Does Psychoeducation Help Prevent Post Traumatic Psychological Distress?

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Psychoeducation is increasingly used following trauma. The term covers the provision of information about the nature of stress, posttraumatic and other symptoms, and what to do about them. The provision of psychoeducation can also occur before possible exposure to stressful situations or, alternatively, after exposure. The intention of both is to ameliorate or mitigate the effects of exposure to extreme situations. Educational information can be imparted in a number of ways and can also form part of what has been termed psychological first aid.

Despite its ubiquity, however, good evidence as to the value of psychoeducation is rare. Perhaps it could be assumed that psychoeducation, like education in general, is so obviously a "good thing" that it requires no evidence. In this paper we question the assumption, arguing that like any other intervention, psychoeducation needs to be backed up by empirical evidence. We will first present the case *for* and then the case against psychoeducation before reaching some conclusions and making some recommendations.

"Psychoeducation" (sometimes "psycho education") following trauma is increasingly used. The term covers the provision of information, in a variety of media, about the nature of stress, posttraumatic and other symptoms, and what to do about them. The provision of psychoeducation can also occur before possible exposure to stressful situations as part of what is sometimes called "fear training" or "pre-briefing" (Hacker Hughes et al., in press; McMichael, 1966) or, alternatively, after exposure. The intention of both is to ameliorate or mitigate the effects of exposure to extreme situations. Educational information can be imparted in a number of ways, including briefings, informational leaflets, and the Internet. The provision of relevant information also forms part of what has been termed psychological first aid (Gray, Litz, & Papa, 2006).

We accept that it is almost impossible to come up with a satisfactory definition of

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psychoeducation and that some elements of it are part of nearly every psychological treatment. However, in order to make the review manageable, and also practical in its conclusions, we are using the term to refer to the provision of information to people about a future etiology: either what might happen should they be exposed to trauma or, having been exposed, should they develop symptoms.

We are explicitly not including provision of information about the nature of symptoms to people who already have Post Traumatic Stress Disorder (PTSD)—that is, we are concerned not with the treatment of PTSD but with its prevention.

Evidence of the spread and popularity of psychoeducation can be found in the websites of the following organizations: the World Health Organization (WHO; www.who.int), the National Institute for Health and Clinical Excellence (NICE; www.nice.org.uk), the UK Trauma Group; www.uktrauma.org.uk), the Institute of Psychiatry; (www.iop.kcl.ac.uk), the National Center for PTSD (www.ncptsd.va.gov), the Uniformed Services University of the Health Sciences (USUHS; www.usuhs.mil), and no doubt many more. A recent National Institutes of Mental Health Consensus Conference recommended "psychological first aid" for victims of trauma, which consisted of three elements, two of which were the provision of "psychoeducational materials that describe the common sequelae of trauma" and "information on how and where to get help if desired." All United Kingdom (UK) Armed Services personnel receive such leaflets on return from deployment to operational theatres, such as Afghanistan and Iraq (Permanent Joint Head Quarters, PJHQ, 2005) and, in theory, should also attend briefing sessions that are psychoeducational in nature both before and after operational deployments (MOD, 2004). Likewise, probably very few UK Accident and Emergency departments now lack leaflets with such titles as "Coping with Trauma."

Despite its ubiquity, good evidence as to the value of psychoeducation is rare. There may be an assumption that psychoeducation, like education in general, is so obviously a "good thing" that it requires no evidence. We question that assumption. We will first present the case *for* and then the case *against* psychoeducation.

PSYCHOEDUCATION: THE THEORY

The case for psychoeducation rests on a number of assumptions. First, if people are given information about what symptoms they may experience after trauma they may find these experiences to be less disturbing. Second, psychoeducation usually involves imparting the message that, for the majority of individuals, these symptoms are normal, in the sense that they are to be expected and that many people get them. This acts to reassure the individuals.

