

## *The Psychopathology of Nuclear War\**

JIM DYER, Consultant Psychiatrist, Royal Edinburgh Hospital, Edinburgh

We are mad, not only individuals but nations also. We restrain manslaughter and isolated murders; but what of war and the so-called glory of killing whole peoples?

SENECA

People speak increasingly of 'nuclear madness'. When they learn the facts of nuclear arms escalation, they call it 'insane'. They do not mean that military and political leaders are mentally ill, but that they are somehow caught up in a system which is deeply irrational.

Others still cling to the apparent rationality of nuclear deterrence. But on close inspection this is revealed to be not a stable state but a degenerative one, constantly undermined by technological advance and the desire to keep ahead of the other side—or at least not to fall behind. Vertical proliferation over 40 years has produced a total of 40–50,000 nuclear weapons in the world, with explosive power equivalent to 3–5 tons of TNT for each inhabitant of the planet. More important than the rise in numbers has been technological development, especially in accuracy. The weapons themselves can now be attacked as well as cities, with destabilising implications in a crisis ('use them or lose them'). Perhaps the greatest threat of all is horizontal proliferation—the likelihood that other countries will join the present nuclear states in their claim that nuclear weapons are essential for their security.

Do nuclear weapons increase security? A WHO expert committee<sup>1</sup> recently studied the medical effects of nuclear war and concluded that '... nuclear weapons constitute the greatest immediate threat to the health and welfare of mankind.'

What can psychiatrists and psychologists offer towards an understanding of this nuclear madness and a restoration of sanity? The importance of psychological aspects of the nuclear arms race is being increasingly recognised and written about: the publication by the British Psychological Society of James Thompson's book, *Psychological Aspects of Nuclear War* was a recent landmark.<sup>2</sup> Here I will summarise two issues, the possible psychological sequelae of nuclear war and psychological effects of the nuclear threat on people *now*, then discuss what should be the medical and psychiatric role in relation to the problems described, taking up issues of preventive medicine, education and research.

### **Psychological sequelae of nuclear war**

It is impossible to know with any certainty what would be the psychological sequelae of a nuclear attack on Britain, since a catastrophe on this scale has never happened. But how might we get some sort of prediction of what to

expect? One way might be to look at studies of previous disasters, like the Buffalo Creek Flood or Cyclone Tracy, and to extrapolate. The relevance to nuclear war however is very dubious because the scale of these disasters is so relatively tiny. Take Aberfan for example, the village in South Wales where a coal tip slid down a hillside engulfing a school. In Aberfan over 100 children died. In Britain in nuclear war millions of children might die.

We might also look at the evidence from Hiroshima and Nagasaki. This seems rather more relevant but again the scale is impossibly different. The BMA report, *The Medical Effects of Nuclear War*,<sup>3</sup> reckoned that a likely nuclear attack on Britain would be in the order of 200 megatons, which is equivalent to 15,000 Hiroshima-sized bombs. In Japan the outside world was able to come in and resuscitate the shocked and devitalised city. In nuclear war now there would likely be no outside world to come in and help.

Some tentative predictions might be made from an overview of this inadequate data. In the short term, many survivors would show predominantly fear, with confusion, frantic searching for missing family members, panic stricken flight away from areas of devastation and out-breaks of aggression associated with lack of food and shelter and against an established order which had permitted the disaster to happen. We should also consider the effects of being cooped up in small enclosed spaces. Studies of mining accidents, and other similar situations, suggest that this would give rise to irritability, aggression and irrational behaviour. Those who did survive in their do-it-yourself 'protect and survive' shelters would very probably have the difficulty of not knowing when it was safe to come out.

Unlike in Japan in 1945, people now know about the existence of radiation. This would lead to particular psychological stress. Since radiation cannot be felt, smelled or tasted, you do not know if you have been exposed or not. Survivors with diarrhoea and vomiting would not know whether the symptoms were due to a gastrointestinal infection, or to anxiety, or to the beginning of fatal radiation sickness. Any casualty centres would probably be overwhelmed by such people, scared out of their wits.

Another reaction which was prominent in Japan and which could persist for a long time afterwards, is for people to be utterly dazed, psychologically destroyed, incapable of ensuring their own continued survival without assistance. As Professor Jay Lifton puts it, it is not so much a case of the living envying the dead, as the living resembling the dead, being living dead. Dr Hachiya, a Japanese physician at Hiroshima wrote<sup>4</sup>: 'After the flash the entire population has been reduced to a common level of physical and mental weakness. Those who were able walked silently towards suburbs and distant hills, their spirits broken, their initiative gone. When asked whence

\*This article is based on a lecture given in April 1985 to the Fittleworth Club of Senior Medical Administrators.

they had come, they pointed to the City and said, "That way", and when asked where they were going they pointed away from the city and said, "This way". They were so broken and confused that they moved and behaved like automatons.'

