relationship between the patient and the health care professional.

Question: Are there sex differences in help-seeking behaviour? Are women less likely than men to seek help when they have angina and are they less likely to recognise angina?

Professor Newman: There is good evidence of lower participation of women in cardiac rehabilitation programmes. This appears to be the result of a number of factors. One important difference between women and men is that they have different social support networks. This was demonstrated clearly in a study in which people were placed in a stressful situation with and without their partner and with a stranger. When men did a task without anybody present their stress levels were very high, when they did a task with a stranger assisting them their stress dropped a little, and when they did the task with their partner their stress was markedly reduced. With women, stress levels were higher when they performed the task with their partner than when they had help from a stranger.

Men and women also vary greatly in their attitude to emotional social support. Women are likely to seek help and support from a friend, while men need to find an excuse, commonly related to sport or business, to talk to others, and they might even then have difficulty in opening the agenda to emotional support. Men primarily get emotional support from their partners. That has to be put into the context of help seeking. On the issue of utilisation of health services, there is considerable evidence of marked differences between men and women in terms of the threshold for treatment for cardiac disease, but this is a complicated issue.

Question: What is your opinion about advising patients to stop smoking when they are in the middle of depressive episodes? I read recently that there was now evidence to suggest that we should perhaps not advise smokers to stop when they are clinically depressed.

Professor Newman: You do need to tackle both issues concurrently and smoking reduction rather than cessation should not have a major influence on an individual's depressive state. Whether you will achieve complete cessation is questionable, but certainly I would not ignore the smoking while treating the patient's depression. The issue is all about control over health and people feeling autonomous. A lot of people use the excuse for smoking as “it calms me down”, “it gives me something to do”, and the issue around that comment is important.
The psychological perspective: a professional view

S Newman

*Heart* 2003 89: ii16-ii18
doi: 10.1136/heart.89.suppl_2.ii16

Updated information and services can be found at:
http://heart.bmj.com/content/89/suppl_2/ii16

*These include:*

**References**
This article cites 5 articles, 3 of which you can access for free at:
http://heart.bmj.com/content/89/suppl_2/ii16#BIBL

**Email alerting service**
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

**Topic Collections**
Articles on similar topics can be found in the following collections

- Drugs: cardiovascular system (8842)
- Acute coronary syndromes (2742)
- Epidemiology (3752)

**Notes**

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/