Fundamentals of Psychiatry for Health Care Professionals

Roberto Cavallaro
Cristina Colombo
Editors

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Editors
Roberto Cavallaro
Vita-Salute San Raffaele University
General Psychiatry Unit IRCCS San Raffaele Scientific Institute
Milan, Italy

Cristina Colombo
Vita-Salute San Raffaele University
Mood Disorders Unit IRCCS San Raffaele Scientific Institute
Milan, Italy

ISBN 978-3-031-07714-2 ISBN 978-3-031-07715-9 (eBook)
https://doi.org/10.1007/978-3-031-07715-9

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

The World Health Organization (WHO) defines normality as a state of complete physical, mental, and social well-being, but this definition is limited, because it defines physical and mental health simply as the absence of a physical or mental disease.

The text revision of the Diagnostic and Statistical Manual of Mental Disorders offers no definition of normality or mental health, although a definition of mental disorder is presented: Disturbances of an individual's behaviour or of his psychological functioning that are not culturally expected and that lead to psychological distress, behavioural disability, or impaired overall functioning (DSM-5).

A mental disorder is defined as a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress in social, occupational, or other important activities.

An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behaviour (i.e. political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above (DSM-5).

But all this distinction (still imperfect and amenable to improvement) was not such until recent times, in particular up to the discovery of effective treatments on one side and, on the other, to the changes in the society which led to the widening of the personal freedoms and to recognize higher minimal levels of human dignity and rights, at least in western countries.

The border between mental insanity and a number of 'out of standard' behaviours not related to it might still look subtle and it is so since unmemorable times.

Ideas of mentally 'normal' and 'abnormal' are largely shaped by social standards and can have profound social ramifications. What is considered 'normal' changes with changing of societal standards. Society generally sees normality as good and abnormality as bad. Being labelled as 'normal' or 'abnormal' can have profound consequences for an individual, such as exclusion or stigmatization by society. Stigma and discrimination add suffering to the suffering and disability for who is diagnosed with (or perceived to have) a mental disorder and his family.

Often the psychiatrist or its past 'prototypes' is attributed a role of arbiter in establishing the boundary between normality and pathology. This role in the past has sometimes been taken very seriously, so much that it has contributed to the discrimination and stigma related to mental illness.

The consequences of this have been dramatic in history, also with religious or political interpretations going from the attribution of behavioural problems and mental illness to the power of the evil, i.e. during the 'holy inquisition period' with hundreds burned, to the eugenetic programmes that obscured the first half of the last century with sterilization of the mentally ill in different countries including not only the Nazi regime, but also the USA, with the model from Harry Laughlin drafter in 1914 and putting together any form of 'unfitness' like Mentally retarded, Mentally ill, Deaf, Blind, Epileptic, Physically deformed, Orphans, Homeless, Homosexuals. By 1940, 30 of the 48 states of the Union had enacted eugenical sterilization laws. The Soviet Society of Psychiatrists was forced to withdraw from the WPA in 1983, due to the systematic use of psychiatry (and consequent institutionalization) for political reasons, and returned only in 1989 when the USSR was opening up to the outside world.

Besides these extreme consequences (difficult to believe nowadays), the founding of mental asylums all over the world was itself the cause of much of the suffering of the mentally ill, being characterized by seclusion, isolation from the real world, and frequent psychological and physical abuses. Italy, until the passage of 1978, was ruled by a special legislation for mental illness of 1908, the 'disposal for asylum and insanity' according to which commitment to a mental hospital was recorded on the court register in a similar way to a criminal conviction.

Looking at the charts in the archives of those hospitals we can find not only the drama of this procedure on many mentally ills, but also the frequently unmotivated or not persisting reasons for receiving and maintaining the commitment.

Persons were somewhat cancelled from the community, and their long-term experience of the mental hospital with chronic isolation became an illness itself, probably the only (iatrogenic) chronic illness for many people who entered the hospital. Deprivation induced depression, with many suicides, affective flattening with unresponsivity to any stimuli and regression of behaviour to few elementary functions, independently from the starting reasons of conviction.

What led to all this was the lack of a medical explanation, of a therapeutical perspective and of a specific nosography, but this need was anticipated by some brilliant minds even in the late nineteenth century, like Emil Kraepelin, one of the (still) more influential psychiatrists of history, who did some experiments in German hospitals testing with scientific methods the effects of known psychotropics on cognition (i.e. reaction times or memory with substances from caffeine to alcohol to morphine) with specific instruments and study designs, calling this research 'pharmacopsychology', but that proposed also at the beginning of the twentieth century a nosography based on a definition and separation of different mental disorders.

That is, putting together the two 'souls' of Emil Kraepelin, method: adequate and homogeneous target, known effects of an environmental variable interacting with the brain (including drugs) and reliable measure.

These are the main features of current psychiatric research, but also clinical treatment.

