

positively because it meets many needs: the need of those not directly affected to overcome their sense of helplessness and the guilt of surviving, to make restitution, and to experience and master vicariously the traumatic encounter with death; the needs of those directly affected to speak of what has happened, understand it, and gain control; and the symbolic need for workers and management to assist those who suffer and to show concern.

Debriefing may not work as it is currently implemented because it does not take account of subjects' levels of arousal, defensive styles and coping processes, cognitive impairments associated with acute trauma, dissociative phenomena relating to the traumatic experience, and other pathogenic influences such as past trauma, past psychological morbidity, and current and recent life stresses.<sup>14</sup> Debriefing has typically been used as though all the trauma comprised a single element—for instance, a threat to life—whereas loss, separation, and dislocation are separate stressors that probably need different interventions and timing. Only one debriefing format reflects this concept, but there have been no studies of its effectiveness.<sup>15</sup>

The possibility that debriefing may increase problems warrants further consideration. Perhaps debriefing focuses on the trauma to the exclusion of other important stressors that may be of greater relevance, such as organisational stress or personal life stresses. Debriefing may not be appropriate in timing or format for some people<sup>5 12 16</sup> and may even lead to secondary traumatising.<sup>17</sup> It may also medicalise normal responses to stress: reactive processes are often described as “symptoms” in the educational aspects of debriefing. And complex aspects related to health and safety in the workplace, litigation, and other factors may complicate both process and outcome.

Debriefing is here to stay, at least for now, and meets some real and symbolic needs. But it is costly and possibly ineffective for many people, and its provision may seem to negate the need for more individualised and longer term programmes focusing on recovery and rehabilitation for those who have been traumatised. Given the very positive view of debriefing held by many of its recipients and the community's belief in the need for counselling after trauma, we should carefully consider the best form of intervention for particular

groups and incidents. Existing programmes can no longer stand alone without randomised controlled trials of debriefing, with multiple outcome measures and assessments over time, as well as evaluation of more individualised counselling.

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## New equities of information in an electronic age

### *The Third World needs First World information—how about the other way round?*

The developing countries of the Third World are far from homogeneous. Nevertheless, as consumers of information the countries have a stark regularity of features that allows for convenient grouping: most of their medical libraries subscribe to fewer than 50 journals, less than one library in 10 has a computer or CD-ROM player; and budgets for new books, software, and online charges are tiny or non-existent. Telephone and telecommunications systems are sparse, unreliable, and expensive, so use of networks is rare. Where access to networks exists it is used mainly for simple communications rather than to scan health literature.

To add to this unpromising perspective it is now clear that the cost of information is overtaking the cost of information technology. As the price of computers drops and as countries invest in modernising their telecommunications the basic cost of content, reinforced by copyright protecting encryption and

tagging systems, will become the principal economic barrier to the flow of information. The “information poor,” particularly in developing countries, will remain worst off.

Many non-government organisations have been helping developing countries to acquire health literature and contemporary technology. But such well intentioned projects hardly ever include information from the Third World. Whatever the donors' intentions, Western information aid to the Third World usually serves as a vehicle for opening up markets in developing countries to Western information providers. The implicit assumption is that the information superhighway is a one way street from the First World to the Third.

One reason for this is the general perception that Third World information is not applicable in the First World. Certainly, developing countries often lack a sufficiently

robust scientific and informational infrastructure to support basic research. As a result they often cannot provide the academic and economic incentives to produce the associated research literature. Their journals generally have linguistic, financial, and production difficulties undreamt of by their Western counterparts, leading to irregular publication, indifferent aesthetic qualities, and poor editing and proof reading. Despite all these factors, and even though many of the journals are not subject to stringent peer review, they are nevertheless well worth exploring.

Another reason for the lack of Third World literature in global databases is the simple fact that it is very difficult to find. International services such as Medline or the Science Citation Index typically index some 3000 journals—98% from the First World and only 2% from the Third World. This is a starting point for the vicious cycle affecting Third World literature: journals that are not indexed are rarely stocked by librarians, hence rarely cited by authors, and hence rarely indexed.