Third, psychoeducation may assist help seeking. People may not appreciate the nature of the symptoms that they are experiencing, may not realize they are suffering trauma-related problems, and therefore might not seek help. Psychoeducation usually involves information on sources of help. It is no good setting up services for people without informing them what those services are. If people are also expected to offer "buddy support" and stress buffering to their colleagues, they need to recognize the signs that those colleagues are suffering in order to find them appropriate help.

Fourth, it is possible that psychoeducation may introduce corrective information that modifies a trauma survivor's perceptions of the event, of themselves, or of their future. Cognitive models of trauma posit that PTSD develops, in part, because people misinterpret (sometimes in a catastrophic fashion) the experience and the likelihood of future harm (Ehlers & Clark, 2000). There is considerable evidence that maladaptive apprais-

als in the immediate aftermath of trauma exposure, together with cognitive schemas of shame and guilt (Gilbert, 1988), are associated with psychopathological responses (Ehlers, Mayou, & Bryant, 1998, 2003; Smith & Bryant, 2000; Warda & Bryant, 1998). It is possible that psychoeducation (depending on the content of the education) could correct dysfunctional thoughts and thereby assist adaptation.

Lastly, psychoeducation is in keeping with the tendency to encourage empowerment exemplified by self-help material, self-help movements, NHS Direct and so on. It may also be cheap and easy to provide, especially if it is solely delivered via a leaflet, as it often is.

PSYCHOEDUCATION: THE EVIDENCE

It is sometimes assumed that psychoeducation is either a positive action or at best neutral. However, it is axiomatic that any intervention that has the power to do good may also have the power to do harm. The question is not, "Does it do harm?" but rather, "Where does the balance between benefit and harm lie?" Giving information, like any other intervention, is not a neutral act.

Evidence as to the effectiveness of psychoeducation is surprisingly difficult to find, but it comes from a variety of sources; first, direct trials of psychoeducation, of which we are only aware of one example (vide infra); second, trials in which one arm consisted of psychoeducation but was usually intended as a control for another intervention; third, trials of psychological debriefing which we accept do not necessarily have psychoeducation as their primary aim; and fourth, trials of interventions that incorporate some of the principles of psychoeducation, such as stress inoculation.

Direct Evidence

We are aware of only one trial that was designed specifically to test the role of psychoeducation in the prevention of post trauma psychological distress. The Sheffield trial (Turpin, Downs, 2005) was a randomized controlled trial (RCT) of giving self-help material to civilian trauma victims a week or two after attending an Accident and Emergency department. There was no evidence that psychoeducation helped after trauma, but there was a trend for those who met the criteria for PTSD to do less well, suggesting that most distressed are those who are least likely to benefit from psychoeducation and most likely to be harmed, as has been shown in trials of debriefing (vide infra). The paper concludes by suggesting that there might be a role in helping patients seek treatment later ("watchful waiting" as the UK NICE Guidelines term it), but there is, as yet, no specific evidence about this.

Indirect Evidence: Psychoeducation as a Control Group

Other information comes from studies in which psychoeducation made up one arm of a randomized trial, but in which the main intervention of interest was a more directive psychotherapy, usually CBT, with psychoeducation used as a control. For example, in a well-known trial that studied CBT in the treatment of PTSD, a self-help book of standard psychoeducation proved to be relatively ineffective (Ehlers et al., 2003). Several trials have also compared "supportive counselling" (which included education about trauma) to CBT, and although the former was less effective than CBT, it did nonetheless lead to marginal therapy gains (Bryant et al 1998; 1999; 2003). Similarly, Neuner and colleagues (2004) found psychoeducation to be the least effective of three interventions used to treat PTSD with African refugees

(the other two interventions being Narrative Exposure Therapy (NET) and Supportive Counselling). It needs to be noted, however, that across these studies, therapy conditions that comprise psychoeducation typically lead to some modest therapy gains. The problem with these studies is that it is difficult to disentangle the effect of psychoeducation from the non-specific influences of therapy contact, and also that these are not preventative, since the PTSD has already developed.

