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Classifications of Mental Disorders from a Historical and Contemporary Perspective

Klasyfikacje zaburzeń psychicznych w ujęciu historycznym i współczesnym

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Abstract

The aim of this article is to present the history of the development of the classification of psychiatric disorders. This process has been strongly associated with the development of psychiatry and the criteria for diagnosing psychiatric disorders have changed over time. The diagnosis of psychiatric disorders is usually more challenging than diagnoses in other spheres of medicine due to the lack of a clear connection between the symptoms shown by a patient and the pathology which is the source of these symptoms. This article outlines the historical development of a systematic classification of psychiatric disorders, the ICD and DSM (*Adv Clin Exp Med* 2007, 16, 2, 189–195).

Key words: classifications, psychiatric disorders, history.

Streszczenie

Autorzy przedstawili historię prac nad klasyfikacją zaburzeń psychicznych. Próby klasyfikowania zaburzeń psychicznych są nieodłącznie powiązane z rozwojem psychiatrii oraz zmieniającymi się kryteriami oceny chorób psychicznych w czasie. Diagnostyka zaburzeń psychicznych jest trudniejsza niż w pozostałych dyscyplinach medycznych ze względu na ogół na brak wyraźnego związku rozpoznania z leżącą u jego podstaw patologią. W pracy przedstawiono zarys historyczny powstawania systematycznej klasyfikacji zaburzeń psychicznych – ICD i DSM (*Adv Clin Exp Med* 2007, 16, 2, 189–195).

Słowa kluczowe: klasyfikacje, zaburzenia psychiczne, historia.

Psychiatric diagnosis is currently based on the 10th edition of the Classification of Psychiatric and Behavioral Disorders, which is part of the International Classification of Diseases (ICD-10) published by the World Health Organization (WHO). This classification has been in official use in Poland since 1996 [1]. The classification system of the American Psychiatry Association, i.e. the Diagnostic and Statistical Manual of Mental Disorders (DSM), is another classification system that is also currently in use. The first edition was published in 1952 and the current edition, the fourth, was published in 2000 (DSM-IV-TRV) [2]. This classification is used in Poland as an auxiliary classification, mainly for purposes of research.

The diagnosis of psychiatric disorders is not simple and has always tended to be more difficult than diagnoses in other spheres of medicine,

where in general there is a clear connection between symptoms and the disease which is their source. Despite major advances in the field of psychiatry, there are many etiological questions that remain to be answered. In addition, there are two conflicting approaches to psychiatry. The first is an objective, scientific approach, while the other is based on a less formal approach to interpreting the factors involved in an individual case. Historically, there have been two major trends in the classification of psychiatric disorders: nosological, i.e. diagnosis based on the etiopathogenesis of psychiatric disorders, and nosographic, or syndromological, based on the description of psychopathological symptoms. Attempts were made to develop medical classifications on the basis of behavioral types associated with the predominance of one of the body fluids: choleric (predominance of yellow

bile), sanguine (predominance of blood), phlegmatic (predominance of mucus) and melancholic (predominance of black bile). In the ancient world, activities in the body were assumed to be the cause of psychiatric disorders [3]. The contemporary, multi-dimensional classification methods, e.g. DSM-IV, lay stress on the influence of factors associated with the overall somatic state in the diagnosis of a psychiatric disorder. The third dimension of this classification considers the general medical state of the patient. [2].

