

Biopsychosocial Model – The Integrated Approach to Health and Disease

Mladen Havelka, Jasminka Despot Lučanin and Damir Lučanin

Department of Health Psychology, University of Applied Health Studies, Zagreb, Croatia

ABSTRACT

The biomedical model of health and disease dominates in current medical practice. The model attributes key role to biological determinants and explains disease as a condition caused by external pathogens or disorders in the functions of organs and body systems. Such an approach has its historic justification and has proved effective in the control of massive infectious diseases. However, now that chronic non-infectious diseases prevail, its efficacy has not only become questionable, but also the issue has been raised of its economic justification. The extension of biomedical approach and attribution of equal importance to psychosocial factors have become an imperative in the improvement of treatment efficacy and disease control, together with humanisation of relations between health staff and patients. A new biopsychosocial model has been suggested, that takes into account all relevant determinants of health and disease and that supports the integration of biological, psychological and social factors in the assessment, prevention and treatment of diseases. It does not diminish the significance of biological factors, but extends a rather narrow approach. The biopsychosocial model served as incentive for many studies on how psychological and social factors influence the development, course and outcome of a disease, giving rise to the development of interdisciplinary field – particularly the fields of health psychology and psychoneuroimmunology. Their contribution to better understanding of the impact of psychosocial factors on health stimulates greater interest of medical theory and practice in more holistic approach to a patient. However, the changes of the old, organ oriented approach are still too slow and too narrow.

Key words: biopsychosocial model, health psychology, behavioural medicine

Introduction

The assumption that disease is not exclusively the disorder occurring at the cellular, tissue, and organ levels, but rather the state of the organism as a whole with equally important effects of biological, psychological and social factors, is practically as old as the written history of mankind. Hence the more surprising is the fact that still today, after ample scientific evidence about close interrelation between biological, social and psychological factors in health issues and development of disease, in medical theory and practice there still dominate biomedical approaches, the approaches that attribute key role to organic aspects of diseases¹.

According to biomedical model, diseases are caused by injury which may be either external or internal in origin. External causes of disease are divided into physical, chemical and microbiologic. Internal causes of disease fall into three large categories – vascular, immunologic and metabolic.

Such an organ-oriented medical practice stimulates the development of medical techniques and procedures that extend the knowledge about cell, tissue and organ functioning, and by which the mechanisms of development and treatment of certain somatic diseases can be revealed. However, by not taking into account wider psychosocial aspects of diseases, such organ oriented approach has little to offer in guiding the kind of preventive efforts that are needed to reduce the incidence of chronic diseases by changing health beliefs, attitudes and behaviour.

On the other hand, this approach also leads to dehumanisation of modern medical practice and produces dissatisfaction of people in need of health services. Contrary to that and provoked by such practice, numerous complementary and alternative approaches are developed as direct consequence of dissatisfaction with official medicine². In the frame of biomedical model medical interest is focused more on disease than the patient, more

on search for cellular and molecular levels of bodily functions than the functioning of the body as a whole. Further development of technology, scientific research and new medical knowledge are viewed upon as the future universal remedy that will soon solve health problems of humans and eradicate all severe diseases. The development of natural sciences, specifically chemistry, molecular biology, pharmacology, physics, electronics – undoubtedly substantiate these hopes. The discovery of »intelligent drugs«, major improvement in the efficiency and accuracy of diagnostic procedures, marked enhancement of surgical techniques, successful revealing of tumour development mechanism, all to the revolutionary deciphering of human genome, significantly contribute to the strengthening of the position of those who are in favour of organic and technology oriented visions of medical practice development. Although its proven efficacy cannot be denied, the dominance of such an approach could lead not only to further dehumanisation of relations between medical staff and their patients, but socially even more dangerous situation occurring as a result of such an increase in health expenditures which even the most affluent societies would not be able to sustain without significant restriction in the rights to health care. In spite of this the models that take into account the interrelations between physical, mental and social aspects, considering it among other more humane, cheaper and even more efficient – have very small, if any, influence on modern medical theory and practice.

The causes can be traced far back in ancient history and are mostly related to fundamental philosophical concern about the relation between soul and body, i.e. between psychological and biological. This everlasting philosophical and religious dilemma was in different historical periods addressed in different ways and from different viewpoints.