But while nosography and psychopathology evolved since the first decades of the twentieth century, effective medical treatments were developed much later.

Yet, until the 1950s there was no such scientific discipline as psychopharmacology and there was no effective drug therapy for mental illness.

In 1950 two psychiatrists, Jean Delay and Pierre Deniker, working at St Anne's Hospital in Paris used chlorpromazine to treat inpatients, including people suffering with mania and schizophrenia. They concluded that chlorpromazine was highly effective and published a series of reports, the first appearing in 1952. They drew particular attention to the ability of chlorpromazine to control agitation and excitement. Over the following years, use of chlorpromazine in psychiatry spreads and further publications appear in the medical press. Psychiatrists were impressed by its benefits and felt that a new era of treatment was starting. The discovery of antidepressants and lithium was practically parallel in the 1950s.

All of them were a tremendous game changer for people health, their lives, and also society, pressing the need of progress in nosography, and changes in political decisions on psychiatry. Population living in mental hospitals dramatically dropped from this time on in the USA and other countries.

As a result of the development of knowledge starting with serendipity with the discovery of chlorpromazine, psychiatry gained the dignity of autonomous medical specialty separated from neurology, and this induced the development of more refined and reliable nosography, the development of new psychometric and technological instruments and consequently of the ability to study mental illness more scientifically. The many progresses reached in the last 60 years, with theories swinging from a prevalent biological (genetic-familiar) explanation to a psychosocial one, led at a certain time, in the last two decades, to consider the origin of the mental illness like any other medical illness nowadays, with an interaction of the individual genetic-structural features at birth with environmental factors occurring during life, in particular early experience, from gestation to adolescence, as mother malnutrition during gestation, childhood and adolescence distressing familiar and social experiences, like migration and urbanicity, or the widespread use of substances.

More and more literature shows that for these reasons prevention and cure is now possible, identifying 'at risk' populations and managing them with preventive programmes, having an effective secondary prevention with early recognition of illnesses and reducing the burden of illness. We have to consider that according to the last analysis of WHO data on the burden of care six psychiatric illnesses including depression, anxiety disorders, schizophrenia, alcohol abuse, substance abuse, and other mental disorders are in the first 20 positions of 'Years Lived with Disability' list including all medical pathologies. These results should influence policies for mental illnesses prevention and care, reducing hospitalizations and increasing community interventions, but also encourage a basic, but solid knowledge of psychiatry also in all the health professionals, as possible observer of an undiagnosed, untreated, or poorly managed mental illness comorbid with another medical condition.

This can happen only if de-stigmatization occurs, also with the help of a clear differentiation between what is psychiatry and what is not, and last, but not least, letting the psychiatrist out of the role in the area 'social control'.

Nowadays the multiple 'phenocopies' of the psychiatric illness (i.e. maladaptive reaction to stress vs stress-induced psychopathology in comparison to mood disorders) coming from the society changes and crises (i.e. migration, drop of support related to the crises of societal values and family structure and continuity, as well as the widespread diffusion of drugs of abuse) make frequently difficult to separate a psychological or a social problem from psychiatric illness, with opposite consequences of under- and over-treatment. Tautologically this effect is inversely correlated to knowledge and specific education.

A poor knowledge of illness with all the previously cited confounding factors leads to a generalization of the attribution of behaviours that can be seen in the 'vulgarization' of the terms with which these behaviours are also reported not only by media, but also from professional to professional.

Again, this is also related to the more and more frequent observation of cases in which the behavioural picture comes from a large interaction of mainly social, psychological, and environmental factors (like substance abuse comorbidity), with a 'spurious' clinical picture in comparison to 'paradigmatic' (i.e. DSM 5 diagnosed) 'mental illnesses'. This facilitates the practice of 'dimensional' clinical approaches through targeting symptoms with interventions chosen by analogy to those indicated in the 'pure' and full-blown illnesses that in this way loose specificity (an example for all: 'depression' may be a symptom, a syndrome, or an illness, with different therapeutical approaches). Knowing not only symptoms, but also epidemiology, sex, and age-related differences, temporal patterns of manifestation and expected rates of response to specific pharmacological interventions, increases the effectiveness of diagnosis and therapeutical indications.

Recognition or even suspicion of a mental illness must lead the professional to evaluate possible paths to diagnosis, through specialistic evaluation of the situation by a psychiatrist who can discriminate the different possibilities making a diagnosis or not, prescribing treatments that might be pharmacological or psychological, and in this last case sending the patient to a psychologist. Obviously this must happen within a good relationship with the patient to avoid to activate fears about psychiatry, showing at the beginning just the sensibility to a little or big distress and then, through the acquired knowledge, activate a decision-making process on when and how to tell the patient he probably needs some support.