Due to the development of the basic medical descriptions of the anatomy and physiology of the nervous system, attempts were made to classify individual psychiatric conditions on a basis similar to somatic conditions. A. L. Bayle (1799–1858) linked pathomorphological symptoms to typical clinical cases. The description of morphological changes resulting from Bayle's work on progressive paralysis (*paralysis progressiva*) initiated the anatomopathological classification [3]. However, a classification system for psychiatric disorders based on the diagnosis of somatic conditions was found to be flawed. Magnan was another propagator of the approach based on etiopathological research. He differentiated degenerative disorders and those which did not result from a degenerative process. His pupil, Moebius (1853–1907), introduced a distinction between exogenic psychoses (resulting from external conditions), which correspond to non-degenerate psychoses, and endogenic psychoses with unknown internal sources, which to some degree correspond to degenerative conditions [3]. Kraepelin (1856–1926) continued this line of research, which led to his cause-and-effect classification of psychiatric disorders. He distinguished between two classes of endogenic disorders: the first was dementia among young patients (*dementia praecox*), including catatonia, hebephrenia, and chronic delusional psychosis, and the second was manic-depressive psychosis. According to Kraepelin, disorders with the same etiology should have similar symptoms, courses, as well as clinical and anatomorphological consequences. Kraepelin based his categorization of psychiatric disorders mainly on their symptoms, course, and clinical consequences [4]. In his later work, Kraepelin began to take into account the influence of sex and age as well as ethnic and physiological-genetic factors on psychiatric disorders. He was a propagator of the idea that an individual's psyche was made up of layers. He argued for the necessity of a structured, multi-dimensional analysis of psychiatric disorders together with their syndromological and nosological identification, which was later developed by Kretschmer. Tadeusz Bilikiewicz (1901–1980) was also instru-

mental in the development of this field. He was the author of the theory of the etioepigenesis of psychoses and the first person to use a multi-dimensional classification of psychiatric disorders. The recent editions of the American Psychiatry Association's manuals on the classification of psychiatric disorders [DSM-III (1980), DSM-III-R (1987), and DSM-IV (1994)] are based on assumptions which are similar to those of Kraepelin regarding the multi-dimensional diagnosis of psychiatric disorders.

Carl Wernicke, who introduced the concept of sensory aphasia, was a propagator of the other, nosographic, approach [5]. He criticized Kraepelin by stating that it is impossible to base the classification of psychiatric disorders on an etiological approach. Among other things, he stated that the same process of degeneration in nervous tissue could lead to various mental disorders. Thus, according to Wernicki, the most important goal of classification should be to differentiate between the characteristic traits of individual disorders. He argued that etiology influences the course of a disorder. His classification was based on the localization of a disorder in the area of a specific sensory organ [5]. This concept is similar to contemporary classification systems, which are based on symptomatological criteria. Bonhoeffer (1868–1948) was of a similar opinion, stating that a given factor may lead to various consequences, which he called exogenetic reactions. On the other hand, various etiological factors may lead to disorders with similar psychopathological course.

E. Bleuler (1857–1939), who introduced the concept of schizophrenia, had a very significant influence on the development of the classification of psychiatric disorders. He classified the dementia praecox group of disorders into one whole and described the common characteristic traits of these psychoses. He defined various dimensions of symptoms and in this way changed Kraepelin's approach to dementia praecox, which was based on the course of the disorder, to an approach based on symptomatology. Bleuler's modification of Kraepelin's classification was the major influence on the classification of psychiatric disorders for many years. Kleist, a pupil of Wernicki, and his pupil Leonhard argued against this approach. Leonhard's classification made use of Kraepelin's categorization of psychoses as endo- and exogenic. However, he divided them into four groups: phasal, cycloid, systematic, and non-systematic schizophrenias. This categorization did not receive a great deal of support. However, it led to the categorization of affective disorders as uni- and bipolar [5]. The research of Pinel (1745–1826) was influential on the development of the nosographic

approach. He introduced the classification of disorders on the basis on psychopathological symptoms [3]. Contemporary classification systems involve a description of psychopathological symptoms, but also contain elements stressing the relation between psychotic disorders and diseases of the brain and other somatic diseases which must also be taken into account, e.g. emotional disorders due to organic imbalances are considered in the ICD-10 classification system.

The Systematic Classification of Psychiatric Disorders

The ICD Classification

The first attempts to develop a systematic classification of disorders were made in the 18th century, when Sauvages (1706–1777) published an article entitled *Nosologia methodica* [6]. William Cullen developed a classification system which was published in 1785 under the title of *Synopsis nosologiae methodicae*. This was in general use at the beginning of the 19th century. However, the statistical analysis of diseases had already started a century earlier. John Graunt published his article “London Bills of Mortality”, in which he attempted to estimate infant mortality. William Farr’s classification of the causes of death were accepted for international use at the First International Statistical Congress held in Brussels in 1853. This classification never gained wide acceptance. However, Farr’s general conclusions, based on the classification of disorders according to their anatomical location, became the basis for the International List of Causes of Death.

