

# Biopsychosocial Medicine – Multidimensional Parallel Diagnosis and Therapy in Obstetrics.

## Abstracts

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### From the Biopsychosocial Model to the Body Mind Unity Theory

Michael Trapp & Josef W. Egger

There is no doubt that in medical history the biomedical model has been extraordinarily productive. But according to George Engel and other authors it's characterized by a very reductionistic character [1, 2]. From a historical point of view George Engel can be considered as a very critical proponent of the biomedical model. He outlined a holistic medical model, the biopsychosocial model, and he argued that human beings are at once biological, psychological and social beings who promote or harm their health with their individual behavior [3–6]. The biopsychosocial model is mainly derived from studies of general systems theory (Luhmann in Gerok 1990, Kriz 1997, Schiepek & Spörkel 1993) and its application to biology. It is substantially the merit of Bertalanffy and Weiss. The formulation and promotion of the model as a basis for psychosomatic medicine was essentially the work of George L. Engel, the behavioral psychologists Schwartz and Weiss and others like for example Herbert Weiner, who until his death tirelessly gathered empirical evidence from all research areas of scientific medicine for this model.

Thus the biopsychosocial model describes nature as a hierarchy of systems within the limitations of a mesocosm (sensu Vollmer). Each level in this hierarchy represents an organized dynamic system (entity) and each system has qualities and relations that are typical for this level of organization [1]. Nothing exists in isolation; all levels of the organization are connected/interlinked. Thus a change at one system-level causes in principle a change in the other levels especially in the adjacent levels of the system. Due to the parallel interface between different system levels every psycho-physiological event occurs more or less simultaneously [7].

The biopsychosocial model is now essentially a theory of the unity of body and mind and offers a fundamental expansion of theoretical medicine, in which health and illness are no longer conceived as dichotomous separated entities. Hence health can

be defined as the sufficient competence of our organism to cope with any disturbances on any system level auto-regulatively. Thus not the absence of pathogen factors or the absence of disease/abnormality in psycho-social fields represents health but the competence of controlling these pathogen factors sufficiently [8]. Within the revised biopsychosocial model illness and health are not seen as states but as dynamic processes. Therefore health must be “created” in every second of our life [7, 8].

### References

- [1] ENGEL G. L. The need for a new medical model: a challenge for biomedicine. *Science* 1977; 196:129–36.
- [2] MCWINNEY I. R. Are we on the brink of a major transformation in clinical method? *CMAJ* 1986; 135: 873–8.
- [3] ENGEL G. L. The clinical application of the biopsychosocial model. *Am J Psychiatry*. 1980 May; 137(5): 535–44.
- [4] ENGEL G. L. The clinical application of the biopsychosocial model. *J Med Philos*. 1981 May; 6(2): 101–23.
- [5] ENGEL G. L. Sounding board. The biopsychosocial model and medical education. Who are to be the teachers? *N Engl J Med*. 1982 Apr 1; 306(13): 802–5.
- [6] NOVACK D. H., CAMERON O., EPEL E., ADER R., WALDSTEIN S. R., LEVENSTEIN S., et al. Psychosomatic medicine: the scientific foundation of the biopsychosocial model. *Acad Psychiatry*. 2007 Sep–Oct; 31(5): 388–401.
- [7] EGGER J. W. Das biopsychosoziale Krankheitsmodell – Grundzüge eines wissenschaftlich begründeten ganzheitlichen Verständnisses von Krankheit. *Psychologische Medizin*. 2005; 16(2): 3–12.
- [8] EGGER J. W. Grundlagen der „Psychosomatik“ – Zur Anwendung des biopsychosozialen Krankheitsmodells in der Praxis. *Psychologische Medizin*. 2008; 19(2): 12–22.

michael.trapp@medunigraz.at

Research Unit of Behavioural Medicine, Health Psychology and Empirical Psychosomatics, University Clinic of Medical Psychology and Psychotherapy, Medical University of Graz, Roseggerweg 50, A-8036 Graz, Austria

## **The Theoretical Basis of Multidimensional Parallel Diagnosis and Therapy within the Biopsychosocial Medicine**

Josef W. Egger

The Biopsychosocial Model does not contradict the biomedical theory. It acknowledges the biomedical theory with its physical-chemical foundation. However the biopsychosocial approach attempts to overcome the strictly natural scientific approach and includes the psychological and eco-social impact influencing health and sickness in a holistic theory. It demands an inclusion, widening the biomedical horizon through the psychological and eco-social perspective, leading to an integrated scientific medicine for the 21<sup>st</sup> century.

A parallel use of physiological, psychological and environmental determination factors requires a potent meta-theory. The General System Theory constitutes such an understanding of the parallel interlinking within levels of reality. The strict distinction between illness/sickness and health is lost; for each level in itself can prove to be more or less functional, thus entailing a spectrum of malfunctioning/illness or functioning/health. Furthermore there is no need to distinguish between organic and psychological diseases – they all refer to the one and only biopsychosocial reality.

Therefore, all encompassing medical research demands a parallel investigation of all three relevant dimensions: body, soul and the eco-social living-environment to be able to make a valid statement for diagnosis or therapy. All three dimensions belong to the same reality, though measured by different methods and named with diverse terms. It is vital to calculate the psychological and eco-social factors as potential determinant factors in every process of convalescence; health regenerating and preserving factors continuously interact; on the molecular level as well as on the environmental level of the individual.

Due to the vertical and horizontal interlinking, every event takes place simultaneously in more than one dimension, which is similar to the technical concept of a parallel circuitry. This, however, does not mean that all effects can be observed at the same time. Due to the different progression of each involved system level, system levels process a few aspects quicker, and other aspects – perhaps on different system levels – can only be observed with delay. For example, if we think about the lead time that passes until the damage of habitual smoking is apparent, or even the connection between a latent disposition to vexation and the development of a stomach-ulcer ...

As an important consequence of the Biopsychosocial Model, each event or every process, which involves etiology, pathogenesis, symptomatic manifestations and therapy holds inept disturbances, which are not singularly biological or psychological, but biological as well as psychological. It is important to recognize that every psychic phenomenon – including every thought, feeling, motivation and action – must be understood simultaneously as a physiological process.

Even in the Biopsychosocial Model the researcher will preferably focus on one of the involved realities; there, where he or she is expert – collecting data and reassessing potential influ-

encing factors. However, he must try to incorporate his findings into a superior system. But an unsolved problem of the new framework theory remains: there is still no common language for the physiological process in the one hand and the psychological process on the other hand. This means we are able to recognize parallel organized processes of sickness, but to describe it we have two diverging terminologies in medicine: one concerning the physical and one concerning the psychological aspects.

We can summarize: Whatever corresponds to the laws of physics and chemistry belongs to the category of the physical or material world and whatever corresponds to the laws of psychology belongs to the world of mind (or soul).

josef.egger@medunigraz.at

Univ.-Prof. Dr. Josef W. Egger, Medizinische Universität Graz, *Forschungseinheit* für Verhaltensmedizin & Gesundheitspsychologie; Universitätsklinik für Medizinische Psychologie und Psychotherapie; LKH-Univ.-Klinikum Graz, Villa Hahnhof, Roseggerweg 50, A-8036 Graz, Austria  
<http://www.bpsmed.net>

## **Doctor-Patient-Communication – Its Importance for a Biopsychosocial Oriented Medicine**

Eva-Maria Trapp

A lot of studies on doctor patient communication have been conducted in order to analyze the importance of a professional interaction between the physician and the patient (1). Doctor patient relation can be seen as one of the most important and an integral part of any treatment regime (2). Poor doctor-patient communication is associated with an increased risk of patient complains and predicts complaints to medical regulatory authorities (3)

According to the three basics in medicine: “word” – “drug” – “knife”, that are associated with 3 different roles of the doctor : “the doctor as a companion of the patient to accompany the patient even if there is no chance of recovery” – “the doctor as a catalyst in the patient’s treatment (help for self-help)” – “the doctor as a (technical) problem solver for the patient” we have to focus to implement these aspects in medical education because these 3 roles again require 3 important skills or competences of the doctor: “the psychosocial competence/communication skills (creating & utilizing the doctor-patient-relationship for problem solving)” – “psychosomatic & psychotherapeutic competence (psychological knowledge and skills to help the patient changing his/her risk behavior) – „competence in natural scientific medicine biomedical knowledge and technical skills” (4). Particularly in the field of obstetrics a good communication plays a key role (5). Both, communicative and ethical competences are especially required not least to avoid legal consequences.