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The Meikirch Model as a Conceptual Framework for Person Centered Healthcare

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Abstract

Person Centered Healthcare focuses on re-personalization of health services, on re-sensitization of medicine to fundamental notions of compassion and care and on re-inculcation in clinicians of an ambition to treat patients as persons. The Meikirch model is a new definition of health that has aims to transform thinking about health from an undetermined and ill-defined notion to a concept with a well-defined structure. It contains 5 components and 10 complex interactions that in health must function in such a way that the biologically given potential (BGP) and the personally acquired potential (PAP) of a person together respond satisfactorily to his or her demands of life. An unsatisfactory response leads to disease. When comparing person-centered healthcare with the Meikirch model the question arises whether or not the 2 ways of thinking are compatible and complement each other. Analysis of details suggests a full agreement between the 2, yet the final answer to this question must be given by the European Society for Person Centered Healthcare.

Keywords

Biologically given potential, determinants of health, evidence-based medicine, health, Meikirch model, person-centered healthcare, personally acquired potential, scientific medicine

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Accepted for publication: 25 November 2016

Introduction

Today's scientific medicine offers excellent care of many acute diseases. Thus, healthcare now has reached a stage, where chronic conditions predominate. This evolution together with aging of the populations has changed healthcare needs. They have evolved more and more into problems that require care for prolonged periods of time. Regrettably, medicine has not yet adjusted sufficiently to these new realities. Moreover, it has progressively become evident that the increase in scientific possibilities was, even in the practice of evidence-based medicine, somehow associated with a reduction in the attention to the personality of each individual patient [1,2]. Healthcare has gradually become more commercialized and this is well documented in the public press. Diseased individuals no longer know, whether proposed diagnostic plans or treatments are carried out primarily in their health interests or more for financial purposes. Therefore, the trust of patients in their physicians has diminished. Furthermore, in today's culture, caring has less prestige than curing. The high pressure on the workloads of physicians leads to reduced time for interaction with patients. Thus, insight of patients into their condition often is insufficient and cooperation with the advice of physicians or nurses is decreasing. These changes reduce the effects of healthcare. Within this context, it must be remembered that medicine is an endeavor not only based on science, but equally on caring and humaneness. In order to strengthen these latter features the European Society for Person Centered Healthcare was formed [1]. It supports the following 3 purposes:

1. Re-personalization of health services
2. Re-sensitization of medicine to fundamental notions of compassion and care
3. Re-inculcation in clinicians of an ambition to treat patients as persons

Unrelated to this Society, but based on similar considerations, a new definition of health has recently been developed: the "Meikirch model" [3,4]. At the Third Annual Conference and Awards Ceremony of the European Society for Person Centered Healthcare in September 2016, the question arose as to, whether or not

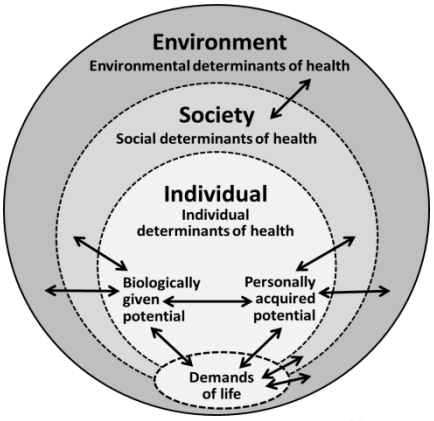
the Meikirch model supports the aims of the Society. In the positive case, it might give the Society an additional theoretical framework that further strengthens its goals. The purpose of this paper is to describe the model and to assess the possibilities for its use as a new leading concept for the European Society for Person Centered Healthcare.

The Meikirch model

Origin of the name

This definition of health was developed in Meikirch, Switzerland and therefore is called the Meikirch model. Its graphic representation is shown in Figure 1.

Figure 1 Organization of the different features of the Meikirch model: It shows the 5 components of the model and as double arrows the 10 complex interactions. (Figure derived from [4])



Demands of life

It is a general biological fact that every living creature including man must satisfy its demands of life [5]. In humans, these demands may be classified as physiological, psychosocial and environmental [3].

Potentials

Health requires that an individual is able to satisfactorily respond to the demands of life. For this purpose, each human subject has 2 types of resources at his or her disposal. Since they are needed not only at a specific time, but also in the long-term future, they are called potentials. Humans have a biologically given potential (BGP) and a personally acquired potential (PAP). The BGP is the gift of nature everybody receives at the time of birth. It represents the biological basis of human existence. After birth this potential decreases continuously and reaches zero at the time of death (Figure 2). Diseases and accidents may reduce it transiently or permanently (Figure 3). The term PAP is used to describe all abilities an individual can acquire during life. It is also the site of individual responsibility for health. After birth, it increases rapidly, but thereafter more and more slowly. Its growth is dependent on the effort a person invests into the development of abilities and inner growth. This shows that efforts to develop the PAP are important investments in future health. In a personal crisis, the PAP may decrease and recover more or less once the crisis is overcome. Alcohol and drug addictions will decrease the PAP, sometimes for life. The 2 potentials continuously interact with each other. This exchange may be looked at as in the following analogy. If a rider wants that her horse serves her well she must in every respect take good care of her horse. Responding to the demands of life the 2 potentials act always together. Notably, the PAP can compensate to some degree for defects of the BGP. This is particularly needed as the age of a person advances.