The successor to the Statistical Congress, the International Statistical Institute, established a committee to develop a new classification under the direction of Jacques Bertillon (1851–1922) at its meeting in Vienna in 1891. The first edition of Bertillon’s Classification of the Causes of Death, based on the assumptions of Farr, was passed by the International Statistical Institute in 1893 and became generally accepted and adopted in many countries. This was the first international classification, and various updated editions followed. These editions can be split into two periods: from the first to the fifth editions and from the sixth (ICD-6) to the tenth (ICD-10). During the first period, the classification considered the causes of death, and only in the second period was a general classification of diseases introduced.

The First Five Editions of the ICD

The First Conference on the Revision of the International List of Causes of Death was held in Paris in 1900. A new classification comprising 179 groups and a version comprising 35 groups were passed. Successive revisions of the International List of Causes of Death occurred in 1910 and 1920.

The 4th and 5th editions were prepared by a commission composed of representatives of the Health Organization of the League of Nations and the International Statistical Institute (the 4th edition in 1929 and the 5th in 1938). The 5th edition introduced major changes to the categorization. There was a rising need for a list of diseases fulfilling the statistical demands of various organizations: health insurance companies, hospitals, medical administration, etc. Resulting from this, a resolution was passed recommending the development of an International List of Diseases.

The 6th and 7th Editions (ICD-6, -7)

At the International Conference on Health, which took place in 1946 in New York, the World Health Organization (WHO) established a committee of experts to prepare the 6th Edition of the International List of Diseases and Causes of Death. This was followed by the preparation of the International Classification of Diseases, Injuries, and Causes of Death, which was presented to governments of various states for assessment. During the 6th International Conference on Health in Paris in 1948, it was recommended that the statistics regarding infection rates and mortality should be analyzed in accordance with an International Statistical Classification. This conference was a turning point in international health statistics. As well as passing a concise list for diseases and causes of death, it was established that the governments of individual states would create national committees on health statistics. This was aimed at coordinating statistical research in various countries and promoting communication between national statistical organizations and the WHO. The 7th edition brought no major changes.

The 8th Edition (ICD-8)

Previous classification systems were criticized for their unreliability, inaccuracy, inadequate empirical foundation, ambiguity, limited knowledge of methodological assumptions, as well as

the need for classifying psychiatric disorders. Significant steps to improve the diagnosis and classification of psychiatric disorders only took place after the implementation of the WHO's Program for Psychiatric Health. Wide-ranging consultation resulted in the publication of the 8th Edition of the International Classification of Diseases (ICD-8). A dictionary defining each of the categories of psychiatric disorders appearing in the ICD-8 was also prepared. This led to the setting up of a network of research centers and individuals who continued work on improving the classification of psychiatric disorders [7, 8]. The 8th edition of 1965 contained major revisions; however, the fundamental structure of the classification of disorders and its general philosophy remained concentrated on the etiology of disorders rather than their manifestations. Over the following years, the 7th and 8th editions became popular for keeping hospital records, and various states introduced versions in their national languages.

The 9th Edition (ICD-9)

This was published in 1975 by the WHO. The final version of this edition preserved the basic structure of the ICD, but there were many amendments at the level of the four-figure subcategories and optional five-figure subcategories. At the same time, it was established that the three-figure categorization is sufficient. The 9th edition introduced an alternative method of classification for statistical purposes, based on including information on root conditions and their manifestation in a given part of the body or organ. Many technical innovations were introduced aimed at increasing the elasticity of the system.

The 10th Edition (ICD-10)

Even before the publication of the 9th edition, the WHO started work on the 10th edition, which was intended to become the classification system for a longer period of time. WHO Collaborating Centers for the Classification of Diseases were set up to work on the development of the ICD-10 classification system. It was recognized that the 10-year period between editions used previously was now too short a period.

