

# Psychosocial and Psychodynamic Factors Influencing Health Care Utilisation

Thomas Maier

Published online: 7 November 2006  
© Springer Science+Business Media, Inc. 2006

**Abstract** This paper aims to elucidate some dysfunctional aspects of health care utilisation by combining concepts from modern systems theory and from psychoanalysis. Contemporary health care in industrialised countries can be conceived as a social system in terms of modern systems theory. According to this theory, social systems are operating on the basis of a ‘guiding difference,’ which in the case of health care is the distinction between ‘healthy’ and ‘ill.’ Its rigidity in adhering to the healthy-ill dichotomy exposes health care to being collusively entangled in the interpersonal defence arrangements of patients. In the psychoanalytic view, individual conflicts can be warded off from consciousness not only by intrapsychic defence, but also by interpersonal defence mechanisms. These mechanisms involve the patients’ close social environment, often including doctors and hospitals. The functioning and the motivational structure of health care itself shows features of neurotic defence: Not only its representatives, but health care as a whole act in a rigid, obsessive manner in order to separate the healthy from the ill and to battle against (presumed) diseases. This obsession sometimes results in excessive diagnostic activism and in inconsiderate application of aggressive medical treatments. Both are inappropriate with regard to the salient problem of modern medicine: the increase of chronic nonfatal diseases like depression and chronic pain. The described defence mechanisms are unconscious not only to patients but also to health care professionals (let alone health politicians), and are contributing to dysfunctional health care overuse.

**Keywords** Collusion · Health care overuse · Health care utilisation · Interpersonal defence · Psychoanalysis · Psychodynamic factors · Psychosocial factors · Systems theory

## Introduction

In industrialised countries health care has developed into a huge and complex system with enormous economic, social, political, and even cultural impact. Paradoxically contemporary

---

T. Maier (✉)

Psychiatric Department, Zurich University Hospital, Culmannstrasse 8, CH-8091 Zurich, Switzerland  
e-mail: thomas.maier@usz.ch

health care appears to be extremely successful and rather inefficient at the same time. Measured by hard numbers like infant mortality and life expectancy modern health care is strikingly effective. To many people high-tech medicine therefore represents one of the hallmarks of western culture and life-style. From an economic point of view health care is characterised by a steep and constant growth of supply and demand, giving the opportunity for huge profits to some of the players in the market. Due to the insurance-based and subsidised financing of the system, however, others (mainly the public section of health care) are burdened by complementary rising deficits. Different indicators on the other hand reveal health care to be rather inefficient: the sharp increase of nonfatal, mostly chronic diseases such as depression [28, 29], somatoform disorders [36], whiplash injury [23], other hard-to-determine disturbances of well-being, and as a consequence a fast growth of disability rates [23, 24, 27]. The reasons for this development are unclear and controversial, and so are the possible remedies.

### Health Care as a Social System

Health care has to be considered as a complex and therefore not fully determinable system [33]. Within the framework of modern systems theory [21], health care can be conceived as a subsystem of society. According to Luhmann, society as a whole is modelled as a texture of systems and subsystems, each operating on its individual communication basis and following its own, but analogous laws of functioning. In his (somehow counterintuitive) conception of social systems, Luhmann completely omits the individual. His theory of social systems focuses on what constitutes a complex network of mutual attributions and expectations between individuals: on communication. Social systems are creating and maintaining their structure through continuous acts of communication, in fact they *are* communication. Communicative structures constituting social systems are autopoietic and self-regulating, for they are evolving along a 'guiding difference' ([22], p. xix). The continuous assessment and re-evaluation of the system-specific 'guiding difference' represents the substance of any communication taking place within a defined social system. Examples for important subsystems in modern society are: economy, politics, media, judiciary, science, religion, art. Corresponding 'guiding differences' in this sense are: profitable/not profitable in economy, legal/illegal in judiciary, publicly interesting/not interesting in media, true/not true (provable/not provable) in science. Each of these social subsystems is operating on the basis of its specific 'guiding difference' and is using 'generalised symbolic media' [31] to shape this difference. 'Generalised symbolic media' as conceived by Talcott Parsons are resources orientated to exchange processes within and between the subsystems of the social system. Starting with money, Parsons expanded the concept to more abstract terms like power, influence, or value commitment. In modern societies, 'health' has obviously gained the status of a generalised symbolic medium [46] and mediates in the exchange between body and social system. Hence, the distinction between 'healthy' and 'ill' is representing the guiding difference in health care. Any episode of communication and any activity within health care is initiated and continued only by the question: healthy or ill? Without a sign or at least a suspicion of illness, there is no legitimacy to enter the system, and there will be no reaction of the system.

In the case of health care, it is instructive to notice the close relation of the healthy/ill difference to the traditional and ubiquitous cultural good/evil dichotomy. Health care treats the ill as if it was the absolute evil. It aims to track down the evil/ill in its very initial state and in any form of appearance, and wants to persecute and to extirpate it with brute force.

This belligerent impetus is uncovered for example by the martial vocabulary of modern medicine: ‘aggressive treatment,’ ‘target,’ ‘extirpation,’ ‘killer cells,’ ‘fight,’ ‘battle,’ ‘war’ are common terms in contemporary medicine. Especially in oncology and infectiology, physicians see their activities in detecting and treating illnesses as battle or warfare. They perceive themselves as warriors, constantly rearming their instrument, while evil infectious or malignant agents (bacteria, viruses, prions, tumours, cancers) are insidiously trying to sneak out. The intensified, obsessive effort of modern health care to discriminate the healthy from the ill can be demonstrated in various tendencies and developments of contemporary medicine (many of them are enhanced by corresponding changes in public opinion and in the legal system):

- Increasing efforts are taken to define exact diagnostic criteria for all kinds of diseases in order to separate the healthy from the ill. In current scientific opinion, medical diagnoses must be precisely defined and codified in order to be accepted [34].
- New, sophisticated diagnostic instruments are constantly being developed (biochemical tests, imaging techniques, questionnaires etc.) aiming to clarify the status of unclear symptoms or even of asymptomatic findings [38].
- Insurance payments (for treatment, indemnity, or pensions) entirely depend on the approval of illness in terms of official diagnostic categories. So any complaint and any deviate finding must be attributed to a diagnostic entity. If this seems not to be possible, the urge arises to define new diagnostic entities [23].
- Medical research is based exclusively on precisely defined diagnoses. Unclear, doubtful, or unspecific symptoms are not amenable to medical research, hence they are neglected.
- Doubtful findings and unclear symptoms must be clarified at any rate and regardless of costs. This is required by patients (say customers) as well as by doctors who fear charges for malpractice in case of missing severe diseases.

### **Mechanisms Determining Health Care Utilisation**

Owing to this specific internal structure, health care subjects any problem encountered to its healthy-ill discrimination algorithms. The system is unable to react to any other condition, and will decline responsibility for problems which are not presented in terms of a healthy-or-ill question. The resulting unconditional adherence of health care to the healthy-ill dichotomy creates particular conditions and possibilities for individuals to act out originally non-medical problems and conflicts within health care. This phenomenon is usually described under the notion ‘medicalization’ [19, 30], while from a psychodynamic viewpoint there are important aspects of ‘interpersonal defence’ to be identified in this mechanism. The combination of systems theory and psychoanalysis may help in the following to elucidate the connection between ‘medicalization’ and ‘interpersonal defence.’

In psychoanalytic theory, defence mechanisms are conceived as unconscious intrapsychic reactions and mindsets aiming to ward off unpleasant emotions from the consciousness. In addition to the intrapsychic defence mechanisms, there are equally important interpersonal (or psychosocial) defence mechanisms. These mechanisms describe relational or social behaviours and attitudes, which are also unconscious and serve the individual in coping with unpleasant realities. Outside psychoanalytical contexts, the notion ‘defence’ is often replaced by the term ‘coping.’ The close relation between defensive style (or coping style) and mental health has been broadly demonstrated by Vaillant’s grand long term study on psychosocial adaptation [39]. There is a large body of literature in Vaillant’s wake analysing different

aspects of intrapsychic and interpersonal defence mechanisms. In recent years, Westerman has particularly focussed on interpersonal behavioural patterns as means of defence [44]. Interpersonal defence mechanisms are manifesting as intensified interaction (of variable emotional quality) to individuals, groups or institutions. There are some particularities that predestine health care to become enmeshed in these kind of defence arrangements. (This applies equally to individual representatives of health care systems as to healthcare institutions as wholes).

- Its permanent and immediate accessibility,
- its independence of culture, language, and class,
- its affordability,
- its self-concept as unconditionally good, altruistic and helpful, and
- its inclination to fantasies of grandiosity and omnipotence.

Of course, the character and quality of these features vary among different countries depending on service structures and insurance systems. Still, it is the aspired ideal in industrialised countries – either implicitly or explicitly – to have affordable and accessible medical services, ready to provide best treatment at any time to anybody.

It is not a novel observation that the consumer behaviour of patients can not be fully determined by using merely medical or economical criteria. Patients' behaviour is not completely rational and is strongly influenced by psychological and social factors. Andersen's behavioural model [2] has been widely applied over the last decades to understand this complexity of health services' use and to adapt service structures to the needs of patients. However, this model is fundamentally describing observable behaviour and conscious attitudes and does not contribute to a deeper understanding of patients' intrapsychic motives for using, overusing or avoiding medical care. According to the Andersen model, people's use of health services is a function of (i) their predisposition to use services, (ii) factors which enable or impede use, and (iii) people's need for care. While the 'need for care' represents the real medical necessity for care and the 'enabling factors' are conceived as the physical and economical accessibility of medical care, the 'predisposition to use services' would allow for a more detailed analysis of psychological motives of patients to use medical care. Predisposing characteristics are usually understood as demographic and social characteristics of patients and their conscious beliefs and attitudes about health. These features are all amenable to direct empirical assessment. So far, very little attention is paid, however, to unconscious motives and to the function and the psychological significance of the patient-doctor-relationship, hence to transference phenomena. The patient-doctor-relationship is highly exposed to be involved in interpersonal defence mechanisms (see above) and to be overlaid with secondary (unconscious) motives. While transference, countertransference, and defence are common concepts in psychiatry and psychotherapy, doctors of other medical disciplines are usually not aware of this type of interpersonal involvement and may therefore sometimes miss the real needs of patients [14, 25]. In the following, some examples are presented, where the entanglement of health care into individual defence mechanisms can be demonstrated.

## Satisfaction of Emotional Needs

In modern western societies individuality is emphasised. Personal contacts do still happen and are important, but they have to be created and maintained actively by the autonomous individual. More and more social contacts are not aimless or even altruistic, but motivated

by mutual narcissism. Contacts without aim, reason, reward, or profit are avoided. Members of social minorities have even fewer opportunities to establish contacts because they have access only to a very limited number of people. The mechanisation and automation of modern civilisation (internet, cashless money transfer, mail-order business) allow people to live in the midst of society without ever getting in touch with any real person. Usually this kind of avoidance and social retreat is not a deliberate, voluntary act, but a result of schizoid, paranoid, phobic, or depressive traits and symptoms. It has been demonstrated that among high utilisers of general medical care, there are many people with depression and somatoform disorders [16, 32]. Often these disorders are not diagnosed, and patients are fruitlessly and repeatedly checked or unspecifically treated. For many of these patients entering the health care system can be the only need and opportunity for contacting other people. Health care systems are highly skilled and accustomed to deal with individuals who have impaired communication faculties due to psychopathological symptoms (phobia, paranoia, mistrust, shyness, bitterness, grief, obsessiveness, intricacy, tardiness, indecisiveness). Their offer of help and attention is optimally balanced, for it always leaves the initiative and autonomy to the individual. Not even waiting periods and other inconveniences really compromise health care's attractiveness in this point. Discontinuation of treatment, non-compliance and changing the doctor are the patients' means of avoiding too close relationships and feelings of dependency. On the other hand, chronic or relapsing diseases and complaints guarantee continuous and repeated contacts with medical staff, often highly admired and esteemed persons. Contacts with doctors and nurses are still mostly experienced as reassuring, encouraging and consolatory. How else is it explicable, that high utilisers (mostly phobic, somatizing and hypochondriac patients) repeatedly call on doctors, even if each visit ends fruitlessly. Many chronically ill patients have even very close and personal relationships to their doctors (sometimes closer than to any other person), far exceeding the purely medical care [5]. So representatives of health care systems act as providers of such an ordinary good as human contact. Maybe this is not considered their most important task nowadays, but for sure it is still one of the most honourable and beneficial [4, 15, 20].

## Respect and Esteem

In democratic egalitarian societies with guaranteed human rights and total social security, paradoxically many people still do not seem to develop a feeling of fundamental esteem and respect accorded by the community. On the contrary, it appears that the institutionalisation and professionalisation of welfare and well-being left an emotional vacuum and resulted in a privatisation of individual esteem and personal attention. As a consequence, there is an increasing number of people, who feel socially irrelevant and whose value is implicitly and sometimes even publicly questioned. Among these are: the jobless [9], the disabled, immigrants (especially asylum seekers) [1], the elderly, the ill (especially mentally ill and addicts). To these categories of persons, health care offers an easily accessible opportunity to experience individual esteem and personal attention [3]. It appears, that real value commitments between these individuals and society are greatly enabled by using 'health' as a generalised symbolic medium.

Indeed, lower socio-economic status predicts higher health care utilisation than the average, if access to medical care is granted [40]. The risk for unspecific medical complaints is increased in low-income populations [8] and cannot be explained by known risk factors. Doctors, nurses and other health care professionals are trained and socialised in a tradition characterised by humanistic and caring attitudes. In medicine the highest and unconditional

goal is to restore the individual's health and well-being. Independence from culture, language and class enlarges the range of health care to virtually all. From this point of view, health care is far more effective (despite its own imperfections and limitations) and far more powerful than any other social system in providing real satisfaction of emotional needs. Medical systems offer excellent conditions for parental transference and for re-enactment of different kinds of individual conflicts. Munchhausen syndrome and Munchhausen syndrome by proxy [18] represent examples for excessive and pathologic forms of involvement of medical systems into re-enactments of intrapsychic conflicts and interpersonal defence arrangements. Transferences within medical contexts are not only made to individual persons (doctors, nurses), but to the system as a whole: Medical institutions, renowned hospitals, famous clinics, teams of experts are of highest affective cathexis. They are expected to provide (and indeed do provide to some extent) motherly care and attention [26], fatherly authority and strength, but also absolute power, even violence and punishment until castration. It must be realised, however, that there are corresponding neurotic structures on the side of the medical staff: doctors and nurses also have emotional needs to be satisfied, they also may be prone to collude in sado-masochistic interactions and to compete for narcissistic grandiosity.

## Aggression

Aggressive impulses of individuals are normally controlled by different defence mechanisms. Not only intrapsychic but also interpersonal and social defence mechanisms are important to manage this task. The control and sublimation of aggressions is indeed one of the main functions of society and culture [12]. When aggression is manifest openly, this occurs primarily in the close social environment, thus in private relations, in families, at workplaces. These are therefore the social structures suitable to be involved in interpersonal defence mechanisms.

Modern societies are though increasingly confronted with the rise of aggressive potentials targeted against diffuse, anonymous structures (ethnic groups, institutions, property, companies, governments), because the close personal environment is either not susceptible to the handling of aggressive conflicts or simply does not exist. According to Goldstein [13], the lack of co-operative contacts between individuals and of social networks, as well as run-down physical environments, are fostering aggressive potentials. Individuals with biographies of disadvantage, disregard, mortification, and traumas have particular difficulties in coping with the social strain they encounter, and they often lack of a sufficient social environment. Examples for actual virulent social conflicts in western societies are: increasing pressure and competition in economy, unemployment, problems associated with migration and integration of different ethnic groups, xenophobia, racism, discrimination and suppression of females and children. Confronted with such conflicts, more and more people lack opportunities to abreact their feelings of hate, anger, rage, and envy in a socially accepted manner. Social conflicts (like the aforementioned) do find some resonance and reflection in various social systems (politics, judiciary, mass media, art, education), but from the viewpoint of affected individuals, there is no sufficient public reaction and no compensation for the supposed victims.

As not everyone has the psychological or physical preconditions to act out overt aggression, different ways of handling aggressive potentials are required. A frequent and common way to cope with aggression is to turn it inside the self, evoking somatic or psychosomatic symptoms [11]. This well-known neurotic pathway of coping with aggressions (hence an example of an intrapsychic defence mechanism) is evidently fostered by the existence of

a well functioning health care system, for the system is prepared to react immediately to somatic symptoms of any kind. Additionally it offers an opportunity to strike back against society in a covert and unconscious but very effective way: by using extensively health care services [6, 36, 37, 41], by keeping doctors and nurses busy, and by claiming indemnities and pensions [7]. At this point, it appears, that value commitments in health care can be based on different generalised symbolic media (money and health).

In countertransference health care professionals can easily feel the hidden anger and the aggression of these patients, but these emotions mostly remain unreflected and result only in complementary aggressive investigations and treatments [35]. It is instructive to realise that many patients suffering from chronic depression, anxiety, somatoform disorders, and other psychosomatic disorders have an identity as victims [23]. Epidemiological data confirm high rates of traumatised people among those who have higher rates of primary care utilisation [17]. Underneath their anxious, depressive or somatoform defence, there is a wide span of aggressive, hateful, and envious feelings. These patients tend to imbue object relations covertly with hostility, which makes them difficult to treat, especially for not trained medical staff [14]. The hidden (and mostly unconscious) anger of these patients causes a strong and constant wish for apology and compensation (from whomsoever). The feeling, that somebody is owing them something, and that somebody has to pay for their misfortune even stiffens the chosen defence style. This can be observed and identified clinically in many cases, especially in connection with litigations for pensions or indemnities. Health care utilisation and disability rates are highest among subjects with this kind of defence structure [41]. The anger hardly ever fades away, because no sufficient compensation ever comes. Even health care cannot provide the compensation longed for, but it is at least showing some kind of resonance and is therefore exploited by these patients in order to cope with their aggressions. Doctors, emergency-room staffs, even whole clinics can be involved in aggressive re-enactments of patients displaying different dramatic and hard-to-handle symptoms. Emergency units usually know (and fear) a certain type of irritating patient, who keep them busy by dramatically displaying all kinds of puzzling symptoms (unclear acute pain of chest, head, or abdomen, panic attacks, tachycardia, hypertensive crises, vertigo, nausea, dissociative states, seizures, palsies, rashes, self mutilation, suicidal behaviour, self-induced intoxications and so on). Many of these symptoms precipitate extensive medical examinations and treatments, sometimes of very invasive character until surgery, which are in fact (but unconscious also to doctors) re-enactments of punishment and symbolic castration.

### **Collusive Entanglement of Health Care**

Health care has more functions than just the diagnosing, treating, and preventing of diseases. Whether or not its representatives realise and like it, health care is acting as an important interface between individual and society. In Parsons' notion [31], health care is an agent in the symbolic exchange between individual and social system. 'Health' is acting as the 'generalised symbolic medium' in this exchange. From the perspective of modern systems theory, health care is maintaining its functionality by obstinately following the healthy-ill dichotomy. From a psychoanalytic view, health care's rigidity in adhering to this dichotomy can be interpreted as a neurotic trait. This neurotic trait is blurring health care's perception of patients' real motives and needs. Due to the unconscious neurotic nature of this shortcoming, the system is frequently involved in the individual and psychosocial conflicts and defence mechanisms of its clients. The resulting pattern of interaction can be labelled as 'collusive

mechanism of interpersonal (psychosocial, institutional) defence' [35, 43, 45]. Collusive patterns can be found, for example, when patients repeatedly call on their doctors or attend emergency rooms for acute physical complaints without objective findings. While the patient is getting immediate reassurance and relief, the doctor is raising cheers (and money) for his skilful work. So both partners are satisfied in the end, but nothing is really fixed. The real problem is not even recognised or discussed, and the same pattern of interaction will recur. Collusive relations constitute in fact very successful interpersonal arrangements, for they allow for the mutual stabilisation of two neurotic partners. The dysfunctional or maladaptive character of collusive relations is therefore not apparent at once. This becomes obvious only gradually, when the underlying conflict is not solved, but constantly fuels the chosen interaction style. So health care systems unintentionally get entangled in collusive-neurotic defence structures of patients, and often this is not realised by its representatives. Some doctors may sometimes feel a subliminal unease when their patients are not behaving rationally. Yet they do not understand the reasons and motives for this behaviour.

Health care systems and their representatives should become aware of these mechanisms and prepare to face the challenge of increasing numbers of psychosomatic patients. So far the medical system's reaction to this problem is to intensify the efforts to distinguish the healthy from the ill. This leads in the wrong direction because it will increase the number of doubtful cases and create new mysterious diseases [23], and stiffen the above-mentioned functioning of the system. Many politicians and health economists do not seem to integrate this more complex viewpoint into their considerations when modelling patients as customers with rational behaviour. Health care as a whole should develop more elaborated skills and competences to deal with that kind of patient. This is a matter of perception, insight and professional training [10, 42]. The goal is to grant these patients the best treatment in terms of medicine, psychology, and economy. The future and the prosperity of modern health care depends on the question, whether it is able to accept and assume its polyvalent role and whether it is able to evolve into a more comprehensive care system, which is not strictly focussed on the healthy-ill difference. Only a system that could react without first having to attribute the label 'ill,' is able to overcome the urge to produce illnesses. Yet the medicalization of social conflicts is not the patients' or the doctors' fault. It is made possible only by the absence of other powerful social systems willing and able to handle these tasks.

## References

1. Allison TR, Symmons DPM, Brammahn T, Haynes P, Rogers A, Roxby M, Urwin M (2002) Musculoskeletal pain is more generalised among people from ethnic minorities than among white people in greater Manchester. *Ann Rheum Dis* 61:151–156
2. Andersen RM (1995) Revisiting the behavioural model and access to medical care: does it matter? *J Health Soc Behav* 36:1–10
3. Balls OP, Miranda J (1991) Psychosomatic symptoms in medical outpatients: an investigation of self-handicapping theory. *Health Psychol* 10:427–431
4. Baker R, Mainous AG, Gray DP, Love MM (2003) Exploration of the relationship between continuity, trust in regular doctors and patient satisfaction with consultations with family doctors. *Scand J Prim Health Care* 21:27–32
5. Berger M (2002) Chronically diseased patients and their doctors. *Med Teach* 24:642–624
6. Byrne M, Murphy AW, Plunkett PK, McGee HM, Murray A, Bury G (2003) Frequent attenders to an emergency department: a study of primary health care use, medical profile, and psychosocial characteristics. *Ann Emerg Med* 41:309–318
7. Cassidy JD, Carroll LJ, Côté P, Lemstra M, Berglund A, Nygren Å (2000) Effect of eliminating compensation for pain and suffering on the outcome of insurance claims for whiplash injury. *N Engl J Med* 342:1179–1186



8. Croft PR, Rigby AS (1994) Socioeconomic influences on back problems in the community in Britain. *J Epidemiol Commun Health* 48:166–170
9. Domenighetti G, D'Avanzo B, Bisig B (2001) Health effects of job insecurity among employees in the swiss general population. *Int J Health Serv* 30:477–490
10. Elks ML (1997) 'I'm ok; you're not': medical socialization and psychosomatic illness. *Med Hypotheses* 48:33–36
11. Freud S (1917) Introductory lectures on psycho-analysis. Lecture XXIV: The common neurotic state. In: The standard edition of the complete works of Sigmund Freud, vol XVI. The Hogart Press, London, p 378
12. Freud S (1930) Civilization and its discontents. In: The standard edition of the complete works of Sigmund Freud, vol XXI. The Hogart Press, London , p 64
13. Goldstein AP (1994) The ecology of aggression. Plenum Publishing Corporation, New York
14. Hahn SR, Thompson KS, Wills TA, Stern V, Budner NS (1994) The difficult doctor-patient relationship: somatization, personality and psychopathology. *J Clin Epidemiol* 47:647–657
15. Hart JT (2001) Unhappyness will be defeated when doctors accept full social responsibility. *Br Med J* 322:1361
16. Hiller W, Fichter MM (2004) High utilises of medical care. A crucial subgroup among somatizing patients. *J Psychosom Res* 56:437–443
17. Holman EA, Cohen SR, Waitzkin H (2000) Traumatic life events in primary care patients. *Arch Fam Med* 9:802–810
18. Jureidini JN, Shafer AT, Donald TG (2003) "Munchausen by proxy syndrome": Not only pathological parenting but also problematic doctoring? *Med J Aust* 178:130–132
19. Kalanithi P (2001) The mediacalization of personality: mind-body relations in scientific culture. *Princeton J Bioeth* 4:46–63
20. Lings P, Evans P, Seamark D, Sweeney K, Dixon M, Grey DP (2003) The doctor-patient relationship in US primary care. *J R Soc Med* 96:180–184
21. Luhmann N (1990) The world society as a social system. In his: essays on self-reference. Columbia University Press, New York
22. Luhman N (1995) Social systems. Stanford University Press
23. Malleon A (2002) Whiplash and other useful illnesses. McGill-Queen's University Press, Montreal
24. Marin B, Prinz C (2003) Facts and Figures on Disability Welfare. A Pictographic Portrait of an OECD Report. European Centre for Social Welfare Policy and Research, Vienna
25. Marple RL, Kroenke K, Lucey CR, Wilder J, Lucas CA (1997) Concerns and expectations in patients presenting with physical complaints. Frequency, physician perceptions and actions, and 2-week outcome. *Arch Intern Med* 157:1482–1488
26. Mechanic D (1992) Health and illness behaviour and patient-practitioner relationships. *Soc Sci Med* 34:1345–1350
27. Moynihan R, Smith R (2002) Too much medicine? *Br Med J* 324:859–860
28. Murray CJL, Lopez Murr AD, eds (1996) Global burden of disease. A comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020. Harvard University Press, Cambridge, MA
29. National Institute of Mental Health (2001) Mental disorders in America. Online: [www.nimh.nih.gov/publicat/numbers.cfm](http://www.nimh.nih.gov/publicat/numbers.cfm) 2001
30. Nye RA (2003) The evolution of the concept of medicalization in the late twentieth century. *J Hist Behav Sci* 39:115–129
31. Parsons T (1968) On the concept of value-commitments. *Soc Inq* 38:135–160
32. Pearson SD, Katzelnick DJ, Simon GE, Manning WG, Helstad CP, Henk HJ (1999) Depression among high utilizers of medical care. *J Gen Intern Med* 14:461–468
33. Plsek PE, Wilson T (2001) Complexity, leadership, and management in healthcare organisations. *Br Med J* 323:746–749
34. Rosenberg CE (2002) The tyranny of diagnosis: specific entities and individual experience. *Milbank Q* 80:237–260
35. Schimmel P (1998) Medicine and the manic defence. *Australian New Zealand J Psychiatry* 32:392–397
36. Steen E, Haugli L (2000) Generalised chronic musculoskeletal pain as a rational reaction to a life situation? *Theor Med Bioeth* 21:581–599
37. Sun BC, Burstin HR, Brennan TA (2003) Predictors and outcomes of frequent emergency department users. *Acad Emerg Med* 10:320–328
38. Tilanus-Lindthorst MM, Kriege M, Boetes C, Hop WC, Obdeijn IM, Oosterwijk JC, et al (2005) Hereditary breast cancer growth rates and its impact on screening policy. *Eur J Cancer* 41:1610–7
39. Vaillant GE (1977) Adaption to life. Little, Brown & Co., Boston

40. Van Der Heyden JH, Demarest S, Tafforeau J, Van Oyen H (2003) Socio-economic differences in the Utilisation of health services in Belgium. *Health Policy* 65:153–165
41. Van Hemert AM, Bakker CH, Vandenbroucke JP, Valkenburg HA (1993) Psychologic distress as a longterm predictor of medical utilisation. *Int J Psychiatry Med* 23:295–305
42. Vliet Vlieland TPM (2002) Managing chronic disease: Evidence-based medicine or patient centred medicine? *Health Care Anal* 10:289–298
43. Weinryb R, Barany F (1987) The psychological facet of psychosomatic disturbances. *Scand J Gastroenterol (Suppl.)* 130:47–54
44. Westerman MA (1998) Reconceptualizing defense as a special type of problematic interpersonal behaviour pattern: A fundamental breach by an agent-in-a-situation. *J Mind Behav* 19:257–302
45. Willi J (1984) The concept of collusion: A combined systemic-psychodynamic approach to marital therapy. *Fam Process* 23:177–185
46. Yui K (2004) Health as a symbolic media interchanging between body and social system. Discussion paper 04/24E. Center for Legal Dynamics of Advanced Market Societies, Kobe University. Online: <http://www.cdams.kobe-u.ac.jp/archive/dp04-24.pdf>