Indirect Evidence: Debriefing as a Form of Psychoeducation

Psychoeducation is also tested in trials of psychological debriefing, since giving information and lists of symptoms that might develop is a part of all or nearly all psychological debriefing or critical incident stress debriefing protocols and packages. Some authors have even stated that "in many respects, debriefing is a form of psychoeducation" (Raphael, Meldrum, & McFarlane, 1995).

Deahl and colleagues (2000) proposed that the comparatively very low level of morbidity in a group of peacekeeping soldiers returning from duties in former Yugoslavia might have been a consequence of the predeployment stress education troops had received before leaving for theatre. Effective briefing might well have been the reason, but, as in any retrospective observational study, it is impossible to know if this had any influence or not.

Since then, several reviews of psychological *de*briefing (PD) have taken place (Devilly, Gist, & Cotton, 2006; Emmerik, Kamphius et al., 2002; Rose, Wessely & Bisson, 2001). The Cochrane Review, for example, concluded that "at present the routine use of individual debriefing in the aftermath of individual trauma cannot be recommended in either military or civilian life" and that "the practice of compulsory debriefing should cease pending further evidence."

On balance, however, it is now widely accepted on the basis of series of randomized trials that single-session psychological debriefing immediately after trauma definitely does not work, and, indeed, more than one study shows that it significantly increases the risk of psychological distress, reflected in the results of systematic reviews and meta analyses (Devilly et al., 2006; Emmerik et al., 2003).

Sijbrandij and colleagues (2006) randomized 236 adult survivors of a recent traumatic event to either emotional ventilation debriefing, educational debriefing, or no debriefing and followed them up at 2 weeks, 6 weeks, and 6 months. They found a trend of symptoms decreasing in all three groups over time, without any significant differences between the groups in PTSD symptoms and, furthermore, that the participants in the emotional debriefing group who had had high baseline hyperarousal scores had significantly more PTSD symptoms at 6 weeks than the control participants.

In response to the emerging literature on the lack of effectiveness of single session debriefing, the United Kingdom's senior military medical officer, the Surgeon General, placed an embargo on the use of PD following traumatic incidents in 2000, and the emphasis is now on psychological prebriefing (PP) and operational stress training packages. "There is accumulating evidence that psychological techniques known as single episode intervention or Critical Incident Stress Debriefing (CISD) are of little clinical value and may even be harmful in some cases. With immediate effect this technique is not to be practiced or taught" (Ministry of Defence, 2000). Other countries, including the United States, have adopted similar policies, but the matter continues to provoke considerable debate.

The debriefing issue may, however, be reopened with the recent positive results obtained by the "Battlemind" program, specifically initiated for U.S. troops in Iraq, which intentionally provides education to troops about stress reactions in a manner

that frames it in an adaptive manner, strategically does not medicalize the responses, and heightens expectancy of both resilience and functioning (Adler et al., 2007). This approach is consistent with cognitive models that propose that adaptive response to stressful events is facilitated by appraisals that reduce negative expectations about one's capacity to cope (Ehlers & Clark, 2000).

Current British policy (Army, 2006; PJHQ, 2006) and the policy of the vast majority of NATO and Partnership for Peace (PfP) nations is to ensure that troops on operational deployments receive pre-deployment psychoeducational briefings (normally from within their own chain of command and only calling in mental health professionals if specifically required) before departing for, and prior to or during departure from theatre.

Sharpley and colleagues (in press) report that during the 2003 Iraq War, a British Royal Naval mental health team delivered as much pre-operational stress briefing to amphibious forces as was possible during the passage out to the Gulf. This resulted in approximately 4,000 UK naval service personnel receiving this stress brief, with a similar number not receiving one from this team. The King's Centre for Military Health Research (KCMHR) study data on Op TELIC (the UK's code name for deployment to Iraq; Hotopf et al., 2006) allowed a data linkage to enable a naturalistic study comparing health and other outcomes between groups who did and did not receive the stress brief. Analysis of the subsequent mental health outcomes of Royal Naval personnel who received a psychoeducational briefing before the 2003 invasion of Iraq failed to show any influence, either positive or negative, on morbidity in those who received the debriefing.

