The social nature of health and illness – evolution of research approaches in Polish classical medical sociology

Włodzimierz Piątkowski^{1,2}, Michał Skrzypek^{2,3}

¹ Department of Medical Sociology and Sociology of Family, Institute of Sociology, Maria Curie-Skłodowska University in Lublin, Poland

² Independent Medical Sociology Unit, Medical University, Lublin, Poland

³ Chair of Sociology of Ethnic Groups and Civil Society, Institute of Sociology, John Paul II Catholic University of Lublin, Poland

Piątkowski W, Skrzypek M. The social nature of health and illness – evolution of research approaches in Polish classical medical sociology. Ann Agric Environ Med. 2012; 19(4): 821-835.

Abstract

Introduction and objective. The cognitive identity of medical sociology has developed in a historical perspective in the context of a specific double frame of reference comprising medicine and general sociology. The purpose of this study is to reconstruct the process of the development of the subdiscipline's research specificity in Poland, drawing attention to the general-sociological context of the conceptualization of basic interpretive and analytical sociomedical categories. In this aspect, the presented study is based on the analysis of Polish sociomedical and general-sociological research published from the early 1960s until 1989. The purpose of the study is also to describe in this perspective the structure of the research field of contemporary Western medical sociology, which was a major point of reference in this process.

Abbreviated description of the state of knowledge. A look at the chronology of how the scientific identity of medical sociology developed in Poland from a historical perspective shows the gradual balancing-out of the subdiscipline's medical references, typical of the early stage of its development, and manifested in the implementation of research projects for the requirements of doctors, through consistently developed and cultivated connections with general sociology manifested in complementing the knowledge of society with aspects related to health and illness. A *sine qua non* condition for undertaking this scope of research was to work out strictly sociological formulations of these concepts, which was accomplished as a result of the successful reception of general sociology by the subdiscipline in question.

Summary. The contemporary understanding of the research field of Polish medical sociology defined by Magdalena Sokołowska and developed as part of the 'school of medical sociology', which she initiated, is characterized by the maintenance of close relations with general sociology (affiliations of sociomedical departments in academic sociological institutions, etc.), and at the same time, by partnership cooperation with medicine (teaching in medical universities, application studies, etc.).

Key words

sociology of health and illness, general sociology, social science

INTRODUCTION

The development of medical sociology took place in a historical perspective in the context of a special frame of reference jointly created by medicine and general sociology. Medicine was and still is an important 'driving force' behind the development of our subdiscipline: it indicates problems in the area of clinical practice, impossible to resolve within the biomedical frame of reference, that require joint participation of social scientists (sociology in medicine). Medicine also inspires sociological investigations, conducted as part of the critical and unmasking and at the same time reforming trend, which diagnose *inter alia* the dysfunctions of medicine as a social institution (sociology of medicine) [1]. The specificity of medical sociology, however, is determined first of all by its connections with general sociology, which constitutes the taxonomic, theoretical, conceptual and methodological base

Address for correspondence: Włodzimierz Piątkowski, Independent Medical Sociology Unit, Medical University, Szkolna 18, 20-950 Lublin, Poland. E-mail: piatk@umlub.pl

Received: 20 July 2012; accepted: 08 November 2012

of this subdiscipline, functioning in the role of its 'mother discipline' [2]. Attempts to assess the importance of medical and sociological influences in the process of the development of medical sociology's cognitive identity are characteristic determinants of analyses in 'the sociology of medical sociology'. Analyses of this kind show that these references manifested themselves with varying intensity and frequency at particular stages of its (medical sociology's) development in such a way that the initial phases were characterized by the prevalence of connections with medicine, while clear general-sociological references generally appear later and are treated as indicators that the subdiscipline has reached the stage of cognitive maturity [3, 4, 5]. This type of analytical approach was used in the presented study in order to reconstruct the origin and evolution of the basic research categories explored in the research field of Polish medical sociology. Special attention is paid to the generalsociological context of the presented processes, following the directive of American sociologists Chloe E. Bird, Peter Conrad, and Allen M. Fremont, who see the condition for the subdiscipline's further development in the participation in multidisciplinary research projects in health sciences, being, however, well-embedded in the mother discipline – sociology ('medical sociology (...) must keep its roots firmly implanted in sociology') [6]. The directive in question points out that analyzing the specificity of contemporary medical sociology within a 'binary', medico-sociological frame of reference is not enough in the realities of modern health sciences (this reference frame was adequate for the early stage of the development and institutionalization of the discipline), where the model of multidisciplinary research is now preferred [7]. Consequently, new challenges emerge, especially the need to consider the boundaries of areas of competence, and the real rather than declared possibilities of cooperation between particular disciplines active in the problem area of the social aspects of health and illness.

The development of medical sociology in Poland was initiated and directed by Professor Magdalena Sokołowska, a nurse, doctor, and sociologist [3], who, on account of her scientific and organizational achievements, has been included in the closest circle of prominent co-founders and promoters of the subdiscipline on a global scale [8, 9]. Her double professional identity, characterized by a combination of medical and humanistic-social competencies (corresponding, incidentally, to the specific nature of the subdiscipline regarded as an 'intellectual hybrid'), influenced the specificity of the development of medical sociology in Poland. The specificity consisted in a balanced development of medical and social research themes. In practice, this manifested itself in undertaking application research ordered by doctors as well as (comparatively early in Polish realities) in making the 'incontribution' of sociomedical issues as problems expanding the knowledge of society (this is especially noticeable in investigations conducted after 1968). The accomplishment of these changes, leading ultimately to the development of a stable research-field formula of Polish medical sociology, characterized at present by the parallel undertaking of activities serving medical receivers, and conducting research closely related to sociology was also made possible owing to the prior institutionalization of the subdiscipline within sociological institutions, which was effected by Magdalena Sokołowska. We are speaking here of the Polish Academy of Science Institute of Philosophy and Sociology, in which in 1965, she opened Poland's first academic sociomedicaloriented department [3, 10]. The institutional context, providing an opportunity for intense scientific contacts of the sociomedical milieu with the leaders of Polish sociology (not without significance were also Magdalena Sokołowska's contacts from the time of her studies at New York's Columbia University, of which we have written below), apparently made possible a relatively early shift in the research field of Polish medical sociology towards the non-medicocentric formula of 'sociology of health and illness', based on a strictly sociological conceptualization of the phenomena of 'health', 'illness', and 'medicine'. The 'freeing itself' of our discipline from biomedical interpretation patterns, although stimulated by the achievements of general sociology, caused many taxonomic problems related to methods of operation, measurement, etc. These issues will be the object of our analysis.

It has to be stressed at this point that reflections on the social nature of health and illness, including those on the sociological determinants of the two concepts, still constitute one of the fundamental research themes of medical sociology. A definition of illness as a deviation, an adaptive approach to illness, the concept of 'functional disease', the construction of the social role of the sick person (patient), characteristics of chronic illness, stigmatization caused by illness, a socio-constructivist approach to illness, socio-ecological interpretations of illness, lay definitions of illness and being ill, the postmodern understanding of illness, a feminist approach to this concept, sociological causes, effects and determinants of illness, a tendency for 'sociologization' and 'medicalization', social mechanisms of 'coping with illness', and the micro-, meso-, and macro-social contexts of illness are only selected examples of diverse research perspectives and approaches to the phenomenon in question [11].

The foregoing multitude and diversity of research approaches allows us to realize the fundamental role of endeavors to comprehensively define the social nature of health and illness in classic medical sociology, and the great importance of attempts to introduce categories that organize and classify the two concepts. In the early period of development of sociomedical research there were problems with the overlapping and interpenetrating terms 'health' and 'illness', relationships between the 'negative' and 'positive' definition of health, etc. Manfred Pflanz pointed out that the trouble with defining the two fundamental categories consisted in that when speaking of 'health', sociologists in fact described medical conditions and associated ailments. For example, 'health insurance' was in fact illness insurance, and public health at that time basically meant mainly the prevention of illnesses. Pflanz concluded that with diverse starting points used by sociologists and physicians, one could hardly expect that within the next several years there would emerge a definition and operationalization of the term 'health', which would satisfy both theoretical and practical needs [12]. We should add that for the first two decades, Polish medical sociology was mainly concerned with the category of illness, while health as 'an elusive, subjective, arbitrary, relative, and difficult-to-measure concept' was on the periphery of interest at the time, hence came the subsequent taxonomic, methodological and interpretive problems. One of the causes, which Z. Słońska stresses, may have been the role of colloquial language and popular thinking which permeated into the interpretive categories used by the then experts. Thus, when speaking in fact of illness, the term 'bad state of health' was used, while real health is the period of one's very good well-being and of the same self-assessment of one's physical, mental and somatic condition [13]. Similarly, in the Introduction to her field research on health culture, Antonina Ostrowska says that what average persons call and understand as 'health' refers rather to the criteria attributed to illness or, in fact, to deviations from the health condition perceived and interpreted by 'ordinary' people. Ostrowska writes:

Definitional problems are compounded by the fact that definitions of health found in literature are also highly intuitive and difficult to specify (...) health or illness of an individual are therefore assessed on the basis of his/ her social functioning and taking on (or not) the role of a patient. This definition is essentially rejected by physicians or medical professionals in general, as they adopt the stance of ascertaining illness on the basis of measurable and detectable symptoms.' [14].

Włodzimierz Piątkowski, Michał Skrzypek. The social nature of health and illness – evolution of research approaches in Polish classical medical sociology

As can be seen, in the mid-1970s, Polish medical sociologists (Sokołowska, Bejnarowicz, Ostrowska and others) were aware of the taxonomic difficulties in this field and attempted to overcome them. Sokołowska stated openly that: 'the definitional value of most materials concerning the concept of population health is not sufficient for sociologists (...) [15]. These authors suggested creating such methodological bases for the sociomedical field research that studies on the category 'health' would not overlap in over 50% with the range of the concept of 'illness'. To break this impasse it is necessary to create 'an operational definition of health' and adequate indicators of and criteria for assessment of this concept; the starting point for creating the methodology of health measurement should be to take the 'functional norm' into consideration, i.e. the manner of 'daily uninterrupted activity'. Another positive proposal was to look at health and illness from the perspective of interrelated elements of a broader continuum, where the extreme points were the terms 'well-being' and 'wellness' which, in turn, brought scholars closer to the exploration of the category 'positive health': this was important because it undermined the stereotype that health should be taken care of only when clear manifestations of reduced social functioning and lasting symptoms of pain appear. The indicated directions in the then contemporary research of Polish medical sociologists have a clear practical value because they oppose the tendencies to medicalize an individual's physiological conditions, guiding him/her towards his/her own personal responsibility for health as part of postulated prevention activities; these actions also lead to a greater sociologization of the concepts of health and illness.