Every patient that passes through the nets of clinical assistance without eliciting attention is somewhat lost, not only because the occasion to relief him from suffering is lost, but also because we miss the target to let him know that a communication about these problems is possible, even if he feels shame or he is not able to ask for help. Self-stigma usually relies on these personal dimensions besides cultural conventions and personal experience.

Moreover even nowadays some health professionals consider psychiatry as something not completely medical, far from everyday life and work experience, as a form of more severe psychological distress or disturbed personality, or, on the contrary, as something scaring and needing 'social' or 'pharmacological' control.

Showing then themselves a kind of stigma for psychiatry.

The need to consider these multiple aspects makes a personalization of the therapy especially true for our patients, much more than for other medical diseases.

Patients with psychiatric disorders cannot be largely described by numbers (like, i.e. glycaemia in diabetes or QT time in heart diseases), but curing them means to master the different interacting and coexisting variables and peculiarities as a whole, which makes every patient different, even when the main diagnosis is the same. This builds the necessary relationship on a common field of interest, comprehension, reciprocal acknowledgement and truth, the reason why, for example, even most of patients affected by schizophrenia take the prescribed therapy for an illness they do not believe to have, when they are accepted, understood, and involved in a therapeutical project considering all the different features (the self, the image of the self, the personal history, the psychological attitudes and affects, the psychopathology). These different parts act, from the subjective point of view, within the 'stream of consciousness' experience like for everybody, with psychopathology manifesting together with normal ideas, affects, emotions, and thought processes.

Reaching this mastering and being able to interact with empathy tuned on each patients, without standards, let the patient feel, 'he understands and takes care of me': many patients say that a major problem in having a psychiatric disorders is that others pretend you can behave like them, but you cannot…

For all these reasons, we decided to resume in this book the main basic elements of knowledge of psychiatry and mental illness, including psychopathology, diagnosis, and general indications for pharmacological and non-pharmacological interventions, including notes on the interaction of drug treatments and psychopathology itself with the physical health and with the management of other medical treatments and conditions.

In fact it is not casual that the more the psychiatric condition is untreated, the more it becomes invalidating also for the physical health. A few years ago the *Lancet*, one of the major journals in the panorama of Medicine entitled an important article 'There is no health without mental health' debating the complex interaction between the two, and very recently a large epidemiological study performed in Great Britain showed that the probability of infection, hospitalization, and death during the Covid-19 pandemic is statistically and epidemiologically higher in people with severe mental illness and in particular for patients affected by Schizophrenia, Bipolar Disorder, and Major Depression Disorder, even considering all the known other risk factors.

The aim was to write an opera useful to health professionals in their formation process, but also as a simple reference to professionals for their professional life once they graduate and start their clinical work.

For these purposes this book is based on the Psychiatry lessons held for students of the courses in Medicine, Psychology, Nursing, Physiotherapy, and Odontoiatry of our University, a big occasion for us to have a continuous interaction with different cultural, vocational, and academic backgrounds, rich of feedbacks which helped us to be aware of different pathways to reach, in our opinion, the 'hot spot': that is to increase the possibility to intersecate psychiatric histories, and to better apply the different professionalities to the delivery of efficient treatment programmes considering also psychiatric disorder.

Milan, Italy R. Cavallaro
Milan, Italy C. Colombo

The original version of the book was revised. The Affiliation has been updated on the copyright page. A correction to the book is available at https://doi.org/10.1007/978-3-031-07715-9_15

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L. Fregna, F. Martini, F. Pacchioni, J. Sapienza, and C. Colombo

1.1 Definitions

1.1.1 Mental Health

The World Health Organization (WHO) defines mental health as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community."

It should be noted that the concept of mental health goes beyond the simple absence of disease, extending it to all the aspects of life. It is a human condition that takes shape in personal development and social relationships, in the ability to adapt, in the emotional and affective awareness and whose definition is inextricably linked to the cultural context.

L. Fregna (✉) · F. Martini (✉)
IRCCS San Raffaele Scientific Institute, Milan, Italy
e-mail: fregna.lorenzo@hsr.it; francesca.martini1@hsr.it

F. Pacchioni · J. Sapienza
Vita-Salute San Raffaele University, Milan, Italy
e-mail: pacchioni.federico@hsr.it; sapienza.jacopo@hsr.it

C. Colombo
IRCCS San Raffaele Scientific Institute, Milan, Italy

Vita-Salute San Raffaele University, Milan, Italy
e-mail: colombo.cristina@hsr.it

R. Cavallaro, C. Colombo (eds.), *Fundamentals of Psychiatry for Health Care Professionals*, https://doi.org/10.1007/978-3-031-07715-9_1

1.1.2 Psychiatry

According to the American Psychiatric Association (APA), psychiatry is the branch of medicine focused on the diagnosis, treatment and prevention of mental, emotional and behavioral disorders.