The now extensive and negative literature on psychological debriefing must therefore be considered as evidence that psychoeducation delivered in the context of psychological debriefing does not lead to better outcomes. One critical issue in these studies is that we do not know the relative merits or flaws of psychoeducation relative to other components of debriefing For example, it is possible that psychoeducation may serve some useful function, but the expression of emotional responses in the aftermath of trauma is detrimental and counters any potential benefit of education. The Sijbrandij and colleagues' "dismantling" study, however, argues against this (Sijbrandij et al., 2006). Alternatively, it is possible that psychoeducation may be useful in some way but that its delivery in the context of group discussion may not be optimal (although the majority of debriefing trials were, in fact, carried out with individuals). The Battlemind program is, however, delivered in a group setting, and preliminary results are encouraging. In any circumstance, there is a need for further dismantling studies to address these issues adequately.

Indirect Evidence: Stress Inoculation

Perhaps the most positive evidence in favor of psychoeducation comes from another indirect test, the stress inoculation literature (Meichenbaum, 1996). Stress inoculation training (SIT) may be defined as "a flexible individually-tailored multifaceted form of cognitive-behavioral [sic] therapy" (Meichenbaum, 1996, p. 4).

There are indeed several positive trials of stress inoculation, most notably from studies about the psychological preparation of patients for medical procedures (e.g., Law, Logan, & Baron, 1994; Ross & Berger, 1996), all of which incorporate elements of psychoeducation. However, those are for well-defined events, which will happen at a predetermined time, for a predetermined purpose, and which by their nature are predictable. The stress inoculation literature around injections or medical procedures is based on equipping people to cope with anxiety about interventions to which they have consented and which are designed to help them. These propositions may not apply to the random-

ness and unpredictability of violence and/or trauma.

Indirect Evidence: Bibliotherapy

Finally, there is a body of evidence that shows that another form of psychoeducation, bibliotherapy, can markedly reduce anxiety states in people suffering a range of anxiety disorders (see Mains & Scogin, 2003). Bibliotherapy typically involves a variety of components, including books, manuals, audiotapes and videotapes. All of these work on the assumption that people can learn effective techniques to assist them in the management of their problems. Again, however, these techniques are designed not to prevent, but to treat existing disorders.

PSYCHOEDUCATION: LESSONS FROM MILITARY HISTORY

For many years in the military mental health literature, there was consensus that one should not publicize the symptoms of "war neurosis." To do so would create symptoms by suggestion and/or reinforce secondary gain (Kolb, 1968; Shephard, 1999). This was not an academic point. In Allan Young's (1995) seminal observation account of the arrival of PTSD in the VA hospitals, he describes how the PTSD checklists that were circulated among the veterans were used to access benefits, indicating that there may be incentives, in some, that encourage illness behavour.

The principal lesson of World War One and World War Two, articulated in the Southborough report (Anon, 1922) and by the 1939 Horder committee (Shephard, 1999), respectively, was that, whatever else is done, it is most important not to give war neurosis any form of medical label (see also Kolb, 1968). It is conventional to argue that the modern military "forgot" the lessons of World War Two. If they had remembered or consulted, World War Two psychiatrists, they would have been told, in no uncertain terms, not to introduce a label like PTSD. Whether they were right or wrong is not the point. The point is that there was a considerable body of opinion, although not evidence-based, which drew on the wartime experience that said one should not warn people of the consequences of stress beforehand, nor give those with "war neurosis" medical diagnoses or labels afterwards. Hence, terms such as *battle fatigue* and *combat stress* were specifically coined to avoid any suggestion that these disorders were chronic or medical, as opposed to psychological.