The above-mentioned remarks outlined selected research themes illustrating the problems, difficulties and dilemmas facing Polish scholars when they described and interpreted the reality defined by the concepts of health and illness in the early first decade of development of the new subdiscipline.

Objective of the study. The purpose of this study is to outline the history of research on the social character of health and illness - key concepts utilized by the two groups of sciences: medical and social. The main frame of reference will be the analysis of selected Polish sociological investigations in this area. An attempt will therefore be made to show the history and evolution of studies on the social character of health and illness in chronological order: from presentation of the reflections of general sociologists who were ahead of or accompanied the formation of scientific foundations of medical sociology in the 1960s, to outlining the views of the founder of this research orientation in Poland, Magdalena Sokołowska, to an attempt to present the main direction of field studies conducted within the triangle: health-illnessmedicine until the mid-1980s. The results of the so-oriented analysis will be the starting point in the description of contemporary sociomedical research approaches to the study of social aspects of the phenomena of 'health' and 'illness', applied in the new context of multidisciplinary research conducted in this area of problems.

From the formal point of view, the historical framework of the first part of this study is defined by the periods of 'conception' and 'youth' of our discipline, i.e. the early 1960s; it is also assumed that the end of the period when the scientific identity of medical sociology developed is marked by the death of its founder in April 1989. The subsequent political and economic transformation in Poland, opening the period of building the market economy and civil society, as well as embracing revolutionary changes in the medical system, marks the beginning of an entirely 'new era' in sociological research on health and illness. This period certainly requires a separate study. At that time, medical sociology entered a new stage of its history as a largely mature and advanced discipline.

Defining, describing and interpreting health and illness by Polish general sociologists. Attempts to study and describe health and illness (including social determinants of the two concepts) are impossible in the Polish conditions without a broader reference to the perspective of the 'sociology of sociology', and – in this discussion – to the 'sociology of medical sociology'; this provides an opportunity to grasp certain 'specificities' enabling an understanding of the context in defining the basic categories to which it refers. A kind of differentia specifica here are close ties with general sociology. The differences between Polish and Western sociology seem to lie, inter alia, in that, despite their formal sociological education, by far the greater majority of Anglo-American founders of medical sociology worked and acted as research experts in the centres and institutions of the broadly understood medical system. The history and context of the formation of Polish medical sociology were quite different because, as mentioned in the Introduction, the process of institutionalization of the subdiscipline took place mainly within sociological institutions: the Polish Academy of Science Institute of Philosophy and Sociology, University of Warsaw, and the Polish Sociological Association. It was at the University of Warsaw that sociomedical studies 'grew into the tissue of sociology' because there, from 1973 until the death of Magdalena Sokołowska, the teaching of medical sociology developed, being addressed to students at Warsaw University's Institute of Sociology. This tendency for seeking understanding, approval and acceptance within the parent disciple has continued, even to date, an example of which can be the establishment of the next sociomedical milieus at Polish universities: Maria Skłodowska-Curie University in Lublin, John Paul II Catholic University of Lublin, University of Szczecin, postgraduate studies at University of Warsaw, etc. Sociological institutions and centres functioning as part of all medical universities or private university colleges having been omitted.

The classic monograph presenting how prominent scholars arrived at medical sociology Medical Sociologists at Work, published in 1978 [9], shows the 'Polish specificity' very well, documenting inter alia particularly strong ties of the first generation of students of health and illness with general sociology [16]. In this volume, consisting of studies by 12 co-founders of medical sociology, Magdalena Sokołowska emphasized the great influence of general sociologists on her own conceptualization of the concepts of health/illness, and on the perception of the medical system as an integral part of a larger whole created by the social-civilizational supersystem. During her master's studies in public health at New York's Columbia University, Sokołowska encountered the methodology and research techniques of social sciences - the lecturer was J. Elinson. At the same time, she was influenced by the views of many well-known Polish sociologists who stayed in the USA as Ford Foundation scholarship recipients in the late 1950s. This is how Sokołowska recalled her experience:

I met a group of Polish sociologists who were in the United States on a Ford Foundation Grant; these were: Maria Ossowska, Andrzej Malewski, Stefan and Irena Nowak and Adam Podgórecki. The contact with them exerted a great influence (our emphasis W.P., M.S.) on my personal and professional life' [3].

Sokołowska recalls that it was Adam Podgórecki and Stefan Nowak (later Jan Szczepański, Adam Sarapata, Zbigniew Tyszka and others) who became her associates and consultants for many years, as well as the planners of joint research initiatives 'between medicine and sociology'. The many subsequent joint publications by Sokołowska and these scholars are a good example of their cooperation [3]. Therefore, as the foregoing examples show, a specific feature which marked the stages of 'the Polish path' of the development of medical sociology were close, tight and longlasting contacts between the emerging sociology of health/ illness, and general sociologists and general sociology. The limited space of this study allows the presentation of only two symptomatic examples of such relationships and interests in common.

The first of these exemplifications will be the analysis of sociomedical themes appearing in the studies by Jan Szczepański, a co-founder of Polish post-war sociology. The interest of the doyen of Polish sociology in the issues 'at the meeting point of sociology and natural sciences' might have resulted partly from his sociological studies at Poznan University under the guidance of Florian Znaniecki; it should be added that a similar research area was explored by another disciple of Znaniecki - Tadeusz Szczurkiewicz [17]. In her publications, Magdalena Sokołowska often referred to those themes in Znaniecki's scholarly legacy, in which he dealt with the problem of relations between 'the biological and the social' in human nature. Sokołowska emphasized, that social phenomena and processes associated with health and illness attracted the sociologists' attention comparatively late. The main reason, she believed, was the fact that the concepts of health and illness created a uniform basis for human behaviours in all societies; consequently, they did not significantly differentiate between individual behaviours in groups and communities. In this context, Sokołowska referred to Znaniecki's views contained in the book Ludzie teraźniejsi a cywilizacja przyszłości (Present People and the Civilization of the Future) (1934) [18]. Jan Szczepański described four basic features of Polish postwar sociological inquiries, two of them having manifested themselves most conspicuously in the field of medical sociology: characteristic practicism of Polish sociology and involvement of scholars in public discussions on the society's crucial needs, paying attention to social development and factors jeopardizing social progress, as well as the measurable influence of American and West-European sociology' on the evolution of medical sociology's problems and identity [19]. J. Szczepański's interest in the effect of biogenic elements on social life goes back to the period when he was preparing the handbook Elementarne *pojęcia socjologii* (Basic Concepts of Sociology) (1st edn. 1963) [20], in which he devoted to them the chapter Przyrodnicze podstawy życia społecznego (Natural Foundations of Social Life), part of which he entitled *Biologiczne podstawy życia* społecznego ludzi (Biological Foundations of Human Social Life). It described the physiological elements (drives) and anatomical features of the human individual which impact his/her functioning in collective life, such as the erect posture 'freeing' the hands able to work owing to the prehensile fingers of the hand, the sight directed forward, the complex nervous system with multiple 'social' functions of the brain, the structure of the vocal apparatus as the basis for articulate speech, children's long dependence on parents (the feature creating the basis for many years of socialization), flexibility of innate drives and needs, the permanent character of libido influencing the formation of stable forms of social life (family). In summing-up this line of his reflections, Szczepański says that these measurable features of the organism provided the fundamental biological foundations of man's activities, his productive work and cultural productions [20]. Discussions on connections and interrelations between sociology and biology led Szczepański towards reflections on the degree of the influence of 'nature' (genetic factors) and 'culture' (e.g. effect of socialization) on the mental features of the human being (abilities, intelligence) – the objective being to determine the proportional influence of the two elements. In the 1970s, the questions asked by Szczepański became the basis of Anna Firkowska-Mankiewicz's research project: this subject will be dealt with at length further on [21]. As has been said above, J. Szczepański's interest in the area 'on the borderline of sociology and biology' also inspired him to transfer the point of reference from 'biology' to 'medicine' [22]. These reflections of the 'father of Polish postwar sociology' and advocate of the development of the then contemporary medical sociology do not seem to have lost much of their relevance, and today they can serve to reconstruct the ways of how general sociologists approached the then developing sociomedical thought. It might be added that Jan Szczepański's rank and scientific position, among others, President of the International Sociological Association (ISA) from 1966-1970, give these elements special significance. The axis of Szczepański's reflections is the question: what can sociology offer to contemporary medicine, and can its contribution be analogous to the role once played in its development by chemistry, physiology, or bacteriology? According to Szczepański, in the sociological approach to the area of 'health-illness-medicine', the following research approaches can be distinguished: sociological studies on medicine as science, the study of medical institutions and professions (including overall analyses of the healthcare system), and the 'sociology of illness and of the process of treatment' as a set of complex social relations. In the first perspective, it is possible, by using the methodology of the sociology of sciences, to analyze the impact of variable socioeconomic elements on the development of medical science, and interpret and describe the process of institutionalization of contemporary medical sciences. The second of these approaches (analysis of medical professions and organization of healthcare systems) should be concerned with the effects of medicalization of social life, and with the debate on the most effective and efficient forms of treatment and prevention. The exploration of the 'sociology of illness and being ill' should, in turn, prompt the social scientist to systematically analyze factors, behaviours and social processes that influence both the emergence of illness, its course, and the character of socially-sanctioned treatment processes. Szczepański points out that the then contemporary American pioneering studies on the effect of the social environment conducive to the occurrence of illnesses and mental disorders, conducted in the suburbs of large conurbations, showed that there was an interrelation

between social factors and the somatic sphere. Such social elements as the lasting lack of approval and recognition, e.g. on the part of members of reference groups, may, for example, lead not only to discomfort but also to specific disorders of mental health. Similarly, the socio-etiology of widespread civilization diseases like peptic ulceration, or cardiovascular diseases was already proved, while sociopathological factors can be sought at different levels and in different areas of social life: family, institutions, and organizations.

