doi:10.1136/medethics-2018-105095

In the late 1980s, an Institute of Medical Ethics (IME) working party on the teaching of medical ethics defined the subject as follows.<sup>1</sup> Medical Ethics, it stated, has 'two meanings': 'traditionally' it 'has referred to the standards of professional competence and conduct which the medical profession requires of its members'; 'increasingly', it 'refers to the study of ethical or moral problems raised by the practice of medicine'. Thirty years on, teaching, learning and research in medical ethics retains this dual emphasis on the normative as well as the problematic. In the same vein, most papers in this issue of the Journal raise ethically problematic questions which have practical moral implications for what eventually ought, or ought not to be done, to or by individuals or populations in the context of healthcare. The urgent need for a well-argued medical ethics was acknowledged by the IME working party when it observed that many of the problems now 'increasingly' raised by the practice of medicine 'cannot be resolved simply by appealing to professional codes, or to science, religion, the law or even common sense'.

Such problems, the report added, 'often arise ... when principles previously accepted begin to be questioned, or are understood imperfectly or even misrepresented'. That these categories remain relevant, again is illustrated by papers in this issue. At the most fundamental, if also perhaps the most speculative level, are questions previously asked about the moral status of consciousness in animals or in non-communicating brain-injured patients for example, but now also being asked in relation to cerebral organoids or 'mini-brains'. As Lavazza and Massimini explain in their ground-breaking paper on the subject (see page 606; Editor's choice) organoids are 'three-dimensional biological structures grown in vitro from different kinds of stem-cells that self-organise mimicking real organs with specific cell-types': these now include 'human organoids which have structural and functional properties very similar to different organs, such as the retina, the intestines, the kidneys, the pancreas and the inner ear'. As such, they are 'a great resource for biomedical research': they enable 'detailed study of the development and pathologies of human cells', but also extend hope of eventually 'making it possible to transplant organs while overcoming problems of scarcity, compatibility and rejection'. While 'still unable to reproduce an in vivo brain', Lavazza and Massimini observe, 'the production of a cerebral organoid with a degree of development comparable to a few-months-old embryo is probably one of the greatest breakthroughs in biology'. At the same time, because these 'mini-brains as developed as a few-months-old fetus, although smaller and with many structural and functional differences... exhibit neural connections and electrical activity', they raise highly complex questions, about not only 'whether they are or (which is more likely) will one day become somewhat sentient', but also by what techniques such 'non-communicating' sentience is to be determined, and then on what ethical basis their use in clinical research may or may not be allowed. In their paper, and in response (see page 613) to a commentary on it by Shepherd (see page 611), Lavazza and Massimini open up a range of scientific, technical, epistemological and ethical questions which have implications not only for the research use of cerebral organoids, but also for current debate on related issues concerning the care and treatment of patients in vegetative or minimally conscious states.

Less speculative but no less questioning of previously accepted principles and practices in medical ethics are three papers in this issue, two concerned with the core content and with the formal expression of what 'the medical profession requires of its members', and one with the role and reimbursement of healthy volunteers in clinical trials.

In the context of Ebola outbreaks in West Africa, Kpanake and colleagues (see page 599) ask how absolute is the traditional ethical duty of care of healthcare practitioners (HCPs) who are at risk themselves of becoming infected? Their survey of Guinean lay people and HCPs found that 'only a small minority' considered 'that HCPs' refusal to provide care to Ebola patients is always unacceptable. The most commonly endorsed position' they state, 'is that HCPs' duty to provide care to Ebola patients is linked to society's

## Kenneth Boyd, Associate Editor

reciprocal duty to provide them with the working conditions needed to fulfil their professional duty'. This carefully nuanced and richly detailed research study brings out clearly the importance of context in interpreting the norms of traditional medical ethics: for example 'in an African sociocultural context where HCPs are predominantly men and often the major breadwinners in their families', or again in circumstances where HCPs are not provided with 'the equipment and working conditions needed to fulfil their professional duty'.