Mental disorders are categorized and grouped in manuals, based on diagnostic criteria. The two most important diagnostic manuals in psychiatry are the *Diagnostic and Statistical Manual of mental disorders* (*DSM*), currently in its fifth edition, and the *International Classification of Diseases, tenth revision* (*ICD-10*).

Psychiatry is therefore a medical discipline, which scientifically deals with the prevention, diagnosis, and treatment of mental illness. It is a relatively young discipline and thus extremely dynamic and constantly expanding. As estimated by the WHO, psychic pathology is overgrowing and will reach the top places in the coming years in terms of social and economic impact, making this branch of medicine even more relevant.

1.1.3 Mental Disorder

In the *Diagnostic and Statistical Manual of mental disorders, fifth edition (DSM 5)*, "a mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities."

The definition of mental illness, as well as of mental health, is complex and not unambiguous. Over the years, there have been continuous attempts to formalize and make this concept as universal as possible. Numerous human conditions have been included or excluded from the psychopathology chapter based on cultural and social changes. Also for this reason, periodically, a revision of the criteria for defining mental pathologies is carried out. This results in a new edition of the reference manual of this branch of medicine, the DSM.

1.2 History

Although psychiatry is considered a fairly young medical discipline, the interest in the psyche and its disease has accompanied the history of humanity. The stages that led to the modern conception of psychiatry will be summarized, starting from the fifth century BC up to present days.

1.2.1 The Origins: Greece and Roman Psychiatry

Although notions of mental illness seem to trace back to the Neolithic, the history of "properly called" psychiatry begins in ancient Greece. While among the most ancient civilizations of Egypt and Mesopotamia, the concept of mental illness

oscillated between natural and supernatural explanations, the Greeks expressed themselves in a rather decisive way on the biological origin of pathologies. The main representatives of the Greek medical school may be considered Hippocrates (460–377 BC) and Galen (129–201 AC). There are few direct testimonies of their approach to mental illness, indeed much of what we know is owed to indirect sources, such as Celsus, Aretaeus of Cappadocia, and Soranus of Ephesus.

The classical theory of Hippocrates and Galen is best known as Theory of Humors: the body and its state of health or sickness depends on the prevalence of one of the four humors which are fundamental constituents of human body.

The prevalence of one of the humors on the others leads to an imbalance, therefore to the disease. Thus, the prevalence of black bile is the source, for example, of melancholy.

Although this represents the best known theory in ancient Greece, starting from the fourth century BC New Greek schools were established, and the most important is probably that of the Solidists. Their greater exponent was Soranus of Ephesus (100 BC). The Solidist School took this name because its opposition to the Theory of the Humors and it focused on the solid components of the body. As mentioned before, the Solidist School recognizes as its best-known representative in methodist Sorano of Ephesus. In the methodist conception, mental disease would take origin from excessive tension (*status strictus*) or loosening (*status laxus*) of tissues. In his treatise on general medicine, Sorano reserves at least three chapters to the description of mental illnesses: frenite (from "fren," diaphragm, seat of the soul according to the Greeks), mania, and melancholy. None of the Greco-Roman interpretations correspond to any current clinical picture, in fact the syndromes described included features which belonged to the spectrum of mood disorders and psychosis, as well as symptoms of pathologies that (nowadays) we can define organic. Despite all, the Greek and Roman psychiatry earned the merit of giving the first descriptions, as well as the first attempts of classification and treatment of mental illnesses. Among the methods of treatment, the most applied were rudimentary and totally empirical, based on physical techniques, however, during those times it was already possible to find traces of what will be further known as psychotherapy.

1.2.2 Middle Ages and Renaissance

During the Middle Ages, psychiatry (and the whole medicine in general), underwent an involution. Despite in classical culture it was considered to all effects as a subject related to medical profession, in Middle Ages psychiatry had been brutally dismembered: such as surgery was yet executed by barbers, so psychiatry was related to exorcists and inquisitors. However, this kind of view may be reductive and defeatist, considering how long did Middle Ages lasted: in this time, especially in Middle East and Arabian countries, the birth of the first psychiatric wards of hospitals (Baghdad, Il Cairo, but also London, Paris, Basel, and Munich) can be placed. Doubtless, Middle Ages represents the historical period in which people left space to mystical-religious interpretations of mental illness, rather than to natural-related

explanations which were most popular in ancient Greece. According to this kind of theories, fools were people possessed by demons or evil. Actually, the term "fool" comes from "fallitatem," which was coined in that period and literally means "bag fool of wind." Mental illness became a matter of religion, and the most representative textbook about this concept is the "Malleus Maleficarum" (1487 AC), written by Dominicans H. Kramer and J. Sprenger.

Renaissance was an historical age characterized by huge contradictions. On the one side, the so-called witch hunting reached its edge of glory; on the contrary, some brilliant minds were emerging from the community, whose intent was to contrast the inquisitorial tradition. Shortly later, there will be those who will lead the "First Psychiatry Revolution." Among the greatest of them, we can mention Cornelio Agrippa, Paracelso, and Johannes Weyer.