A research theme vital for the emerging medical sociology should also comprise analyses of the doctor-patient relationship. The foregoing issues prompted Szczepański to ask questions about the general mechanisms of interrelation between elements of social life and individual civilization diseases, and about the possibility of practical use of knowledge in illness sociology in order to eliminate or reduce non-biological risk factors. The response to these challenges can only be well-designed sociomedical studies conducted jointly by physicians and sociologists or medical specialists with sociological training. Another direction of sociomedical analyses, according to Szczepański, can be the description and interpretation of the process of treatment as a 'set of social relations'; here, such factors as the patient's and his/ her family's trust in the doctor is of fundamental importance for the quality of this kind of social relation. (Szczepański expanded this theme many years later in his review of the monograph by an eminent physician and humanist Prof. Julian Aleksandrowicz, entitled Nie ma nieuleczalnie chorych (There are no incurably sick people) [23]. The problems he dealt with led Szczepański to stress the importance of the overall approach to the patient as 'a participant in specific social groups'; he also emphasized that the doctor is 'a set of social influences, often strongly interfering in the process of fighting an illness. Herein there may lie serious latent possibilities of using social factors to fight diseases and speed up recuperation' [22].

Another potential and real object of the sociologist's interest can be analysis of the hospital as 'a system of social relations'. Szczepański stresses that the biomedical education of hospital doctors, and the fact that they ignore the social aspects, may result in them treating *de facto* only some concrete disease entities rather than patients. The 'sociology of the hospital institution' should, in turn, be concerned, among other things, with the formal and informal organization of such institutions, relationships between particular professional groups, and social processes occurring in this area, etc. At this point, Szczepański refers to the monograph (1960) edited by R. Merton, Sociology Today, and to the chapter on the research area of the sociology of health and illness, written by G. E. Reader and M. E. Goss. Summing up his discussion of the issues of health, illness, and the medical system, Szczepański emphasizes the scientific significance of research conducted jointly by sociologists and physicians, who attempt to describe illness in terms of social sciences, grasp the importance of socio-etiological factors, identify social and cultural elements that determine the efficacy of physician's work, and influence the effectiveness of the processes of treatment and recuperation. This outlined model of research is of high social usefulness and is conducive to solving problems of great importance to individuals and communities. In the attempt to reconstruct the way of describing and interpreting sociomedical processes and phenomena by the classic of Polish sociology, Jan Szczepański

is an example of determinants in the development of medical sociology at the first stage of formation of this subdiscipline. It also shows the influence of eminent general sociologists on the observable process of institutionalization of our subdiscipline at that time.

Another example of the influence of sociology and general sociologists on research into health and illness were the projects implemented as part of the sociology of the countryside (sociology of culture) by Anna Pawełczyńska. Professor Pawełczyńska (born 1922) is a well-known culture sociologist who for many years was also concerned with the sociology of the countryside and agriculture. During World War II, she was a prisoner in the Auschwitz concentration camp and a soldier of the underground Home Army. She studied sociology from 1945 – 1949 under the guidance of Stanisław Ossowski and Jan Stanisław Bystroń. She investigated juvenile crime, and in the mid-1950s initiated a research project investigating cultural transformations in the countryside. It is to this theme that we will refer in further discussion. Field research conducted by Pawełczyńska, combining sociology of the countryside and the sociology of health and illness, allowed her to discover interesting regularities governing health behaviours and attitudes of the rural population towards medical institutions and professions. Her studies are also an example of the influence exerted by general sociologists on the range of sociomedical research in the first decades of its development [24]. Pawełczyńska's interesting project provided descriptions and interpretations of the system of cultural and infrastructural determinants that affected the use or non-use of institutionalized healthcare by the rural population.

The results obtained suggested that the two groups of factors (explanatory variables) named herein acted independently of each another, their spatial location having diversified in different ways. Interrelations were also sought between utilization of medical care concerning pediatric consultations and therapy, and the level of 'technical culture' and the saturation of an area with non-productive technological products. Analyses showed that the level of health culture was clearly correlated with general transformations in economic and cultural models. Therefore, a catalyst for and accelerator of pro-health transformations is the technological-civilization progress which introduces innovative and rational elements and supports qualitative changes in customs, traditions, and behaviours of peasant families, also towards health and illness, hygienic procedures, and in attitudes to representatives of institutional medicine. Innovative and modernizing elements in this sphere were mainly introduced by rural women who were traditional 'home therapists' [25]. Her studies also showed interrelationships between the existence of objective 'institutional facts' (health service infrastructure) and real health-related behaviours of the investigated representatives of the peasant class. It turned out that a whole class of social factors (tradition, customs, stereotypes, opinions, and cultural patterns) ultimately determine and decide the fact of use or non-use of the existing medical services. The foregoing sociocultural and psychological elements can be called special 'subjective facts'.

Engineering and technology entering the countryside, with their rationality, effectiveness and 'logicality' are manifestations of a large class of phenomena which the sociologist can define as 'living a city lifestyle'. The norms and models of body care, personal hygiene, health checkups, and even preventive behaviours, can be regarded as integral features of urban culture. Similarly, a significant promodernization role was played by the fact of the introduction of health insurance for farmers (1971). Until that date, the right to free medical care was granted only to the farmers employed in State industries and their families (in the 1960s, about one quarter of Poland's population were inhabitants of the countryside): they were the categories of the rural population that used institutional medical care most often and most eagerly. In her series of studies combining the sociology of health and illness with the sociology of the countryside, Anna Pawełczyńska also showed the sequence of cause-andeffect relations between industrialization, urbanization, or the laying of organizational foundations of the rural health service available before 1971 only to so-called farmer-workers and their families on one side, and on the other, rational hygienic/health behaviours, as well as lower mortality rates in the studied rural areas undergoing modernization in the 1960s [26, Introduction]. Pawełczyńska's pioneering studies showed, described, and scientifically documented the growing sequence of technological-civilizational-cultural phenomena at that time which produced a syndrome of modernization transformations unequally distributed in different regions in Poland, an important element of these changes and re-evaluations being the area of attitudes and behaviours related to health and illness. It turned out that these kinds of phenomena and processes did not occur 'mechanically' and 'automatically', because in particular regions they were opposed with different intensity and different dynamics by the established traditions, customs, and local folk culture, which delayed, stopped or modified the urban cultural transmission, the symbol of 'the urban' being medical professions and institutions.

Pawełczyńska demonstrated that it was cultural, customary and psychological elements that yielded to the pressure of modernization models more slowly and with more difficulty than more easily and widely-accepted technological and organizational innovations, e.g. those concerning agricultural production. This is exactly what explains the unequal and non-parallel acceptance of services of modern 'urban medicine'. Different regional cultural and historical traditions and different identities of particular strata of the peasant population determine the indicated differences in attitudes towards the available offer of medical services. That is why, for example, the buildup of industry in low-urbanized areas does not yield the expected results for the rise in the level of health culture.

To sum up, it can be said that Anna Pawełczyńska's reports have been referred to in recent years by many medical sociologists (J. Bejnarowicz, A. Firkowska-Mankiewicz, M. Sokołowska, M. Mackiewicz and others). Generally, from the perspective of over 40 years since the end of Pawełczyńska's research project, it can be seen that the process of modernization taking place in the countryside in the 1960s and 1970s was accompanied by the progressing internalization of new patterns, values and hierarchies adopted from urban culture. As a result of this specific 'cultural revolution', the behaviours and attitudes of the rural population were being gradually (although slowly and unevenly) rationalized, these changes occurring very slowly in the sphere of health and illness, which is seen to this day in the way medical professions and institutions are perceived. This is also attested to by the re-emerging traditional folk medicine, particularly strong in the eastern, low-urbanized regions of Poland. It appears that under Communist rule it was easier to destroy and degrade the traditional rural culture than to decree the trust in and acceptance of modern 'urban medicine' in its place.

Four styles of search for social determinants of health and illness in classic medical sociology. Research approaches of Magdalena Sokołowska, Antonina Ostrowska, Anna Firkowska-Mankiewicz, and Anna Titkow. Classic Polish medical sociology formed its theoretical, methodological and conceptual foundations as well as its 'research ideology' during the first two decades of the development of studies on health and illness. If we regard the years 1962/63 as the beginning of systematic work on the conceptualization of the terms health and illness – it was then that the first sociomedical studies were written, and the book version of Magdalena Sokołowska's Habilitationsschrift was also published - this pioneering period of the development of the 'sociomedical paradigm' ends with Anna Tikow's monograph (1983), a synthesis of the earlier achievements of the subdiscipline [27].

The following attempt to describe and reinterpret the earlier research conceptions of the leading representatives of our discipline will enable us to better understand the scientific identity of medical sociology today, and to follow through the evolution and stages of research into the social nature of health and illness. Thus, the temporal perspective is defined by the period from the early 1960s to the mid-1980s. It was then, as has been said before, that the model of sociomedical research in Poland ultimately took shape. We shall seek to focus on describing 'the social nature of health and illness', placing emphasis on the elements that attest to the social determinants of the two concepts; therefore, we will necessarily omit other important research themes (e.g. creating the scientific foundations for the sociology of disability, and discussions on medicine as knowledge, studies concerning the sociology of medical institutions and professions, doctor-patient interaction, etc.). While examining and commenting on the theme of 'the social nature of health and illness' it is obviously difficult to extract it from other related issues; nevertheless, we shall try to focus on the above-indicated priority problems.

Magdalena Sokołowska - from social hygiene to socioetiological studies. Magdalena Sokołowska's medical and nursing education and the first almost fifteen years of work in various medical institutions were behind the fact that in her early research work and theoretical studies she often referred to the 'natural point of reference' which, to her, was medicine, and particularly social hygiene, epidemiology and public health [3]. As in the above-discussed studies by Jan Szczepański, the theme of the effect of social conditions on human health repeatedly appeared in various publications and contexts with reference both to the achievements of the behavioural sciences and medical disciplines. In that early period, Sokołowska was already aware that the priority task was to build the identity and scientific self-identification of her own discipline, which she termed 'an intellectual hybrid'. In her 'earlier texts Sokołowska pointed out that for centuries doctors had emphasized that apart from physical and biological factors, the phenomena of health and illness were influenced by 'social factors' [28]. She stressed that the condition of human health was a function of mutual relations Włodzimierz Piątkowski, Michał Skrzypek. The social nature of health and illness – evolution of research approaches in Polish classical medical sociology

and influences of the external and internal environment, also including the social environment.