The History of Biomedical Approach

The earliest systematically written evidence on the knowledge about the relation between soul and body, between physiological, or organic, and psychological, can be found in the period from the year 500 to 300 B.C. in the writings of ancient Greek philosophers. Already Hippocrates, about the year 500 B.C., spoke about a certain type of holistic approach to health and disease, stating that health depends on correct proportions of body fluids, which insure good health when in harmony and disease when in disharmony – the harmony being influenced by external, natural factors, hence its lack results in disease³. In these early writings the signs of multifactorial model of disease may be seen together with the importance of natural, extra-organic factors influencing health and development of disease. Although even at that time the dualistic approach prevailed in the understanding of soul and body, still the human behaviour was considered an important factor in health and in treatment of disease. The balance of body humours, considered the most important health factors, could be achieved by proper be-

haviour, regular nutrition, utilisation of natural preparations, avoidance of physical exertion. The role of a physician was to help in the establishment of healing condition, serving as a mediator between the patient and the nature⁴. The subordination of medicine to nature was a most important of the whole Hippocratic medicine. It is implied in the emphasis which Hippocrates places on the control of the patient's regimen, especially the elements of his diet, the exercise and the general circumstances of his life. Medicines or drugs perform an auxiliary function. Surgery is always a last resort. The physician must combat the disease along with the patient and must therefore know the patient as an individual, and all the relevant circumstances of his life as well as particular circumstances of the disease. The practice of medicine thus appears to require more than scientific knowledge of health and disease. It requires the knowledge and skills to persuade the patient to cooperate. The man, not the disease, is to be treated, and to treat him well, physician must examine the man as a whole, not merely the organ or body part in which the disorder seems to be located. The relationship of the physician to his patient is itself a therapeutic factor and underlies the effectiveness of his skill in all other respects.

The greatest difference between this and later approaches to health was in emphasising the importance of the patient and her/his entire surrounding and behaviour, contrary to the emphasis on specific features and symptoms of a disease. Indeed, these early assumptions of multiple actions of various factors on health are the beginning of present-day holistic approach to health, the approach according to which the individual should take over the responsibility for one's own health by employing the forms of behaviour that preserve health and treat disease. Based on the same principle, Democritus states that »people who pray for their good health do not understand that it is them who have control over it«⁴.

The holism of that time, when the personality of a patient was more important than the disease, gradually disappeared in later years.

Galen, a much more influential physician of ancient time, directed the early holistic concept elaborated by Hippocrates toward searching »local pathology«, i.e. organic damage to organs and tissues and its effect on health.

Galen also spoke of holistic approach to disease and opposed to specialistic models seen in ancient Egypt medicine. Treatment of the disorders part as if it could be isolated from the living unity of the whole man is, to Galen, one of the deplorable consequences in medical practice of atomism or mechanism in medical theory[4].

But by anatomical studies on animal cadavers, because in pagan Rome dissection and autopsy of the human body was forbidden, Galen came to a conclusion that practically all diseases were caused by pathological lesions in organs and that different lesions caused different diseases. He was of opinion that there was not any disease that could develop without evident disorders in certain parts of the body. The concept about direct link

between bodily disorders and development of disease turned the attention of medicine of that time toward millennial studies of external influences on human health. Treatment started to be based exclusively on one-dimensional model of disease, i.e. that resulting from physiological changes in organ functioning, which only deepened the old dichotomy between the soul and the body⁵.

In medieval period in Europe the development of medicine underwent significant regression and so did other ideas and knowledge about body-mind relations. It was not before the 13th century that new ideas about body-mind relations appear. Saint Thomas Aquinas, a famous philosopher of the Dominican order, rejected in his writings the idea of soul and body as separate entities. The new position within the Church itself, actualised by the only recognised philosopher and scientist at that time, gave rise to interests in further discussions about the perennial problem of body-mind relations, the interests that by the beginning the Renaissance led to wide movement of re-questioning the »eternal truths« about the world in general, and hence about health and particularly about disease.