In 1978 the WHO, together with Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) in the USA, began a research project aimed at improving the classification and diagnosis of psychiatric as well as alcohol- and drug-related disorders [9]. An international conference aimed at the coordination of research on the classification and diagnosis of psychiatric disorders

took place in Copenhagen in 1982. Many research projects were set up in accordance with the recommendations of the conference. One of these programs involved 17 countries and was aimed at preparing the "Composite International Diagnostic Interview" (CIDI), a tool for carrying out epidemiological research on psychiatric disorders with groups of the general population in various countries [9]. The goal of another project was to develop diagnosis tools for clinicians, the "Schedules for Clinical Assessment in Neuropsychiatry" (SCAN) [11]. A tool for assessing personality disorders, the "International Personality Disorder Examination" (IPDE), was also developed [12]. Simultaneously, lexicons were prepared containing the definitions of the terminology used [13]. As a result, cooperation between the research groups was developed aimed at the development of the 10th edition of "The International Classification of Diseases and Related Health Problems" (ICD-10) [14].

"The International Classification of Diseases and Causes of Death" has been developed by the WHO over several decades. The changes in the diagnostic criteria introduced by these tools have led the removal of many inconsistencies and overlaps in the categories. Work on improving the 10th edition also allowed the development of assessment tools. A set of criteria, together with assessment tools, was developed for the ICD-10 edition, enabling the collection of the data necessary for the classification of disorders in accordance with the criteria contained in Chapter V (F). The version which is presently in general use is the 10th edition of 1992. The Polish version of this was published in 1997. According to the ICD-10 classification, disorders are a set of symptoms associated with distress or have a negative influence on the functioning of a person at individual, group, or community level. The precisely defined sets of criteria used only relate to the version used in research (DCR). The basic version presents general advice on diagnosis. The scientific reliability of the ICD-10 system is aided by the use of standardized interviews: CIDI, a fully interactive interview for epidemiological research carried out by non-clinical interviewers, SCAN, a detailed, multifaceted tool for assessing the mental state of a person for clinical and research needs, and IPDE, a tool for assessing personality disorders.

Versions of the ICD-10 Classification

The various versions are the ICD-10-CDDG, the basic version, for clinical practice [14], ICD-10-DCR, a version for researchers, containing pre-

cisely defined diagnostic criteria [15], ICD-10-PC, general advice on the diagnosis and treatment for primary health care [16]. There is also a concise dictionary of disorders containing a list of basic categories to enable the coding of disorders, and specialist and detailed versions, which are specialized classifications defined for particular purposes (e.g. legal). An alphanumeric coding system is used. Up to five (in exceptional cases six) figures are used, of which the first is a letter and the remaining are digits. The meanings of chosen codes [17] are: F – psychiatric disorders, Fc – basic group of disorders, Fcc – class of disorders (disorder, syndrome, disease, state), Fcc.c – subclass, subtype of disorder (e.g. forms of schizophrenia), Fcc.cc – additional characteristics (e.g. course of the disorder, specific traits).

The DSM Classification

The classification of the American Psychiatric Association (APA), i.e. the Diagnostic and Statistical Manual of Mental Disorders (DSM), has appeared in various editions: DSM-I, DSM-II, DSM-III, DSM-III-R, DSM-IV, and DSM-IV-TRV. The first two editions of the DSM, published in 1952 (DSM-I) and 1968 (DSM-II) by the APA, contained a concise dictionary of definitions of disorders and was basically concerned with the field of psychiatry. These editions were only aimed at defining diagnostic codes for the purposes of statistical analysis and financing medical services. Apart from this, despite the fact that the dictionary definitions in these editions were descriptive, the use of terminology in the classifications was based on the theory of etiology. Many of the disorders were called “reactions” in the 1st edition. This reflected the psychobiological approach of Adolph Meyer, who argued that psychiatric disorders were reactions of individuals to psychological, social, and biological factors. The Freudian concept of neurosis was only introduced in the 2nd edition. The definitions in the dictionary were not precise enough to enable reliable diagnosis.