When analyzing American sociomedical studies in the late 1950s and early 1960s, Sokołowska pointed out that medicine began to seek help from the social sciences, recognizing that the majority of civilization diseases had an exogenous, sociocultural etiology, which is why doctors use the term 'social environment', gradually becoming more inclined to accept the explanations by sociologists rather than by social hygienists [28]. When discussing, in turn, four main causes which made medicine increasingly concerned with social issues, she names among them demographic and health transformations, and emphasizes that complex (rather than homogenous) causes of chronic diseases are first of all associated with the social rather than the physical or biological 'component of the external environment'. In her discussion of the etiology of psychoneuroses and psychophysical disorders in the epidemiological studies on selected categories of New York inhabitants (1958), she emphasized that the socioetiology of these diseases made necessary the participation of sociologists and social psychologists alongside doctors [28]. Sokołowska also stressed that, from the point of view of the emerging medical sociology, it is a priority for physicians to create and define the concept of 'multicausality of diseases' (this idea was creatively developed in the mid-1970s [1974] by a co-founder of American medical sociology, Saxon Graham, in the form of a model defined as 'the etiological chain'. This approach significantly contributed to broadening the knowledge of the polyetiology of civilization diseases and established the importance of social factors in the context in which they are attributed with an increasingly greater role in the mechanism of the emergence of most diseases. Social factors also became a permanent link in the continuum of health – illness, thereby enabling more accurate measurement and gradation of health potential. As Sokołowska stressed at that time, an ally of the 'behavioural approach' within medical sciences was social epidemiology, with its exploration of such social variables as stratification position, level of education, religion, etc.

Another element bringing medicine and sociology together in the mid-1960s in the joint social research on the determinants of health was the return to the 'idea of the whole man', with emphasis placed on the role of the social environment in which an individual lives and functions; this is connected with a postulate for the sociomedical description of this habitat. In conclusion, Sokołowska says that parallel and simultaneous changes occurring in medicine and social sciences cause these two disciplines to converge and make their mutual relations closer; consequently, it is urgently necessary to develop 'a broad-ranging theory of the emergence of disease', taking into account, inter alia, the influence of 'the human group' on the course of physiological processes in the organism, including, first of all, analyses of phenomena associated with and produced by sociocultural elements [28]. In the 1960s, the form of sociomedical investigations was still determined by the research work of Magdalna Sokołowska's team. The foregoing theme of social determinants of health and illness became one of the four main research priorities of her work until the end of that decade (apart from the problem of the sociomedical description of women's work, analyses pertaining to medical professions, and studies on socialization for the social role of physician). A socioetiological pilot project was the study of 'the biological and

sociocultural determinants of mental health in children and young people'. The description of this study has been dealt with elsewhere [29]. In 1966, when summing up the studies of similar types conducted at that time, Magdalena Sokołowska wrote:

Despite the doctors' belief that a number of diseases have a social basis, the lack of knowledge about causal relations between psychosocial/cultural phenomena and biological ones *makes it impossible* (authors' emphasis, WP, MS) to take effective actions in order to combat socially-based diseases' [29].

Sokołowska emphasized that during that period the main difficulty lay in the fact that the conceptualization of research projects of this type was made by physicians rather than by sociologists; consequently, this kind of research, she believed, was of little importance for enriching general sociological theory. If, however, a concept were to be developed, designed and implemented from beginning to end by sociologists of health and illness in association with general sociology, the outcome of these studies could be the creation of a universal model of social mechanisms, which would explain how sociological factors cause or impact the course of civilization diseases. A disease, regardless of whether it 'exists', diagnosed according to valid medical criteria or not, is always an important and difficult element of the patient's real life, and it leads to more or less serious disruptions in his performance of social roles and tasks; this is why analyses of this type are classified in the mainstream behavioural sciences [29: p. 105-106]. It is studies of this type that have a chance, on the one hand, to bring medical sociology closer to medical sciences, and to general sociology on the other. It should be added that the analysis and interpretation of the effects of social conditions on human biology was a priority until the end of the 1960s in the studies by Sokołowska team, carried out as part of the work of the Polish Academy of Science Institute of Philosophy and Sociology [30].

Starting the new stage of research work on socio-etiology in the early 1970s, Magdalena Sokołowska stressed that it was only the working-out of adequate indicators, measurement methods and strict rules of inference that could make socioetiological theories valid scientific propositions. In this context, there returns again the question of a chance for a tighter alliance with general sociology. Sokołowska wrote:

What this domain needs most is the conceptual apparatus and methods of sociology, theoretical patterns enabling construction of hypotheses and interpretation of research results, the ability of studying the process of associating social and cultural factors with illness (...) [30].

These types of studies, more so than earlier ones, should be far more oriented towards sociocultural variables than towards narrow analysis of biomedical factors, therefore (the) health service in the present-day world (...) is *insufficiently* (authors' emphasis WP, MS) connected with other domains of social life. This isolation makes it difficult to prevent diseases and to treat them, as well as to combat the consequences of diseases. Social problems, in as much as they concern health, are generally treated (...) as problems (...) which should first of all interest health departments and health service employees' [31]. Sokołowska continues that despite the fact that in contemporary societies a doctor has a unique position, when he/she is not 'equipped with humanistic and social knowledge, the doctor is defenceless against the questions fundamental to man' [31]. Sokołowska optimistically forecasts that the general characteristics of changes taking place in medicine guides doctors precisely towards the social sciences – in this context, the allies of sociology are or should be modern social hygiene, epidemiology and public health. The main problem that makes this convergence difficult, however, is the fact that 'medicine does not collect information about the health of the general population, information which contains the description of particular human individuals (rather than cases of disease) in respect of characteristics of their social position' [32].

It should also be emphasized, and which was also noted by Sokołowska, that difficulties with 'attracting' general sociologists to the problems of health and illness were a consequence of the false stereotype which assumes that social scientists are not sufficiently competent to analyze biomedical phenomena, that they are able to conceptualize a project (methodology, indicators or theory), but only to the extent that purely social factors are studied. In contrast, the fact of going beyond their own competence, e.g. when analyzing the issues of social stress, arouses their fears and doubts. Under such circumstances, in view of fears and prejudices, it was difficult to make a consistent, interdisciplinary research plan. These difficulties, Sokołowska emphasizes, for years discouraged sociologists from studying health, an indirect outcome being the fact that because medicine still had no partner, it defined the fundamental concepts in only one biologicalphysiological dimension. The discovery and description of so-called 'functional diseases' may be a chance to break this impasse. At the same time, some germs of changes were observed which were expected to break the impasse: the development of indicators of social activity for diverse kinds of patients, and the introduction of the categories 'the quality of life' and 'functional capacity' should gradually link the category of health and illness with the facts of social life. This direction of changes taking place both within the medical system and in the sociology of illness may lead in the long run to the state in which 'the most important medical phenomena will no longer be inaccessible to sociological investigation' [32]. At the end of the 1970s, among the medical circles (also as a result of popularization of the research outcomes obtained by Sokołowska's team) there was a widespread belief that in order to completely and accurately explain the phenomenon of infant mortality it is necessary to estimate and determine the importance of such sociological factors as the diagnosis of family situation, to establish whether and to what extent parents' lifestyle influences these indicators; it is also desirable to have the knowledge whether and in what social strata and classes the mortality rate is the highest, on what the level of mental ability in children and young people depends, etc. What, therefore, are the prospects of sociology in the difficult partnership with medical sciences? According to Sokołowska, our subdiscipline cannot be based on and cannot create commonsense knowledge, and the sociology of health and illness must continually emphasize its clear 'distinctness' in relation to medicine. Sokołowska believed that this feature would be interesting and attractive to physicians. In order to meet medicine's expectations of a strong and competent partner, our subdiscipline must also

enter into more frequent and closer alliances with its parent discipline, i.e. general sociology [32].

From the medical to sociomedical study of determinants of health and illness in the research of Antonina Ostrowska. Following the tracks of changes taking place in research trends in the sociology of health and illness in the mid-1970s, we can observe new phenomena and tendencies: while in the first decade of the subdiscipline's development the studies by Magdalena Sokołowska decidedly dominated, in the next decade there were clearly many more scholars who took new challenges on their own initiative. The leader of this group was unquestionably Antonina Ostrowska - it is in her research projects that we see the realization of Sokołowska's postulate that health and illness should be studied 'differently' from that practiced by doctors to date, e.g. by implementing the need to take 'subjective' and 'functional' elements into account. In this approach, it is pointed out that 'health' or 'illness' is what a specific individual with specific sociocultural and demographic characteristics calls his/her condition, using one or the other of these concepts. If he/she defines himself/hersef as healthy, despite the fact that illness or disability have been ascertained according to biomedical criteria, then he/she continues to perform the usual social roles and is characterized with the usual level of activity, etc. Therefore, it is according to his/her own definition that a person functions in either role and is so perceived by other persons. Such an approach to the investigated subject of the sociology of health and illness provoked controversy in the medical environment, where it was stressed that a valid criterion in ascertaining these conditions was only a medical diagnosis established on the basis of distinct, objective and measurable symptoms (the case is more complicated when a disease or some kind of ailment is not manifested as distinct, discernible symptoms) [33]. Another problem in the sociological study of health needs is caused by the fact that some symptoms may be of conscious or unconscious nature; these are situations in which the patient is motivated to contact medical practitioners, seeks such contacts, and finally receives the expected professional help, or, for example, in the case of mental diseases or disorders, the patient usually cannot define himself/herself as seeking help, but in the opinion of, for example, his/her family such help is 'objectively necessary' and eventually provided by doctors. Under these circumstances, the patient does not directly and actively participate in this way of seeking medical help. Another situation is created, for example, by the early, symptomless stage of a cancer disease, when neither the patient nor his/her family are aware of the health needs, which after all exist 'objectively'.

Antonina Ostrowska analyzes and assesses the state of research on health needs and behaviours, using almost all the existing and available sources at that time. On the basis of these materials, Ostrowska attempted to formulate general propositions on health and illness, and on social behaviours associated with the two states. It appears that when analyzing these propositions concerning health and illness, one can see the surprising relevance of many of them. Some of these are:

- A dismissive and sceptical attitude of male patients to the discernible symptoms of their diseases, distancing themselves from offers of medical help and the medical profession. Men generally tend to assess their health condition as better, while at the same time they more often show a tendency to 'wait out the disease' and delay visiting a doctor. They also devote little attention and care to disease prevention. Conversely, women self-assess their health as worse, seek medical help more often, and have a rather positive attitude towards its quality.