Indeed, the term *shell-shock*—which was initially used precisely because its proponents did think that was a chronic, organic injury and no different from a physical wound—was greeted with increasing scepticism as these assumptions were questioned, and finally abandoned in 1917.

Much the same appeared in the literature and policy on civilian neurotic reactions. For example, during the London Blitz, the policy was to downplay them, not to treat them as anything out of the ordinary, not to allow anything to develop that might encourage neurosis—and, at each and every occasion, to emphasise resilience. Whether or not this policy played a part in the paucity of neurotic disorders in Londoners exposed to the Blitz we cannot know, but it is possible (Jones et al., 2004).

In World War Two, the idea that treatment should focus on the active suppression of the natural fears of battle remained popular (Jones & Wessely, 2003). There was clearly doubt in their minds about whether or not educating people and talking to them about stress before they were to experience it was helpful or harmful.

There remains a shortage of evidence from studies of successful coping that psychoeducation is a necessary component of resilience. For example, Stan Rachman's

(1982) paper on fear and courage was based on his interviews with Army bomb disposal operatives in Northern Ireland. These specialist soldiers were remarkably resilient, and their training played a major part in this. Rachman attributed 80% of their confidence and competence to training, although how he arrived at that figure is not quite clear. What was clear was that nearly everyone performed well during their service in Northern Ireland, that they quickly adapted, and that they reported feeling "calm and relaxed." Only one operator had a breakdown, and a few others had short periods of psychological "disruption." Post-tour adjustment was seemingly uneventful. The terms *high morale* and *group cohesion* were repeatedly emphasised. None of the soldiers received any psychoeducation (McGeorge et al., 2006).[1] It is, however, impossible to refute the possibility that beliefs about the perceived stigma of mental illness, likely to be prevalent in bomb disposal operatives, may have prevented truthful reporting of distress.

WHY MIGHT PSYCHOEDUCATION BE INEFFECTIVE IN THE PREVENTION OF TRAUMATIC STRESS?

Can One Give Too Much Information?

The answer is sometimes. For example, some of the health psychology literature in general, and the literature on drug side effects in particular, shows that if people are given more information about expected side effects before receiving a particular intervention, usually a drug, then rather than reducing the number of symptoms they develop, it will do the opposite (Howland, Baker, & Poe, 1990; Myers, Cairns, & Singer, 1987; Olver, Taylor & Whitford, 2005). This is somewhat similar to the nocebo phenomenon (as described by Barsky et al., 2002, among others) in which inert placebos produce adverse side effects, partly because of patients' expectations of adverse effects at the start of their treatments.

On the other hand, Oldman, Moore, and Collins (2004) found that manufacturers' drug patient information leaflets did not alter preoperative anxiety and might be safely issued to patients requesting such information. Similarly, Lamb, Green, and Heron (1994) found that informing patients of potential side-effects prior to starting new medication did not lead to an increased reported incidence of those side effects.

Can You Sensitize People to Hazards?

Moving on from the literature on drugs and side effects, there is a literature showing that the more people are concerned about a hazard, the more they report symptoms when exposed to that hazard. For example, Petrie and colleagues' (2005) prospective study of the relationship between modern health worries and symptoms after exposure to pesticides demonstrated clearly that the more people were concerned about environmental issues in general, the more symptoms they developed after an actual exposure. Winters and colleagues (2003) showed how media warnings about chemical exposures increased the chances of developing reactions. While these examples are not the exact equivalent of psychoeducation—since in both cases the information people received before the exposure clearly indicated that exposure was a possible threat or hazard—nevertheless, given that an essential component of psychoeducation must also include the message that stress and/or trauma is a hazard (otherwise what is the purpose of the exercise?), then that too may simply heighten anxiety rather than reduce it.

Garner (1967) touches on stress education (although it is not precisely termed such in the paper) and argues that it is important to give reassuring and positive messages and not to place the emphasis on hazard (which is what was originally done with back pain and repetitive strain injury). Garner was aware of the problem of suggestion and expectation. and his approach was that if the problem becomes fixed, then it is important to treat the basic neurotic conflicts of the individual.