The 3rd edition of “the Diagnostic and Statistical Manual” DSM-III (1980) introduced precisely defined criteria. These were based on the application of an algorithm used to formulate clinical diagnoses. A revised version of DSM-III, the DSM-III-R edition, was published in 1987. DSM-III was highly influential and useful due to its precise descriptions and diagnostic criteria. The use of concisely defined manifestations of disorders without reference to etiology was a fundamental concept in DSM-III except in the cases of disorders which were defined to some degree by their etiology, e.g. psychiatric disorders with a biologi-

cal cause, i.e. adaptive disorders. This assumption was aimed at enabling the use of the DSM-III independently of the theoretical orientation of doctors and at promoting acceptance of the classification as a standard technique among specialists of various fields involved in psychiatric health. This simplified communication regarding diagnosis. Researchers with an emphasis on a biological approach and those with an emphasis on a behaviorist-experiential approach may use the DSM-III criteria in a simple way to diagnose a patient who has had a panic attack, for example, since its diagnosis is based on precise criteria describing one. However, these researchers will have a completely different understanding of the etiology of the process of a panic attack. As a result, the DSM-III criteria have been widely accepted in the USA and are also used for research purposes outside the USA. A large number of researchers from many institutions are actively cooperating to achieve consensus on new editions of DSM.

The use of precisely defined methods for diagnosing each disorder was not applied before the publication of DSM-III. The need for such an approach had arisen long before the introduction of these methods. The British psychiatrist Stengel had proposed the idea of defining a scheme for diagnosing each disorder in a 1959 expert committee report of the WHO regarding psychiatric health [18]. This report was commissioned due to the low level of acceptance of the international version of ICD-6 (WHO, 1948). He was supported by a group of American researchers, who had published criteria for diagnosing psychiatric disorders at the beginning of the 1970s in an attempt to make the diagnostic criteria used in various research centers uniform. This would enable comparison of the results obtained by different studies. One group of researchers from Washington published criteria known as the “Feighner criteria”. Robert Spitzer et al. modified the Feighner criteria several years later as part of a project on the psychobiology of depression in conjunction with the National Institute of Mental Health (NIMH) and created the Research Diagnostic Classification (RDC). This classification led to the DSM-III classification after the introduction of new criteria by a committee of experts and it was in operation until the publication of the revision, DSM-III-R, in 1987.

Work on the 4th edition of the DSM was not just based on expert opinion, but was significantly influenced by the analysis of empirical results. The centers involved in the development of the 4th edition of DSM were brought together in working groups and worked on empirical data, which led to objective discussion, the realization of new research projects, and the implementation of

research using the ICD-10 classification, as well as other things. In order to improve the reliability of the diagnoses obtained using the DSM-IV criteria and enable non-practitioners to diagnose conditions, completely structured interviews were created (CIDI 1988) which enabled diagnoses based on answers to specific questions in the interview. Depending on the way in which this scheme for diagnosis is carried out, results on the incidence of disorders may vary: Dimension I – clinical conditions, Dimension II – personality disorders, mental disabilities, Dimension III – general medical state, Dimension IV – psychosocial and environmental problems, Dimension V – level of functioning.

The most important class of disorders according to the DSM-IV diagnosis criteria are biological disorders. The International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) is the official system for coding disorders in the USA to study infection rates and mor-

tality and for health insurance organizations. The DSM-IV and DSM-IV-TR manuals are based on the same system of codes.

Further editions of these classifications are to be introduced only after detailed analysis has been carried out and feedback from those using them obtained. It is recommended that the most up-to-date classification system should be used. It is very difficult to compare data collected according to different systems of diagnosis, e.g. the Epidemiological Catchment Area study (based on the DSM-III criteria) and the National Comorbidity Survey (based on the DSM-III-R criteria). The APA does not intend to publish DSM-V before 2010, although a temporary revision, DSM-IV-TRV, has been published (2000, APA). However, this should not influence the results of epidemiological studies. At present, the APA is developing the 5th edition of DSM. In this process, six working groups are developing plans for research projects [19].

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