- The dominant role of self-treatment ('home treatment') as the basic, effectively assessed strategy for coping with the most frequent illnesses, which are considered trivial and not seriously jeopardizing the life and health of the family members.
- The main reason for 'assuming the social role of a patient' is the defining of discernible symptoms as dangerous, where self-treatment does not offer good prognoses – such conditions are usually acute painful complaints, high temperature, and the like. In dental conditions, the main reason for going to the dentist are discernible cavities and acute recurring episodes of toothache.
- Four principal patterns have been distinguished in the ways of realization of health needs: 'rational' – the exclusive use of institutional medical care; 'traditional' – practicing mainly self-treatment; 'rational and traditional' (mixed), and 'passive' – a passive attitude and tendency to 'to wait out' the illness.
- To most Poles, the factor that influences and differentiates behaviours related to health and illness was the frequency of being ill: the more frequent the earlier use of medical services, the greater the tendency for subsequent quick and frequent contacts with medicine. At the same time, persons informing of their tendency to 'drive out' or 'make light' of illness remain passive to its symptoms significantly more often.
- The level of education has the strongest effect as a variable differentiating behaviour connected with health and illness; the higher the level of education of the subjects, the stronger the rational attitudes grew.
- Ostrowska also compared behavioural patterns associated with illness and being ill in large-city populations and in the agricultural areas (note that in the 1970s, ca. 35% of Poland's population were rural inhabitants). The results showed that, as established earlier, the determining factors were first of all differences in the average education level of both populations. Representatives of large-city environments exhibited greater knowledge about the way of functioning of medical institutions, knew better the ways and rules of utilization of these services, and had better access to medical infrastructure; therefore, they showed greater self-confidence, self-reliance, and initiative in using medical institutions. At the same time, however, this population, believing in their competence, more eagerly utilized self-treatment methods by choice [33].

We can say that more than a dozen different studies collected and reinterpreted by Ostrowska show a puzzling stability in many kinds of health behaviors practiced by the Poles. Despite the lapse of over 40 years since the foregoing analyses were made, since the complete transformation of the social and political system, and since the rise of the market economy in this country, many behavioural patterns, attitudes, and value hierarchies have remained largely unchanged. The indicated permanency and stability is an interesting sociological fact in itself and does deserve separate studies and investigations.

Determinants of the mental level of children and young people in the research of Anna Firkowska-Mankiewicz biomedical and sociocultural variables. One of the most interesting, longitudinal, interdisciplinary sociomedical studies conducted in the first two decades of the development of the sociology of health and illness was the research work of the sociomedical and biomedical teams (coordinators Magdalena Sokołowska and Ignacy Wald, respectively) on the analysis of the syndrome of determining the mental level of children and teenagers. The direct executor of this unique project was Anna Firkowska- Mankiewicz. The main purpose of analyses was to verify the suspected interrelations between general indicators of the child's mental level and the class/stratum membership of his/her parents. It should be remembered, of course, that in the 1970s in Poland as a 'Socialist' country, the differences between the three essential segments of the then society: the working class, peasant class, and the stratum of the intelligentsia, were very small compared with the situation in Western European countries. In their research project, the authors used the category of 'social position', understood not only as the place in the class/stratum structure and its correlates (parents' education, the family's general socio-economic position), but also analyzed forms of participation in culture, the organization of daily life in the family, or the type of parents-children relationship [21]. For the team of authors, the starting point was the conclusions drawn from Western studies showing that the higher the position of parents in the stratification structure, the higher (most often) the mental level of the children, and the reverse. In turn, the higher the level of the individual's intelligence, the higher, obviously, the chances of attaining an important and prestigious social position. According to the logic of these propositions, children from the privileged classes, in the broad sense, a have considerable chance of gradually replacing their parents in the upper or middle class, inheriting power, prestige and wealth [21]. The series of studies comprised two principal stages of project implementation: the first stage sought to establish the assumed interrelationships between indicators of children's intelligence and the position of their parents: here, the indicators that were referred to were the place occupied in the social structure, education, or the family's housing conditions. The other stage consisted in seeking to identify other correlates of social stratification associated inter alia with analysis of the functioning of a family, or with the study of the process and quality of socialization.

The project was eventually realized among Warsaw children born in 1963, who lived in this city in 1973 and 1976. During the first phase 14,238 eleven-year-olds were studied, and in the second phase, a group of 1,171 children. The conclusions drawn from all the results obtained indicate a significant relationship between the high or low position occupied by the parents and the general level of the intellectual development of the child studied. Firkowska-Mankiewicz states that:

these differences are distinct, the average results obtained by workers' children (...) being below the averages for the population studied, while in the case of children of white collar employees, (...) and of the intelligentsia, these results are significantly above the average (...) among children with a low intellectual level, numerically the greatest group are children of unskilled workers' [21]. It also turned out that apart from the correlates of the social/professional position, a considerable impact on the child's mental level is exerted by the parents' education: the authors emphasized that 'the child's intellectual level is determined by the empirically inseparable, joint contribution of both these factors' [21]. At the same time, it turned out, to the surprise of the project originators, that 'family variables' (good atmosphere at home, positive emotions inside the family, or close parents-children contacts, and the like) were not clearly correlated with the general level of the mental capacity of the subjects.

An interesting and unique aspect of the studies conducted in the Polish realities of that time was the presence of the biomedical theme, represented by the analysis of genetic variables; when drawing up the assumptions of their research work, the authors emphasized that they were aware of the strong role of this kind of component. The theme in question concerns, in any case, the broader question, fundamental to behavioural sciences, of attempts to estimate the role of the genetic and sociocultural (environmental) factors, and to explore the mechanism of the influence of both these factors on, e.g. intelligence quotients in a population. This is what Firkowska-Mankiewicz wrote about the assumptions of this part of the project:

(...) parents' intelligence largely determines children's intelligence; consequently, less intelligent parents are more likely to have less intelligent children. We clearly found such an interrelationship in our material, both in the group of white-collar and blue-collar workers [21].

With reference to the part supervised by physiciansgeneticists, the authors of that study concluded:

The level of intellectual capacity overwhelmingly depends on the genetic make-up with which a child is born – to a lesser (not necessarily less important) extent on the chances to use this potential, created by the social environment. Interestingly enough, the role of genetic factors grows as the diversity of environmental factors decreases' [21].

Summing up this longitudinal and multiaspectual research project, jointly supervised by sociologists and physicians, and implemented by Anna Firkowska–Mankiewicz's team, it can be said that the obtained results demonstrate that the sociology of health and illness was able to cooperate on a large scale with medical doctors. The result was the obtaining of data, the multifactorial analysis of which largely broadened knowledge about sociocultural and genetic correlates of the intellectual level of children and young people.

Sociological context of attitudes and behaviours connected with health and illness in the research by Anna Titkow. The last of the examples documenting the evolution of the ways of conceptualizing methodology and the interpretation patterns of empirical data pertaining to the formation of consistent views on the social nature of health and illness, which can be observed in Polish classic medical sociology in the first two decades of its development, concerns attempts to build a model of research into the behaviours and attitudes of Polish society towards health and illness [27]. The project realized by Anna Titkow is a kind of synthesis of the main research themes in Polish medical sociology and, on the one hand, accurately presents the degree of advancement and maturity of sociomedical research at that time, and the progress made in this field in 1963-1983, and on the other hand, the growing research ambition of sociologists interested in the area defined by the concepts of health-illness-medicine. Striving for a synthesis of earlier investigations covering diverse aspects of the social reality 'surrounding' health and illness, as well as studies devoted exclusively to these key concepts, are well expressed by the citation referring to the assumptions of Tikow's research project, who tries to show the problems of ' attitudes and behaviors related to health and illness as the sphere of human activity, which may enrich the knowledge of interrelations occurring between specific situations and human behaviours' [27]. The primary point of reference for the research concept so-determined was to define the importance and role of cultural and stratification variables, their character and range of influence on behaviours and attitudes towards health and illness in Polish society.

Titkow starts her study from the definition of culture as a complex of co-occurring attitudes, beliefs, or behaviors, correlated and strictly assigned to patterns, norms, and values prevailing in the society investigated. Titkow's point of reference was Talcott Parsons' classic concept [34]. It was assumed that behaviour was integrated in a specific way into the culture and value system of a community (society), e.g. in American society it is, among other things, the ability to succeed, activism, and instrumentalism. In this context, illness is treated as a special deviation from the norm (an aberration), which fact in turn determines behaviours and expectations towards sick and healthy persons. It should be added that investigation of attitudes and behaviours associated with health and illness is difficult in a multicultural society for obvious reasons, because its ethnic groups may identify (often at the same time) with many cultures, customs, and traditions. Titkow also points out the special role and importance of socialization in shaping attitudes and behaviours towards health and illness. Anna Titkow emphasizes that the way of manifesting symptoms, and criteria for the choice of treatment path (e.g. self-treatment or contact with a doctor) are also determined by the cultural background, just as are the patterns of the patient-healthservice employee relationship, and (which is indirectly the outcome of a successful or unsuccessful interaction) the establishment of an accurate or inaccurate diagnosis. Obviously, the list of culturally determined behaviours related to health and illness is longer and embraces, e.g. responses to pain or patterns of preventive behaviours.

Different complementary points of reference are the stratification variables that impact the shape, character and diversity of behaviours related to health and illness. In this area, Titkow attaches special importance to some propositions from this group of determinants of the two concepts in question. Here are several selected examples related to the 'stratification theme':

- the lower the social class, the lesser, in proportion, the access to sometimes important and deficit information on possible forms and ways of treatment;
- the lower the social class, the more reduced the chance of utilizing highly specialist and rationed medical services;
- demands concerning the quality of work of medical institutions and professions grow proportionally to the position occupied by an individual in the stratification structure of Polish society;

Włodzimierz Piątkowski, Michał Skrzypek. The social nature of health and illness - evolution of research approaches in Polish classical medical sociology

- the lower the position in the social structure, the less the practice of preventive behaviours, and the less the knowledge about health risk factors;
- in turn, the higher the position in the social hierarchy, the more substantial the income and social prestige, the more understanding of the need for health education, and greater receptivity to its arguments;
- a high position occupied on the 'social ladder' clearly shortens the path to a specialist physician, as well as the waiting time for a medical procedure or intervention;
- the income level analyzed as a single causative factor was not the principal factor determining illness-related behaviours in the socialist society;
- similarly, the number and kinds of observable disease symptoms were not 'automatically' a factor motivating one to seek medical help in different segments of the society;
- however, persons of low social standing 'perceive themselves as being more ill' comparatively more often than the results of standard medical tests would suggest;
- similarly, persons with the lowest status (unskilled workers in Titkow's study) usually regard stress symptoms as physiological symptoms;
- likewise, women (manual unskilled workers) often describe pregnancy in terms of illness. Summing up this line of research, its author state that awareness of the significance of stratification elements allows us 'to know essential mechanisms shaping the behavior of individuals, including their activity and behaviors related to their health' [27].

