

## Chapter 2 The body: cultural definitions of anatomy and physiology

### CASE STUDIES

#### Case study: internal body image in a patient in Boston, USA

Kleinman and colleagues<sup>47</sup> in 1978 described a case that illustrates the clinical significance of patients' beliefs about their bodies, and how these can affect their behaviour and the reactions of clinicians. A 60-year-old white woman was admitted to a medical ward in Massachusetts General Hospital, Boston, suffering from pulmonary oedema secondary to atherosclerotic cardiovascular disease and chronic congestive heart failure. As she began to recover, her behaviour became increasingly bizarre; she forced herself to vomit and urinated frequently in her bed. A psychiatrist was called in for an opinion. On close questioning he

discovered that, from her point of view, at least, her behaviour made sense. She had been told by the doctors that she had 'water in the lungs'. She was the wife and daughter of plumbers, and her concept of the structure of the body had the chest connected by 'pipes' to the mouth and urethra. She was therefore trying to remove as much of the 'water in the lungs' as possible by vomiting and urinating frequently. She compared the latter to the effect of the 'water pills' that she had been prescribed, and which she had been told would get rid of the water in her chest by making her urinate. Once the actual 'plumbing' of the human body had been explained to her, using diagrams, her bizarre behaviour immediately ended.

#### Case study: perceptions of organ transplantation in Sweden

Sanner<sup>103</sup> examined peoples' attitudes to organ donation in Sweden in 2001. She found two main conceptions of the body, each of which influenced people's willingness or unwillingness to either receive or donate organs. First, the view that the body was merely an objective 'machine-like' entity, and did not really represent 'the self'. This made it easier for them to see donated organs merely as 'spare parts'. Second, the view that body and 'self' are closely inter-related, so that a new organ could 'transfer' the donor's qualities, such as their personality and behaviour, into the recipient. Within these two conceptions, she identified seven discrete attitudes towards organ donation itself:

- 1 *Willingness both to receive, and to give* – this was associated with the machine-model of the body, and with a willingness to both donate and receive organs (or blood). This group did not associate their sense of self with their organs ('What is me is not depending on whose kidney I have received').
- 2 *Willingness to receive, but not to give* – these also had a machine model, but had a strong anxiety about death, and their ambition was to survive at any price. Thus they were willing to receive an organ, but not to risk their lives by donating one to someone else.
- 3 *Willingness neither to receive nor to give* – these were people who felt that exchanging organs was somehow 'unnatural', 'against nature', and 'would breach the borders that nature has determined'. Many were also opposed to transplanting animal organs into humans ('My body would let me know that an animal organ didn't fit. It's contrary to nature').
- 4 *Willingness neither to receive nor to give: the 'influencing organ'* – these believed that the organ might change one's personality, and personal identity, since the 'qualities' of a person resided in their body and organs. They firmly refused either to accept an organ, or to donate one, as 'they did not want to become part of an unknown individual' or vice versa ('Everything is in the heart; I neither want to give it nor take it'). They also rejected organ donation from an animal ('I would perhaps look more piggish with a pig's kidney').
- 5 *Willing neither to receive nor to give: the 'reincarnated body'* – this group held a very concrete view of reincarnation, believing that resurrection would not be possible if the body was incomplete, and lacking some vital organ.
- 6 *Mixed feelings about receiving, willingness to give to family members* – like (4) this approach expressed initial anxiety about the 'influence' of an organ received from a stranger ('What if it comes from a sinful man?'), but eventually they would agree to accept one, especially from a relative. They were also willing to donate their own organs, but only to close family members.
- 7 *Mixed feelings about receiving, but willingness to give* – this last group were willing to donate organs to strangers, but were anxious about how receiving an organ would change their own body image: would they recognize themselves afterwards? Would artificial parts turn them into a 'cyborg'?