The scientific revolution that commenced at the beginning of the 15th century was for a long time strongly influenced by French philosopher Rene Descartes and his categorical opinion about body and mind being completely separated. Although Descartes was of opinion that mind and body could communicate through certain parts of the brain, the basic idea was that the spirit, or soul, functioned by one set of rules, or principles, while the body functioned by entirely different mechanisms. Rapid development of science leads to new discoveries in medicine, to understanding of the mechanisms of human blood flow, respiratory system functioning, the mechanisms of digestive and other body systems, the discovery of a microscope; for all of these medicine turned toward looking for physiological causes and means of treatment of most common bodily illnesses. Diagnostic efficacy and treatment of diseases are significantly improved, especially when microorganisms as causative agents of many diseases have been identified. The introduction of hygienic measures, e.g. the extensive use of soap for medicinal purposes, concerns about water purity, sanitary waste disposal, etc., contribute to significant positive effects on human health. Prevention of diseases by vaccination further increases the efficacy of treatment and strengthens the biomedical concept of disease.

However, despite the evident efficacy, more and more criticism is addressed to the biomedical concept, the most common one being that it reduces the disease to the lowest level, i.e. to cell and tissues, not taking into consideration other factors, such as natural surrounding, social environment, mental states, etc. Furthermore, it is a single-factorial model describing diseases only as a disorder in biological functioning of the body; it is based on dual concept of body and mind; it considers body and mind to be two separate entities in spite of ample scientific evidence of complex interactions between body and mind; it over-emphasises disease, ignoring health and important

role of medicine in preserving health and not only in the treatment of disease.

The Need for New Biopsychosocial Approach

The consequences of such a narrow approach may be seen in exclusive focusing of medical procedures on changing the disease condition by surgical, radiological, pharmacological and similar methods, which is almost a mechanical approach to disease where human body is viewed as a complex organic mechanism that the physicians will fix whenever a dysfunction in it occurs. The assumption here is that there is strict division between the non-material spirit, i.e. thoughts, attitudes, beliefs, feelings, etc, and the material body, i.e. bones, skin, organs. Every change in bodily function thus occurs separately from the changes in mental functions, and vice versa.

The approach to health and disease based on such assumptions was quite successful during the times when acute infectious diseases prevailed, caused by one agent only, the diseases that were of major medical concern at the end of the 19th and beginning of the 20th century. Yet the efficacy of biomedical model became highly questionable when massive new non-infectious chronic diseases occurred, in the development of which there participated numerous risk factors, among which a great number of psychological and social factors⁴.

The model that was highly efficient in controlling the diseases caused by one agent suddenly became extremely inefficient in the prevention and therapy of diseases caused by simultaneous interaction of numerous different causes and risk factors. The new diseases could not be efficiently controlled by extensive vaccination of the population nor merely organ-oriented therapeutic methods. The model became too narrow and the need to overcome it was substantiated by ever increasing scientific evidence about psychological and social effects on health and disease.

In his paper »The need for a new medical model«, published in the Science magazine in 1977¹, Georg Engel, specialist in internal medicine and psychiatry, criticises the existing biomedical models and sets foundations for a new bio biopsychosocial model by which he supports the integration of biological, psychological and social factors in the study, prevention and treatment of disease.

According to Engel the biomedical model is a reductionistic one since it is based on the philosophical principle that complex problems are derived from simple primary principles, according to which the causes of diseases can best be explained at the simplest (cellular) levels; also, that it is dualistic in terms of separating the mental from somatic processes. Engel further states that the biomedical model has almost become a medical dogma requiring that all diseases, including the mental ones, be conceptualised on primarily physical, chemical and other biological mechanisms. He also claims that the borderline between disease and health has never been clear and

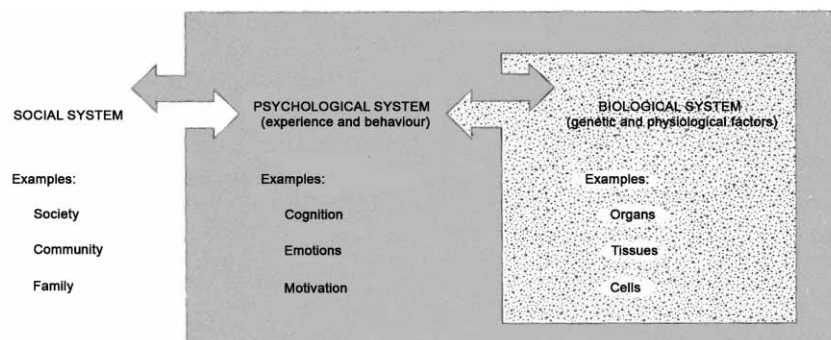


Fig. 1. Relations between biological, psychological and social aspects in biosociopsychological model of health and disease (according to Serafino³).

that simple biological determinants of diseases are strongly influenced by cultural, social and psychological conditions and states.

