

MENTAL HEALTH ASPECTS OF THE PEACEFUL USES OF ATOMIC ENERGY

WHO¹ has recently published the findings of an international group of experts, convened to study the mental health aspects of the peaceful uses of atomic energy. The participants, who were drawn from several different disciplines—psychiatry, atomic and radiation medicine, public health, social anthropology, and scientific journalism—examined reports from all over the world concerning the emotional impact of the development of atomic energy as reflected in everyday life, in public statements, newspaper comments, letters to atomic and health organizations, political and religious bodies, as well as the results of clinical enquiries.

In the first part of the report the challenge presented to humanity by the advent of atomic power is discussed: In the past mankind has adapted itself, with a great measure of success, to very radical changes in its living conditions. In this process of adaptation humanity has, of course, been exposed to many difficulties and dangers—some of which have had more or less serious repercussions on its state of health. Harmful effects have often followed even in circumstances which at first sight might seem to have been predominantly beneficial. The industrial revolution of the 19th century is a case in point. The revolution undoubtedly contributed much to the welfare of mankind, but at the same time it brought in its wake a marked degree of physical and mental discomfort and ill-health.

The report goes on to show that we are now facing a 'second industrial revolution' and humanity has probably never in its history had to face a challenge as considerable as that of the advent of atomic power. It is probably true to say that the positive potential of the peaceful uses of nuclear energy in industry and medicine are enormous, but we must not lose sight of the dangers inherent in its misuse. At the United Nations International Conference on the Peaceful Uses of Atomic Energy, held in Geneva in August 1955, Prof. W. V. Mayneord said: 'The peaceful development of atomic energy is humanity's greatest adventure and, like all adventure, must involve risks.'

In its discussion of an enquiry into the risks to health involved in the use of nuclear energy, WHO considered in the first place the physical aspects, e.g. the possibility of severe burns and the danger of necrotic processes in different parts of the body, the results of exposure of the reproductive cells, etc. These dangers have often been commented upon.

WHO recognizes, however, that the opening of the atomic age will also be accompanied by pathological influences in the sphere of mental health. Such influences might be due to radiation damage in the central nervous system, or to

personality reactions brought about by the consequences of damage in other parts of the body. In addition, mankind's encounter with a source of energy of such shattering possibilities as atomic power, will almost certainly cause strong psychological reactions.

The following is a brief summary of some of the possible danger points in the sphere of psychological adjustment:

1. The application of atomic energy to industry will almost certainly speed up the current pace of industrialization with its concomitant complications of de-humanization and automation. Moreover, it is likely that the social and economic changes relative to industry will not only be more rapid, but also more dramatic than the course of the first industrial revolution. There are already signs of a certain weakening of the traditional social structure and value system which formerly exercised a stabilizing influence in cultures where the pace of change has been slower.

In summary the report states 'that these facts lead to the conclusion that the peaceful uses of atomic energy as an economic potential have both helpful and harmful effects on the social and cultural environment of mankind and hence on mental health. The question as to which effects will predominate hinges on the attention given to the human factor in planning and in development'.

2. Wide-spread anxiety reactions are to be expected because it is exceedingly difficult for many people to keep the productive uses of atomic energy clearly separated in their minds from its destructive possibilities. It would, for instance, be dangerous to ignore the fact that the emotions roused in the public by the peaceful uses of atomic energy cannot be separated from the fear and anxiety stemming from the nuclear bomb. In the context of a mental health study it is essential to consider these complexes and fears from the outset.

The discussion of the challenge presented to humanity by the advent of atomic power ends on a note of warning, but also of guidance: 'there seems to be evidence that the advent of the atomic age has confronted humanity with certain mental health problems. It seems evident also that we must have specialized knowledge in order to confront these problems scientifically and not merely from the point of view of popular surface psychology with all its fallacies'. At the same time it must be realized that the ultimate course of atomic power in the hands of mankind will be determined by the strength and endurance of the moral values upon which civilization is based.

