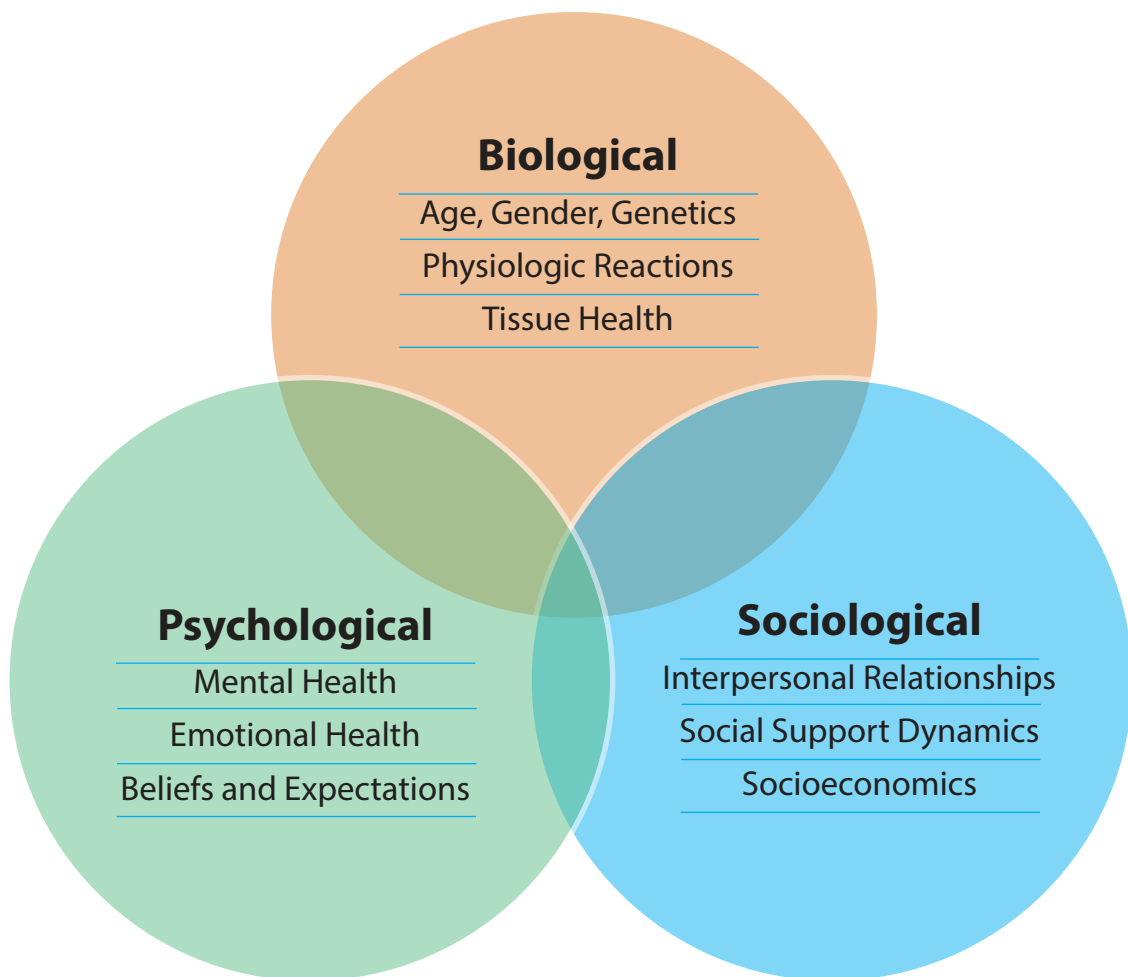
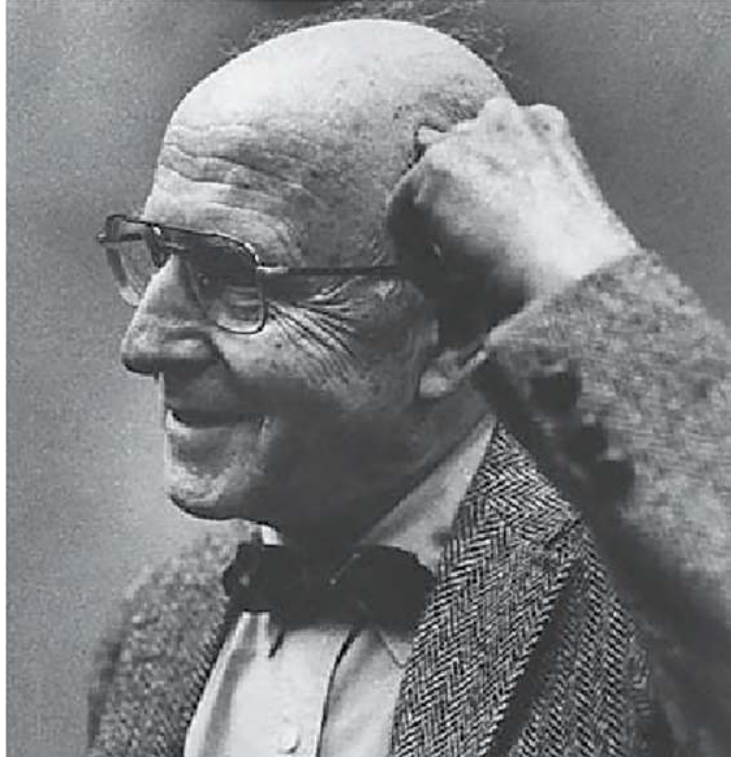


George Engel and the origin of the biopsychosocial model





George L. Engel, MD, circa 1977.