Engel provides concrete reasons for which he is of opinion that new approach is needed in modern medicine, like for instance, that patients with the same diagnosis and laboratory tests can present with completely different course of disease for different psychosocial characteristics; that for proper diagnosis it is necessary to extensively interview the patient during which important, not only biomedical, information can be obtained for correct diagnosis and treatment method; that psychosocial factors often determine whether the patients considers her/himself sick or in need for medical assistance; that psychosocial factors are interrelated with the biological ones to the extent that they may influence the course and outcome of treatment; that emotional relations between patients and physicians can affect the speed of recovery, etc.

The proposal to introduce new wider model of health does not diminish the importance of the biological in the development and treatment of disease, but widens a too narrow understanding of health and disease. Such an interaction takes place within one *unique* system specific for each individual, a system within which all three major subsystems communicate by exchanging information, energy and other substances. The centre of interest in biopsychosocial model is not the disease but a sick individual. In the diagnosis and treatment, beside medical procedures, the model employs all other methods related to psychological and social aspect, i.e. those requiring active participation of psychological, social, economic, anthropological and other professionals whose expertise will only contribute to the increase in health care efficacy, humanisation of relations within health system and significant savings in health expenditure. The model stimulates team work and interdisciplinary approach in both medical research and practice, contributing also to more rapid and successful development of medicine itself. In a number of important medical fields, like for instance the issue of pain control, the holistic theories, those taking into account multiple factors in the onset and therapy of single symptoms, help in formation of at-

titudes about the importance of other factors beside the biological ones.

The Role of Biopsychosocial Model

The role of biopsychosocial model is particularly important in the studies of how psychological stress affects the development of somatic diseases, since they have identified numerous facts about the interactions between the nervous, endocrine, immune and other organic systems in stressful situations. Many mechanisms of direct influence of stress on single organ and system functions have been established together with the indirect ones, like for instance increase in stress induced risk behaviour⁶. Wide evidence of the accuracy of Melzack and Wall's holistic pain theory, i.e. the »gate control theory«, has further contributed to the development and affirmation of psychological techniques in pain control programs, techniques that together with surgical and pharmacological methods improve the condition of patients suffering from unnecessary and chronic pain⁷.

Yet, despite being directed toward changes in medicine and its development, for it was indeed proposed by physicians and not psychologists or sociologists, the biopsychosocial model has contributed more to structural changes in psychology and sociology. In medicine the model provided the greatest contribution in the development of preventive programs in public health and the smallest in clinical medical practice. However, its influence is significant in education of medical professionals in terms of introducing many behavioural sciences topics in medical and nursing study curricula. Specific influence may be noticed in psychiatric education and extending of psychiatric approaches to somatic and not only psychic disorders, like for example in liaison psychiatry.

The Engel model significantly influenced the development of interdisciplinary studies of biological-psychological-social relations, resulting in the development of new disciplines, namely the psychoneuroendocrinology and psychoneuro-immunology.

The emphasis on physician-patient relationship led to studies about communication between health staff and patients, and the influence of communication to health

behaviour of the patient, first of all compliance with health advice and instruction⁸. Great contribution of biopsychosocial model may be seen in the development of new fields of psychological science. Because of increased interest in the influence of mental states on health and disease, behavioural medicine and health psychology have started to develop. There is no doubt that the biopsychosocial model shows its greatest influence on the development of health psychology^{9,10}.

Behavioural Medicine and Health Psychology

Although the basic concepts of psychological theory explaining the mental-physical relation have always been present (stress and body health, emotions and body immunity, coping with disease, social support and disease, health behaviour, personality and disease, life styles and health, patients' life quality, etc), and although the use of psychological techniques in preservation of health and treatment of diseases has been practiced for a long time, it is only about the beginning of 80-is of the 20th century that the overall theoretical and practical (applied) approach of psychology and psychologists to complex problems of health preservation and treatment of somatic diseases has begun⁴.

Clinical psychology and occupational psychology to a certain extent have long been the only branches of applied psychology mostly related to health care and medical profession. However, clinical psychology was primarily focused on diagnosis and therapy of mental diseases, which psychological processes acting upon the onset and course of somatic diseases were somewhat detached from the usual activities and wider interest of clinical psychologists within a health care system¹¹.

Such interests of psychologists in health care can well be understood for the 50-is of the 20th century, the time when clinical psychology begins to develop as an alternative to a rather obsolete psychoanalytical approach. At that time the infectious and parasitic diseases prevailed, and in their development and treatment the psychological processes did not have any specific role. Hence, as a priority task, clinical psychologists focused themselves on finding alternative methods of diagnosis and therapy of mental diseases based on new ideas of behavioural and cognitive psychology. Because of the dominant psychoanalytical approach in explaining the causes and treatment of mental diseases, the clinical psychologists were directed toward proving the importance and efficacy of clinical psychological procedures and techniques in the diagnosis and therapy of mental diseases.

When the causes of somatic diseases began to change and the increasing influence of psychological factors on the development of new diseases of modern society, namely the massive non-infectious chronic diseases, started to occur, about the end of the 70-is of the 20th century grows the interest of psychologists in how mental states affect the onset and course of somatic diseases. Gradually the knowledge about the effects of mental states on

somatic diseases starts to be systematically analysed and psychological procedures and techniques in the field of health preservation and treatment of somatic, and not only mental, diseases are used.

The tradition of psychosomatic approach in the 30-is of the 20th century, as a basis to increasing number of scientific ideas concerning the influence of psychosocial factors on health, gives rise to the development of a new discipline around the 70-ties – the behavioural medicine, and health psychology at the beginning of 1980. According to the logic of the biopsychosocial model, the previously used dichotomy of »psychosomatic« and »non-psychosomatic« diseases became obsolete. A new term is introduced about 1970, namely the »behavioural medicine«, relating to the field within which the activities of psychologists working in health care system would be extended. The term describes and defines the »interdisciplinary field concerned with the development and integration of the behavioural and biomedical science and techniques relevant to health and illness and the application of this knowledge and these techniques to prevention, diagnosis, treatment and rehabilitation.« Psychoses, neuroses and addiction are included in this area only if they lead to physical disorders as end results¹². The terms and the wide area it covers were subject to significant criticism. Too much of »behaviourism«, which is only one of many psychological theories, and particularly the use of »medicine« as a term, caused its rather short duration. In 1979 Stone et al in their Health Psychology textbook, a pioneering effort in the field, discuss in detail many topics and contents of the new field of psychology, the field defined as part of psychological science instead of medical one, the field in which the use of the term »health« instead of »medicine« widens the approach not only the issues of treatment of diseases, but preservation of health, i.e. prevention of diseases. Matarazzo, the first president of American Psychological Society Division of Health Psychology, established in 1978, defines health psychology as »...the aggregate of specific, educational, scientific and professional contributions of the discipline of psychology to the promotion and maintenance of health, the prevention and treatment of illnesses, the identification of etiological and diagnostic correlates of health and illness and related dysfunctions, and the analysis and improvement of the health care system and health policy«¹³.

Rapid development of health psychology following its initial conceptual definitions, is instigated by numerous factors, among which mostly by increasing knowledge about insufficient efficacy of traditional medical approach to health and disease in prevention and therapy of more and more frequent occurrence of chronic non-infectious diseases. Many studies of the influence of social, cultural, psychological and other »non-medical« factors in the onset and development of massive, especially chronic cardiovascular and cerebrovascular diseases contribute to the development not only of health psychology, but of other allied disciplines as well, the medical sociology in particular¹⁴.

Before 1980 the reference literature in the field of applied psychology in medicine and health care mostly relates to the topics of pathopsychology. However, during the past 20 years great number of general textbooks of health psychology have been published and they discuss the basic fields of health psychology, like for instance; psychological factors of health risks, prevention techniques of risk factors, psychological aspects of individual symptoms, diagnoses and medical procedures, the influence of psychological stress to the occurrence and course of disease, adherence to expert advice and instruction, importance of communication between health professionals and patients, psychological interventions in critical health conditions, psychological mechanisms of pain, and other.

Several magazines were initiated in the field of health psychology, among which the British Journal of Health Psychology, Psychology and Health, and Health Psychology, in which there are published many theoretical and methodology papers discussing the application and efficacy of health psychology techniques in the solving of many modern health and medical problems, together with specific problems of different groups of patients (e.g. cardiovascular, kidney, oncological and other). Such a vigorous development resulted in significantly greater participation of psychologists in health care practice.

The number of psychologist who apply the knowledge, skills and techniques of health psychology in health care practice also increases, and they extend the area of their participation from the traditional clinical psychological diagnosis and psychotherapy to the application of methods and techniques of health psychology. These activities will gradually extend to the following:

- Application of techniques modifying risk health behaviour
- Application of psychological techniques in pain control
- Application of anti-stress programs in patients at risk
- Application of psychological techniques in the strengthening of immune reactions to illness
- Improvement of communication between health staff and the patients
- Introduction of programs of life quality improvement for chronic patients, physically disabled individuals, the elderly functionally disabled individuals
- Development and application of overall rehabilitation of the disabled
- Evaluation of efficacy of individual psychological techniques in the prevention and treatment of illness
- Development and application of techniques of psychological assistance and support for the terminally ill patients and their families (cancer, AIDS)
- Identification of individuals at high risk of getting a disease.

Critical Views of the Biopsychosocial Model

The critics of biopsychosocial model state that it is mostly a biomedical model, that biological factors are still superimposed to the psychological and social ones, that the theoretical basis of the model is not clear enough, that the disadvantage of the model is the lack of a common language/system of concepts (i.e. psychological and medical terminology exist parallel and unconnected), and that the complex relations between causes and effects of factors within each subsystem, i.e. biological, psychological and social, influencing the state of health and occurrence of disease, are not properly known^{15,16}. Another opinion is that by proposing a model so conceived, Engel, as a physician, wanted to incorporate the so-called »external enemy« into the medical model and thus protect the official medicine from severe criticism for not taking into account mental and social factors, and also from significant resentment and antagonism of medical care users toward complementary and alternative medicine.

Another group of critics base their opinions on certain study results reported by advocates of biopsychosocial model, who on the basis of its assumptions carried out research with rather disappointing results. For example, Smith¹⁷ investigated the thesis about the benefits of biopsychosocial model in the understanding of etiological factors of chronic diseases, illustrating by the studies of factors influencing the development of peptic ulcer and ischemic heart diseases. Based on the obtained results he reports that it is not possible to definitely claim that there exists influence of psychosocial factors on aetiology of these diseases through the psychoneuroendocrinological mediating mechanisms.

The assumption that psychosocial risk factors act on the occurrence of physical diseases instigated extensive studies aimed at decreasing the morbidity and mortality from coronary heart diseases by acting on negative forms of health behaviour. In the Multiple Risk Factor Intervention study (MRFIT) about 13 thousand middle-aged male subjects were included who had clear signs of coronary risk (they were all smokers, had elevated cholesterol level and elevated blood pressure), but no symptoms of coronary disease. The study participants were included into the program of reducing the intensity of risk behaviour. After 7 years, the program evaluation showed disappointing results, i.e. only minor changes in health behaviour and practically no effects either to coronary morbidity or mortality¹⁸.

Such and similar results of efforts in individual interventions on health behaviour, fortunately did not result in general rejection of the basic model, but rather in extension of research concepts and search for causes of failure in conceptual and methodological approaches. One of the explanations for the obtained results was that health behaviour was observed out of the community context, that health behaviour in general depended on sociocultural factors and to a lesser extent on individual personal variables. Hence the community interventions were designed during which the whole community was stimulated

to accept positive health behaviour and not only the individuals at risk. This led to the development of community psychology – another discipline of health psychology¹⁹.

The third group of critics refers to the question of professional participation in solving the problems of health and disease, i.e. the competition in conquering new space for research and participation in health and medical practice by experts who are uncommonly included in medical practice in biomedical model so far – first of all health psychologists, clinical psychologist and medical sociologists. By frequently pointing out that the new approach in medicine opens limitless opportunities for research in health psychology and direct participation in health practice, the critics of this model state that it only confirms their doubts that psychologists have taken the advantage of widely accepting the new medical model mostly for reasons to ensure part of an increasingly rich health cake to their profession²⁰.