In conclusion, the theoretical-empirical studies designed and implemented by Anna Titkow, as well as the results obtained in this way, allowed the description, characterization, and interpretation of essential rules and regularities associated with the behaviours and attitudes of the Poles towards health and illness. When preparing and implementing her research plan, Titkow referred to the earlier, almost twenty-year achievements of the Polish sociology of health, illness and medicine. The outcomes of this project also significantly enriched the general knowledge about the functioning of Polish society, showing that sociology and medical sociology were important and desirable partners for general sociology, which the founder of this discipline, Magdalena Sokołowska, so consistently strive for years to achieve.

Contemporary directives for research on health and illness in a multidisciplinary approach applied in Polish medical sociology. The attaining of cognitive maturity by Polish medical sociology, manifested in the application of specific, sociology-based conceptualizations of the phenomena of 'health' and 'illness' (we have presented the chronology and determinants of this process using the example of the subdiscipline's research field), can be legitimately treated as a sine qua non condition for the participation of the subdiscipline in multidisciplinary research in the area of health sciences [35, 36, 37]. This thesis is true because the clearly-defined self-awareness of the subdiscipline, expressed in the working-out and application of unique conceptualizations, research approaches, etc. protects against the 'blurring of boundaries' between medical sociology and other disciplines involved in a research project (unless they are interdisciplinary investigations which entail crossing the boundaries of particular disciplines).

On the basis of the experience Lublin's sociomedical centre now being co-developed by three universities (Maria Curie-Skłodowska University in Lublin, Medical University, and John Paul II Catholic University of Lublin) we can conclude that medical sociology is perceived as a significant partner in research, capable of pointing out and exploring those aspects of health, illness, and treatment that are difficult or impossible to examine by means of the methodological instruments of natural sciences, or that are not the subject of systematic studies in other domains investigating the non-medical dimensions of health (e.g. lay interpretations of health and illness and actions undertaken (or not) under their influence, taking their sociocultural context into account; behavioural determinants of health and illness examined in a broad, sociocultural context, analyses of lay preferences concerning medical or non-medical treatment in diverse social environments, etc.). Therefore, the working out of the differentia specifica of medical sociology, accomplished in the Polish reality, largely owing to Magdalena Sokołowska and the representatives of the Polish 'school of medical sociology' which she had initiated, made it possible for its representatives to become members of multi-specialist research teams, including - which must be emphasized - close, partnership-based cooperation with the clinical sciences (sociology with medicine), without risking the loss of its (medical sociology's) own scientific identity.

The question discussed here is increasingly and particularly significant in the context of contemporary postulates showing interdisciplinary studies as the preferred formula for research on health and illness. This recommendation is consequent upon the acceptance of the fact that human health is a complex and multidimensional phenomenon: its comprehensive scientific description demands an integrated contribution of representatives of many disciplines [38, 39, 40]. Multidisciplinary studies involving *inter alia* medicine, biology and the social sciences are perceived as a natural, important stage in the evolution of research approaches to the problems of health [39]. Consequently, they are promoted by prestigious scientific organizations, for example, by the American Social Science Research Council (SSRC) [40].

Directives on studying human health under a 'team approach' were also formulated in the field of a sociological subdiscipline, represented by the authors of the presented study, editors of the Sociology of Health and Illness section in AAEM. For example, D. Mechanic, a leading representative of the discipline in the USA, postulates the position that because of their complexity, the issues of human health cannot be effectively examined from the perspective of one discipline, and should be the subject of multidisciplinary studies with the active participation of the social sciences [41]. S. Nettleton, in turn, believes that the prevalent part of valuable studies in the problem area of human health is carried out using the model of multidisciplinary studies at the interface of sociology and other disciplines, such as health economics, health psychology, social epidemiology, health policy, anthropology. etc. [42].

It should be strongly emphasized that all the foregoing declarations regarding the model of multidisciplinary studies on health, value highly the social health sciences, in particular, the sociology of health and illness. We should justify this position. J. Siegrist, a leading representative of the subdiscipline in Germany, contends that the importance of environmental and psychosocial effects on human health is demonstrated by the epidemics of obesity and diabetes, as well as circulatory diseases and affective disorders in societies in highly developed and fast developing countries, and furthermore, by interrelationships between the spread of AIDS/HIV, accidents or murders and social disintegration, economic transformations, as well as migrations. Strong evidence confirming the social determinants of disease distribution on a global scale is also provided, in J. Siegrist's view, by the data on social inequalities in the spread of leading chronic diseases [43]. We will elaborate on this analytical theme, pointing out the social origin of coronary artery disease. The current state of knowledge in behavioural cardiology contains the empirical documentation of multidirectional interactions between psychosocial context and human biology, participating in the etiopathogenesis of this disease. This issue was touched upon by the findings of the international research project Statuskonferenz Psychokardiologie, whose goal was to critically assess and systematize the knowledge of psychosocial aspects of the etiopathogenesis, treatment and rehabilitation of coronary artery disease. The result of the work of the Statuskonferenz Psychokardiologie are metaanalyses, based on strict methodological criteria, which are the most exhaustive and reliable reference source concerning these problems [44]. They confirm unquestionably that non-biological factors participate in the etiopathogenesis of coronary artery disease, including low socioeconomic status; chronic psychosocial stress, in particular at the workplace, mental factors, such as hostility and depression, as well as behavioural factors, i.e. individual behaviours (closely related with the foregoing psychosocial factors). The Statuskonferenz Psychokardiologie experts emphasize that all psychosocial factors related to the etiopathogenesis of coronary artery disease, having effect both at the macro-social level (low socioeconomic status), meso-social (stress at the workplace, social support) and at the individual level (depression, individual behaviours) are interrelated [45], which permits the proposition that there is a network or 'chain' of psychosocial risk factors whose 'end-point' is the condition of the epicardial coronary arteries [46].

Coronary artery disease, because of its specific etiopathogenesis associated with the influence of nonbiological factors, can therefore be treated as a typical clinical and epidemiological problem which justifies the presence of social-science researchers in the studied area of human health. Note that this position is endorsed by experts at the Social Science Research Council [40].

Between sociology and genetics - towards integrative health models. In the context of the 'biotechnological revolution' in medical sciences, which is particularly dynamic in the field of genetics and neuroscience, an important scientific task is the integration of knowledge about the contribution of social factors to determining human health with biomedical achievements describing bio-genetic determinants of health [47]. In present-day health sciences, a clear tendency can be observed to build integrative health models that take into account both the achievements of biomedicine and social sciences. Such tasks are carried out by multi-specialized research teams. For example, this is the profile of the research project of the US Institute of Medicine Committee on Health and Behavior: Research, Practice, and Policy Board on Neuroscience and Behavioral Health (established in 1988), whose goal was to describe the

state of knowledge concerning 'links between biological, psychosocial and behavioral factors, and health', as well as to describe practical applications of the knowledge in this field. The result was a report based on extensive analysis of literature on the subject, documenting the multidirectional influence of psychosocial factors on human health. The experts of the project in question state conclusively that health is the outcome of interactions of psychosocial and biological factors, the psychosocial factors being related to health, both through specific biological mechanisms (described *inter alia* in neurobiology and psychoneuroimmunology) and behavioural mechanisms (through modifiable individual behaviours).

The report details health-related psychosocial factors which embrace low socioeconomic status and social inequalities, social network and social support, working conditions, and some mental features, such as depression, anger and hostility [48]. As in the final publication of the Statuskonferenz Psychokardiologie, the Committee on Health and Behavior [...] experts point out that all health-related factors enter into mutual interactions occurring during the whole human life-course [48]. It should be emphasized that the aforementioned report by the American Institute of Medicine Committee on Health and Behavior [...] contains a firm directive supporting the presence of representatives of multiple disciplines in the research area of human health, because it states that 'cooperation and interaction of multiple disciplines are necessary for understanding and influencing health and behavior' [48].

We should also focus on another American multispecialist research initiative offering an integral approach to determinants of human health. The goal of the studies by the Committee on Assessing Interactions Among Social, Behavioral, and Genetic Factors in Health (set up by the Institute of Medicine) was to describe the interaction of social, behavioural and genetic factors on determining health [49]. The report on this research initiative contains a strong argument in support of the legitimacy of integrated research approaches to the problems of human health, because it points out the importance of the genomeenvironment interactions in determining health, consisting inter alia, in that the specific, individual way of responding to environmental challenges, connected with the risk of civilization diseases, is the result of the co-effect of genetic equipment and environmental influence which modify the expression of genetic information. The report in question emphasizes that the intensity of physiological stress reaction in man's whole life-course, and thereby the level of health risk, is especially determined by environmental influences during childhood [50].

The building of integrated models of human health was also the objective of the research initiative of the Committee on Future Directions for Behavioral and Social Sciences Research, set up by the US National Institutes of Health. Its experts specified ten research areas which currently require intensive scientific exploration. These are:

- 'Pre-disease Pathways' the research area concerned with 'early and long-term biological, behavioural, psychological, and social precursors to disease' (with emphasis placed on intervention strategies which modify these influences).
- 2) 'Positive Health' the research area covering multiple biopsychosocial influences determining the maintenance or recovery of health during the whole life.

Włodzimierz Piątkowski, Michał Skrzypek. The social nature of health and illness - evolution of research approaches in Polish classical medical sociology

- 3) 'Environmentally Induced Gene Expression' the issue of genome-environment interaction in determining health.
- 4) 'Personal Ties' the importance of social ties for health.
- Collective Properties and Healthy Communities' concerns health-related variables which exert influence at the local community level, including social cohesion.
- 6) 'Inequality and Health' links between such social phenomena as social inequalities, racism, discrimination as well as stigmatization, and health.
- 7) 'Population Health' problems concerning changes in health status on a macro-scale ('macro-level trends on health status'), relationships between macroeconomic factors and population health, and the functioning of healthcare systems.
- 'Interventions' issues of intervention strategies geared towards improvement of health, with behavioural, psychosocial and biological profiles, taking multi-level strategies into account.
- 9) 'Methodology' a research area concerned with developing new methodological approaches which enable synthesis of information on health determinants, derived from analyses conducted at different levels (from molecular to social).
- 10) 'Infrastructure' the problems of creating structures and resources that enable, *inter alia*, training of researchers competent in integrating knowledge about health and its determinants, derived from different disciplines [51].