There are other examples from both public health and occupational health in which too much information about the hazard appears to do more harm than good. The traditional dictat of occupational health says, "Knowledge first, then eliminate the problem," and this seems to have worked for well-defined hazards such as smoking, asbestosis, fatty foods, sugary drinks, lack of exercise, and so forth, in which there are clear, reproducible links between exposure and ill health. Furthermore, knowledge about the hazard does not affect the link, merely the person's actions in avoiding or reducing the hazard. Therefore, it does not matter what a person thinks about the links between smoking and lung cancer, or asbestosis and mesothelioma, for their risk of developing disease when exposed. However, this is not the case for hazards in which a person's appraisal, understanding and meaning attached to the risk influence the outcome itself. This is particularly true when we consider such issues as the psychological reaction to trauma and adversity.

We can see other examples of this from other ill-defined or subjective outcomes, such as back pain. Giving information about the risk and hazard about back pain at work, or worse, the so-called repetitive strain injury (RSI), not only failed to prevent the rise of both syndromes, but many believe it did the opposite. The more the workplace was seen as hazardous by ergonomists and others and the more that people were told about their backs and how to look after them, the worse the problem got. It was concluded that the real problem was that the information itself had convinced people that the workplace was harmful to their backs (Burton et al., 1996; Burton, 1997; Hadler 2 February 2006; and Hadler, 2003).

Coggon (2005) makes the point that improved ergonomics may not have the expected benefits because, although reducing physical stresses on the spine, the very act of improving ergonomics itself may reinforce beliefs that work is seriously hazardous. Coggon also makes the point that managing occupational stress as a hazard in the same way that asbestos is managed as a hazard may be counter-productive because it alters expectations adversely, and that it would be better to encourage policies that promote the positive psychological benefits of work. Coggon argues for a "rebadging" of what would be the same interventions. For example, rather than encouraging people to avoid the "hazard" of excessive monotony, Coggon would encourage the benefits of variety in work. With regard to RSI, the content of education policy eventually changed, education changed, and the new message became "if you have a bad back, you should not go to bed and should still work." Similarly, moving to the related work stress literature, it is increasingly argued that the perception of "work as stressful" can be self-fulfilling (Wainwright & Calnan, 2002). The conclusion was that giving people information about the pathological nature of the workplace was itself pathological (Helliwell & Taylor, 2004; McEachen, 2005). Finally Whittaker, Kemp, and House (2007) showed in a prospective study of patients with mild head injury that those with negative appraisals of their injury, and specifically those who believed that the injury would have a serious consequence on their lives, were at considerably greater risk of developing post-concussional syndrome.

Our psychological response to an event depends on our subjective appraisal of danger, rather than on objective facts, in the same way that stress can be defined as the perceived threat to a person seen in the light of perceived available resources to cope with the stress (Lazarus, 1996). Thus, by fo-

cussing on an event and our reactions to it, psychologists and psychiatrists may, in fact, be sensitizing people to trauma (Solomon, Mukulincer, & Benbenishtry, 1989).

"There is a subtle but possibly very profound difference to be drawn between discussing common manifestations of post impact distress and priming people to consider these discomfitures as if pathological symptoms" (Devilly et al., 2006; Gist & Devilly, 2002). Repeatedly labelling an event as "traumatic" superimposes a set of attributions and expectations that might not otherwise occur—"I didn't think I was ill until you sent me for treatment" or as MacFarlane (1989) puts it: "There is always the danger after a disaster for mental health workers to view the victims as being psychologically damaged in a way that requires intervention. In the vast majority this is not the case."

Do Most People Need "Information" to Recover From Trauma?