Conclusion

The conclusion should be the answer to the question made at the beginning – why, with all the evidence on close relation between biological, social and psychological factors in health and disease, within medical theory and practice still dominates a narrow biomedical approach, the approach that attributes the critical role to organic aspects and neglects psychological and social influences.

Some of the reasons have been discussed in the paper, whereas should be analysed in future studies of complex relations within medicine and more complex ones between medicine and other professions.

The resistance of medical schools against the introduction of subjects from behavioural sciences into regular curricula of university medical school still persists. The acceptance of biomedical model as a dogma does not only impede the introduction of new contents into educational curricula of future medical professionals, but blocks experts of other professions to teach at university schools of medicine. If the idea that the disease is an exclusively »biological« event is generally assumed, then, of course, there is no reason to include other professions, e.g. psychologists, sociologists and non-medical experts into the

education of medical professionals, an consequently into the process of treatment of disease, since only physicians can do that.

Engel is also of opinion that schools of medicine create hostile atmosphere for experts interested in interdisciplinary biopsychosocial studies and oppose to their participation in medical education programs. In this way a large corpus of knowledge about the influence of psychosocial factors on health and disease remains unknown to most medical professionals. The statements like, »emotional aspects of organic diseases are not essential either to the development or to the course of disease, and therefore medical students need not learn about them«, and many similar ones, Engel attributes to the »blinding effect of biomedical dogma.«¹.

Aspirations toward »biomedical exclusivity« can also be seen in efforts to introduce non-medical methods and techniques in medical practice. These are often not viewed with benevolence, as a possible and welcome assistance in more efficient solving of everyday health problems, but rather as attempts of unwelcome intruders aimed at threatening the established professional position of physicians in health care.

A professional dominance like that is well reflected in the existing model of health care practice, the model that rejects criticism and isolates medical profession from alternative views and relations with professions which might assist in clarification of health problems and promotion of health care⁹.

The words of Georg Engel, the man who takes the greatest credit for introduction of biopsychosocial model, published in the Science magazine and discussing the future of biopsychosocial approach, may well serve as final conclusion:

»But nothing will change all until they control resources and gain wisdom to dare reject exclusive relying on biomedicine as the only approach to health care¹.

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M. Havelka

*Department of Health Psychology, University of Applied Health Studies, Zagreb, Mlinarska 38, Croatia
e-mail: mladen.havelka@zvu.hr*

BIOPSIHOSOCIJALNI MODEL: CJELOVITI PRISTUP ZDRAVLJU I BOLESTI

SAŽETAK

U medicinskoj teoriji i praksi dominira biomedicinski model zdravlja i bolesti koji biološkim odrednicama pridaje ključnu ulogu, tumačeći bolest kao stanje uvjetovano vanjskim patogenim činiteljima ili poremećajem funkcija organa i organskih sustava. Ovakav pristup ima svoje povijesno opravdanje i pokazao je veliku efikasnost u suzbijanju masovnih zaraznih bolesti. Međutim, prevladavanjem kroničnih nezaraznih bolesti, ne samo da je upitnom postala njegova efikasnost, već se postavlja i pitanje njegove ekonomske opravdanosti. Proširenje biomedicinskog pristupa i pridavanje jednake važnosti psihosocijalnim odrednicama, pokazalo se imperativom kako u poboljšanju efikasnosti liječenja i suzbijanja bolesti, tako i u humanizaciji odnosa između zdravstvenog osoblja i pacijenata. Predložen je novi, biopsihosocijalni model, koji svim relevantnim odrednicama zdravlja i bolesti pridaje jednak značaj i podupire integraciju bioloških, psiholoških i socijalnih čimbenika u proučavanju, prevenciji i liječenju bolesti. Njime se ne umanjuje značaj bioloških činilaca, već nadopunjuje preuski pristup. Biopsihosocijalni model potakao je brojna istraživanja utjecaja psiholoških i socijalnih činilaca na nastajanje, tijek i ishod bolesti a time i razvoj novih interdisciplinarnih područja – posebice zdravstvene psihologije i psihoneuroimunologije. Njihov doprinos boljem razumijevanju djelovanja psihosocijalnih činilaca na zdravlje, potiče i veće zanimanje medicinske teorije i prakse za cjelovitijim pristupom pacijentu. Međutim, promjene starog, organicistički usmjerenog pristupa zbivaju presporo i u premalom opsegu.