Specificity of contemporary socio-medical research approaches to the phenomena of health and illness. The scope of interest of contemporary medical sociology coincides with the aforementioned directives of prestigious scientific organizations promoting integrative health models. It must be emphasized that the subdiscipline represented in the presented study is the first fully-developed domain of social sciences which investigates the problems of health and healthcare [6].

We will now refer to selected approaches to the research field of sociology of health and illness. According to Sarah Nettleton it comprises 'all those aspects of contemporary social life which impinge upon well-being throughout the life-course' [52]. This definition contains two elements which require attention and broader comment. First, the definition points out that apart from objectivized 'hard' health indicators characteristic of biomedical studies, sociomedical research uses subjective indicators of subjectively assessed health status. These methodological assumptions apply to studies on the health-related quality of life which utilize quantitative research methods, and constitute the joint research area of medicine and social sciences: the studies describe multidirectional (including social) determinants of subjectively assessed well-being [53]. It should be stressed that in the field of medical sociology there are also conducted qualitative studies that allow insight into the lay ways of interpretation and understanding of health, illness and medical care by 'ordinary people' [54, 55]. Such research approaches are a valuable complement to the results of questionnaire surveys exploring the subjectively-assessed well-being and its multiple correlates.

Sarah Nettleton's interpretation of the research area of medical sociology also contains a directive on studying social determinants of health from the perspective of the human life-course. Such analytical approaches, now treated as a priority [20], offer an opportunity to describe the ways of accumulation of psychosocial, health-adverse effects which occur from the earliest stages of ontogenesis. Note that the WHO *Department of Noncommunicable Diseases Prevention and Health Promotion* pointed out that research approaches to the etiopathogenesis of non-communicable diseases, taking into account only psychosocial influences in adulthood, are incomplete and fragmentary because the accumulated lifetime risk of these diseases is the result of biological and social effects from all the stages of the lifecycle [56].

In the subject area of contemporary medical sociology, high importance is accorded to seeking ways of translating scientific knowledge concerning social determinants of health into practical actions in health promotion and public health. In the light of recommendations by the US Institute of Medicine's Committee on Capitalizing on Social Science and Behavioral Research to Improve the Public's Health, Division of Health Promotion and Disease Prevention, the contextual understanding of determinants of health, developed in social sciences and emphasizing its distal (including socioeconomic) and proximal (individual health behaviors) determinants, is the appropriate theoretical starting point for designing effective preventive and health-promoting measures. These measures should be multi-level, i.e. they should be oriented not only towards 'downstream' individual phenomena (including health behaviours), but also towards 'upstream' societal-level phenomena, because they make up the context in which health-conducive or health-risk behaviours are practiced [57].

The experts of the Committee on Capitalizing on Social Science and Behavioral Research (...) conclusively state that:

If successful programs are to be developed to prevent disease and improve health, attention must be given not only to the behavior of individuals, but also to the environmental context within which people live [57].

We treat health promotion based on these assumptions, initially designed as the instrument of 'new public health' [58], and, consequently, derived from medical sciences, as the application area of the achievements of all health sciences describing sociocultural determinants of health related to various dimensions of human existence [59]. It is our conviction that, in particular, the achievements of the sociology of health and illness contribute to laying the valuable theoretical foundation for health promotion. The studies by health sociologists, especially those with diagnostic value and concerned with health attitudes and behaviours, are a necessary stage of action preceding attempts to change societal health awareness and health behaviours [60, 61].

The condition for the progress of knowledge in the health sciences is seen at present in the implementation of multidisciplinary projects. The importance of social research conducted by medical sociologists consists, in this context, in complementing biomedical analyses with a humanistic perspective, which points out the subjective and behavioural dimensions of health and illness. It is then possible to construct a complete description of these phenomena, emphasizing the fact that a person in a state of health or illness cannot be reduced to biomolecular mechanisms identifiable through the achievements of the 'biotechnological revolution' (F. Fukuyama's term). It became possible for medical sociology to contribute a specific, contextual approach to human health and illness, which consists in placing their origin and ways of lay understanding of these phenomena in the broad context of sociocultural influences, owing, *inter alia*, to the fact that in the course of the historical development of this subdiscipline (also in Poland) its connections with sociology were initiated and developed. In the Polish realities, we owe this, as has been mentioned previously, first of all to Professor Magdalena Sokołowska (1922-1989).

In conclusion, we should observe that in the theoretical introduction to the publication in English, which presented the achievements of her research team, on the occasion of the IX World Congress of Sociology in Uppsala (1978), Magdalena Sokołowska noted strong connections of Polish medical sociology with general sociology. However, she went a step further, asking the question whether medical sociologists are only '(passive) recipients and users of the sociological theories?' On the basis of the state of Polish sociomedical research at that time, Sokołowska pondered over the question whether medical sociology could contribute to the development of sociological theory without confining itself only to testing the already existing 'general sociological concepts?' [4]. The problem she posed is gaining in relevance in the context of the contemporary, significantly advanced, sociomedical research in Poland and all over the world [62], and without doubt it deserves discussion in further publications in the sociomedical section of AAEM - Sociology of Health and Illness.

REFERENCES

- 1. Straus R. The nature and status of medical sociology, Am Soc Rev. 1957; 22(2): 200-204.
- Gerhardt U. Ideas about illness. An intellectual and political history of medical sociology. New York: New York University Press, 1989. p. xxiii.
- Sokołowska M. My path to medical sociology. In: Elling RH, Sokołowska M. (eds.), Medical sociologists at work. New Brunswick, New Jersey: Transaction Books, 1978.p.292-293, 296, 298.
- 4. Sokołowska M. Theoretical considerations. In: Sokołowska M. (ed.), Health and society. Selected research and bibliography. Warszawa: The Polish Academy of Sciences, Institute of Philosophy and Sociology, 1978.p.p7-14.
- 5. Sokołowska M. Poznawcza i społeczna tożsamość socjologii medycyny (Cognitive and social identity of medical sociology). In: Socjologia zdrowia i medycyny. Materiały z Konwersatorium Sekcji Socjologii Medycyny PTS i Zakładu Socjologii Zdrowia i Medycyny Instytutu Filozofii i Socjologii Polskiej Akademii Nauk prowadzonego przez Magdalenę Sokołowską i Annę Titkow (Sociology of health and medicine. Materials from the seminar of the Medical Sociology Section, Polish Sociological Association and Department of Sociology Section, Polish Sociological Association and Department of Sociology, Polish Academy of Sciences, conducted by Magdalena Sokołowska and Anna Titkow) (1986-88). Warszawa: IFIS PAN, 1989.p.7-27 (in Polish).
- Bird CE, Conrad P, Fremont AM. Medical sociology at the millennium. In: Bird CE, Conrad P, Fremont AM. (eds.), Handbook of medical sociology, Upper Saddle River, New Jersey: Prentice Hall, 2000.p.8.
- 7. Kessel F, Rosenfield PL, Anderson NB (eds.), Expanding the boundaries of health and social science: case studies in interdisciplinary innovation. Oxford: Oxford University Press, 2003.
- Twaddle AC. From medical sociology to the sociology of health: some changing concerns in the sociological study of sickness and treatment. In: Bottomore T, Nowak S, Sokołowska M. (eds.), Sociology. The state of the art. London–Beverly Hills: Sage, 1982.p.323-358.
- 9. Elling RH, Sokołowska M. (eds.), Medical sociologists at work. New Brunswick, New Jersey: Transaction Books, 1978.
- Słońska Z, Piątkowski W. The sociology of health and medicine in Poland. Salute e Società 2012; XI(2): 73-88.
- Mc Elroy A, Jezewski MA. Cultural variation in the experience of health and illness. In: Albrecht GL, Fitzpatrick R, Scrimshaw SC. (eds.), The handbook of social studies in health and medicine. London: Sage, 2003.p.191-209.