Figure 2 Graph showing the idealized time course of the 2 potentials: The biologically given potential is continuously decreased throughout life and the personally acquired potential may increase provided the individual assumes the responsibility to care for it. When challenged by the demands of life both potentials are used together, i.e., the sum of the 2. Throughout the life course the contribution of each potential to the sum, i.e., to health of an individual varies continuously. (Figure derived from [11])

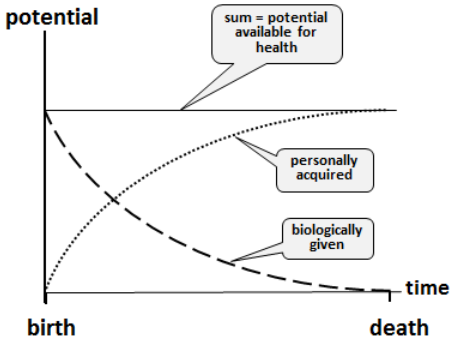
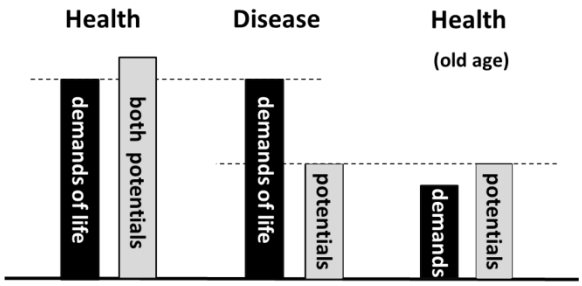


Figure 3 Distinction between health and disease: Health results (left hand side), whenever the 2 potentials together can satisfactorily respond to the demands of life. When the potentials are smaller than the demands of life (middle) there is disease. A third case with reduced potentials has to deal with even more reduced demands of life (right hand side). Also in this case the subjects may say that they are healthy. (Figure slightly modified from [11])



Social determinants of health

As shown in Figure 1, individual determinants of health are surrounded by social determinants of health. Initially it is the mother who takes care of the newborn. Thereafter, the whole family, the school and the professional formation become important. Later, responsible individuals interact in multiple ways with their social surroundings. Many of the social determinants are concerns of public health. They interact also with the demands of life and thereby modify, for example, the working conditions. All these interactions strongly influence the health of individuals. Obviously, their contributions must somehow be adjusted to the BGP, the PAP, the age and the specific social setting of an individual. The last of these, the social setting, is the responsibility that Society must fulfill.

Environmental determinants of health

In Figure 1 the outer ring corresponds to the environmental determinants of health. These vary with the geographical location of a person, the local situation and the amount of pollution that is put into the environment. For example, in Switzerland there is insufficient iodine in the natural surroundings. Therefore, ordinary salt is now iodinated and thus goiters and cretinism have become very rare. The environmental determinants interact with the social determinants of health, the BGP, the PAP and the demands of life.

Complex adaptive system (CAS) [6]

Looking at Figure 1 it can be recognized that the Meikirch model consists of 5 components and 10 complex interactions. In systems theory, such an organization corresponds to a CAS, a term that in science implies a number of interesting properties: Overall performance of a CAS (emergence) cannot be deduced from its parts, because it has new qualities that are much more than the sum of its parts. For example, human consciousness, self-consciousness and creativity are qualities that cannot be predicted from an analysis of organs or cells.

Health as a CAS exhibits a set of properties that are most pertinent for healthcare. All of them must be considered when trying to understand health and disease. A CAS functions always as a whole and adapts autonomously to changes of its surroundings [7]. Success of such an adaptation varies from time to time and from CAS to CAS. Manipulation of the model by medical doctors may be successful for the physical body, such as joint replacement, coronary artery stenting, or pharmacotherapy. Yet, a CAS intensely resists external guidance. Top-down management of a CAS does not function. But gradual evolution is one of its intrinsic properties that results from its nature existing somewhere between chaos and order. A chaotic state by nature remains chaotic and therefore does not evolve. On the other hand, a fully ordered state corresponds to a machine that does not evolve either. Only when a system remains close to the interface between chaos and order can it autonomously and gradually adjust to changing circumstances. Thereafter, it tends to interact with its surroundings in a more favorable way. With such processes a CAS may respond successfully to new challenges and evolve toward new properties. Sometimes it is surprising to observe how much an individual can adjust to difficult life situations. In man, loving relationships and recognition of a purpose in life are features that tend to support favorable evolutions. This is well expressed by Antonovsky with his sense of coherence [8]. He proposed that health may improve when an individual fully understands the conditions of his life, when she or he can handle the problems well and when a further evolution makes sense. For example, a patient with type I diabetes has to understand the physiology of glucose and insulin, has to be able to measure blood glucose and inject insulin and must feel that a careful treatment of his condition makes sense.

