Platform

Health, disease and illness: matters for definition

Harry Edmund Emson, MA, MD, FRCPC

We sent a copy of Dr. Emson's article to Drs. Jennings, Ney and Ney, McWhinney and Szasz. Dr. Szasz chose not to respond. — Ed.

A group of articles in the Oct. 15, 1986, issue of *CMAJ* explored fundamental conditions, such as health, disease and illness, and the physician's proper relation to them.[1-4] Unfortunately, there was no attempt to define these terms and agree on them. What constitutes health, disease and illness is, or should form, one set of definitions, and the proper involvement of physicians and others with these conditions should form quite another. How can we discuss our relation to entities that we cannot define?

Voltaire[5] said that man invented speech in order to conceal his thoughts, and Orwell[6] showed how language could be deliberately perverted; however, the confusion of meanings is not necessarily intentional. One can easily get lost in the semantics that plague this area of human experience, in which different terms have been used for the same thing and the same term for different things, until one is tempted to or must invent new, strictly defined, terms. Before terminologic nihilism occurs it is essential to see just what has been, and can be, done with the existing terms.

Health

Health should be considered first because it is presumably the fundamental and desirable condition from which we deviate and to which we can return. The common circular definition that health is the absence of illness and that illness detracts from, diminishes or compromises health gets no one very far. The World Health Organization (WHO)[7] defined health as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity". Most people who have discussed this have thought it to be too vague, of limited practical use and partly composed of undefinable terms. Jennings[2] implicitly accepted the WHO definition but qualified it as the opposite of "medical and existential illness"; he stated that "it does not define the opposite of disease . . . because disease does not have an opposite". In addition, he said that "the disease/disease-free spectrum of bodily states is discontinuous (in that we either are or are not diseased)" but offered no term for the state of "nondisease". The *Oxford English Dictionary* defines spectrum as an "entire range of anything arranged by degree or quality"; this apparently excludes the concept of a discontinuous spectrum.

McWhinney[3] did not define health but stated that "healing in its deepest sense [is] the restoration of wholeness". He appears to have accepted a concept of health similar to that of the WHO. Ney and Ney[4] used the term but did not define it; in the section following their question "Will you always promote my health?" they equate "health" with benefit to the patient and "treatment" with actions that are beneficial. The concept of beneficence has been used often in philosophic discussions of the nature of health care, always with the proviso that for the competent patient the beneficence of an action is judged by the patient and by no one else.

One old and widely quoted definition is that by Claude Bernard:[8] "La constance du milieu intérieur est la première condition de la vie libre". This could be termed a biologic definition of health, and from this it is possible to develop a definition for nonhealth (disease): "Une maladie est un état pour lequel il y a une perturbation pas temporaire dans la constance du milieu intérieur". Again, this statement is too general to base practical and working decisions on, and it complicates the semantics by adding the dimension of another

Dr. Emson is professor and head of the Department of Pathology at University Hospital, Saskatoon.

Reprint requests to: Dr. Harry Edmund Emson, Department of Pathology, University Hospital, Saskatoon, Sask. S7N 0X0

← For prescribing information see page 898

language. Nevertheless, Bernard's viewpoint can be accepted as biologically fundamental.

Boorse[9] rejected the concepts of positive health that involve value judgement and strove for an objective definition:

1. The *reference class* is a natural class of organisms of uniform functional design; specifically, an age group of a sex of a species.
2. A *normal function* of a part or process within members of the reference class is a statistically typical contribution to their individual survival and reproduction.
3. *Health* in a member of the reference class is normal functional ability; the readiness of each part to perform all its normal functions on typical occasions with at least typical efficiency.

Boorse's definition is similar to that derived from Bernard's; it is as biologically based as possible and is not subjective. I find the WHO and Boorse definitions unsatisfactory because "health" is needed in both senses in which the term is used: to define the absence of disease and to encompass a more positive view of the state defined. As a physician I find Boorse's attitude more useful and practical, but we may need an agreeable new term for the condition of "positive health".

Disease

Physicians find disease an easier concept to discuss than health, and this is where our different beliefs become evident. Jennings' definition of disease[2] is strictly mechanistic: "Biomedical disease is demonstrable pathophysiology or pathochemistry and is diagnosed by the demonstration of pathologic features" and "Disease is a matter of physics and chemistry". Subjectively experienced phenomena are "illnesses", which, according to Jennings, are the opposite of "health". Szasz[1] refused to define disease because such a definition is inevitably value-loaded; however, he stated that "although there is no merit in arguing about definitions . . . we must be especially clear and candid about what we choose as . . . disease. Science . . . has virtually nothing to do with the matter". It is hard to find two more disparate uses of the same word. McWhinney[3] did not define disease but apparently agreed implicitly with Jennings' definition, even though McWhinney's attitudes are diametrically opposed. Ney and Ney[4] did not use the term.

Boorse[9] defined disease in two fundamentally equivalent ways. First, he appended his definition of health: "A disease is a type of internal state which impairs health; i.e. reduces one or more functional abilities below typical efficiency"; this gets out of the health–disease–health circle. Second, he defined disease as "a type of internal state which is either an impairment of normal functional ability, i.e. a reduction in one or more functional abilities below typical efficiency, or a limitation on functional ability caused by environmental agents. Health is the absence of disease." This is consistent with Boorse's general position of avoiding value-specific definitions but is considered too limited by those who wish to include a concept of positive health or well-being.

Culver and Gert[10] abandoned conventional terms as inextricably encumbered with accretions of meaning. They adopted the term "malady" and joined this to the concept of "suffering evil": "A person has a malady if and only if he has a condition other than his rational beliefs and desires such that he is suffering or at increased risk of suffering an evil without direct sustaining cause"; "evil" is defined as death, pain, disability, and loss of freedom or opportunity, a list to which Lockwood would add disfigurement (personal communication, 1986).