Although inextricably linked to their time, to them is recognized the merit of rediscovering the presence of a natural component among the causes of mental illnesses. This conception had been related exclusively to evil possessions for almost a millennium. Paracelsus (1491–1541), undoubtedly the most famous physician of his time, devoted himself profusely to the study of psychiatry. In his text "Von den Krankheiten so die Vernunfft Berauben" (1567), he describes and classifies mental illnesses in five main categories and then he focused on possible natural causes, taking the distances from both the religious conception proper of his time and the "humoral" Greek one. The most important of Paracelsus' achievements was the introduction of chemical treatments of mental illness. Although the use of substances was still mostly linked to the alchemical tradition, it represented the beginning of new concept of treatment.

1.2.3 Seventeenth and Eighteenth Centuries

The seventeenth century was dominated by the social crisis. Epidemics, wars, and economic crises produced severe consequences on social system, to which the absolutist regimes responded with the internment of the marginalized people. The "hôpital general" in France, "Zuchthaus" in Germany, and "workhouse" in England were filled with beggars, orphans, prostitutes, homosexuals, heretics, criminals, and mentally ill. At that time, mental illness was considered as delinquency and treated as such. When hospital facilities were not enough, prisons became the place dedicated to receiving the alienated, including psychiatric patients. Although it is difficult to classify the descriptions of these (alienated) patients referring to modern categories, in most cases the clinical pictures corresponded to dementia, psychosis, and cerebral consequences of alcoholism.

In concomitance with the internement (or imprisonement) of most severe psychiatric patients, considered socially unacceptable, the psychiatry of the seventeenth century almost completely loss its interest in psychosis, focusing on neuroses. Exactly in this period, Sydenham (1621–1689) coined terms such as "hysteria" and "hypochondria." He described this conditions as multiform, affirming that they lie on the border between physical and mental disorder and that they can mimic a wide

spectrum of medical conditions, which goes from migraine to "iliac passion" (chronic inflammation of the small intestine) and which would have benefited from therapies based on ferrous compounds, milky diet, and horse riding.

Worthy of mention are also the works of the neurologist and anatomist Thomas Willis (1621–1675), who was the first to have considered hysteria as a mental pathology and not as related to uterus ("hysteria" derives from Greek "hystera," which means uterus). If the seventeenth century was a century of crisis, the eighteenth was a period of revolutions. The most important was certainly the cultural and philosophical revolution that took the name of Enlightenment. The primacy of reason and scientific positivism characterized this period and inevitably influenced also psychiatry, so that it was finally freed from the medieval concept of demonic possession and became an autonomous discipline. The trust toward mind capacities and in its healing abilities that characterized this historical period reflected at a social level in a philanthropic movement, which aimed to take care of the mentally ill patients (including psychotics).

During this historical period, G. E. Stahl (1660–1734), with his nosological theory, reintroduced the concept of "soul" in psychiatric discipline, which had been substantially based on a somatic orientation, starting from Hippocrates until that moment. According to his theory, mental illness represented a reaction of the soul to harmful stimuli. In parallel to the somatic orientation (which was constantly evolving, thanks to the recent contributions of anatomopathology and neurophysiology), the psychological orientation was about to blossom. However, the major contribution to the psychiatric revolution was given by the French school, in particular by Philippe Pinel (1745–1826) and his main student Jean Etienne Dominique Esquirol.

Pinel's contribution to the development of psychiatry was enormous and eclectic. In particular, as a director of Salpetriere's and Bicetre's Psychiatric Hospital, he decided to release psychiatric patients from the chains they were obliged to wear in the psychiatric wards, allowing the foundations (at least symbolic) for the re-evaluation of the psychiatric patient from the human point of view. Nevertheless, his contribution was not limited to philanthropy: he introduced the concept of heredity into mental illnesses, investigated the role of social institutions and lifestyle, physical factors (such as trauma), and alcoholism. The French psychiatrist, although rooted in the eighteenth century, pushed psychiatry toward modernity.

1.2.4 Nineteenth Century

In the nineteenth century, the heart of the debate and evolution of psychiatry shifted from Enlightenment France to Germany. The first half of the nineteenth century was characterized by the movement of thought that takes the name of Romanticism and that, precisely in contrast with the Enlightenment, marks the primacy of spirituality over rationality. In the psychiatric field, this current of thought is structured in the so-called Psychiker (who considered mental illness as a pathology of the soul, with a solid moral connotation) as opposed to the Somatiker (supporters of a somatic genesis).

Alongside the ideological and theoretical debate on the nature of psychiatric pathology, an important work of institutional reorganization was carried out: modern care institutions were founded, and asylum psychiatry was replaced by university psychiatry. Among the architects of this change, we find Wilhelm Griesinger (1817–1868).