Psychological predictions must now also incorporate the postulated occurrence of 'nuclear winter', the climatic after-effects of nuclear war in which sunlight reaching ground level would be drastically cut down for weeks or months mainly owing to the large amounts of smoke and dust particles raised into the atmosphere. With its long twilight and freezing cold, 'nuclear winter' must surely add to the sense of dislocation, desolation, and guilt of the survivors.

Another reaction which occurred in Japan and in other disasters is the 'survivors syndrome', a pervading sense of guilt, a feeling of failed enactment, of not having been able to do anything to help others to survive. And nuclear war also carries its own malignant legacy of fear for genetic damage to generations yet unborn. The more remote psychological effects for those people, if any, who survive the initial effects, the nuclear winter, the subsequent famine and disease and yet undiscovered effects of nuclear war are more speculative. They would be likely to include many chronic neurotic disorders, apathy, reduced work capacity and a breakdown in social relationships.

#### **Psychological effects of the nuclear threat on us now**

Perhaps instead of discussing possible psychological effects after the event, we should be thinking about the effects of the threat of nuclear war on us now. Instead of talking about apathy after the event we might more usefully talk about apathy now which may lead to failure to prevent it from happening.

A Gallup poll published in January 1985 suggested that 48 per cent of British teenagers think that nuclear war is likely and that most of them believe themselves unlikely to survive it. Surprisingly little serious research has been done on what children know about nuclear weapons and how their knowledge affects them.<sup>5</sup> Most published studies have been surveys by interview or questionnaire of knowledge of and attitudes towards nuclear weapons, and unfortunately not all of them have been of scientific merit. The conclusions which can be tentatively drawn are disturbing, however. A substantial proportion of children are aware of and are disturbed by the nuclear threat. One of the commonest ideas expressed is that of futurelessness and some children have expressed bitterness about this, feeling that they particularly have a lot to lose, not yet having had a chance to live, to love, to work and have children. There is also evidence that many children believe that authority for nuclear war has slipped out of human control and has been taken over by technology. (I must say I fear that this is also true with adults and is deeply worrying.) Little is known at present of the interrelationships between children's knowledge, attitudes and anxiety. We are left at present to speculate what may be the harmful effects on personality development in children who may be

unable to think forward to the future to come and its promise, and unable to identify with the adult world whose folly has brought about the threat to this future and which seems unable to remove the threat, or even not to care about it.

Another crucial psychological issue now is the question, 'Knowing what we do about the threat of nuclear war, why are we unable to do more to remove it?' It is worth looking at some of the psychological defences and other barriers which may provide an answer to this question.

The first barrier is ignorance. Although there are hopeful signs of change, the public are not generally encouraged to become knowledgeable on nuclear weapons issues. Such information as has been put out from official sources tends to consist only of material which fits in with a rigid and approved framework of thought. The problem lies not only in sparse and biased information, but also in adherence to archaic modes of thought relevant to a pre-nuclear time. Military and political thinking often betrays a failure to grasp the ways in which nuclear weapons must radically alter our conceptions of war and international relations. Pre-nuclear concepts like 'margin of safety', 'superiority' and 'position of strength' continue to be applied, and in the field of civil defence well-meaning and sincere officials make their emergency plans seeming really to believe that it is all going to be rather like World War II.

Another barrier is difficulty in comprehension. How can people really take in the conclusion of the BMA report<sup>3</sup> that in a likely nuclear attack on Britain in the short term there might be 39 million people dead and 4 million casualties? Understanding is made more difficult by the way in which human reality is usually hidden behind bland technical language. The way in which killing by nuclear weapons becomes divorced from emotional reality through being remote and highly technological is brilliantly exposed by Harvard Law Professor Roger Fisher's idea that the code required for the President to authorise the firing of nuclear weapons, instead of being carried near the President in an attaché case, should be implanted in a man's chest, so that the President, when he wanted to get at it to fire the weapons, would first have to hack him open personally with a butcher's knife. Fisher says that friends in the Pentagon were horrified at this suggestion. 'That's terrible', they said, 'having to kill someone might alter the President's judgement. He might never press the button.'

Then there is the very common psychological defence of denial. It is very understandable that many people find nuclear war too distressing to think about, but of course this does not make it less likely to happen—in fact more likely because it paralyses possible preventive action.