### Extreme complacency

The lack of interest in Third World literature is also a symptom of extreme complacency. Despite the acknowledged weaknesses of the Third World's abilities to collect and disseminate information can we believe that all knowledge lies in the West and, more particularly—since over 80% of all scientific research published in indexed journals is in English—in the English speaking part of the West?<sup>1</sup> Are we right in suggesting that the rest of the world adds nothing to the body of knowledge? Even if we should presume that most of the world's valid, important biomedical information originates in the West—and there is evidence (see, for example, Gaillard<sup>2</sup>) to suggest that this is wilful self delusion—what about at least a minority contribution from the rest? The 2% participation in international scientific discourse allowed by Western indexing services is simply too little to account for the scientific output of 80% of the world.

This is particularly true in disciplines such as medicine, for diseases are no respecters of frontiers, especially with increased air travel and the resurgence of communicable diseases such as measles and tuberculosis. These diseases, as well as unique information on such topics as AIDS, tropical biodiversity, and traditional medicine, are particularly well covered in the local journals—when they can be found: "Microbiologist colleagues at Jos . . . were busy forging links between traditional herbal medicines . . . and modern science. Few outside Nigeria were able to read about this work."<sup>3</sup>

To countervail such closed systems of reference, projects such as *ExtraMED*, *ExtraSCI*, and *AgROM Extra* have been set up (respectively, by the World Health Organisation, Unesco, and the Food and Agriculture Organisation), presenting on a CD-ROM each month the indexed full text of articles from the best journals published in developing countries.<sup>4</sup> But this is a drop in the electronic ocean.

Information from all sources should be accorded equal access, equal economic value, and equal rights. This credo does not insist that the balance of information flow should be equal but, rather, asserts the principle of equity. We should also recognise the mutual interdependence of our information needs. Thus, even if it is only out of self interest, the West should open the gates of major indexes and networks to the countries of the Third World and buy, disseminate, and study their information.

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## Reliability of the Snellen chart

### *Better charts are now available*

Historically, visual function has been assessed by determining the finest spatial detail that the visual system can discriminate. A letter acuity chart, such as the Snellen chart, is commonly used. This type of test is simple to perform and is sensitive to the most common sources of visual impairment, such as uncorrected refractive error, cataract, macular disease, and amblyopia. A recent article in the *BMJ* identified some of the factors reducing the Snellen chart's reliability, such as failure to test visual acuity at the right distance and under recommended levels of illumination.<sup>1</sup> But other determinants inherent in the design of the Snellen chart also warrant consideration.

During the measurement of visual acuity only the angular subtense of the letters should change as the subject reads down the chart, which is not the case with the Snellen chart. Variation in the number of letters on each line presents the subject with a task of increasing difficulty rather than providing an equivalent task at all acuity levels. Typically, one letter is presented at the 6/60 level and up to eight letters are presented at the higher levels of acuity. This variation in

the number of letters per line creates additional problems. It is now firmly established that the legibility of a letter is impaired if contours (such as other letters) are placed in close proximity.<sup>2</sup> This phenomenon has been termed "contour interaction" or "visual crowding," and many studies have shown that performance is better when letters are presented on their own. Careful consideration should therefore be given to spacing between both letters and rows to control contour interaction at each level of acuity.

Unfortunately, the effects of contour interaction vary throughout the Snellen chart. For example, "uncrowded" acuity is measured at the low end of the acuity scale (6/60) and "crowded" acuity at the higher end of the scale (6/6). The two are clearly not comparable. In addition, the legibility of test letters used in the Snellen chart varies,<sup>3</sup> so nominally incremental steps on the chart are not equally capable of being discriminated. This is a particular problem at low levels of acuity, where only one or two letters are presented.

Perhaps the most important problems with the design of the Snellen chart are the irregular progression of the size of the