The Clinical Domains of Psychosomatic Medicine

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Background: The psychosomatic evidence that has consolidated over the past decades provides the ideal background for dealing with the new needs that emerge in current medical practice.

Method: A review of the psychosomatic literature, using both MEDLINE and manual searches, was performed. Search terms were *psychosomatic*, *psychosomatic medicine*, *mind-body medicine*, and *biopsychosocial*. Medical journals and books in English were also searched manually. Articles, with particular reference to review articles, which were judged to be relevant to clinical practice, were selected.

Results: The following aspects were found of particular clinical interest: assessment of psychosocial factors affecting individual vulnerability (life events, chronic stress and allostatic load, well-being, and health attitudes), evaluation of psychosocial correlates of medical disease (psychiatric disturbances, psychological symptoms, illness behavior, and quality of life), application of psychological therapies to medical disease (lifestyle modification, treatment of psychiatric comorbidity, and abnormal illness behavior).

Conclusion: A psychosomatic approach may be crucial in managing patients with unexplained somatic symptoms and in identifying psychological distress that cannot be diagnosed by psychiatric categories. Furthermore, it may contribute to recovery and rehabilitation by specific interventions.

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Modern psychosomatic medicine developed in the first half of the past century, even though the concept was introduced by Heinroth in 1818. It resulted from the confluence of 2 concepts having an ancient tradition in Western thinking and medicine: psychogenesis of disease and holism.[1] The idea of psychogenesis characterized the first phase of development of psychosomatic medicine (1930–1960) and resulted in the concept of "psychosomatic disease" (a physical illness, such as peptic ulcer, believed to be caused by psychological factors). Despite early criticism,[2] the psychogenic postulate indeed exerted a considerable seduction in view of its explanatory power, particularly in a field then dominated by psychoanalytic investigators. Engel, Lipowski, and Kissen deserve credit for setting, in the 1960s, the ground for the current psychosomatic view of disease.

Engel developed a multifactorial model of illness,[3] later subsumed under the rubric of "biopsychosocial."[4] It allows illness to be viewed as a result of interacting mechanisms at the cellular, tissue, organismic, interpersonal, and environmental levels. Accordingly, the study of every disease must include the individual, his body, and his surrounding environment as essential components of the total system.[4] The various social factors involved may range from the socioeconomic status (e.g., poverty, nutritional deprivation, loss of social support) to toxic environmental exposure, in a truly ecological perspective. Psychosocial factors may operate to facilitate, sustain, or modify the course of disease, even though their relative weight may vary from illness to illness, from one individual to another, and even between 2 different episodes of the same illness in the same individual. Susceptibility to disease may be influenced by activation of a variety of central nervous system pathways.[5] Disciplines such as psychoneuroendocrinology and psychoimmunology, which originally stemmed from psychosomatic research, aim to unravel the complex balance between emotions and disease.[6–8]

Lipowski[1] gave an invaluable contribution in setting the scope, mission, and methods of psychosomatic medicine. He criticized the obsolete notion of psychogenesis, since it was incompatible with the doctrine of multicausality, which constitutes a core postulate of current psychosomatic medicine.

Kissen provided a better specification of the term *psychosomatic*: "It would appear possible for an illness generally thought of as being 'psychosomatic' to be 'nonpsychosomatic' in certain individuals. Likewise an illness not

generally thought as 'psychosomatic' may be psychosomatic in some individuals."[9(p40)] He thus clarified that the relative weight of psychosocial factors may vary from one individual to another within the same illness and underscored the basic conceptual flaw of considering diseases as homogeneous entities. Instead of asking, "Which psychological factors give rise to which illnesses?" Kissen suggested to ask, "Who are the patients within a given illness population for whom psychosocial variables are of primary significance?"