David H. Rosen, MD

Dr. Rosen (AQA, University of Missouri-Columbia School of Medicine, 1970) is Affiliate Professor, Department of Psychiatry, Oregon Health and Science University in Portland, OR.

Dr. George L. Engel (AQA, Johns Hopkins University School of Medicine, 1938) was born in New York City in 1913. He grew up in Manhattan with his uncle, Emanuel Libman, MD, a prominent clinician and medical scientist who is best known for his work on bacterial endocarditis.

Engel was educated at Dartmouth College, where he completed his undergraduate degree in chemistry in 1934, and Johns Hopkins University School of Medicine, where he received his medical degree in 1938. He went on to do an internship at Mount Sinai Hospital in New York City, where he encountered physicians who incorporated the psychological aspects of disease in their clinical practice. During his internship, he was influenced by his attending

physician Soma Weiss, MD (AQA, Weill Cornell Medical College, 1923). Although originally skeptical of psychoanalysis and psychosomatics, through research at Harvard Medical School, under the supervision of Weiss at the Brigham and Women's Hospital, and through his own experience of psychoanalysis, Engel changed his views about medicine.

In 1946, Engel accompanied colleague John Romano, MD (AQA, University of Rochester School of Medicine and Dentistry, 1948) to the University of Rochester Medical Center to establish a new psychiatry department. Engel was board certified in both medicine and psychiatry, and subsequently developed a unique approach by having a joint appointment in medicine and psychiatry. He later established the Division of Psychosocial Medicine.

By the mid 1970s, Engel edited the journal *Psychosomatic Medicine*, followed by numerous books and articles.^{1,2} It was at this time that he began developing his integrative theory for the biopsychosocial model.

The biopsychosocial model

Prior to Engel's unique approach, medicine was grounded in biology, and psychological and social factors were not prominent. Engel's theory, featured in his seminal article, *The Need for a New Medical Model: A Challenge for Biomedicine*, questioned the traditional views and helped to change medicine.³ In the article, Engel argues for a whole-person and contextually-situated approach to medicine that always includes biological, psychological, and social aspects of disease and illness.

Engel was a leader in psychosomatic medicine in the United States. Additionally, he had a holistic approach to medicine. He always wanted to know about the biology, psychology, and socio-cultural situation of the patient and his/her illness. He would insist on starting rounds in the emergency department with a patient, following that patient's transition to the medical ward.

Engel was also an artist. He would sketch and make drawings during boring medical meetings and then give his artwork to his friends and colleagues. He never took himself too seriously, although he was a significant contributor to the profession of medicine.

When I asked Engel how the concept of the biopsychosocial model emerged, he explained that he had received correspondence from *Science* about a manuscript he submitted, and a copy-editor had added a section title, "The Advantages of a Biopsychosocial Model." Engel explained that something clicked and the seeds of this new innovative model were firmly planted.

Today, the biopsychosocial model reaches multiple professions and their related disciplines. A religious studies professor as well as graduate students in psychology, sociology, and philosophy regularly adopt Engel's model.

Reflecting on the richness of Engel's theoretical and practical model, it seems natural that it would embrace so many academic disciplines nationally and internationally. In Japan, Switzerland, New Zealand, China, South Africa, and Europe, Engel and his biopsychosocial model are well known, and utilized.

Engel first submitted his paper to the *New England Journal of Medicine*, but it was summarily rejected. However, *Science* quickly accepted the paper. "This

underscored my point about the need for medicine to be expanded,"³ he explained.

Broadening the biopsychosocial model

Engel was a humanist who embodied what he wrote. When chided to include the spiritual in the biopsychosocial model, he grinned and said, "It's already there." He explained that the spiritual is grounded in each of the components of his model—biology, psychology, and sociology—because the biopsychosocial aspects of medicine are genetically hardwired.³

He contributed two chapters to the book, *Medicine as a Human Experience*, "Clinical Application of the Biopsychosocial Model" and "The Care of the Patient: Art or Science?" However, Engel refused to have his name on the cover of the book.

The updated version of that book, *Patient-Centered Medicine: A Human*

Experience, by David Rosen and Uyen Hoang, also contains these two chapters by Engel.

Engel's contributions to the medical profession transformed biomedicine into biopsychosocial medicine, yesterday, today, and well into the future.

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The author's E-mail address is drdavidhrosen@gmail.com.