Another perspective on psychoeducation is to look at what people actually do in the absence of interventions—doing what comes naturally. Most people already have a fairly clear idea of what they should do when exposed to adversity. The answer is they do not to seek professional help, but instead to turn to their own social networks, namely family, friends, colleagues, general practitioners, religious advisors and so on, rather than counsellors, psychologists, psychiatrists, or occupational health services. Alexander (1993), Greenberg and colleagues (2003), Vallet and colleagues (2005) and many others report that talking with professionals is not what comes naturally and most people do not see a need for it. Instead, vast numbers of studies confirm that the preferred option is family/friends and colleagues, and we are unaware of any study that says anything different.

North (2005) looked at how people behaved after the Oklahoma and Nairobi bombings. Nearly all reported that they turned to family and friends to help them to cope. Rubin and colleagues (2005) studied how ordinary Londoners coped with the immediate aftermath of the July 7th bombings; again, three-quarters of the random sample reported talking to family and friends, often a great deal, and less than 1% reported that they wished to talk to counsellors or professionals. Six months later, less than 1% had actually done so (Rubin et al., 2007).

A study on the Swedish police found that the most common and most helpful strategy adopted by officers after traumatic incidents was to "talk about the event with their colleagues" (Karlsson & Christianson, 2003). Richard Gist's 1999 study of Kansas fire fighters said the same (Gist, 2002; Gist and Woodhall, 1999).

Most ordinary people already have well-developed coping skills for dealing with adversity. These involve accessing their own social networks, and given that social support is a powerful association of recovery from trauma (Brewin, Andrews, & Valentine, 2000), this may well be a very adaptive response. On the other hand, accessing mental health professionals may achieve precisely the opposite effect—interfering with normal processes by substituting an artificial form of support, and this may be one reason for the failure of single-session psychological debriefing (Gist & Devilly, 2002).

Why do we assume that people are not aware of basic emotional responses to adversity and trauma? Promoting education assumes that there is a gap in people's knowledge that needs to be filled. But is there evidence that ordinary people are unaware of the basic principles of psychoeducation—that after a traumatic incident you may experience poor sleep, general anxiety, increased irritability, social withdrawal, and a range of other unanticipated symptoms apart from the phenomena of flashbacks and distressing dreams and nightmares? Sociologist and social critic Frank Furedi (2003) and others have argued that there is a general tendency in the mental health sector to assume that

people are less knowledgeable about emotional matters than is actually the case.

As outlined in the case for psychoeducation above, it is also claimed that psychoeducation helps direct those with problems to appropriate services. Clearly, it is common sense that it is no good having services for people with trauma-related mental health problems, if those who need them are unaware of their existence. But there is a considerable literature on why people with trauma-related psychiatric symptoms do not present to services, and lack of information about the existence of such services does not figure highly on the list. Instead, the main reason why people do not use mental health services is not lack of information, but stigma. Hoge and colleagues, for example, looked at mental health problems among U.S. forces returning from Iraq and other conflicts (Hoge et al., 2004). A total of 63% felt that they would be seen as weak; a similar proportion believed that their unit leadership and members of their own units would treat them differently. Many also reported not trusting mental health professionals. Similar qualitative findings emerged from a study of the British Armed Forces (French et al 2004).

WHAT SHOULD GOOD PSYCHOEDUCATION ENTAIL?

The UK National Institute for Health and Clinical Excellence (NICE) Guidelines (2005) on the treatment of PTSD give "watchful waiting," which includes brief education, support, and advice, the category of C (2.6.4), which indicates an absence of good quality evidence either way (NICE, 2005, p. 18). Advice from the U.S. National Institute of Mental Health (Gray et al., 2006) suggests that psychological first aid, which includes education, is a recommended first line treatment. However, this view again comes from a consensus statement rather than robust scientific evidence.

What, therefore, are the core ingredients of successful coping? Three factors appear to be crucial: effective practical training (so that everyone knows what is expected of them and how to do it when the time comes); group cohesion (both horizontal and vertical, Siebold, 2006) and strong morale (Rachman, 1982; McGeorge et al., 2006).