A further barrier which deserves particular mention is what might be called a paranoid defence, where under threat we individually and collectively resort to primitive dualistic thinking and see everything in a Manichean world view of good and bad. We need our weapons to protect us from the evil enemy. All our bad bits are split off from ourselves and projected on to the enemy who is left to carry all the moral responsibility. Disconcertingly some

national leaders actually speak in those terms and seem to encourage their populations to adopt such Neanderthal thinking. One American President actually wrote, 'It may seem melodramatic to treat the twin poles of human experience represented by the United States and the Soviet Union as the equivalent of good and evil, light and darkness, God and the Devil; yet if we allow ourselves to think of them that way, even hypothetically, it can help clarify our perspective on the world struggle' (Richard Nixon).

Under this kind of dualistic thinking our weapons are good and protective, theirs are bad and aggressive. Nuclear weapons greatly enhance this deadly process of dehumanising the enemy because as Patrick Blackett, President of the Royal Society, said, 'Once a nation bases its security on an absolute weapon such as the atom bomb it becomes psychologically necessary to believe in an absolute enemy.' Our fear of this monstrous enemy and his weapons, which are really just a mirror image of our own, then provides further fuel for the arms race. As soon as we see our enemy in sub-human terms we move closer to being able to exterminate him. We kill people in our minds before we kill them with our bombs.

There are other important barriers, such as reluctance to step out of line (no one wants to be the little boy pointing out the Emperor's nakedness) and the debilitating reactions of fatalism and helplessness. Helplessness is shaped not only by the sense of being remote from the corridors of power where decisions about nuclear weapons are made, but also by the way in which nuclear war is coming to be seen as a potential natural disaster uninfluenced by any human agency. These various barriers and defences seem to me to deny, to stem, to block the use of our instinct for survival in the nuclear age.

#### Implications for medicine

When doctors have set out to study the effects of nuclear weapons and nuclear war without political bias, as the BMA<sup>3</sup> and WHO<sup>4</sup> have done, they inevitably reach the conclusion that nuclear war would be a medically unmanageable catastrophe. The BMA report states that even one Hiroshima-sized bomb dropped on one city in Britain would produce a number of casualties which would completely overwhelm the NHS resources of the entire country. Two main conclusions follow from this.

If Department of Health guidelines on war planning in the Health Service are to have the confidence and co-operation of doctors, they should be based on the best available knowledge and predictions (including psychological aspects). This means that they should draw a distinction more clearly between those contingencies which can usefully be planned for and those which can not. The plans would then have educational value for doctors and the general public. The second conclusion relates to the logic of preventive medicine. If there can be no effective medical response to nuclear war then primary prevention is the only way of coping with it in a medical sense.

What is the medical role here? Some would say none—doctors should not involve themselves in politics. To say

this is to misunderstand the procedures of preventive medicine which often require doctors to ensure that their medical knowledge informs public debate and decision making. This is not partisan politics, favouring one or another group: and nuclear weapons are surely no less important than alcohol, cigarettes and car seat belts. It may be worth noting here that remaining apparently detached and 'objective' can be a defence mechanism used by professionals. Doctors can be afraid of being committed to an issue. But medicine of course is an *applied* science rather than a science itself, and doctors are not neutral and dispassionate in relation to life and death, disease and health. One might say that they are curators of life.

Doctors also know that nuclear arms have huge health costs even while they remain unused.<sup>6</sup> One Pershing II missile costs \$5 million, the cost of immunising one million Third World children against the preventable infectious diseases.

I conclude that doctors should be informing the public and policy makers about the medical and psychological effects of nuclear weapons and nuclear war, in order that informed political choices can be made. If they are to do so they will need to be properly informed themselves. Medical school curricula need to include relevant courses dealing with both the effects of nuclear weapons on health and health services, and the social responsibilities of health professionals within medical ethics. At present there is available information on such courses in 83 medical schools in the world.<sup>7</sup>

More research needs to be stimulated and supported. From the psychological point of view we need to know more about children's knowledge of and attitudes towards nuclear war, and possible effects of this on them. We need greater understanding of adult attitudes towards nuclear weapons and deterrence and their correlates in terms of individual and group psychology. Stereotyping and dehumanising of the enemy seems to me especially worthy of study. Psychologists should also have more to contribute in the study of conflict resolution and crisis control.

Earl Mountbatten, in his remarkable Strasbourg speech in 1979, referred to nuclear illusions: 'As a military man who has given half a century of active service, I say in all sincerity that the nuclear arms race has no military purpose. Wars cannot be fought with nuclear weapons. Their existence only adds to our perils because of the illusions which they have generated.' It may be a particular role of psychiatrists and psychologists to point out these illusions and to promote in their place clear thinking. Perhaps we also need to help release healthy emotion in the service of survival:

The cattle, which smell the blood,  
Of their slaughtered kin,  
Bellow their protest, their will to live;  
We, with Hiroshima in our nostrils,  
And Nagasaki in our brains,  
Can do no less.