Psychosomatic research in the past decades has resulted in an impressive body of knowledge, with contributions published in all major medical journals and in specifically dedicated journals such as *Psychosomatic Medicine*, *Psychosomatics*, *Psychotherapy and Psychosomatics,* and the *Journal of Psychosomatic Research*.[10] As a result, *psychosomatic medicine* may be defined as a comprehensive, interdisciplinary framework for:

1. The assessment of psychosocial factors affecting individual vulnerability, course, and outcome of any type of disease.
2. The holistic consideration of patient care in clinical practice.
3. The specialist interventions to integrate psychological therapies in the prevention, treatment, and rehabilitation of medical disease.

Psychosomatic medicine has recently become a subspecialty recognized by the American Board of Medical Specialties.[11] This may lead to identifying psychosomatic medicine with consultation-liaison psychiatry,[12] a subspecialty of psychiatry concerned with diagnosis, treatment, study, and prevention of psychiatric morbidity in the medical patient and the provision of psychiatric consultations, liaison, and teaching for nonpsychiatric health workers, especially in the general hospital.[13] Even though consultation-liaison psychiatry in the past 50 years had a major leading role in psychosomatic research and practice,[14] the 2 disciplines need to be better characterized.

As Wise[15] pointed out, consultation-liaison psychiatry is clearly within the field of psychiatry. Its site of action is the medical or surgical clinic or ward, and its focus is the comorbid states of patients with medical disorders.[15] It deals with highly technical issues related to the practice of psychiatry in the setting of medical disease (e.g., assessment of depression, use of psychotropic drugs). Psychosomatic medicine is, by definition,[1,10] multidisciplinary. It is not confined to psychiatry, but may concern any other physician. Not surprisingly, in countries such as Germany and Japan, psychosomatic activities have achieved an independent status and are often closely related to internal medicine.[16,17] Further, the psychosomatic focus is not only on general hospital patients, but also on the increasing psychosocial needs of primary care.[18]

The aim of this review was to outline the potential clinical applications of the psychosomatic approach. Such knowledge is crucial for any type of physician and may also lead to a better use of the physician with a psychosomatic background in clinical situations.

Assessment of the psychosocial factors affecting the individual vulnerability and the course of medical disease may indeed suggest treatment interventions and improve outcome. A search of the psychosomatic literature, using both MEDLINE and manual methods, was performed. Search terms were *psychosomatic*, *psychosomatic medicine*, *mind-body medicine*, and *biopsychosocial*. Medical journals and books in English were also searched manually. The focus of this review was to outline the contributions, with special emphasis on review articles, which were most relevant to clinical practice. We did not attempt to cover all domains of psychosomatic research, and we refer to other articles for such comprehensive coverage.[1,10]

ASSESSMENT OF PSYCHOSOCIAL FACTORS AFFECTING INDIVIDUAL VULNERABILITY

A number of factors have been implied to modulate individual vulnerability to disease.

Early Life Events

The role of early developmental factors in susceptibility to disease has been a frequent object of psychosomatic investigation.[19] In animal models, events such as premature separation from the mother have consistently resulted in development of physiologic vulnerability,[20] such as increased hypothalamic-pituitary-adrenal (HPA) axis activation[21] and prolactin secretion.[22] They may render the human individual more vulnerable to the effects of stress later in life.[21,22] There has also been considerable interest in the association of childhood physical and sexual abuse with medical disorders,[23] such as chronic pain[24] and irritable bowel syndrome.[25] A history of childhood maltreatment was significantly associated with several adverse health outcomes, e.g., functional disability and greater number of health risk behaviors.[26]

Recent Life Events

The notion that events and situations in a person's life that are meaningful to him or her may be followed by ill health has been a common clinical observation. The introduction of structured methods of data collection[27] and control groups has allowed substantiation of the link between life events and a number of medical disorders, encompassing endocrine, cardiovascular, respiratory, gastrointestinal, autoimmune, skin, and neoplastic disease.[8,28–33] Within a multifactorial frame of reference, stressful life events may affect the regulatory mechanisms of neuroendocrine-immune functions in a number of ways.[34–36]

Chronic Stress and Allostatic Load

Life changes are not the only source of psychological stress. Subtle and long-standing life situations should not too readily be dismissed as minor and negligible,[37] since chronic, daily life stresses may be appraised by the individual as taxing or exceeding his or her coping skills.

