
Models of mental illness

- The definition of **ABNORMALITY**, both in psychology and medicine, is fraught with difficulties and cannot be based solely on statistical criteria, biological maladaptivity, or personal awareness by the patient.
- As they pass through medical school, students change their perceptions of whether particular conditions are 'diseases', becoming less **ESSENTIALIST** and more **NOMINALIST**.
- The **MEDICAL MODEL** and the **BEHAVIOURAL MODEL** of psychiatric illness differ in most of their implicit assumptions about the nature of psychiatric illness and its appropriate treatment. Many practising psychiatrists are **ECLECTIC**, utilizing features from both in the **BIO-PSYCHO-SOCIAL MODEL**.
- Psychological models, such as **LEARNING THEORY**, **PERSONAL CONSTRUCT THEORY** and **PSYCHOANALYTIC THEORY** differ to a large extent in the time-scale over which they try to produce explanations of behaviour.

Mental illness is common. At some time in their life, 1% of the population develop schizophrenia, one in ten are admitted to a mental hospital, and a much higher proportion receive psychoactive medication. Yet even the term 'mental *illness*' is controversial, and the role of psychiatry and psychology in dealing with abnormal behaviour is not clear. Here I will consider the problems of defining and classifying abnormal behaviour and disease, and will compare the **MEDICAL MODEL** with other models of psychological disorder. The difficulties described are not unique to psychological problems, being seen in all aspects of medicine, but are especially acute for behavioural conditions.

ABNORMALITY is impossible to define precisely and all straightforward definitions have problems. A statistical perspective might say that if unusual enough (more than two standard deviations from the mean) then symptoms or behaviour are abnormal; but this would classify as 'abnormal' those with an IQ of over 130 (including most medical students), and would also ascribe 'normality' to those in populations such as the Pima Indians where a majority show symptoms of diabetes. An alternative view sees abnormality as *biologically* maladaptive, and

classifies behaviours such as suicide as abnormal (although lemmings may provide a problem), but also has to say that chastity is 'abnormal'. More problematic is that many homozygous genes, such as sickle-cell anaemia, are disadvantageous for individuals but nevertheless selected for due to their beneficial effects in heterozygotes: should therefore biological maladaptation be considered for the individual or the population? An alternative defines abnormality as being antisocial, and although including the arsonist's fire-raising, the definition also includes minor offences like parking on a yellow line, or over-consumption of garlic. Yet another approach defines abnormality as a person seeing themselves as abnormal, so that symptoms are defined by the patient's decision to attend a doctor. Unfortunately a defining characteristic of psychoses is an absence of insight (see Chapter 28), as also in temporal-lobe fugues and sleep-walking, where even conscious awareness of the behaviour is absent. One possibly acceptable definition of abnormality asks whether the behaviour is maladaptive for the individual (although not perhaps seen as such by the individual). The definition does not imply that treatment should or must be given, and does circumvent many obvious problems, such as whether homosexuality is 'abnormal'; the answer is *No* if the individual is satisfied with their condition, but *Yes* if they find it repellent, have become obsessed, or it is putting their livelihood at risk, and request help.

The difficulty of knowing whether behaviour is abnormal can be seen in an example. A few years ago the Deans of British and American medical schools each received a short letter:

'Dear Dr.,

Please be advised of my opinion that Medical Students should be instructed in the Physiology of Fear.

Thank you,

Yours sincerely,

————— MB ChB (Edin), MRCPath(UK), FRCP(C)'

Checking in the Medical Directory showed the sender's qualifications were valid. Although clearly eccentric, the letter could, with special pleading, be seen as within the bounds of normality. A second letter, shown below, was more eccentric still, and the *combination* of the letters makes one suspect a more disordered psyche meriting the term *abnormal*.

'Dear Dr.,

Please be advised of my opinion that if you contemplate the concept of your own demise with reasonable equanimity then you may well be as psychologically mature as you are going to be.

Thank you,

Yours sincerely,

————— MB ChB(Edin), MRCPath(UK), FRCP(C)'

Abnormal behaviour alone does not indicate mental illness, any more than one cough indicates physical disease. As a concept, DISEASE is broader and more difficult to define, despite it being obvious that, say, leukaemia, pneumonia or scurvy are diseases. But what about spina bifida, colour-blindness or other congenital abnormalities? Or barbiturate overdose or drowning? There is a large 'grey area', many items being better labelled as 'conditions' rather than 'diseases'. When asked to indicate which of a long list of conditions are diseases, individuals disagree, although doctors usually classify more items as diseases than do laymen, a process sociologists call MEDICALIZATION. Medical students shift between these positions (see Fig. 27.1), and also become more precise at differentiating disease from non-disease (i.e. in Figure 27.1 the slopes of the line becomes steeper). Doctors and laymen also differ in their philosophical views about disease. The lay public is ESSENTIALIST, saying diseases exist, and medicine's role is to discover, understand, and treat them, whereas doctors are NOMINALISTS, seeing the definition of disease as mainly a matter of convenience and utility, and arbitrary to a large extent. Doctors typically see conditions as disease if caused by external agents, particularly if infectious or toxic, or if amenable to specifically medical treatments. Conditions therefore change their status as our knowledge of them changes.

Even in physical medicine, diagnosis and classification of disease is often not clear. Diagnosis of some diseases such as malaria is straightforward (are there malarial parasites in the blood?), but others do not have a single criterion which alone confirms the diagnosis. Thus rheumatoid arthritis is 'classical' if seven or more of 11 specific symptoms or signs is present, 'definite' if five features are present, and 'probable' if three features are present, although no single feature is either necessary or sufficient for the diagnosis. Such POLYMORPHOUS CONCEPTS are peculiarly difficult to manipulate psychologically, even though common in practice. Diagnosis of other diseases such as septicaemia seems straightforward (fever and bacterial growth from blood cultures), but what if a patient is asymptomatic and grows a few bacteria from the blood? Gilbert's syndrome, of a marginally raised serum bilirubin, familial in origin, and without symptoms or long-term consequences is marginal in its status as a disease and must be contrasted with hypertension, which also is asymptomatic and familial, but has serious adverse consequences if untreated; and as a further difficulty no clear threshold separates high from normal blood pressure. Such problems are particularly pertinent in psychiatry and psychology and for research purposes are avoided by strict assessment of well-defined and codified symptoms in such protocols as the PRESENT-STATE EXAMINATION and DSM-IV (the fourth revision of the DIAGNOSTIC AND STATISTICAL MANUAL OF THE AMERICAN PSYCHIATRIC ASSOCIATION).

LABELLING a person as having disease can modify their response to their own health. In an American study which screened factory

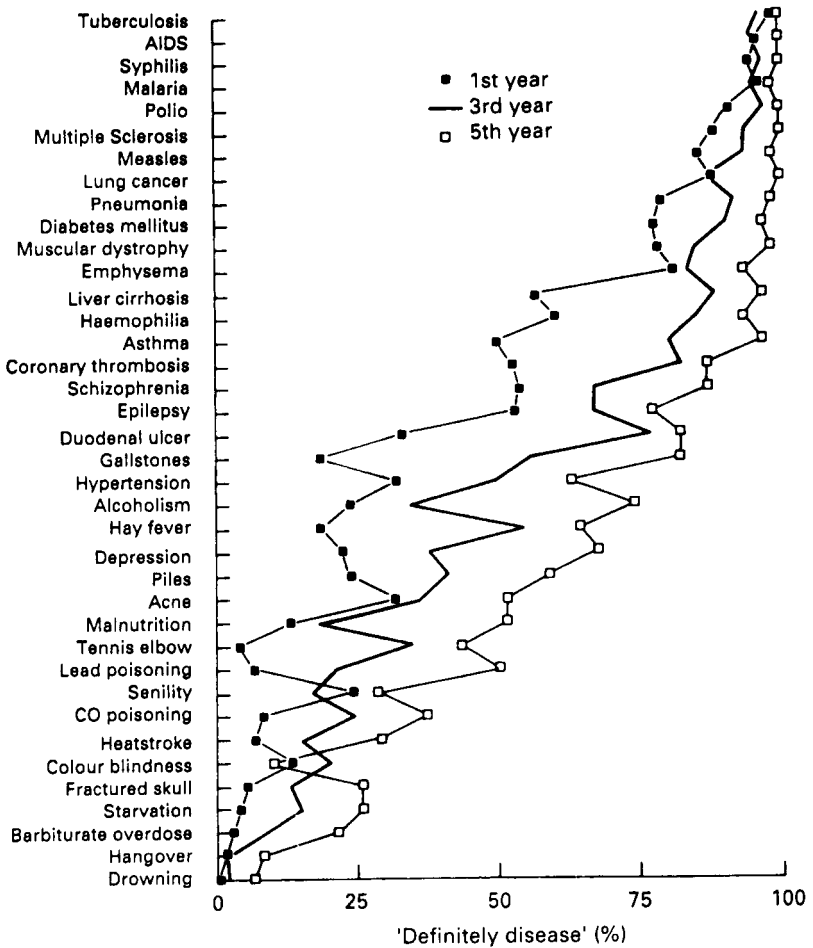


Fig. 27.1 Shows the proportion of first year (preclinical), third year (first clinical) and fifth year (final clinical) medical students who feel that particular conditions (shown vertically) are 'diseases', the conditions being placed in order from most disease-like to least disease-like (averaged across all years). Reproduced with permission from Stefan M D and McManus I C. The concept of disease: its evaluation in medical students, *Social Science and Medicine*, **29**, 791-2.

workers for hypertension, individuals who were told about their raised blood pressure subsequently showed more absenteeism for minor illness than did hypertensives unaware of their raised blood pressure. Labelling as 'hypertensive' explained symptoms that otherwise would be ignored or dismissed as part of everyday life, and these symptoms then legitimized an absence from work as an appropriate response to an 'illness'.

The concept of disease does not exist in isolation, but also implies

other assumptions in what is now described as the MEDICAL MODEL OF DISEASE, which is contrasted with other models such as the psychoanalytical and moral models. With psychiatric abnormalities the medical model emphasizes the central role of a clear, specific and accurate DIAGNOSIS, from which comes a precise treatment and prognosis. The AETIOLOGY (cause) of a disease may not actually be known but in principle is always knowable. SYMPTOMS are regarded as an inexact reflection of the disease process, which may be better assessed by special tests. TREATMENT is by medical and surgical procedures, such as drugs, which are specific and depend upon the diagnosis. The PROGNOSIS is also specific, but may always be transformed by a therapeutic breakthrough. Attempted SUICIDE is an especial problem with psychiatric illness, and must be predicted if possible and prevented by treatment. The FUNCTION OF THE HOSPITAL is to care, treat and cure, and HOSPITALIZATION ends when the doctor decides that the patient is cured. The appropriate PERSONNEL for care are doctors and nurses. The PATIENT'S RIGHTS AND DUTIES are a right to knowledge of the diagnosis and a duty to cooperate with treatment; that is, the SICK ROLE should be adopted. The FAMILYS' RIGHTS AND DUTIES are a duty to bring sick relatives to doctors, and a right to know about their relative's illness and to expect appropriate treatment. SOCIETY'S RIGHTS AND DUTIES are a duty to treat the mentally ill and to protect society from them, and a right to expect cooperation from patients and society. The medical (or BIO-MEDICAL) model is implicitly accepted by many doctors, at least for physical illness, and by many psychiatrists for mental illness. By making its assumptions explicit it can be contrasted with other models, of which the PSYCHOANALYTIC MODEL (OR BEHAVIOURAL MODEL) is the most important. The central difference from the medical model is in denying the utility of a diagnosis, since all individuals differ; naming will not help the patient, and may harm them as society uses labelling pejoratively to prevent treatment as an individual. Aetiology is specific to each patient, arising from experiences in earlier life, which will never be the same in any two patients. Symptoms are the most precise guide as to the patient's condition and to the effects of treatment, which is carried out by those experienced with psychological problems, and is behavioural in form, being tailored to the specific needs of the patient. A prognosis is given only with difficulty. Attempted suicide should be interpreted as would any other symptom. The hospital provides a refuge, removing an environment that may have precipitated the patient's problems, and is a convenient place for patient and therapist to meet. Hospitalization ends when the patient has insight into their problems, and accepts that behaviour and symptoms have improved.

In their pure form these models differ substantially. In practice many psychiatrists and psychologists are ECLECTIC, extracting features from these and other models in the so-called BIO-PSYCHO-SOCIAL MODEL.

Other models of mental illness often contribute components; for instance the MORAL MODEL is concerned entirely with behaviour which is regarded as bad or sinful and sees treatment as simply to prevent deviant behaviour; and the FAMILY INTERACTION MODEL emphasizes that it is not individuals who are sick but rather entire families can be abnormal, externalizing problems through an individual who acts as scape-goat; and the SOCIETAL MODEL extends that argument by saying that society itself is sick, the illness of individuals being its symptoms.

It must be emphasized that these models are not merely right or wrong, for they transcend ordinary empirical data, and determine all actions of which they are a part. Stepping outside their implicit assumptions is as difficult as thinking in other languages or in conceptualizing mathematical worlds with five dimensions or non-Euclidean geometries; possible but very difficult. Their importance is in making explicit the hidden assumptions that often hide behind apparently objective descriptions of problems.

In the following chapters the word 'model' will be applied in a slightly different sense of PSYCHOLOGICAL MODELS, to the three most important types of mental illness: the neuroses, depression, and schizophrenia. A psychological model is a theory which explains the phenomena of a condition, says what it must be like to experience that condition, explains its origins, and makes predictions about the condition. For each major condition, I will describe the LEARNING THEORY MODEL, the PERSONAL CONSTRUCT THEORY MODEL and the PSYCHOANALYTIC MODEL, with additional models in some cases. Different models are not competing hypotheses of which one only is correct; rather they are different perspectives on the same object, just as the plan and the elevation of a building describe the same building. Figure 27.2 might illustrate the relationship of the models. Dots indicate individual behaviours, which are inter-related by links. Learning theory emphasizes the precise linkage of two behaviours as shown by ring A. Personal construct theory takes a broader view, of all the behaviours and cognitive processes at time t , as shown by ring B. And to some extent learning theory and personal construct theory both consider how behaviour at time t was caused by previous behaviour at time $t - 1$. Standing further back, psychoanalytic models ask how the behaviours at time t developed from the undifferentiated psyche present at birth (time 0), and consider the evolution or development of behaviour within the individual (ring C). The models differ therefore in scale, or perspective. Although it is tempting to see only the learning theory model as 'really' explaining a patient's condition, the limitations of its microscopic analysis may be seen by analogy with a physical illness. A patient presents with a range of symptoms, which after investigation are diagnosed as hepatic cirrhosis, caused by excessive alcohol consumption, and is confirmed by liver biopsy, which demonstrates fibrosis, distortion of cellular architecture and nodular hyper-

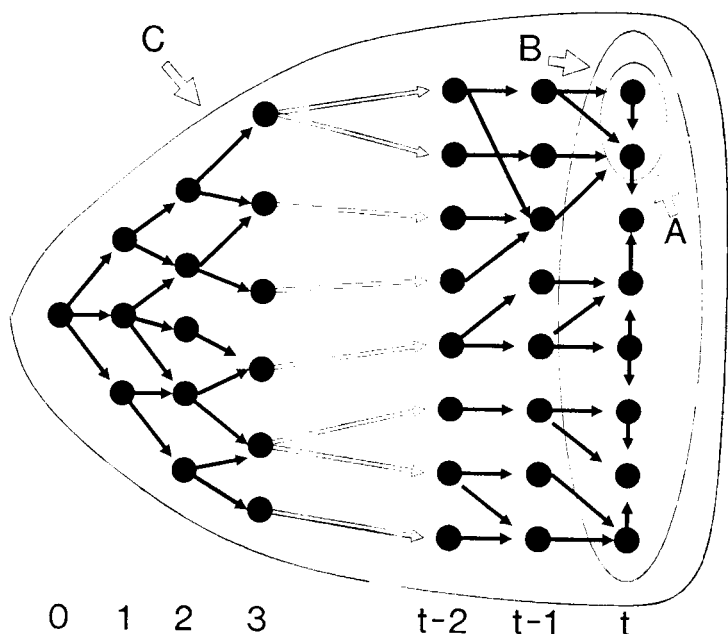


Fig. 27.2 A diagrammatic representation of the levels of explanation of learning theory (A), personal construct theory (B), and psychoanalytic theory (C). See text for further details.

plasia. This observation, equivalent to level A in Figure 27.2, might seem a complete explanation to a reductionist. The astute physician will however ask how it explains the patient's spider naevi, the flapping tremor of the hands, the gynaecomastia, and the mental confusion. *Merely* knowing hepatic histology does not explain the symptoms, but only says that an abnormality is present. Symptoms must be interpreted at the level of the entire patient, integrating the histology into a dynamic and responsive physiology (level B in Fig. 27.2). But describing the patient as they are *at this moment* does not explain how they became like it; why did alcohol have this effect, and why did they consume so much alcohol? For answers to such questions, and to the particularly important question of the best treatment for the patient, we must consider the evolution of the disease in the context of the patient's metabolism, life, and social conditions (level C in Fig. 27.2). When seeing this patient with cirrhosis a good physician will simultaneously consider their biochemistry, histology, pathophysiology, and the evolution of their disease in its social and behavioural context. No single level of analysis alone is correct, and nor do the levels compete; they are different parts of the same story. Similarly in the next three chapters, conditions will be described from several view-points, all of which make unique contributions to understanding the total picture of the patient and

their problem. Since however this book's purpose is principally to describe psychology, treatment will not be considered in depth, except in so far as it illuminates *psychological* processes; therapy is primarily the province of psychiatry and of clinical psychology, and you must go elsewhere for a detailed discussion of those matters.