*The Thinking Animal* J. H. THOMAS

## REFERENCES

- <sup>1</sup>WORLD HEALTH ORGANIZATION (1984) *Effects of Nuclear War on Health and Health Services*. Geneva: WHO.
- <sup>2</sup>THOMPSON, J. A. (1985) *Psychological Aspects of Nuclear War*. Chichester: John Wiley; and the British Psychological Society.
- <sup>3</sup>BRITISH MEDICAL ASSOCIATION BOARD OF SCIENCE AND EDUCATION (1983) *The Medical Effects of Nuclear War*. Chichester: John Wiley.
- <sup>4</sup>HACHIYA, M. (1955) *Hiroshima Diary*. Tokyo: Asahi Shimbunsha.
- <sup>5</sup>SOLANTAUS, T., CHIVIAN, E., VARTANYAN, M. & CHIVIAN, S. (eds.) (1985) *Impact of the Threat of Nuclear War on Children and Adolescents*. Boston: International Physicians for the Prevention of Nuclear War.
- <sup>6</sup>DYER, J. (1985) Co-operation not confrontation: the imperative of a nuclear age. *British Medical Journal*, **291**, 191-193.
- <sup>7</sup>MCCALLY, M., DIENSTBIER, Z., JANSEN A., JUVONEN, J., NICOLOPOULOU-STAMATI, P. & RAPPAPORT, R. (1985). An international survey of medical school programmes on nuclear war. *Medical Education*, **19**, 364-367.

## Education Act 1981

### *The first year of working as reported by consultants in child and adolescent psychiatry*

CHRISTOPHER WARDLE, Consultant in Child and Adolescent Psychiatry, Dryden Clinics for Children and Adolescents, Wonford, Exeter

The Education Act (1981) was brought into effect on 1 September 1983. Explanatory and guidance documents were published in 1983.<sup>1,2</sup> The Education Act has effects on the work of child and adolescent psychiatrists in two ways. Firstly it affects those in-patient and day units that have education on the premises. Secondly it affects the placement of children who have special educational needs because of emotional or behavioural problems, the children who in the past would have been deemed mal-adjusted. While child psychiatrists should be involved in all cases where emotional and behavioural problems are the main issue, they will also be involved with some of the children who have special educational needs because of intellectual and learning difficulties, children who in the past were deemed educationally subnormal. These children between them constitute a high proportion of those who will, under the new Act, be subjects of statements of need.

It was for this reason that the implementation of the Educational Act was discussed in the *Bulletin*<sup>3</sup> and it was decided to monitor the effects of the Act on the work of child and adolescent psychiatrists during the first year after its implementation. The following is a brief report of the survey which was carried out.

At the beginning of the year all regional representatives were asked, through the consultants in their region, to keep a note of the effect of the Act in their clinical work. At the end of the school year the regional representatives were asked to report on the following questions:

- (i) What has been the effect of the procedure on parents' co-operation and subsequent work with clinicians?
- (ii) Has the receipt of the official letters initiating the procedure upset or worried parents or children?
- (iii) Have the new procedures led to any difficulties about placing children or delayed appropriate placement?
- (iv) Have there been any other problems arising from the implementation of the Act?

- (v) In what ways has the Act facilitated or improved the placement of cases?
- (vi) What has proved to be good practice in implementing the Act?

Reports were received from all the regional representatives and in addition 40 individual letters and comments were received. This report attempts to summarise their observations and wherever appropriate we have quoted verbatim these personal communications. Each individual quoted has been allocated a reference number but it was not thought appropriate to list the individual names in this report.

It would appear that the experience of clinicians has been remarkably uniform. There is universal concern about the cumbersome and rather bureaucratic nature of the procedure, the resulting delays in placement, and the time which has to be taken from practical work by key professionals, particularly educational psychologists, in order to make the statements.

A large number of respondents were concerned that writing reports, which would be seen by parents, would have an adverse effect on both the reports and their relationship with the parents. The alternative view was that the procedure had a positive effect on both report writing and relationships with clients.

Before implementation it was feared that the procedure would cause anxiety and emotional disturbance in children and parents. While cases of this have been noted, in practice this has usually been avoided by skilful introduction and explanation of the procedure.

From the first drafting of the Education Bill doubt has been expressed whether the statement procedure was necessary when all the parties involved were in agreement about the needs of the child and were willing to meet them. This remains a concern. All these controversial issues will be considered in more detail.

No reports were received of any difficulties about the education in in-patient and day units. This was a major