Griesinger represented a turning point for psychiatry, whose full autonomy he advocated as a medical discipline. He was a fervent supporter of the cerebral localization of all psychic pathologies. In "Die Pathologie und Therapie der psychischen Krankheiten" (1845), he wrote: "Psychiatric diseases are diseases of the brain" and again "Madness is only a complex of symptoms to be traced back to different abnormal states of the brain."

Several decades before Freud, he also hypothesized that most psychic activities were unconscious.

According to Griesinger, sensory perceptions constitute, at the cerebral level, abstract concepts, representations. These representations can be abnormal or false (delusions) and lead the subject to consequent abnormal behavior: a kind of "theory of psychic reflexes" that was the basis of the work of the German psychiatrist. According to Griesinger, the set of representations of a subject are structured in his ego. When the subject's ego is in a situation of equilibrium, he can be free and self-determining. From the ego's imbalance arises, instead, the psychic pathology that in the most serious forms can lead to the shattering of the ego itself.

Griesinger's work was revolutionary, he made a synthesis of different disciplines, describing mental pathology from an anatomical, neurophysiological, psychological, and clinical point of view.

Like the first, the second half of the nineteenth century was led by German Psychiatry, the works of K. Westphal (1833–1890), T. Meynert (1833–1893), B. K. Wernicke (1848–1905) were representative of the so-called Psychiatry of the brain, whose basic idea was the close correlation between psychic pathology and cerebral anatomical alteration.

The second half of the nineteenth century, however, sees as protagonists two of the most famous names in the history of psychiatry: Emil Kraepelin (1856–1926) and Eugen Bleuler (1857–1939), the two major representatives of the "clinical school" thanks to which the transition from the simple classification of symptoms to the evaluation of the pathology in a longitudinal sense, along its overall course, was realized.

The German psychiatrist Emil Kraepelin is considered the founder of modern biological psychiatry and psychiatric nosography, but he was also a pioneer in the field of psychopharmacology. One of the most famous Kraepelin's contributions for psychopathology was the distinction of two distinct clinical entities of psychosis, namely "Dementia Praecox" and "Manic Depression." If the first condition was associated with a progressive loss of cognitive functions, the second in contrast was considered as an episodic disorder. Even if in the recent years these conditions have been considered more as a continuum rather than completely separated, this observation is valid still today and represents the fundamental difference between

schizophrenic psychosis and affective disorders (major depressive disorders and bipolar disorder).

The Swiss psychiatrist Paul Eugen Bleuler is considered one of the most important clinicians who contributed to define modern psychiatry. Bleuler is mainly known for having coined the term "schizophrenia." He argued that the "Dementia Praecox" described by Kraepelin was not necessarily associated with dementia, pointing out that the splitting ("Spaltung") of psychic functions was the central feature of the disorder.

Although in the nineteenth century the greatest scientific advances in the psychiatric field have German nationality, the work of the French Jean-Martin Charcot (1825–1893) cannot be forgotten. Director of Salpetrière for about 30 years, in addition to being considered the father of modern neurology, he made important contributions in the study of hysteria and in the application of hypnosis techniques. His work will be used as the basis for the work of Freud in the first half of the 1900.

1.2.5 The Twentieth Century and the Contemporary Era

Sigmund Freud (1856–1939) was one of the most famous names in the field of psychiatry: the Austrian psychiatrist and neurologist, starting from the work of Charcot and Breuer on hysteria, devoted himself to the elaboration of a full-fledged scientific philosophical theory based on the role of unconscious processes in the determination of human thought and behavior. In the clinical field, the application of these principles led to the birth of psychoanalysis, of which Freud is considered the father. Freud introduced (and disseminated with extreme effectiveness) a new therapeutic approach based on free mental associations, concepts such as drive, libido, lapsus, missed and unintentional acts, the interpretation of dreams. He placed psychosexual development at the center of his investigation and formalized the three intrapsychic instances of Ego, Es, and Super-Ego. Freud's ideas were enormously popular, although there were critics, first of all Alfred Adler and Carl Gustav Jung. The greatest criticism directed at Freud is probably the excessive dilation of the concept of sexuality, the overestimation of the importance of childhood experiences and his extreme determinism. The work of the Austrian doctor has been partly surpassed over the last century with the advent of more modern "theories of mind"; however, the impact of his thought, even in popular culture, is undeniable.

The first half of the 1900 was sadly marked by the application of psychiatric knowledge for political purposes. In Nazi Germany and later in the Soviet Union, the concept of mental illness became an instrument of eugenic doctrines and political repression. The diagnosis of mental illness woefully became an instrument of the regime, and the psychiatric patient became an enemy to be eliminated.

The end of the Second World War and the second half of the twentieth century marked a radical turning point in the psychiatric field: the advent of psychotropic drugs.

