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Concepts of health and medicine

Main points

- Modern medicine emerges out of the Enlightenment, a critical historical period when society became secular and scientific; this replaced religious explanations of the natural world.
- The medical model of health stresses a mechanistic view of the body and a reliance on biological causation to explain illness.
- The social model provides a holistic approach, stressing that health and illness can only be explained by analysing the social.
- Foucault's concept of the clinical gaze draws our attention to how medicine observes and treats the body as a physical entity devoid of reference to the person.

Key concepts

The Enlightenment • science • rationality • paradigm • social model • medical model • bedside medicine • clinical medicine • laboratory medicine • the clinical gaze.

Introduction

The aims of this chapter are twofold: to provide a historical account of the development of modern medicine, and to examine the social construction of medical knowledge. We employ the concept of the **sociological imagination** to stress the necessity of a historical and questioning approach to the study of medicine and the development of the medical profession.

Medicine represents a specific type of knowledge about the human body that is applied to either care for or cure of the recipient of medical treatment. In order to understand the practice of medicine at the present time, it is necessary to know how it developed historically. This chapter seeks to explain two main elements of medical knowledge: first, its historical origins and, second, the type of knowledge underpinning the practice of medicine.

The Enlightenment refers to a body of thought, first developed in the eighteenth century, which challenged explanations of the world based on religious or superstitious explanations. Enlightenment thought was based on a commitment to rational, secular and scientific explanations.

The development of modern medicine: science, rationality and the legacy of the Enlightenment

Before we begin to examine medical perspectives on the body, it would be helpful to ascertain the origins of these ideas. According to Stacey (1988) various cultural, social and economic factors, all of which have their origins in the eighteenth-century Enlightenment, help explain the development of modern medicine. The term **the Enlightenment** refers to a body of thought rather than to a specific period in European history. Underpinning this intellectual movement was a strong emphasis on reason rather than belief, superstition or even religious thought. The Enlightenment is traditionally associated with rationality and the search for evidence. It was anticipated that, on the basis of rational, reasoned and evidenced thought, traditional institutions and ideas could be replaced with 'modern' practices. This element of the Enlightenment paved the way for a secular understanding of society and of people's place within it. The application of reason to human life, it was argued, opened up the possibility of the advancement of the human race by uncovering the massive potential of *science* and reason. Stacey (1988: 47) argues that the developments that took place laid the basis from which biomedicine developed, led to its domination over all alternative healing systems and established a division of health labour that its practitioners also dominated.

In the first instance, the growing **secularisation** of society opened the way for alternative, scientific explanations for disease. 'Medical' labels and 'scientific' explanations could be used to understand the origins of disease and their potential cures. Chapter 9, which examines mental health, will illustrate these arguments in detail. Explanations of 'madness' in spiritual terms or in terms of 'possession' gave way to explanations drawn from the examination of the body and brain based on empirical observation and the recording of the underlying physical, organic cause. This drive to uncover the specific

The concept of science is associated with the study of the natural and physical world, characterised by observation, measurement, experimentation and objectivity. Secularisation refers to the acceptance of non-religious explanations of the world.

aetiology of a disease by examining the human body is exemplified in the desire to explore the bodies of the dead as well as the living. The search for knowledge about the body encouraged early medical practitioners to act unlawfully by taking possession of cadavers procured illicitly. This illegal trade thrived despite the fact that practitioners already enjoyed access to the bodies of the poor and destitute who had died in workhouses and other institutions.

Questions

How important for the medical profession is the continuing use of bodies for research and teaching? What is the connection between the decline in religious belief and the greater use of bodies for research and teaching?

Edinburgh was notorious for its 'body snatchers' or 'Resurrectionists', principally because of its strong tradition of medical education. The best-known practitioners of this trade were Burke and Hare who, in the early part of the nineteenth century, also murdered to provide corpses. When captured, the latter turned king's evidence. Burke was hanged in front of a crowd of 20,000 and his own body later dissected in the same way as those he had procured. A wallet made from Burke's skin can still be seen within the Medical School at Edinburgh University.