1. Mental Health Aspects of the Peaceful Uses of Atomic Energy (1958) Wld Hlth Org. Techn. Rep. Ser., 151.

'N NAGRAADSE MEDIESE SKOOL

Die gedagte aan die moontlike stigting van 'n nagraadse mediese skool wat heeltemal los staan van die ander mediese skole in die land, is reeds al 'n paar jaar oud. Hierdie gedagte

spruit uit 'n behoefte aan nagraadse studie wat dwarsdeur die wêreld gevoel word omdat alle dokters al hoe meer onder die besef kom van hoe vinnig en omvangryk die mediese

kennis uitbrei en hoe nodig dit is om deur middel van nagraadse studie gedurig kontak te hou met dié uitbreiding van kennis. Die Wêreld Mediese Vereniging wil byvoorbeeld, op sy volgende kongres wat in Amerika gehou sal word, 'n groot deel van sy program wy aan die bespreking en beplanning van nagraadse mediese studie.

In ons land voel ons ook die behoefte aan vermeerderde geleenthede vir nagraadse studie. Omdat die land so groot en uitgebreid is, en omdat die algemene praktisyn nog baie jare lank die steunpunt sal bly waarom die gesinspraktyk draai, is geleenthede vir nagraadse opknappingstudie vir algemene praktisyns 'n groot behoefte. Die behoefte aan nagraadse opvoeding behels egter veel meer as net opknappingskursusse. Die gevoel bestaan in mediese kringe dat 'n navorsingsinrigting behoort gestig te word wat hom uitsluitlik op nagraadse studie sal toelê, soos byvoorbeeld die geval is met die beroemde Hammersmith Mediese Skool in Londen.

So 'n skool moet hom van die begin af daarop instel om die akademiese ideaal van die opvoeding van dokters na te streef liewers as die oordra van feitekennis. Die onderrig moet gebaseer word op werk in die siekesale, buitepasiëntefdelings en teaters en die voorlesings moet ingestel word op die aanval van gapings in die opvoeding van dokters. Navorsingswerk moet van die begin af sterk beklemtoon word. Die aktiwiteite van die inrigting moet ingestel word op sowel nagraadse opknappingskursusse vir algemene praktisyns as op nagraadse studie wat kan lei tot verdere kwalifikasies vir dokters.

Dat daar ook in ons land 'n behoefte aan so 'n inrigting

bestaan word nie betwyfel nie. Die praktiese vrae in hierdie verband is egter: hoe kan die voorneme om so 'n inrigting te stig ten uitvoer gebring word; waar behoort die inrigting opgerig te word en wat moet sy aard wees—of hy naamlik aan inrigtings vir voorgraadse studie verbonde moet wees en of hy op sy eie moet staan soos die Hammersmith Mediese Skool.

Nou is daar reeds al in 1957 in Bloemfontein op 'n vergadering van die Sentrale Afdeling van die O.V.S. en Basoetoland-tak van die Mediese Vereniging besluit om 'n beplanningskommissie te benoem om die kwessie van die stigting van 'n nagraadse inrigting te Bloemfontein te ondersoek. Hierdie beplanningskommissie het al baie werk gedoen en hulle het ook die steun vir die stigting van so 'n inrigting te Bloemfontein van die Universiteit van die O.V.S. verkry. Elders in ons *Tydskrif* plaas ons 'n uitgebreide memorandum wat ons van die genoemde beplanningskommissie ontvang het waarin hulle hul skema vir die stigting van 'n nagraadse skool te Bloemfontein volledig uiteensit. Ons plaas ook daarby die opmerkings en kommentaar van dr. T. B. McMurray, Ere-registrateur van die Kollege van Interniste, Chirurgie en Ginekoloë van Suid-Afrika.

Omdat die saak van die moontlike stigting van 'n nagraadse mediese skool in Suid-Afrika vir almal wat belangstel in die toekoms van die praktiese en akademiese medisyne van groot belang is, wil ons soveel bespreking daarvan as moontlik by lede van die Mediese Vereniging aanmoeding—op Tak- en Takaadsvergaderinge en ook deur middel van die korrespondesiekolomme van ons *Tydskrif*.