### Case study: beliefs about blood in South Wales, UK

Skultans<sup>109</sup> in 1970 studied the beliefs about menstruation among women in a mining village in South Wales. She found two types of belief about menstrual blood. The first was that menstrual blood is 'bad blood', and menstruation the process by which the system is purged of badness or excess. The emphasis was on losing as much blood as possible, as this was the method whereby 'the system rights itself'. The women said they felt huge, bloated, slow and sluggish 'if they do not have a period or if they do not lose much'. One woman felt 'really great' after a heavy period, and most insisted on the value of having a monthly 'good clearance'. Skultans found that this group had relatively undisturbed and stable married lives, and regarded the menstrual process as 'essential to producing and maintaining a healthy

equilibrium' by regular purging of badness. These women also saw menstruation as a state of increased vulnerability, and particularly feared anything that might stop the flow; this would obviously give them a pessimistic attitude towards the menopause, while at the same time they might not worry about menorrhagia or an exceptionally heavy bleed, regarding it instead as 'a good clearance'. The second group of women believed that menstruation was damaging to their overall health, and were fearful of 'losing their life's blood'. They wished to cease menstruating as early as possible and, unlike the first group, were much more positive about the menopause and its attendant symptoms. Skultans found that this group, who viewed periods as 'a nuisance', seemed to be associated with irregular or disturbed conjugal relationships.

### Case study: beliefs about menstruation among the Zulu of South Africa

Ngubane<sup>110</sup> in 1977 described beliefs about menstrual blood among the Zulu people of South Africa. Menstruating women are believed to have a contagious pollution, which is dangerous both to other humans and to the natural world. Men's virility may be weakened by this blood, especially if they have intercourse with a menstruating woman. A menstruating

woman should also avoid sick people or their medicines during her period, and crops may be ruined or cattle fall ill if she walks among them. In other African societies, women may be confined each month to an isolated 'menstrual hut' to protect the community from their dangerous pollution. Similar beliefs about the 'uncleanness' and polluting powers of menstrual blood are found, especially among men, in cultures and religious groups in many parts of the world.

### Case study: beliefs about menstruation in Michigan, USA

Snow and Johnson,<sup>51,106</sup> in the 1970s, examined beliefs about menstruation of a group of low-income women, in a public clinic in Michigan. Many of them saw menstruation as a method of ridding the body of 'impurities' that might otherwise cause illness or poison the system. They believed that the uterus was a hollow organ that was tightly closed between periods while it slowly filled with 'tainted blood', and then opened up to allow the blood to escape during the period. As a result, they reasoned that one could only get pregnant just before, during or just after the period, 'while the uterus is still open'. During this time, the women believed themselves to be particularly vulnerable to illness caused by the entry of external forces such as cold air or water, germs or witchcraft. One woman in the group speculated that one should not attend a funeral during menstruation lest the germs that caused the deceased's death enter the open uterus and cause

disease. A recurrent fear among the group was of stopped or impeded menstrual flow, or of the flow of blood in the postpartum or postabortion period. Latin American women in particular feared that certain 'cold' foods (or cold water or air) might clot the 'hot' blood, and interrupt the flow. The stopped flow might then 'back up' in the body and cause a stroke, cancer, sterility or 'quick TB'. 'Cold' foodstuffs included fresh fruits, especially citrus, tomatoes and green vegetables. As one Mexican-American woman put it '*Le da mucha friedad a la matriz*' ('Such things make the womb very cold').<sup>51</sup> The researchers point out that avoidance of such foods during vaginal bleeding associated with menstruation, postabortion or postpartum states can eliminate much-needed vitamins from a diet which, for many low-income women, is already deficient in vitamins. The fear of impeded menstruation may also lead some women to avoid some methods of contraception (oral contraceptives, intrauterine contraceptive devices) that may cause changes in menstruation.