In 1951, chlorpromazine, the first antipsychotic medication, was synthetized in the laboratories of Rhône-Poiulenc by Paul Charpentier, and in 1952, its role in

psychiatry as sedative was first recognized by the physiologist Henri Laborit. At the end of the 1940s, the Australian physiologist John Cade published one of the first papers on the use of lithium in the treatment of bipolar disorder. Eventually, in the 1950s, the clinical introduction of the first antidepressants occurred, namely iproniazid, an antitubercular compound and imipramine, the first tricyclic antidepressant.

Advances in the pharmacological field (alongside those in the psychotherapeutic field) provided new tools for the treatment of psychiatric patients. With the increase in the available molecules and with the advent of generations of new and more effective drugs, the conception of the psychiatric patient gradually changed, which from "alienated" returned, not without difficulty, to be considered an integral part of society. This process had in Law 180 of 1978 (passed into history as the "Basaglia Law") its maximum political and social expression. The Italian psychiatrist Franco Basaglia was a pioneer in the process of deinstitutionalization of the psychiatric patient, no longer destined for the asylum all life long but reintegrated into the social fabric and treated primarily on an outpatient basis.

Parallel to the paradigm shift in the treatment of psychiatric patients and thanks to advances in the fields of genetics, pharmacology, instrumental investigation techniques, a new theoretical model for psychiatric pathology was finally developed: the biopsychosocial model.

Conceptualized in 1977 by Dr. George Engel, the biopsychosocial model is today the role model for mental health. It tries to explain mental disorders as the result of the complex interaction between biological correlates, psychological factors, and the socio-cultural background.

To conclude, a consideration on the evolution of the conception of mental illness throughout history. Advances in the field of psychiatry, more than in other medical disciplines, have been accompanied by a progressive change in the way of seeing the psychiatric patient. Over time, the mentally ill person has been considered cursed, possessed by the devil, has been considered and treated like a criminal, a social burden. In recent decades, we are witnessing a progressive reintegration of these patients into the social tissue. However, the prejudice with respect to this condition is still strong in the popular imagination. The notion of mental illness is still too often compared to the concepts of social danger, unproductivity, and incurability that overall fall under the definition of stigma.

It is to be hoped that, like the great effort aimed at research in the field of psychiatry, which has led to a real revolution in the diagnosis and treatment of mental pathology, we will also invest in the information and communication necessary to erase the social stigma that often, like the disease itself, is a source of suffering for the patient.

1.3 Clinical Interview

The psychiatric interview is the central element that guides the diagnosis and therapy of the patient suffering from mental pathology. The interview is an active, dynamic, and multidimensional process of gathering information in which the actors establish a relationship based on communication and trust.

The formal structure of the clinical interview will be described in the following paragraphs.

1.3.1 Stages of the Interview

We can identify three main phases

- *Initial or "exploration" stage*: It is the first contact with the patient and includes the presentation phase (by both parties) and the manifestation, by the interviewee, of the reasons that brought him to the interviewer's attention.
- *Intermediate stage:* It is the phase of the detailed interview, in which the professional will complete the collection of information.
- *Final stage:* It is the moment in which the information previously gathered is summarized, possibly completing it with additional questions. Finally, the treatment plan is explained and arranged.

Box 1.1: Setting the Interview

- Duration of the interview: 30–90 min
- Environment: quiet, comfortable
- Language: accessible, nontechnical, nonjudgmental
- Participants: interviewee, interviewer, maximum 1–2 family members (or close acquaintances)

1.3.1.1 Initial Stage

The initial phase includes the formal identification of the patient with the collection of his personal data and first exposure of the problem. This is the foremost, delicate moment in which the doctor–patient relationship is established.

- Identification
  - Personal data: name, age, occupation, marital status, nationality, place of residence
  - Identification of any accompanying people
  - Acquisition of any documentation related to the patient's clinical history
- Chief complaint (CC): "What brings you here today?" The patient spontaneously describes his experience and what brought him to the interviewer's attention.

This first approach allows information to be obtained on the patient's idea of his condition, on the path that brought him to the interviewer's attention and on the attitude toward the professional.

1.3.1.2 Intermediate Stage

The intermediate part of the interview is the quantitatively most relevant. The professional reconstructs the patient's history, from birth up to the present. The information gathered in this phase falls into two broad categories:

– *The psychiatric history*: it consists of the detailed study, conducted with method, of what the patient has freely described in the exploratory phase of the interview. Furthermore, all the information necessary to precisely reconstruct the interviewee's personal history will be collected.
– *The Mental Status Examination (MSE)*: it is the set of psychic phenomena observed by the interviewer.

Box 1.2: The Cone Technique
During the interview, it is often useful, in order to let the patient feel at ease, to begin with open questions and move gradually on to closed questions.

Psychiatric History

- Family history
  - Description of the family of origin: information on the family members with particular attention to a possible history of psychiatric illness, reconstruction of the family tree (genogram).