Treatments of the physical body and person-centered healthcare are closely interrelated

Many acute and chronic conditions of the physical body are treated best by surgery or by drugs as proposed by empirical evidence and the practice of medicine. Such measures may be essential when a treatment is lifesaving or when it may prolong a meaningful state of health. Today, the effectiveness of this approach is demonstrated by the well-recognized successes of modern medicine and by clinical research. Yet, surgery or drug treatment is not applied in every case simply to a biological organism, but to a human being, whose health follows the rules of a CAS as described above. This system includes both a BGP and a PAP. Both are always present and should in each patient

individually receive their appropriate attention. Neglect of the PAP leads to decreased opportunities for achieving optimal results of surgery and/or drug treatments. Whenever a diseased person needs help, but requires neither surgery nor drugs, involvement of and support for the PAP may still be quite appropriate. This is an essential aspect of healthcare and is obviously person-centered. These considerations clearly document that person-centered healthcare for every patient is a core feature of the Meikirch model. Sometimes the usefulness of the PAP appears to be less important and at other times it may be essential and critical.

How does the Meikirch model contribute to person-centered healthcare?

To date, health has been understood as an intuitive notion that everybody recognises by personal experience. Alternatively, it was considered as the silence of the organs or their normal biological functions, *et cetera*. The idea of health as biological integrity goes back to the pathologist Rudolf Virchow. In 1858, Virchow used 20 lectures to present his concept of disease as cellular pathology [9]. In his presentations he did not mention health. Yet, by implication, health results from the absence of cellular pathology or the finding of tissues with ordinary and typical features. This view was challenged in 1946, when the WHO definition was formulated as follows: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." The inclusion of mental and social aspects was an important innovation [10]. Yet, the idealistic wording of this definition, unfortunately, does not help in medical practice. The Meikirch model includes features of the WHO definition, but goes further in enumerating 5 components and 10 interactions that must function successfully for health to evolve. Specifically, the 2 potentials together must be able to respond satisfactorily to the demands of life [3]. One of them is the PAP. It not only is able to compensate to some degree for defects of the BGP, but it also is the site of responsibility for the contribution a person must make in order to maintain her or his health. By definition, the PAP implies that each individual continuously invests into future health. The PAP continuously entertains a crosstalk with the other 4 components of the Meikirch model. For this reason, healthcare that does not take care of the PAP by necessity omits an essential aspect of health and is not person-centered. Therefore, attention to the PAP should be looked at as an integral part of healthcare services. To allow for the uninterrupted development of the PAP of everyone, authorities must in addition provide fostering conditions. These conclusions, derived from the Meikirch model, strongly support the objectives of and conditions for person-centered healthcare.

Conclusion

Therefore, we feel that based on the conceptual framework of the Meikirch model, it is possible to respond positively to the 3 postulates cited in the introduction:

1. Human resources in the Meikirch model are not limited to a biologically given potential, but include also an evolving PAP that is specific and unique for every human being. This fact strongly supports the postulate of "re-personalization of health services".

2. Compassion and care are conditions that may facilitate a CAS to evolve favorably and thereby contribute to health. This process is a necessary condition for healing phenomena as described in the Meikirch model, that is, for an improvement or restauration of a patient's wellbeing. Consequently, "re-sensitization of medicine to fundamental notions of compassion and care" is fully in line with the Meikirch model.

3. Acceptance of the Meikirch model by physicians implies that they fully respect the PAP, that is, as much as the BGP. This will lead to a "re-inculcation in clinicians of an ambition to treat patients as persons".

Based on these arguments members of the European Society for Person Centered Healthcare may now construct a debate, if they want to consider the Meikirch model as a conceptual framework for person-centered healthcare. To assist such a process some additional features of the model might be of interest:

1. There are 2 sites that share responsibility for their respective contribution to health, the PAP of the patients and Society. This means that patients must contribute their part, but Society must underwrite the other part. In centering healthcare on the person of each patient and in creating favorable conditions for the development of the PAP, the responsibility of authorities for the social component may be satisfied.

2. For a complete appraisal of a patient's condition all 5 components and 10 interactions must be considered and investigated. This may be particularly helpful in difficult cases [7].

3. Interprofessional and intersectoral cooperation in healthcare has remained notoriously difficult. This may have been because until now health was an intuitive and poorly defined concept. Based on the Meikirch model this is no longer the case.

Instead, communication will now focus on specific components of health and their complex interactions.

4. Considering that in health both BGP and PAP together must satisfactorily respond to the demands of life, it becomes paramount that previous investments in high technology to care for the biologically given potential must in the future be balanced by appropriate investments in time and devotion for person-centered interactions with patients. This requires changes in resource allocation and management.

These 4 features derived from the Meikirch model appear also to fully support the endeavors of the European Society for Person Centered Healthcare [1].

Acknowledgements and Conflicts of Interest

This article develops the theme of a Key Note Address delivered at the Third Annual Conference and Awards Ceremony of the European Society for Person Centered Healthcare at St. George's, University of London, on 29 & 30 September, 2016. The authors declare no conflicts of interest.

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