> Visitors to older Edinburgh graveyards must have noticed their strange resemblance to zoological gardens, the rows of iron cages suggesting rather the dens of wild animals than the quiet resting places of the dead. And, in fact, these barred and grated cells were designed as a protection against human wolves who nightly prowled about such places in quest of prey, and furnish very real testimony to the fears by which our forebears were beset respecting the security of the sepulchres … It is obvious that the lawful supply of subjects was wholly inadequate to meet the growing needs of the new [medical] school … the surgeons and barbers' apprentices had been in use diligently to till the soil and reap the harvest of what had been finely called 'Death's mailing' … At first zealous apprentices were the only body snatchers, but owing to the popularity of the Edinburgh medical school and the great increase of students, there arose a class of men who, adopting as a business the raising of the dead, became known as the Resurrectionists. (Roughhead 2000 [1921]: 152)

The Enlightenment underpinned the development of specific *methods* of investigation in relation to medicine, namely scientific methods. The superiority of scientific thought was said to lie in the fact that evidence and theories were derived not from belief but from observation, and were confirmed through a process of experimentation. Evidence

developed in this way was seen as unbiased, *rational* and purely descriptive of the natural world. Scientific facts could not be disputed except by employing the same methods to question or disprove an assertion. In Chapter 4 we will examine **alternative medicine** and see that the same assumed superiority of scientific methods is still used to question the validity of practices such as homoeopathy.

The ability of science to provide rational explanations continues to be one of its main strengths. Rational means adherence to a logical and tenable process of explanation.

Medical perspectives on the body, health and illness

Biomedicine is the principal way of understanding health and illness in western culture, being widely accepted not just by the medical profession but also by the lay (non-professional) population. There is general agreement among contributors to debates in medical sociology that the *medical model* of explanation has a number of defining characteristics. Nettleton (1995: 5), for example, describes five features:

1 *Mind–body dualism*. This refers to an acceptance that when one is treating disease the mind and the body can be considered as two separate entities. The physical body rather than the more problematic 'mind' is *the* subject of medicine. Medicine's appropriation of the body is such that, until recently, there was very little written by sociologists about the body; this was the domain of the medical profession.
2 *Mechanical metaphor*. Nettleton uses this concept to draw our attention to the way in which medicine is said to view the body as a machine, the functioning of which is determined by biological and scientific laws. Having knowledge of how the body functions allows medical practitioners to 'repair' any dysfunction.
3 *Technological imperative*. This refers to the significance attached to medical methods of intervention, whether pharmacological or surgical, in treating the body. As we shall see, there is often a tendency to overemphasise the curative element of biomedicine and underplay the beneficial contributions made by, for example, changes in diet or environment. While the development of medical technology brings with it considerable benefits, these developments also have a cost, for instance in terms of the harmful consequences either of medicines or of medical intervention.
4 *Reductionist tendency*. Biomedicine is described by Nettleton as 'reductionist' in that there is a tendency to reduce all explanations to the physical workings of the body. There is an echo of this reductionist tendency in the dualistic nature of medicine as well as in the significance attached to the 'technological imperative' in the primary role attached to all things physical. One of the major criticisms of the medical model stems from its apparent unwillingness to acknowledge that both social and psychological factors influence health.
5 *Doctrine of specific aetiology*. This refers to the belief that all disease originates from specific and knowable causes.

The medical model is a specific way of thinking about and explaining disease based on biological factors.

Such a description of the medical model may well strike you as rather rigid, and as a far more accurate account of medicine and medical practice in the past rather than today. We would argue, however, that central elements of medical knowledge remain but that medicine is a dynamic body of thought, capable of changing and adapting in the light of new discoveries. The fluid nature of medical knowledge means that some elements of the medical model may be more or less important now than they were in the past.

Links

A more detailed discussion of the body and chronic illness is provided in Chapter 11.