### Case study: 'high blood' in the Southern United States

Snow,<sup>111</sup> in 1976, described a common lay belief among low-income patients in the Southern USA, both black and white, called 'high blood'. The central belief was that the blood went up or down in volume depending on what one ate or drank, and this could cause either 'high blood' or 'low blood'. 'Low blood' was believed to result from eating too many acid or astringent foods, such as lemon juice, vinegar, pickles, olives, sauerkraut and Epsom salts, and caused lassitude, fatigue and weakness. It was thought to occur particularly in pregnant women and should be treated by ingesting certain red foods or drink, such as beets,

liver, red meat, grape juice and red wine. In contrast 'high blood' resulted from eating too much rich food, especially red meat. Home remedies included taking lemon juice, vinegar, sour oranges, Epsom salts and the brine from pickles or olives. The clinical implications of this belief were not only the effects on health of this type of diet (for example, one with a very high salt content), but also the effect on compliance with a doctor's instructions by one who confused 'high blood' with high blood pressure. Patients who interpreted a diagnosis of high blood pressure as 'high blood' might increase the amount of salt in their diet and reduce the intake of red meat in a diet that may already be deficient in protein.

### Case study: 'sleeping blood' in the Cape Verde Islands

Like and Ellison<sup>112</sup> in 1981 described the case of a 48-year-old woman from the Cape Verde Islands who was admitted to a neurology ward in a hospital in the USA. She was suffering from paralysis, numbness, pain and tremor of her right arm. It was discovered that 2 years previously she had suffered bilateral Colles' fractures of her wrists, and after that her neurological symptoms gradually appeared. No physical cause for her illness could be found, until it was realized that she believed herself to be suffering from a Cape Verdean folk illness, 'sleeping blood' (*sangue dormido*). In this lay model, traumatic injuries (in this case, her wrist fractures) may cause a person's normal 'living blood' (*sangue vivo*)

to leak out into the skin, turn black (i.e. form a haematoma) and become 'sleeping blood'. It is feared that deeper deposits of blood develop between the muscles and the bones and, if not removed, their volume may expand over time and obstruct the circulation distal to the traumatized area. In addition, the internal 'living blood' may dam up and cause various disorders such as pain, tremor, paralysis, convulsions, stroke, blindness, heart attack, infection, miscarriage and mental illness. The patient explained her neurological disabilities as due to the blockage resulting from the 'sleeping blood'. She was eventually treated by withdrawing 12 ml of blood from her right wrist (the *sangue dormido*) on two occasions, and by the application of cold packs, after which her tremor, paralysis and pain completely disappeared.

### Case study: blood as a non-regenerative liquid

Foster and Anderson<sup>113</sup> pointed out that the belief that blood is a non-regenerative liquid which, when lost through injury or disease, cannot be replaced, leaving the victim permanently

weakened, is common in many parts of the world. In parts of Latin America people are most reluctant to part with their precious blood, and this may be one of the reasons why blood banks are less successful in getting donations of blood than in the USA and in Europe.

### Case study: 'dirty' or 'lost' blood among the Mende of Sierra Leone

Bledsoe and Goubaud<sup>114</sup> in 1988 described how, among the Mende people of Sierra Leone, blood was seen as a vital liquid that was almost impossible to replace if lost. Debilitating sicknesses, injuries and infestation with small organisms and worms (*fulu-haisia*) were all said to make blood 'dirty', or to drain it. Blood could also be 'lost' by having blood samples taken at hospital, or by donating blood; thus 'the Mende view with great fear the attempts of hospital workers to induce them to give blood'. Attempts were

made to replace, build or purify the blood by the use of certain foods (especially palm oil and greens such as spinach or potato leaves) and certain medicines (especially those that are red in colour). All red medicines were considered desirable, whatever they contained, provided that they were red, brown or even orange in colour – for example, Fanta, Guinness stout or Vimto are also taken during illness. Because palm oil was the favourite remedy for dirty or inadequate blood, young children might be fed only soft rice (which develops the body) and palm oil (which makes it produce blood) until well into their second year.