- 12. Pflanz M. Struktura społeczna a zdrowie: problemy nie rozwiązane (Social structure and health: unsolved problems). In: Sokołowska M, Hołówka J, Ostrowska A. (eds.), Socjologia a zdrowie. (Sociology and health). Warszawa: PWN, 1976.p.358 (in Polish).
- Słońska Z. Zdrowie (Health). In: Frieske KW, Kubiak H, Lissowski G. and others (eds.), Encyklopedia socjologii (Encyclopedia of sociology). Vol. 4. Warszawa: Oficyna Naukowa, 2002.p.354 (in Polish).
- 14. Ostrowska A. Pojęcie potrzeb zdrowotnych (The concept of health needs). In: Problemy zdrowia i opieki lekarskiej w opiniach społeczeństwa polskiego (Problems of health and healthcare in the opinions of Polish society). Warszawa: Polish Academy of Sciences, 1975.p.9 (in Polish).
- 15. Bejnarowicz J., Sokołowska M, Socjolog a pojęcie stanu zdrowia (The sociologist and the concept of "health status"). In: Sokołowska M, Hołówka J, Ostrowska A. (eds.), Socjologia a zdrowie (Sociology and health). Warszawa: PWN 1976.p.417 (in Polish).
- 16. Titkow A. Medical sociologists at work (review). Studia Socjologiczne 1981; 3: 290-292 (in Polish).
- 17. Nowakowski S. Przemówienie z okazji doktoratu honoris causa w Uniwersytecie Warszawskim (The speech on the occasion of honorary doctorate at Warsaw University). In: Nowakowski S. and others (eds.), Społeczeństwo i socjologia. Księga poświęcona Profesorowi Janowi Szczepańskiemu (Society and sociology. The book dedicated to Professor Jan Szczepański). Wrocław, Warszawa, Kraków, Gdańsk, Łódź: Ossolineum, 1985.p.15 (in Polish).
- Sokołowska M. Wstęp (Introduction). In: Sokołowska M. (ed.), Badania socjologiczne w medycynie (Sociological research in medicine). Warszawa: Książka i Wiedza, 1969.p.43 (in Polish).
- 19. Szczepański J. Odmiany czasu teraźniejszego (Variations of the present time). Warszawa: Książka i Wiedza, 1973.p.725-746 (in Polish).
- 20. Szczepański J. Elementarne pojęcia socjologii (Basic terms of sociology). Warszawa: PWN 1963.p.24-27 (in Polish).
- Firkowska-Mankiewicz A, Czarkowski MP. Położenie społeczne a poziom umysłowy dzieci warszawskich (Social status and the level of cognitive development of Warsaw children). Studia Socjologiczne 1981; 3: 177-178, 181, 183, 191, 193 (in Polish).
- 22. Szczepański J. Socjologia i medycyna (Sociology and medicine). Przegląd Kulturalny 1962; 32: 3 (in Polish).
- 23. Szczepański J. Nie ma nieuleczalnie chorych (There are no incurably sick people) (review). Tu i Teraz 1983; 11: 10 (in Polish).
- Pawełczyńska A. Dynamika przemian kulturowych na wsi (The dynamics of cultural changes in the country). Warszawa: PWN, 1966 (in Polish).
- Piątkowski W. Beyond medicine. Frankfurt am Main: Peter Lang Verlag, 2012. Part II, Polish folk medical systems and self-treatment – continuity and change. 2012, p.173-220.
- Firkowska-Mankiewicz A. Rodzina a problemy zdrowia i choroby (Family and problems of health and illness). Warszawa: CPBP 1990 (in Polish).
- 27. Titkow A. Zachowania i postawy wobec zdrowia i choroby. Studium Warszawskie (Behaviors and attitudes towards health. A Warsaw study). Warszawa: PWN, 1983.p.45, 60 (in Polish).
- Sokołowska M. Socjologia i medycyna (Sociology and medicine). Studia Socjologiczne 1962; 3: 207-208, 220 (in Polish).
- Sokołowska M. Socjologia medycyny w Polsce (Medical sociology in Poland). Kultura i Społeczeństwo, 1966; 2: 99, 105-106 (in Polish).
- Sokołowska M. Przedmowa (Foreword). In: Sokołowska M. (ed.), Badania socjologiczne w medycynie (Sociological research in medicine). Warszawa: Książka i Wiedza, 1969.p.16-17 (in Polish).
- Sokołowska M. Wstęp (Introduction). In: Sokołowska M. (ed.), Badania socjologiczne w medycynie (Sociological research in medicine). Warszawa: Książka i Wiedza, 1969.p.25-26 (in Polish).
- 32. Sokołowska M. Powstanie i rozwój socjologii medycyny w Polsce (The rise and development of medical sociology in Poland). In: Sokołowska M, Hołówka J, Ostrowska A. (eds.), Socjologia a zdrowie (Sociology and health). Warszawa: PWN, 1976.p.320, 329, 334 (in Polish).
- 33. Ostrowska A. Problemy zdrowia i opieki lekarskiej w opiniach społeczeństwa polskiego (Problems of health and healthcare in the opinions of Polish society). Warszawa: Polish Academy of Sciences, 1975.p.9-11, 45 (in Polish).
- 34. Parsons T. Struktura społeczna a osobowość (Social structure and personality). Warszawa: PWE, 1969 (in Polish).
- 35. Piątkowski W, Płonka-Syroka B. (eds.), Socjologia i antropologia medycyny w działaniu (Medical sociology and medical anthropology in action), Wrocław: Arboretum, 2008 (in Polish).
- Popielski K, Skrzypek M, Albińska E. (eds.), Zdrowie i choroba w kontekście psychospołecznym (Health and illness in the psychosocial context), Lublin: Wyd. KUL, 2010 (in Polish).

Annals of Agricultural and Environmental Medicine 2012, Vol 19, No 4

Włodzimierz Piątkowski, Michał Skrzypek. The social nature of health and illness – evolution of research approaches in Polish classical medical sociology

835

- 37. Płonka-Syroka B, Skrzypek M. (eds.), Doświadczanie choroby w perspektywie badań interdyscyplinarnych (Experiencing illness in the perspective of interdisciplinary research). Wrocław: Wyd. AM we Wrocławiu, 2010 (in Polish).
- 38. Rosenfield P. Kessel F. Closing commentary. Fostering interdisciplinary research: the way forward. In: Kessel F, Rosenfield PL, Anderson NB (eds.). Expanding the boundaries of health and social science: case studies in interdisciplinary innovation. Oxford: Oxford University Press, 2003.p.378-413.
- 39. Rowe J. W. Introduction. Approaching interdisciplinary research. In: Kessel F, Rosenfield PL, Anderson NB (eds.). Expanding the boundaries of health and social science: case studies in interdisciplinary innovation. Oxford: Oxford University Press, 2003.p.3.
- 40. Calhoun C. Marrett C. Foreword. In: Kessel F, Rosenfield PL, Anderson NB (eds.), Expanding the boundaries of health and social science: case studies in interdisciplinary innovation. Oxford: Oxford University Press, 2003.p.vi.
- Mechanic D. Emerging trends in the application of the social sciences to health and medicine. Soc Sci Med 1995; 40: 1491-1496.
- 42. Nettleton S. Retaining the sociology in medical sociology. Soc Sci Med 2007; 65: 2409-2412.
- Siegrist J. Medical sociology and molecular medicine: is there a case for cross-cutting disciplinary boundaries? Soz Präventivmed 2005; 50: 4-5.
- 44. Jordan J, Bardé B, Zeiher AM. (eds), Contributions towards evidencebased psychocardiology. A systematic review of the literature. Washington: American Psychological Association, 2007.
- 45. Rugulies R, Siegrist J. Sociological aspects of the development and course of coronary heart disease. Social inequality and chronic emotional distress at the workplace. In: Jordan J, Bardé B, Zeiher AM. (eds.), Contributions towards evidence-based psychocardiology, A systematic review of the literature. Washington: American Psychological Association, 2007.p.13-33.
- 46. Skrzypek M. Kardiologia behawioralna zarys stanu wiedzy i aplikacje kliniczne w obszarze badań nad chorobą wieńcową (Behavioral cardiology – the knowledge advances outline and clinical applications in the study of the coronary artery disease). Polish J Cardiol 2008; 10(2): 144-149 (in Polish).
- 47. Perry BL. Taking the medical sciences seriously: why and how medical sociology should incorporate diverse disciplinary perspectives. In: Pescosolido BA, Martin JK, McLeod JD, Rogers A. (eds.) Handbook of the sociology of health, illness, and healing. A Blueprint for the 21st Century. New York: Springer, 2011.p.543-562.
- 48. Committee on Health and Behavior: Research, Practice, and Policy Board on Neuroscience and Behavioral Health, Institute of Medicine. Health and behavior: the interplay of biological, behavioral, and societal influences. Washington: National Academy Press, 2001.p.348.
- 49. Hernandez LM, Blazer DG. (eds.), Genes, behavior, and the social environment. Moving beyond the nature/nurture debate. Committee on Assessing Interactions Among Social, Behavioral, and Genetic Factors in Health, Board of Health Sciences Policy, Institute of Medicine. Washington: The National Academies Press, 2006.
- Embedded relationships among social, behavioral, and genetic factors. In: Hernandez LM, Blazer DG. (eds.), Genes, behavior, and the social

environment. Moving beyond the nature/nurture debate. Committee on Assessing Interactions Among Social, Behavioral, and Genetic Factors in Health, Board of Health Sciences Policy, Institute of Medicine. Washington: The National Academies Press, 2006.p.117-118.

- 51. Introduction. In: Singer BH, Ryff CD (eds.). New horizons in health. An integrative approach. Committee on Future Directions for Behavioral and Social Sciences Research at the National Institutes of Health, Board on Behavioral, Cognitive, and Sensory Sciences, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington: National Academy Press, 2001.p.23-24.
- Nettleton S. The sociology of health and illness. Oxford: Polity Press, 2006.p.1.
- 53. Tobiasz-Adamczyk B. Badania nad jakością życia uwarunkowaną stanem zdrowia. Ewolucja koncepcji w relacji do pojęcia niepełnosprawności (Studies on health-related quality of life. Evolution of the conception in relation to the concept of disability). In: Piątkowski W. (ed.), Socjologia z medycyną. W kręgu myśli naukowej Magdaleny Sokołowskiej (Sociology with medicine. The scientific ideas of professor Magdalena Sokołowska). Warszawa: Wyd. IFiS PAN, 2010.p.48-63 (in Polish).
- 54. Skrzypek M. Perspektywa chorego w socjologii choroby przewlekłej. Ujęcia teoretyczne, ich ewolucja i recepcja (The sick person's perspective in the sociology of chronic illness. Theoretical perspectives, their evolution and reception). Lublin: Wyd. KUL 2011 (in Polish).
- 55. Piątkowski W, Skrzypek M. Utilization of non-medical healing methods as a way of coping with life difficulties in the socially deprived 'losers' of the systemic transformation processes in Poland. Ann Agric Environ Med 2012; 19(1): 147-157.
- 56. Aboderin I, Kalache A, Ben-Shlomo Y, Lynch JW, Yajnik CS, Kuh D, Yach D. Life course perspectives on coronary heart disease and diabetes: key issues and implications for policy and research. Geneva: Department of Noncommunicable Diseases Prevention and Health Promotion, WHO, 2001.
- 57. Smedley BD, Syme SL. (eds.), Promoting health. Intervention strategies from social and behavioral research. Committee on Capitalizing on Social Science and Behavioral Research to Improve the Public's Health, Institute of Medicine. Washington: National Academy Press, 2000.p.3, 4.
- Kickbush I. Foreword: moving towards a new public health. In: Health Promotion Glossary, WHO/HPR/HEP/98.1, Geneva: World Health Organization 1998.p.v.
- Phelan JC. Link BG, Tehranifar P. Social conditions as fundamental causes of health inequalities: theory, evidence, and policy implications. J Health Soc Beh 2010; 51(S): S28-S40.
- 60. Piątkowski W. W stronę socjologii zdrowia (Towards sociology of health). In: Piątkowski W, Titkow A. (eds.). W stronę socjologii zdrowia (Towards sociology of health). Lublin: Wyd. UMCS, 2002.p.15-58 (in Polish).
- 61. Piątkowski W. Money or health? Social inequalities in health the perspective of "lay people". In: Health inequalities over the life course. Joint congress of the ESHMS and DGMS, Hannover, Germany, 30.08-1.09.2012; 84 (abstract).
- 62. Health inequalities over the life course. Abstract book. Joint congress of the ESHMS and DGMS, Hannover, Germany, 30.08-1.09.2012.