It is perhaps easier to see the relevance of such a model in the past, when infectious diseases were the main cause of morbidity and mortality. The major killers of the twentieth and twenty-first centuries are long-term, chronic illnesses. What distinguishes these conditions from diseases of the past is that their causes are 'social'. Heart disease is the main cause of death in Scotland and some cities like Glasgow, for example, have particularly high rates. While some causes of heart disease can be traced back to a specific dysfunction of the organ, the principal cause is an unhealthy lifestyle. It may be difficult to defend the medical model as outlined by Nettleton when public awareness campaigns attach such a degree of significance to individuals changing their lifestyles rather than to the medical profession repairing what appears simply to be a faulty machine. Pharmaceuticals such as lipids may be able to reduce the harmful effects of heart disease and hypertension but they cannot eradicate the disease.

Authors such as Lupton (1994) have urged us to consider the way in which the medical model has developed and reinvented itself to the point where it can embrace social as well as psychological factors. It is, therefore, not always appropriate to contrast the medical model of medicine with the **social model** of medicine. The social dimensions of heart disease are a topical example of this, as is the recent acknowledgement by the British Medical Association that diseases such as ME have both a physical and a psychological dimension. It would be a mistake to accept the medical model as a static representation of medical thought and practice. Medicine and medical practice are no longer solely concerned with the biological and the physical but, because of the changing nature of disease, are able to place disease and the diseased body in a social context. Medicine goes beyond simply treating disease and is now actively engaged in a moral crusade to change the way in which people live, and to influence the choices that they make. Turner suggests that the growth in the influence of medicine over our lives, coupled with the demise of religious influence, has

resulted in a new moral order: 'the doctor has replaced the priest as the custodian of social values' (1994: 37). This 'moralistic' element of medicine cannot be adequately accounted for in terms of the five characteristics identified above. In order to embrace the modern dimensions of medicine and medical practice we have to be prepared to extend the traditional medical model to a more complex body of thought that can and does embrace social and psychological aspects of health and disease.

'Medical paradigms': the social construction of medical knowledge

Thus far, this chapter has explored the intellectual and cultural origins of medicine and provided an account of the main characteristics of the medical model. The significance of this discussion, and that of other chapters that follow, is that it allows the student of sociology to place the development of medicine within a historical context, and thus fulfils one of the essential criteria of the request to employ the 'sociological imagination'. The second objective of this chapter is to explain the social construction of medical knowledge.

Social constructionism is characterised by an emphasis on the extent to which 'society' is actively and creatively produced by human beings. The world is portrayed as made or invented – rather than as given or taken for granted. 'Social worlds are interpretive nets woven by individuals and groups' (Marshall 1998: 609). The extent to which medical knowledge can also be said to be socially constructed, that is, the degree to which medical knowledge is a product of those engaged in its practice, can be illustrated by Jewson's (1976) concept of *paradigms* of medical knowledge. The term **paradigm** (introduced in Chapter 1) refers to a model or mode of thought, a particular way of seeing the world, that sets boundaries to *what* we see, *how* we might measure and record that information, and *which* factors are significant and which are not.

Paradigms of knowledge shift and change over time, as illustrated by the earlier discussion of the medical model, and, therefore, offer us a way of conceptualising the fluid and dynamic nature of medical knowledge.

Table 2.1 Jewson's three paradigms of medical knowledge

Bedside medicine	Clinical medicine	Laboratory medicine
• Disease as a total 'psychosomatic' experience	• Specific aetiology of diseases	• Disease as a 'biochemical disturbance'
• Lay and 'medical' practitioners	• Specialist practitioners in possession of specialist knowledge about the body	• Specialist practitioners, knowledge of cellular construction of the body
• Place of treatment: home	• Place of treatment: hospital	• Place of treatment: laboratory

Source: Seale and Pattison (1994)

Table 2.1 represents a simplification of the three paradigms. It is a useful starting point in the **analysis** of the social construction of medical knowledge and raises the following significant points:

- Medical knowledge has changed and developed over time. What was once held as a reasonable explanation may later be disputed and cast aside. Early medical theories of hysteria, for example, maintained that the womb of 'hysterical' women moved around the body.
- Medical knowledge and, more generally, knowledge about health and disease has become increasingly specialised, first focusing on the 'whole' person, then examining specific parts of the body, and finally analysing the construction of cells. Theoretical knowledge of the body, learned knowledge, has taken precedence over experiential knowledge. Medicine and medical practice have increasingly become the preserve of those educated and trained by current practitioners and registered with their professional bodies. Lay practitioners, such as lay midwives, were systematically excluded from the practice of medicine.
- Each paradigm shift in thought has entailed a shift in the nature of the relationship between the practitioner and the patient. The 'bedside manner' paradigm suggests that, at least in the case of the wealthy, practitioners were 'patronised' by clients. Clients paid directly for the service and those providing it were often considered their social inferiors; power lay with the patient. If you compare and contrast this with the quality of, and the balance of power in, the contemporary relationship between practitioner and patient, a very different picture emerges. Despite the clear benefits which derive from the provision of a National Health Service, the position of general practitioners as 'independent contractors' within the service means that payment is gained not directly from the patient but via the health service itself. It could be argued that because of this the service provided is organised around the needs of the practitioners rather than of the patients. Appointment times might be one example. Most appointments are offered within the confines of the working day and, with the exception of emergencies, only on Monday to Friday. Given this, for many people in work it is hard to find a suitable time to see a GP without taking time off paid work.

The paradigm that accords best with our experiences of medicine in contemporary terms is that of clinical or hospital medicine. The following discussion provides a more detailed consideration of this aspect of medical knowledge and practice.

Foucault and the clinical gaze

The concept of the **clinical gaze** is associated with Foucault and refers to a specific way of conceptualising the body, rather than simply describing the physical location of the examination.

This new conceptualisation of the body stemmed from a number of developments, some of which have been mentioned in the discussion above. For example, the Enlightenment gave rise to the dominance of scientific and rational thought, an essential element of which was the opportunity to see the physical body as part of the 'natural' world. Part of this way of conceptualising the body is based on the idea of the mind–body split, enabling us to perceive the body as a physical object outside, external to and separate from ourselves as represented by the mind.

The concept of the clinical gaze is part of a specific discourse on the body in which the body is perceived as a physical object capable of being observed, measured and treated with little or no reference to the person.

Links

Chapter 11 explains the central role of medicine in interpreting the human body. The contested nature of knowledge is explored in Chapter 1 in a general discussion of postmodernism.

The ability to conceive of the body as an object in part stemmed from the increasing trend towards its physical dissection. The corpse became the source of knowledge about the body and that knowledge was the domain of medical science. The concept of the clinical gaze was used by Foucault (1973) to describe a specific and distinct method of examination and understanding, made possible by the physical examination of the internal workings of the body. Foucault's analysis contains the possibility of extending our knowledge of the socially constructed nature of reality. What may appear to us as real – for example, the physical make-up of the body – is actually the outcome of a specific kind of knowledge. To interpret the body and its workings requires a 'guide' because the body and its functions are not self-evident. Our representations of the body, whether through models or through diagrams, are the product of how we understand it. Without some training in what to look for and some general acceptance of the functions of the different parts of the anatomy, it is argued, we would not be able to interpret what we see. A map of a geographical area is a representation of it, full of complex signs and symbols that help us interpret what we see. The map is not an accurate representation of what we actually see as we walk about a city, but it is a guide that helps us interpret what we see. In the same way, medical knowledge provides a guide by which to read the body.

That medical science does not represent 'reality' can be illustrated with reference to explanations once held as 'true' but since revised in the light of new knowledge. The example of medical understanding of the blood is a useful illustration. As late as 1750 the nature

and function of blood were interpreted in a very different way from today. It is worth remembering that this belief dominated despite the discovery of the circulation of the blood by the English physician William Harvey in 1628.

> Working with the understanding that there are two independent systems of blood vessels, the arteries and the veins, Galen [Greek physician, second century AD] believed that some almost immaterial vivifying substance (that is to say a substance endowing life), *pneuma*, was brought in from the air when we breathe, taken to the lungs and from there to the left chamber of the heart, where it was mixed with ordinary blood and was then drawn into the arteries. Its life possessing and life giving properties were evident to the senses when it was compared with the blood in the veins; arterial blood was bright, frothy, it spurted when the artery was cut, it needed the strong walls of the arteries to contain its natural tendency to expansion, and it had the pulse of life. Venous blood, by contrast was slow moving, and the thinner walls of its vessels showed no pulse. (Cunningham 1994: 62)