Reflecting on the material of perhaps not-so-traditional (at least only since 1993) white coat ceremonies, medical student DuBroff (see page 646) reports on his investigation of the manufacturing practices of 'healthcare garments and supplies worldwide' and particularly Asian and South American manufacturers of white coats used in US medical school ceremonies. The disturbing 'incongruity between the Oath of Geneva's pledge to 'maintain the utmost respect of human life' and the known human rights transgressions' and 'poor standards... globally pervasive in the garment industry', together with his finding that 'an option exists for an ethically made white coat', leads him to the conclusion that a 'formal decision to use ethically made white coats would symbolise medicine's recognition of the social determinants of health and respect for human life the world over'. Commenting on DuBroff's essay, Glick (see page 648) is largely supportive, but also advises the medical student 'to pick his battles carefully, learning to choose on the basis of the degree of injustice, but also according to the possibility of success in bringing about change'.

In her careful assessment of the role and reimbursement of 'professional or semi-professional healthy volunteers in clinical trials', Różyńska (see page 638), challenging the previously largely accepted 'wage-payment model', points out that such participation is 'skill-independent', 'mainly passive', and 'involves inherent risks and uncertainties' with subjects having 'little or no control over their minimisation and materialisation'. Since this is 'more like renting out one's body to strangers, than working', she suggests, it 'may provide arguments for rejecting the wage-payment model and accepting a riskbased model instead'.

Most of the remaining papers in this issue again raise questions about previously



583

accepted principles or practices in medical ethics, and in turn advance ethical arguments with potential moral implications for practice. Three of these papers concern the clinical care and treatment of, respectively, adolescents, pregnant women and organ or tissue recipients.

Arora and Hansen (*see page 585*) address the question of whether 'the unique invasive nature' of long-acting reversible contraception methods changes 'the traditional ethical calculus of permitting adolescent decision-making in the realm of contraception'

Bunnik and colleagues (*see page* 626) consider what implications the 'routinisation' of non-invasive prenatal testing in prenatal screening programmes has for 'informed choice, freedom to choose and consequences for people with a disability'.

Lockhart and colleagues (*see page 643*) examine whether incidental 'findings related to the pathology of donated biospecimens' from 'donors who are also organ and/or tissue transplant donors' should be communicated to 'potential organ or tissue transplant recipients'.

No less probing questions addressed in three further papers, related particularly to commercial and public health concerns, include the following. Does the 'dual role' of medical device 'industry representatives who are commonly present in clinical settings' mean that clinical decision-making is being 'unduly influenced by commercial imperatives', and if so how can more appropriate boundaries and guidelines be clarified? (Grundy and colleagues; *see page 589*)

Is the use by pharmaceutical companies of disease awareness campaigns 'as a strategy to raise public awareness of conditions for which the company produces a treatment' justified as a way of 'promoting individual autonomy and public health', or might such campaigns actually create the possibility of 'inducing a nocebo response'? (Benson; **see page 621**)

Does 'the use of 'natural' language in breastfeeding promotion by public health and medical bodies... reinforce the already widespread perspective that natural options are presumptively healthier, safer and better, a view', it is argued, 'that works at cross-purposes to public health and medicine in other contexts'? (Barnhill and Martucci; see page 615)

Finally, recalling the 1987 IME Report's category of problems arising, not so much when 'principles previously accepted begin to be questioned', but as when they 'are understood imperfectly or even misrepresented', Shepherd and colleagues (*see page*)

632) report on their study of 'health and social care professionals' understanding of the legislation governing research involving adults lacking mental capacity in England and Wales'. Their findings are less than encouraging. 'Participants' demonstrated a lack of knowledge about the legal frameworks, the locus of authority and the legal basis for decision-making'. Thus they 'raise concern about the accessibility of research for those who lack capacity, the ability to conduct research involving such groups and the impact of the evidence base for their care'. Publication of these findings, it may be hoped, should encourage support for the authors' conclusion that 'greater training and education is required'.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent Not required.

**Provenance and peer review** Not commissioned; internally peer reviewed.

© Author(s) (or their employer(s)) 2018. No commercial re-use. See rights and permissions. Published by BMJ.

## REFERENCE

1 Institute of Medical Ethics. *Report of a working party on the teaching of medical ethics*. UK: Institute of Medical Ethics Publications Ltd, 1987.