Indeed, David Alexander (Alexander & Wells, 1991), in his writing on body handling by the police in the wake of the Lockerbie disaster, shows that what is needed is not education per se, but effective procedural training beforehand and group support during the operation itself. Also Alexander (2005), Gist and Woodall (1999), Hytten and Hasle (1989) and Weisaeth (1989), all show that it is training, not training in stress management, but training about the job and disaster management (i.e., practical training) that matters.

CONCLUSION

Although this review has highlighted that there is inadequate evidence for presuming that providing psychoeducation will assist trauma survivors, we are not premature in rejecting the possibility that psychoeducation may serve an important function. It is possible that previous psychoeducation attempts may not have been optimally successful because they did not integrate knowledge about factors that enhance resilience. Just providing trauma survivors with lists of possible symptoms runs the risk of implanting expectations of pathology and dysfunction. For many years, psychoeducation was conceptualized in this simplistic manner, and it is therefore hardly surprising that it resulted in modest, or even harmful, results. However, psychoeducation can comprise constructive information that proactively encourages an expectation of resilience and, if necessary, help-seeking. Future approaches need to recognize that not all education is the same.

There is a need to reformulate the content of psychoeducation so that it enhances those mechanisms associated with adaptation and resilience and minimizes those that may contribute to pathologizing and dysfunction.

There is also a need to distinguish between the content and delivery mode of psychoeducation. Before deciding if an educational content is appropriate, it is important to test whether the content or the method of delivery is the critical issue. For example, it may be appropriate to deliver a psychoeducational program in the context of a lecture to a battalion of troops after a deployment, but that same content may not be effective when delivered to small groups as part of a discussion. Likewise, civilians exposed to an unforeseen disaster who have no social or cultural links with fellow victims may react very differently from the way tightly bonded military units react. The psychoeducational content will, however, be appraised by individuals in both groups in the context of other messages, given after the traumatic event. By communicating an expectancy of resilience, it is likely that psychoeducational components will be interpreted in ways that will be adaptive.

This review points to the conclusion that education per se has not led to better adjustment in trauma survivors. The available evidence challenges the notion that psychoeducation is inevitably helpful and raises the concerning possibility that it may at times be harmful. This summary indicates that agencies should reconsider the common practice of disseminating information about symptoms and potential problems because this may not enhance problem identification, treatment seeking, or resilience. The available evidence is not yet sufficient, however, to dismiss psychoeducation as a potentially useful tool. In contrast to previous attempts at psychoeducation, there is a need for rigorous research that evaluates psychoeducational interventions that are based on components known to facilitate adaptation. These approaches include normalizing the perception of transient stress reactions, reducing the expectancy of pathology, maintaining safety, integrating corrective information that enhances adaptation, reducing the stigma of stress reactions, encouraging social support, and, if necessary, subsequent help-seeking.

These components need to be delivered in a framework that expects recovery and is appropriate to the targeted agency. If a psychoeducational program is to be effective, it must be delivered in a manner that is sensitive to the individual and collective needs of the audience. Military and emergency service organizations, for example, require psychoeducational input that is consistent with the culture and operational requirements of those organizations. Evaluations of psychoeducational projects need to consider the manner in which the psychoeducation is administered. It is important that psychoeducational components are tested in specific delivery modes for different populations. Future research also needs to determine the goal of psychoeducation because the dependent variables of any study need to match the target of the psychoeducation. That is, if psychoeducation is intended to reduce subsequent psychopathology, enhance help-seeking, correct appraisals, or some other purpose, then the study needs to measure these specific constructs. We are unaware of any study that actually tests the assumption that psychoeducation increases help-seeking after trauma. However, the current trial evaluating the effects of Trauma Risk Management (TriM) in the British Royal Navy will do just that.

Considering that psychoeducational input can be cost-effective and readily disseminated, there may be enormous benefits in identifying effective psychoeducational interventions. Conversely, demonstrating that some psychoeducational programs are not effective can direct agencies to use their resources more efficiently.

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