The physical examination of the body provided the opportunity to distinguish between normal and abnormal functions. On this basis, it is hardly surprising that the dominant definition of 'health' is as the absence of disease, and that medicine is so closely associated with the treatment of dysfunction rather than the promotion of health. The physical setting of the clinic or the hospital provided practitioners with the opportunity to examine bodies in large numbers and establish concepts of normality and abnormality. The benefits of such a distinction are clear. Practitioners are able to distinguish between a working kidney and one that is malfunctioning. We know that it is normal for babies to be born with a fontanelle, but in cases where this gap has prematurely closed surgery is necessary to allow the brain to develop normally. The question of normality and abnormality seems unproblematic in cases such as these. Sociologists of health and illness are concerned, however, that such judgements extend further to embrace human behaviour and lifestyles, for example in relation to mental health and well-being. What begins to emerge from this analysis is a picture of medicine and medical practice as both caring and potentially controlling, suggesting as it does what is normal and abnormal. The next chapter examines these issues in detail.

Conclusion

This chapter has explored the development of modern medicine by providing a historical account of the belief systems that gave rise to the practices that are still with us today. Medicine as a distinct scientific body of knowledge did not just come into being 'by itself' or by chance. Certain social and historical circumstances were necessary for its development. This occurred in the eighteenth century during the Enlightenment, a period when religious explanations and understandings of the natural world gave way to secular and scientific

understandings. At this point it became increasingly legitimate to seek explanations of disease and illness with reference to the biological workings of the body as opposed to explanations which made reference to divine sanctions or superstitious causes.

This initial focus on the body shaped the future development of medicine. Biological systems, and particularly their failures, became the dominant perspective of medicine over more holistic accounts of the causes and cures of illness. This has seen medicine favouring a mechanical metaphor of the body, with technology and science as being the best (if not the only) ways to treat illness. As the rest of this book discusses, health and illness cannot be explained solely by reference to the internal workings of the biological body. What happens with the body is only one aspect of the whole 'story' of health.

Summary points

- This chapter has explained the development of modern medicine as a specific form of knowledge about the human body.
- The development of medical knowledge is strongly associated with science, rationality and the Enlightenment.
- Scientific medical knowledge represents a specific way of seeing and understanding the functions of the body. One example of this is the traditional idea of the mind–body split.
- Medical knowledge is dynamic and evolving.
- The possession of specialist medical knowledge leads to an increasing tendency to engage with the disease rather than with the patient.
- Medical knowledge is a form of power, with the potential to control and influence the lives of its recipients.

Case study

Imagine that you are being asked to publicly debate the use of embryos in medical research. Embryonic materials can be used to grow stem cells that in turn can be used to develop replacement organs for those that have failed and thus, ultimately, to save and prolong human lives. You are encountering strong resistance from the opposing side, made up of religious groups who disagree with the use of embryos in medical research.

1 On what grounds might religious groups protest about the use of embryos to grow stem cells?
2 What arguments could you produce to allow this kind of research to continue?
3 On a personal level, reflect upon your own feelings about this kind of research.

Taking your studies further

This chapter will have helped you understand many of the key terms, concepts, theories and debates relating to health and medicine. Listed below are journal articles and books that will provide deeper and more detailed discussions of the points raised in this chapter. You will also find what is available on the companion website. This offers downloads of relevant material, plus links to useful websites in addition to podcasts and other features.

Recommended reading

Calnan, M., Wainwright, D., O'Neill, C., Winterbottom, A. and Watkins, C. (2007) 'Illness action rediscovered: a case study of upper limb pain', *Sociology of Health and Illness*, 29 (3): 321–46.

Foucault, M. (1973) *The Birth of the Clinic: An Archaeology of Medical Perception*. London: Random House.

Lupton, D. (2003) *Medicine as Culture: Illness, Disease and the Body in Western Societies*, 2nd edn. London: Sage.

Stacey, M. (1988) *The Sociology of Health and Healing*. London: Routledge.

On the companion website

Tausing, M., Subedi, S. and Subedi, J. (2007) 'The bioethics of medical research in very poor countries', *Health*, 11 (4): 145–61.