McEwen and Stellar[28] proposed a formulation of the relationship between stress and the processes leading to disease, based on the concept of allostasis, the ability of the organism to achieve stability through change. Through allostasis, the autonomic nervous system, the HPA axis, and the cardiovascular, metabolic, and immune systems protect the body by responding to internal and external stress.[38] The allostatic load is the cost of chronic exposure to fluctuating or heightened neural or neuroendocrine response resulting from repeated or chronic environmental challenge that an individual reacts to as being particularly stressful. It emphasizes the hidden cost of chronic stress on the body over long time periods, which acts as a predisposing factor for the effects of life changes.[28] Four situations are associated with allostatic load: frequent stress, failure to adapt to repeated stressors of the same type, inability to shut off allostatic responses after a stress is terminated, and inadequate responses, which trigger compensatory increases in other allostatic systems.[38] Biological measures of allostatic load, such as glycosylated proteins, coagulation/fibrinolysis markers, and hormonal markers,[39] have been linked to poorer cognitive and physical functioning,[40] mortality,[41] and stressful life situations.[42]

Social Support

Prospective population studies have found associations between measures of social support and mortality, psychiatric and physical morbidity, and adjustment to and recovery from chronic disease.[43] Interventions designed to alter the social environment and the interpersonal relationships have been successful in facilitating psychosocial adjustment to medical disorders.[43]

Psychological Well-Being

Positive health is often regarded as the absence of illness, despite the fact that, half a century ago, the World Health Organization defined health as a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."[44] Ryff and Singer[45] remark that, historically, health is equated with the absence of illness rather than the presence of wellness. Research on psychological well-being has indicated that it derives from the interaction of several intercorrelated dimensions.[45,46] Several studies have suggested that psychological well-being plays a buffering role in coping with stress and has a favorable impact on disease course.[47] The evidence, however, is still equivocal. A review on the impact of psychosocial intervention on survival from cancer and well-being, for instance, failed to detect consistent effects.[48] Nonetheless, the health implications of the concept of psychological well-being appear to be considerable, also in view of its role in life cycles (e.g., aging).[47] In mood and anxiety disorders, application of well-being–promoting psychotherapeutic strategies has resulted in a more pervasive and enduring recovery than control treatments.[49–51]

Health Attitudes and Behavior

There is growing awareness that certain personality habits, such as smoking cigarettes, drinking alcohol, and eating a diet rich in cholesterol and saturated fats, may have an impact on health. Beliefs about risks associated with certain health-damaging behaviors are not necessarily associated with the absence of those health risk behaviors. In a survey of health behaviors in young adults in 8 countries throughout Europe,[52] those who engaged more in drinking and smoking were just as much aware of the negative consequences of these health-damaging behaviors as people who did not engage in them. On the other hand, beliefs about the positive effects of health-protective behaviors, such as eating a low-fat diet, exercising, and participating in health screening examinations (e.g., testing for breast or prostate cancer) were strongly associated with their practice.[52]

Clinical Implications

Assessment of these psychosocial factors potentially influencing individual vulnerability to illness is generally omitted by the primary care physician or the medical specialist.[53] However, particularly when symptoms lack an adequate physical explanation, even after a reasonable work-up, the physician must evaluate the specific contribution of life stress. There are several instruments for assessing stress in clinical practice, but, even in their most abridged and primary care–oriented forms, they take considerable time.[54] Self-rating questionnaires and use of cut-off scores are a viable option but require scoring and involve delay in feedback to responders.

These obstacles introduce the need for a specialized assessment of psychosocial variables affecting illness vulnerability to evaluate:

1. Temporal relationship between life events and symptom onset or relapse.
2. Presence of grief reactions, including grief reaction to the loss of a body part or bodily function. Gradual changes that occur with chronic progressive disease may give the individual time to perceive and tolerate the changes, whereas sudden modifications are potentially more disruptive and grief-inducing.[55]
3. Perception of an environment by the person as exceeding his/her resources (allostatic load). Often

patients deny a relationship between their allostatic load and symptomatology, since they are unaware of the latency between stress accumulation and symptom onset ("I had bowel symptoms yesterday, which was an easy day at work, and not the previous days, which were awful"). Symptomatic worsening during weekends and vacation time is a common manifestation of this latency.
4. Interpersonal relationships providing a buffering role for stress.
5. Presence of physical and/or sexual abuse at some point in life.
6. Psychological assets and well-being.

This information may be crucial in managing patients with unexplained somatic symptoms,[56] difficult patient-doctor relationships,[57] or borderline laboratory findings (e.g., slightly elevated prolactin levels). It may require expert interviewing, self-rating inventories, and/or techniques of self-observation (self-monitoring of daily activities and recording of the observed findings in a diary).[58]

ASSESSMENT OF PSYCHOSOCIAL CORRELATES OF MEDICAL DISEASE

Psychosocial and biological factors interact in a number of ways in the course of medical disease. Their varying influence determines the unique quality of the experience and attitude of every patient in any given episode of illness.[59]

Psychiatric Disturbances

The potential relationship between medical disorders and psychiatric symptoms ranges from a purely coincidental occurrence to a direct causal role of organic factors—whether medical illness or drug treatment—in the development of psychiatric disturbances. The latter is often subsumed under the rubric of organic mental disorders whose key feature is the resolution of psychiatric disturbances upon specific treatment of the organic condition.[60]

Major depression has emerged as an extremely important source of comorbidity in medical disorders.[61–64] In particular:

1. The presence of depressive symptoms in association with chronic medical illness was found to affect quality of life and social functioning, and lead to increased health care utilization.[63]
2. Increasing evidence suggests that major depression may be associated with higher mortality,[63] particularly in the elderly.[64]
3. Depression was found to have an impact on compliance.[65] Many cases of "suicide by default" in the medical population (i.e., the deliberate omission of therapeutic, dietary, and other measures necessary to sustain life or prevent the progress of pathology) may mask a major depressive disorder.[66] Examples include diabetic patients who stop taking insulin, those who resume strenuous work after myocardial infarction, and those who withdraw from chronic hemodialysis.[66]
4. Research has suggested that depression may increase susceptibility to medical illness.[61–64] The evidence is particularly impressive in cardiovascular disease.[67] Indeed, clinical depression appears to be an independent risk factor for coronary artery disease[68,69] and to affect mortality rate after myocardial infarction.[70,71] Depression has also been suggested to be a marker of disease severity.[72] In pituitary-dependent Cushing's disease, the presence of depression was associated with severity of clinical presentation[73] and entailed prognostic value (patients were more likely to relapse after a successful pituitary microadenomectomy if they presented with depression at the time of surgery).[74]
5. Functional medical symptoms are extremely common in medical practice. Their association with depression has been consistent, regardless of the design of the study.[75] Depressed patients tend to have more somatic symptoms than nondepressed individuals, and somatizers tend to be more depressed than patients with physical disease.[75]

The case of depression exemplifies the importance of detecting and treating psychiatric comorbidity in the setting of medical disease. Other psychiatric disorders, such as anxiety disturbances,[76] may also carry important clinical consequences.[66]

Psychological Symptoms

Current emphasis in psychiatry is about assessment of symptoms resulting in syndromes identified by diagnostic criteria (*Diagnostic and Statistical Manual of Mental Disorders* [DSM]).[77] However, there is also emerging awareness in psychiatry that psychological symptoms that do not reach the threshold of a psychiatric disorder may affect quality of life and entail pathophysiologic and therapeutic implications.[78] This particularly applies to the setting of medical disease, where few psychological symptoms can be assigned a suitable rubric according to psychiatric diagnostic criteria.[79] The case of hostility is particularly indicative. A considerable body of evidence has suggested a pathogenetic role for anger, hostility, and irritable mood in physical illness.[80,81] Most of this evidence stemmed from hostility as a risk factor in cardiovascular medicine,[82] particularly when associated with type A behavior.[31,83] Similar considerations can be made as to another psychological state characterized by the giving-up complex, helplessness and hopelessness, and

demoralization,[84] which has been found to facilitate the onset of disease to which the individual was predisposed. Such a subsyndromal state cannot be identified with psychiatric categories. Both demoralization and irritability in association with fatigue may be part of another psychological state, labeled as vital exhaustion, which was found to be an independent risk factor for myocardial infarction.[85]

Further, a major difference between most psychosomatic research and traditional psychiatric research is the use of dimensional quantification of distress or emotional life versus categorical designation.[86] This particularly applies when examining the role of negative affect in health complaints.[87] Negative affect is a general dimension of subjective distress, which reflects stable and pervasive differences in negative mood and self-concept. Individuals who are high on negative affectivity are more likely to experience significant levels of distress and dissatisfaction at all times; they tend to focus on negative sides of themselves and others and tend to experience more physical symptoms.[87] Negative affectivity is thus an important mediator between stress, distress, and medical outcome.[70,87] Similar considerations may apply to dimensional constructs such as alexithymia[88–90] or suffering.[91–93]

Not surprisingly, diagnostic criteria based on psychological dimensions and subclinical clusters[94] were found to be more suitable than DSM-IV criteria in identifying distress and impaired quality of life in medical populations.[95–99]

Illness Behavior

Lipowski remarks that once the symptoms of a somatic disease are perceived by a person, or "he has been told by a doctor that he is ill even if symptoms are absent, then this disease related information gives rise to psychological responses which influence the patient's experience and behavior as well as the course, therapeutic response and outcome of a given illness episode."[66(p483)] The study of illness behavior, defined as the ways in which individuals experience, perceive, evaluate, and respond to their own health status,[100] has yielded important information in medical patients. It was translated clinically by Pilowsky's concept of abnormal illness behavior, characterized as the persistence of a maladaptive mode of perceiving, experiencing, evaluating, and responding to one's health status, despite the fact that a doctor has provided a lucid and accurate appraisal of the situation and management to be followed, if any, with opportunities for discussion, negotiation, and clarification, based on adequate assessment of all relevant biological, psychological, social, and cultural factors.[101] The 2 main forms of abnormal illness behavior (illness affirming and illness denying) have several common expressions in clinical practice. They range from hypochondriasis and disease phobia[75] to illness denial and lack of compliance.[102]

Quality of Life

Quality of life, particularly in chronic diseases, has become the focus of an increasing number of publications. While there is neither a precise nor agreed definition of quality of life, research in this area seeks essentially 2 kinds of information: the functional status of the individual and the patient's appraisal of health.[103] The concept stems from the fact that measures of disease status alone are insufficient to describe the burden of illness and that the subjective perception of health status (e.g., lack of well-being, demoralization, difficulties fulfilling personal and family responsibilities) is as valid as that of the clinician in evaluating outcomes.[103–105]

Clinical Applications

Psychiatric illness, psychological disturbances, and abnormal illness behavior may all have a profound effect on quality of life and how the disease process is experienced. These correlates call for a comprehensive assessment of psychosocial aspects of medical disease. It cannot be equated to a standard psychiatric evaluation[79] and may particularly be suitable for the following clinical situations:

1. Somatization. The tendency to experience and communicate psychological distress in the form of physical symptoms and to seek medical help for them is a widespread clinical phenomenon that may involve up to 30% or 40% of medical patients.[1] It may well be the most costly comorbidity.[106] Fourteen common physical symptoms are responsible for almost half of all primary care visits, but only 10% to 15% are found to be caused by an organic illness over a 1-year period.[107] Moreover, a significant proportion of problems presenting to a primary care physician cannot be assigned a suitable diagnostic rubric.[108]
2. Partial response to treatment. Quality of life may also often be compromised when the patient is apparently doing well. A recent example was provided by the comprehensive psychosomatic assessment of a sample of patients successfully treated for endocrine disorders.[22,97] Research on quality of life has indeed emphasized the discrepancies in health perceptions between patients, their companions, and their treating physicians.[103–105] In clinical medicine, there is in fact the tendency to rely exclusively on "hard data," preferably expressed in the dimensional numbers of laboratory measurements, excluding "soft information" such as impairments and well-being. This soft information could now, however, be reliably assessed by clinical rating scales and indexes.[54,109–112]
3. Suspected psychiatric complications of medical illness. A timely recognition of psychiatric dis-

orders that need specific treatments may have favorable implications for quality of life and course of disease.[61–66]

4. Abnormal illness behavior. Several manifestations of abnormal illness behavior (from hypochondriasis to lack of compliance) may hinder prevention and treatment of medical disorders.[106]

APPLICATION OF PSYCHOLOGICAL THERAPIES TO MEDICAL DISEASE

Psychological interventions in the medically ill encompass the use of psychotherapeutic strategies and psychopharmacologic interventions. They may be performed by different health professionals (psychiatrists, psychologists, nurses, primary care physicians, etc.).

Lifestyle Modification

An increasing body of evidence links the progression of severe medical disorders to specific lifestyle behaviors. In the 1990s, the benefits of modifying lifestyle were demonstrated in coronary heart disease.[113,114] In recent years, several major controlled clinical trials have shown that type 2 diabetes can be delayed or prevented in people at high risk.[115] Further, a number of psychological treatments have been shown to be effective in health-damaging behaviors, such as smoking.[116] There is also a complex relationship between psychological well-being and physical exercise, which needs to be considered both in promoting physical activities and in preventing their excess.[117]

Treatment of Psychiatric Comorbidity

There is evidence[61–63,118] that psychiatric disorders, and particularly major depression, are frequently unrecognized and untreated in medical settings, with widespread harmful consequences for the individual and society. Treatment of psychiatric comorbidity such as depression, with either pharmacologic or psychotherapeutic interventions, markedly improves depressive symptoms, health-related functioning, and the patient's quality of life.[119] However, an effect on medical outcome has not been demonstrated.[119] For instance, despite several studies having documented a substantial increase in cardiac morbidity and mortality in patients with depression after myocardial infarction,[70,71] use of sertraline did not yield significant differences compared to placebo as to cardiovascular events.[120] Similarly, use of psychotropic drugs in the medically ill[121–123] has been associated with modest marginal symptom improvement of the medical disease, such as sleep quality with antidepressant treatment of fibromyalgia.[124]

Psychosocial Interventions

Use of psychotherapeutic strategies (cognitive-behavioral therapy, stress management procedures, brief dynamic therapy) in controlled investigations has yielded a substantial improvement in quality of life, in coping, and/or in the course of disease in a number of medical disorders.[125–129] Examples of these strategies are interventions that increase social support and enhance coping in patients with breast cancer[130] and malignant melanoma[131] or writing about stressful experiences in asthma and rheumatoid arthritis.[132] Results are not always favorable, however, and may depend on the type of psychosocial interventions and the specific populations.[133,134] In a recent meta-analysis,[135] individual interventions, but not group treatments, were found to prolong survival time in cancer patients.

Table 1. Nonspecific Therapeutic Ingredients Shared by Most Forms of Psychotherapy[a]

Ingredient	Characteristic
1. Attention	The therapist's full availability for specific times
2. Disclosure	The patient's opportunity to ventilate thoughts and feelings
3. High arousal	An emotionally charged, confiding relationship with a helping person
4. Interpretation	A plausible explanation of the symptoms
5. Rituals	A ritual or procedure that requires the active participation of both patient and therapist that is believed by both to be the means of restoring the patient's health

[a]Based on Frank and Frank[136] and Fava.[137]

Research on psychotherapy has disclosed some common therapeutic ingredients that most of the psychotherapeutic techniques share, which are outlined in Table 1.[136,137] These ingredients may also apply to routine medical practice. In a pioneer study,[138] a small amount of individual attention and education (about what to expect during the postsurgical period) by the anesthetist resulted in a significantly lower requirement of postsurgery analgesia and a shorter hospital stay compared to a control group submitted to usual postsurgical care. The nonspecific therapeutic ingredients listed in Table 1 can thus be used with specific effects and do not require highly specialized training.

Lipowski[59] outlined 6 stages of illness: symptom perception, decision making, medical contact, acute illness, convalescence and rehabilitation, and chronic illness or disability. It is conceivable that different psychotherapeutic techniques may be applied to these stages and be specifically geared for them.

Treatment of Abnormal Illness Behavior

For many years abnormal illness behavior has been viewed mainly as an expression of personality predisposition and considered to be refractory to treatment by psychotherapeutic methods. There is now evidence to challenge such a pessimistic stance.[75,139] For instance, several controlled studies on psychotherapy[140–144] indicate that hypochondriasis is a treatable condition. Providing accu-

rate information and the use of simple cognitive strategies, such as clarification of both previous faulty communications with physicians and common psychophysiologic reactions (patients may in fact be unable to attribute somatic symptoms to anxiety), underlie treatment of hypochondriacal patients.[75] Similarly, the application of simple suggestions has yielded significant improvements in controlled studies concerned with functional medical disorders.[75] The correlation between abnormal illness behavior and health habits may have implications in preventive efforts. Indeed, individuals with hypochondriacal fears and beliefs were found to take worse care of themselves than control subjects in several studies.[145] They may be so distressed by their belief of having an undiagnosed or neglected disease that choices that may yield benefits in the distant future appear to be irrelevant to them.

Clinical Applications

Psychosomatic treatment consists of the integration of psychological interventions (brief individual psychotherapy, behavioral techniques, group psychotherapy) and psychopharmacology with conventional medical treatments. It appears to be particularly warranted in the following clinical situations:

1. Refractoriness to lifestyle modifications guided by primary care or other nonpsychiatric physicians.
2. Presence of psychological disturbances (e.g., demoralization and irritable mood) or of psychiatric illness (such as major depression or panic disorder).
3. Presence of abnormal illness behavior interfering with treatment or leading to repeated health care utilization, such as illness denial or hypochondriasis.
4. Impaired quality of life and functioning not justified by the medical condition.

CONCLUSION

The primary goal of psychosomatic medicine is its incorporation in clinical practice.[146] There is a wide array of medical symptoms that cannot be confined to current branches of internal medicine. Physicians with a psychosomatic background might provide optimal assessment and effective treatment of these disturbances.

The need to include consideration of function in daily life, productivity, performance of social roles, intellectual capacity, emotional stability, and well-being has emerged as a crucial part of clinical investigation and patient care.[103–105] These issues have become particularly important in chronic diseases in which cure cannot take place and also extend over family caregivers of chronically ill patients, whose emotional burden has become more and more manifest,[147] and health providers.[148] Patients have become increasingly aware of these problems. Their difficulties in coping with medical illness and its psychological consequences have indeed led to the development of several patients' associations. On the other hand, there is also increasing emphasis on health promotion rather than simple disease prevention.[149,150] The commercial success of books on complementary medicine and positive practices as well as the upsurge of mind-body medicine exemplify the receptivity of the general public to messages of health prevention and alternative medical models. Psychosomatic interventions may respond to these emerging needs and may play an important role in supporting the healing process.

Drug name: sertraline (Zoloft).

Disclosure of off-label usage: The authors have determined that, to the best of their knowledge, no investigational information about pharmaceutical agents that is outside U.S. Food and Drug Administration–approved labeling has been presented in this article.

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