To this semantic disagreement I add my definition: a disease is a state of the human organism that actually or potentially disadvantages a person for survival, reproduction or full enjoyment of life (characteristic for age) other than by sole reason of social circumstance or by temporary and reversible environmental change.

Illness

Jennings[2] devoted his paper to "the confusion between disease and illness". He said that "illness is experience" and that only disease can be investigated "by the methods of biomedicine" because the study of illness depends "directly on phenomenologic analysis of experienced suffering. . . . One can be seriously diseased without being ill, [as] with silent hypertension [and] one can be seriously ill without being diseased [as] with severe depression". Jennings added that biomedicine enables us to separate illnesses into "two mutually exclusive classes: those arising from disease or injury (medical illness) and those arising from other personal difficulties in living (nonmedical, or existential, illness). Separation is effected in practice by pathological diagnosis of any underlying disease."

In regard to nondiseases, Jennings stated that "the human body is subject to scientific law, while personal behaviour . . . is subject to ethical constraint". Patients who previously had brucellosis and who experience prolonged disability without any detectable biomedical abnormality "use their earlier disease to explain present life difficulties". An illness becomes a disease only when a physical process is detected.

This position becomes less tenable when we consider patients who have what initially appear to be symptoms of a nonorganic psychiatric illness and are found to have an organic disease, the mental symptoms disappearing after treatment. One example is the association of juvenile schizophrenia with Hodgkin's disease.[11] The symptoms are presumably attributable to metabolic abnormalities caused by the lymphoma but so far not

specifically characterized. Most patients with schizophrenia have no associated detectable organic disease; their illness is possibly associated with and caused by an uncharacteristic metabolic abnormality, which could be corrected. According to Jennings' terminology their illness would become the result of disease and therefore more "respectable"; the same could be true for chronic brucellosis, post-infectious mononucleosis syndrome and other disabling illnesses not currently associated with characteristic physical abnormalities. Jennings quoted Seldin[12] to support what is apparently an unduly restrictive and limiting position. Our definitions should be as free of subjective value judgements as possible, but Jennings imposed a definite morality on what is and is not disease. He also commented on the relation of his definitions to medical practice.

The attitudes of Szasz[1] have been commented upon elsewhere,[13,14] but I do not find these attitudes useful. McWhinney,[3] without formal definition, distinguished between disease and illness virtually the same way Jennings did but from the opposite point of view. McWhinney wanted to "interpret the illness in terms of [the patient's] own pathological frame of reference". I find the final phrase obscure in meaning and undesirable because it is an extension of specific terminology into a nonspecific area; however, McWhinney did clarify his general attitudes. He dealt with illness as a subjectively experienced state that may or may not have a definable organic disease as its cause. In the treatment and relief of illness "the scientific method is only one of several routes to knowledge". Ney and Ney[4] took the same position on "illness" but extended their discussion into the area of the fiduciary relation, which I will not go into here.

Even if these authors had discussed their definitions before publication, they would obviously not have agreed upon those of commonly used terms. There is no problem in comparing the uses of such terms as glucose, lymphoma and temperature: each can be referred to a common accepted standard. Physicians still use terms such as hypernephroma and benign cystosarcoma, which are inaccurate but have acquired agreed meaning over time; their replacement is desired, but their use causes no confusion. For terms whose meanings are not clear and whose uses are partly judgemental, a proper definition should be required.

References

1. Szasz TS: What counts as disease [E]? *Can Med Assoc J* 1986; 135: 859-860
2. Jennings D: The confusion between disease and illness in clinical medicine. Ibid: 865-870
3. McWhinney IR: Are we on the brink of a major transformation of clinical method? Ibid: 873-878
4. Ney PG, Ney PM: Our patients' seven unspoken questions. Ibid: 879-880
5. De Voltaire M: *Dialogue 14: le chapon et la poularde*, 1766. In Bartlett J: *Bartlett's Familiar Quotations*, 14th ed, Little, Boston, 1968: 417
6. Orwell G: *1984*, Secker and Warburg, London, 1949
7. *Basic Documents*, 26th ed, WHO, Geneva, 1976
8. Bernard C: Leçons sur les phénomènes de la vie communs aux animaux et aux végétaux. In Bartlett J: *Bartlett's Familiar Quotations*, 14th ed, Little, Boston, 1968: 675
9. Boorse C: Health as a theoretical concept. *Philos Sci* 1977; 44: 542-573
10. Culver CM, Gert B: *Philosophy in Medicine*, Oxford U Pr, New York, 1982: 81
11. Carr I: The Ophelia syndrome: memory loss in Hodgkin's disease. *Lancet* 1982; 1: 844-845
12. Seldin DW: Presidential address. The boundaries of medicine. *Trans Assoc Am Physicians* 1981; 94: 1xxv-1xxxvi
13. Teehan MD: Philosophy of medicine [C]. *Can Med Assoc J* 1986; 135: 1336
14. Brown JH: Philosophy of medicine [C]. Ibid: 1336

The politics of medicine

David Jennings, MD

Dr. Emson has chosen to comment on only one aspect of four papers in the Oct. 15, 1986, issue of *CMAJ*.[1-4] He focuses on the definitions of three important terms and avoids any comment on their consequences on clinical practice in general and on patients' well-being in particular. None of the four articles dealt with illness, health and disease as simply "matters for definition"; in fact, they took the actual consequences of their definitions on patients to be of primary importance. Emson's failure to discuss these main aspects and his attempt to define health and illness in scientific and objective terms may be central to an understanding of what he is proposing.

Reprint requests to: Dr. David Jennings, 508-90 Sparks St., Ottawa, Ont. K1P 5B4