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Meikirch Model, a New Definition of Health (short version)

M-M

Health

An Individual is in good health, when in exchange with the society and the environment, she or he can fulfill the demands of life. The resources consist of a biologically given potential (BGP) and a personally acquired potential (PAP). Both are supported and/or challenged by the society and the environment. As a result, health is a lifelong evolving dynamic state. An individual who is unable to fulfill the demands of life is diseased.

Health as Complex Adaptive System (CAS) Health is a CAS composed of five components and ten complex interactions (expressed as double arrows). Throughout the whole life the CAS has repeatedly to adapt to new conditions of life and new challenges. This occurs by trial and error and succeeds sometimes



better and other times worse. Insufficient adaptation may be a reason for disease.

The Two Potentials

The BGP is highest at the time of birth, decreases during lifetime, and reaches zero at the time of death. The PAP is small at birth, develops rapidly thereafter and may evolve further throughout the whole life provided it receives the necessary attention. The relationship between the PAP and the BGP corresponds to the image of horse and rider. If the rider wants that the horse serves him well, she or he must take good care of the horse. The PAP and the BGP are strongly oriented toward the future and for this reason are termed potentials. E.g. somebody who likes to get a good profession, must invest years of preparation during childhood, adolescence and adult life. Professional life, family life, retirement and dying require early and continuous preparation.

Personal Health Management

Health requires adequate nutrition, sufficient physical activity, vaccinations, personal maturation and avoidance of damaging influences, such as smoking, intemperate alcohol consumption, drug addiction and venereal diseases. Good and continuous care for the PAP preserves health, because a large fraction of chronic noncommunicable diseases such as overweight, heart- and vascular diseases, certain cancers and occupational diseases may be avoidable. Today's medicine can do a lot for physical problems. Yet, in our culture the PAP tends to be neglected thereby opening the door for many diseases. The PAP is part of the CAS and can be promoted by preventive and therapeutic measures.

Exact wording: "Health is a state of wellbeing emergent from conducive interactions between individuals' potentials, life's demands, and social and environmental determinants. Health results throughout the life course when individuals' potentials – and social and environmental determinants – suffice to respond satisfactorily to the demands of life. Life's demands can be physiological, psychosocial, or environmental, and vary across individual and context, but in every case unsatisfactory responses lead to disease." Bircher J. and Hahn E.G. Understanding the nature of health F1000Research 2016, 5:167 (doi: 10.12688/f1000research.7849.1)