    Many of the most frequent psychiatric diseases have a hereditary component, and in the same way, the response or tolerance to many drugs can have a genetic basis.
  - Description of the patient's current family unit: spouse, children, grandchildren.

    It provides information on the patient's life context and closest social relationships.
- Physiological history
  - Reconstruction of the patient's personal history

    Youth: delivery, full-term or preterm, milestones of somatic and psychic development, childhood diseases, social relationships, temperament, schooling, family relationship. Events or conditions that occurred in childhood can have long-term consequences.

    Factors related to temperament can be identified already at a young age, as well as psychomotor deficits.

    Adulthood: work activities, social and emotional relationships, sexual development, menstrual cycle, pregnancies, menopause, eating habits, hobbies, and peculiar interests.

Social relationships and work activity is an important reference parameter for evaluating the patient's functioning over time. Sexual habits, eating habits, or hobbies complete the evaluation of the patient's lifestyle, whether physiological or pathological.

- Pathological anamnesis
  - Past medical history

    Organic: organic pathologies of which the patient has been or is suffering, taking specific therapies in the past or currently, surgery, previous hospitalizations, trauma or accidents, allergies.

    Any organic pathology can give manifestations comparable to the most common psychiatric conditions. Conversely, many of the most frequent psychiatric diseases can have physical expressions or consequences.

    Psychiatric: reconstruction of the patient's psychiatric history, previous psychiatric symptoms, duration of the illness, times of remission or recovery, periods of remission, duration and dosage of the medications, previous hospital admissions, and psychotherapy.

    A detailed psychiatric history significantly reduces errors in the diagnostic phase and in the choice of the therapeutic path, both in the present and in any future episodes.
- History of current disorder: Information about the condition that brought the patient to the interviewer's attention. Type of symptoms, chronology of manifestations, duration and intensity, impact on work and social functioning, changes in habits, medications prescribed. This is often the most challenging part of the

Table 1.1 Steps of the mental status examination

General description	• General appearance • Level of consciousness and vigilance • Awareness of the environment • Posture and gait • Distinguishing features (scars, tattoos) • General behavior (restless, agitated, aggressive) • Facial expression • Motor activity (hypoactive, hyperactive, presence of abnormal motor activity)
Language and speech	• Rate (slow, normal, rapid) • Quantity (absent, laconic, rapid) • Organization (logical, organized, disorganized)
Thought	• Form (logical, tangential, circumstantial, flight of ideas, perseveration, thought blocking) • Content (preoccupations, overvalued ideas, delusions, phobias, suicidal ideas)
Perception	• Illusions, hallucinations (visual, auditory, tactile, olfactory)
Mood and affect	• Mood (subjective emotional state: depressed, normal, euphoric, dysphoric) • Affect (objective emotional state: normal, blunted)
Cognition	• Attention and concentration • Orientations (space, time, person) • Memory
Insight	• Ability to describe personal, psychological, and physical status

interview in which the professional, with method and empathy, investigates the most central aspects of the patient's suffering or discomfort by carrying out an initial processing work that will lead to a diagnosis based on the criteria.

Mental Status Examination

The mental status examination (MSE) is a structured assessment of the patient's level of general behavior, speech, mood, perception, thought, and cognitive (knowledge-related) function. See Table 1.1 for further details, the single items and terms listed in the table will be thoroughly described in Chap. 2.

1.3.1.3 Final Stage

In the last phase of the interview, all the information collected is processed and used to complete the last three steps of the clinical interview. A systematic review is carried out on the information collected to allow a diagnosis based on criteria. It is not always possible to make a diagnosis after a single interview. In this case, the professional can formulate a provisional diagnosis (or not formulate at all) and, in subsequent interviews, will collect the data necessary to complete the diagnostic process. At that point, he will be able to provide information on the therapeutic path.

1. *Summary*: The interviewer gives a brief summary of the patient's history, describes the main problem, and discusses the biological, psychological, and social factors that may play a role in the interviewee's condition.
2. *Formulation*: The medical interviewer can formulate a diagnosis (albeit provisional).
3. *Therapy*: In this phase, the doctor describes the treatment plan identified on the basis of all the points described above and the possible pharmacological or non-pharmacological strategies. Instrumental or laboratory studies may be recommended (Box 1.3). The patient can also be referred to another professional (doctor, psychologist, social worker) if useful or necessary.

Box 1.3: Additional Investigations

In some cases, it may be necessary to supplement the information gathered during the interview with further investigation. We mention the main ones:

- Physical parameters and vital signs: blood pressure, heart rate, temperature, weight, height, BMI, waist circumference
- General physical examination and neurological physical examination
- Blood tests: full blood count, liver, thyroid, and renal function
- Instrumental investigations: CT scan, MRI, ECG, EEG
- Psychological assessment/psychometric tests

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Psychopathology

2

F. