Mind/Body Approaches to Health and Illness: A Challenge to Biomedicine?

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Abstract:
Despite an explosion of interest in embodiment in social science over the past twenty years (Turner 1996, Shilling 1993), conceptualisation of the body is still largely abstract and the 'emotionally expressive' body within health and illness remains relatively under explored.

Central to this understanding is the critique of Cartesian dualism in scientific medicine, with its implicit separation of mind and body and creation of 'body machines'. Medical sociology has contributed a major challenge to the narrow philosophical grounding of biomedicine as illnesses of 'late modernity' feature multifactorial aetiologies and complex mind-body relationships which require traditional categories, formulations and management strategies to be re-evaluated; hence the turn to more holistic models of health and illness, which are now permeating medical education and practice).

In the light of these developments, more sophisticated conceptualisation of terms such as 'stress' and 'wellbeing' are needed to describe the intertwining of emotion and embodiment that occurs throughout the experience of health and illness. This presentation will explore the limits of the division between 'mental' and 'physical' illnesses through

- medical categorisations of somatic disorders
- conditions involving 'medically unexplained symptoms', and
- recent work on stress encapsulating social, as well as physiological and psychological dimensions.
Revaluating Models of Health and Illness

In the early 21st century, health and illness are multi-faceted concepts which span a range of disciplines and have varied meanings in different societies (Helman 2001, Blaxter 2004). Since the nineteenth century we have witnessed dramatic advances in the understanding and cure of disease with, at least in ‘Western’ countries, an unprecedented extension of both quality and length of life. Yet even as medical science has progressed, there has been a decline of faith in biomedicine, its dominance challenged by litigation, scandal, government regulation, lay expertise and social activism (Fox 2002, Scambler 2004).

The critique of biomedicine, with its emphasis on high-technology, cure and ‘body machines’ (see Figure 1) has developed alongside the decline of infectious diseases, at least in the ‘West’. Across North America, North and Western Europe, and Australasia, mortality and morbidity rates from infectious disease have largely been replaced by degenerative and 'lifestyle' illnesses, including cancer, diabetes, vascular disease, arthritis, and the dementias. Both biomedicine and social sciences have been challenged by these illnesses, characterized as they are by multifactorial aetiologies and complex mind-body relationships, resulting in the re-evaluation of traditional categories, formulations and management strategies.

The biomedical model, with its focus on isolated individuals, external pathogens and ‘magic bullet’ cures, has doubtlessly been effective in fighting infectious disease produced by single organisms such as tuberculosis, smallpox and cholera (this has to be qualified contextually in the ‘developing world’), but is severely limited with regard to

- diseases associated with older age, such as arthritis, Alzheimer’s and Parkinson’s disease
- complex ‘disorders of late modernity’ (eg anorexia depression
- the proliferation of ‘acronym’ disorders such as NIDDM, IBS, CFS, ADHD
- multi-factorial degenerative illnesses such as cancer, COPD and vascular disease, the big players in contemporary mortality figures in the ‘west’.
The dominance of biomedicine means that physicians may be confused and frustrated by bodily symptoms without signs, and by signs without demonstrable pathology. Thus if aetiology is not organic must be psychiatric, and it is this reductionist translation into the categories of physical and mental illness which causes such consternation to the critics of this model. As McWhinney et al (1997) assert, mind body dualism ‘runs like a fault line through medicine’ with each side having its own textbooks, clinical methods and nosology.

A plethora of sociological critiques of the biomedical model have contributed to a widespread recognition of the limitations of biomedicine and to the development of more holistic and integrated approaches to practice, teaching and research (Wade and Halligan 2004). Since the second half of the twentieth century, important influences include

- critiques from within social movements (social class, gender, ethnicity, sexuality and disability)
- sophisticated social theories of emotion, embodiment, illness, and disability
- the growth of lay knowledge and user movements
- public understandings of science and knowledge especially through new information technology, and
- the popularity of complementary/alternative medicine

**Mind body medicine and integrated approaches to healthcare**

The term mind/body medicine has been in use for some time, although regarded with scepticism and even derision by many health professionals, and is often attributed to Siegel (1989) who described it as the impact of emotion on physical health. Real, physical events mediate mind-body connections, in the sense that emotional stimuli (through thoughts and feelings) produce physiological changes in the body. Likewise, when a coping strategy improves a physical condition, the change mechanism between talk (or method) and the illness takes place physically somewhere in the body: for instance nerves associated with thoughts change in the brain, messages are sent in the nervous system, conditions of the muscles change, hormones flow, the immune system is activated or inhibited.
Although some specialist areas (e.g., pain clinics, oncology, liaison psychiatry) are developing integrated theory and practice, it is still much the case that conventional Western healthcare professionals remain ill prepared to usefully understand and apply the connections between mental and physical health. By contrast, an integrated mind/body concept is central to most forms of complementary or alternative medicine (CAM), the generic term encompassing a myriad of health care systems and practices. For a variety of cultural, social, economic or scientific reasons, CAM has been largely excluded by conventional biomedicine. Folk medicine, herbal remedies and ‘lay’ healing practices have existed since antiquity, and alternative healing systems have continued to proliferate even with the advent of biomedicine (often termed scientific, allopathic or ‘western’ medicine). However, the popularity of CAM can be seen to have accelerated in northern Europe, the USA and Australia over the last decade, and recent surveys have indicated that over half of GPs in the UK offer some form of complementary therapy and that one in four people in Britain have tried some form of CAM (ref). Although the general public, and increasingly health professionals in hospitals and GP surgeries, progressively view CAM as having an important place in health maintenance and prevention, also in many chronic conditions, the role of CAM in life-threatening illnesses like cancer is far more controversial. Alternative healing systems are still regarded with suspicion and hostility such as in the recent controversies over evidence based research in homeopathy but the situation, in the UK and in other biomedically dominated healthcare systems regarding complementary therapies is rather different. In the UK, for instance, osteopathy and chiropractic are often integrated into the mainstream healthcare system and may even be provided free of charge. Sceptics argue that rather than a real willingness to integrate, the more chronic, difficult to treat conditions, such as persistent lower back pain, are readily surrendered by biomedicine (Cant and Sharma 1998).

The divide between physical and mental illness also historically reinforces hierarchical divisions within medicine, since mental illness is and always has been consistently marginalised (Cant and Sharma 1998). Epidemiological patterns reveal increasing prevalence, for instance recent estimates claim that 20% or more of UK adults have a recognisable mental disorder, 80-90% of which is managed (or not) in primary care and that at least 25% of GP consultations in the UK are prompted by psychological symptoms (Mental Health Foundation 2005). Moreover, many major
health risks such as smoking, over-eating, drinking & drug use, accidents, suicide, violence and sexually transmitted diseases, have important behavioural and emotional components.

Figure 1 charts the paradigm shift in models of health which renders the labels of physical and mental illnesses as outdated and redundant.

**Figure 1 Shift in Models of Health and Illness**

<table>
<thead>
<tr>
<th>Biomedical Model</th>
<th>Integrative</th>
</tr>
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<tbody>
<tr>
<td>Mechanistic</td>
<td>Holistic</td>
</tr>
<tr>
<td>Body-mind dualism/reductionism</td>
<td>Interaction between body/mind</td>
</tr>
<tr>
<td>Single fundamental cause of illness</td>
<td>Multicausality</td>
</tr>
<tr>
<td>Isolated individual</td>
<td>Socially connected individual</td>
</tr>
<tr>
<td>Curative- ‘magic bullet’</td>
<td>Preventive- health maintenance</td>
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**MUS and somatisation**

Integrative models may be particularly useful for trying to understand and manage the complex phenomena of medically unexplained symptoms (MUS). These are illnesses or syndromes which cannot be defined in terms of organic pathology and are thus seen as abnormal and low in ‘illness hierarchy’ (Netleton et al 2004), also referred to as known as ‘contested conditions’ (e.g., ME, CFS, RSI, chronic low back pain) in which the patient experiences distressing physical symptoms such as impaired mobility or coordination, intermittent paralysis, fitting, pain, fatigue, or visual disturbance, but there is usually an absence of physical signs, clinical explanation or medical diagnosis. This ‘diagnostic limbo’, which widens the gap between ‘clinical reductions and lost metaphysics’ (Williams 1984) is refractory to resolution by biomedicine, but may be more accessible by integrative, holistic approaches. Physical complaints often point to physical disorders, but pain and fatigue can also be clues to psychological disturbance also requiring help. Chronic pain may be experienced as equally severe and disabling, regardless of whether the cause is physical or psychological, but its status as an ‘illness’ may vary considerably depending on its constitutional aetiology, and those with MUS are often described as the bane of GPs lives, referred to colloquially as ‘heartsink’ patients.
Somatic symptoms can be manifested in response to emotional or psychosocial distress, and may be a reaction to life events or social situations stressful to the individual. This process is known as *somatisation* and defined as “…The tendency to experience and communicate somatic distress and symptoms unaccounted for by pathological findings, to attribute them to physical illness, and to seek medical help for them” (Lipowski 1988). Medically, somatisation is categorised as mental illness, using a range of classifications through both ICD10 and DSMIV systems (see figure 2).

**Figure 2 Classification of Somatoform disorders**

<table>
<thead>
<tr>
<th>ICD 10</th>
<th>DSM IV</th>
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<tbody>
<tr>
<td>somatoform disorder</td>
<td>somatoform disorder</td>
</tr>
<tr>
<td>requires multiple recurrent and frequently changing symptoms of 2 years duration</td>
<td>requires multiple recurrent symptoms over several years for which medical investigation has taken place</td>
</tr>
<tr>
<td>undifferentiated somatoform disorder</td>
<td>undifferentiated somatoform disorder</td>
</tr>
<tr>
<td>less than 2 years of symptoms</td>
<td></td>
</tr>
<tr>
<td>hypochondriacal disorder</td>
<td>conversion disorder</td>
</tr>
<tr>
<td>persistent preoccupation with possibility of having one or more serious and progressive physical disorders</td>
<td></td>
</tr>
<tr>
<td>somatoform autonomic dysfunction</td>
<td>body dysmorphic disorder</td>
</tr>
<tr>
<td>symptoms suggest neurological disorder eg blindness deafness numbness in limbs</td>
<td></td>
</tr>
<tr>
<td>persistent somatoform pain disorder</td>
<td>pain disorder</td>
</tr>
<tr>
<td>unspecified somatoform disorder</td>
<td></td>
</tr>
</tbody>
</table>

Despite the detail of criteria, the subjectivity of diagnosis and interpretation means that prevalence in general populations may vary widely according to ICD or DSM criteria. For instance in a study of GP attenders in the UK, Fink et al (1999) found that only 7.1% of patients were diagnosed with undifferentiated somatoform disorder ICD...
10 criteria compared to 27.3% using DSM-IV. Conversely, the ICD diagnoses of somatisation disorder revealed a prevalence of 6.1% compared to 1% using DSM-IV. Moreover, the classification of somatisation as psychiatric disorder using these symptom lists further reinforces the mind/body divide and underplays the physicality of the symptoms. As McWhinney et al (1997) point out, what is needed is recognition that illnesses have emotional components and emotion can be a causal agent; in other words the patient should be diagnosed not the disease.

Crucial to understanding the mind-body health and illness connection is the concept of stress. Although it may be axiomatic that distress causes physical problems and physical factors cause emotions,

**Stress: a link between mind and body**

Antonovsky defines stress as ‘the strain that remains when tension is not successfully overcome’(1979:3). Like health and illness, stress is a contested concept which has a multitude of meanings and interpretations across the lay/professional divide. One school of thought suggests that what we call stress is merely unhappiness. Bauman suggests stress is the ‘lost link between objective affliction and subjective experience’ (2000:211). In other words, the stress discourse indicates a ‘lack of resilience’ in modern life and stress is a normal even desirable human experience, warranting no place for investigations of health and illness (Furedi 2005). Nevertheless stress-related illnesses are now the most common reason given for sickness from work thus

‘the very fact that the category has such a powerful and persistent hold on both the public and the scientific imagination suggests that it must partially grasp the reality of lived experience’ (Wainwright and Calnan 2002:44)

In scientific discourse, stress has traditionally been theorised as being located in individual biology or psyche, as in Cannon’s fight and flight model (1932) and the elaboration of mechanistic and homeostatic models which invoke images of ‘tension’ and ‘pressure’. Most models suggest that physiological, behavioural, and psychological processes may directly influence health in specific ways. Seyle’s influential adaptation model (1956) describes stress as an ongoing process of adaptation alarm – resistance- exhaustion. In this model, temporary stress can cause a useful adaptation as long as the body can return to homeostasis. Chronic stress may prevent homeostasis and lead to ill health, possibly in the following sequence:
Stress --> Fatigue --> Exhaustion --> Lowered Immunity --> Ill Health

Physiological mechanisms implicated in illness and disease include the autonomic nervous and neuroendocrine systems that influence immune, gastrointestinal, neuromuscular, and cardiovascular function; acute activation of these systems is known to precipitate short-term adaptive physiological changes as well as a whole range of somatic symptoms (e.g., rapid heart rate, increased perspiration, gastrointestinal motility) that may be experienced as symptomatic of ill health). Although physiological activation has short-term adaptive benefits, chronic activation of these systems is believed to enhance vulnerability to cardiovascular, metabolic, immune-related, and other diseases as well as changes in the central nervous system and the structure of the brain itself (Grant et al. 2000). Behavioural responses to stress may heighten risk of illness, since stressed individuals are more likely to exhibit altered and unhealthy eating and sleeping habits and heavier consumption of alcohol and other substances (Grant et al. 2000).

Stress can be seen as both positive and negative, one reason why more sophisticated concepts are needed to describe and, if necessary, manage the intertwining of emotion and embodiment. Sociological understandings of health and illness illuminate the transaction between individual and society, and take into consideration the individual's repertoire of coping resources and vulnerabilities, as work on psychosocial determinants of health inequalities has revealed (Wilkinson 1996, Freund 1998). A health capital model can perhaps encompass both adaptation and demand/resource models (Figure 3).

**Figure 3 : A Health Capital Model of Stress**

<table>
<thead>
<tr>
<th>Demands</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>= life events + daily ‘grind’</td>
<td>= biological/ physical</td>
</tr>
<tr>
<td><strong>biological/ physical</strong></td>
<td>health, geographical location</td>
</tr>
<tr>
<td>eg illness, risk factors</td>
<td>physical environment</td>
</tr>
<tr>
<td>demands of daily activity</td>
<td></td>
</tr>
<tr>
<td><strong>economic/material</strong></td>
<td>= economic/material</td>
</tr>
<tr>
<td>type of work</td>
<td>survival, shelter</td>
</tr>
<tr>
<td>providing adequate’ standard of living for self/ dependents</td>
<td>income, education, housing</td>
</tr>
<tr>
<td><strong>social/ cultural</strong></td>
<td>= social/ cultural</td>
</tr>
<tr>
<td>caring responsibilities, social roles</td>
<td>self-esteem, social networks</td>
</tr>
</tbody>
</table>
In this model, sufficiently intense perceived stress may activate physiological, behavioural, and psychological processes that place individuals at heightened risk for health problems or illness behaviour. Long term damage to health arises as sustained stress leads to an inability to adapt to transient stressors; maladaptive arousal may be low grade but persistent. However, a health capital model also allows for the fact that individuals with more resources and fewer vulnerabilities may be less likely to perceive a given set of circumstances as stress-provoking and that even when events are perceived as stressful, these individuals seem better able to adjust and cope.

References
Press


Mental Health Foundation (2005) [www.mentalhealth.org.uk](http://www.mentalhealth.org.uk)


Footnotes

1 ICD10 and DSMIV are the dominant forms of classifying psychiatric conditions.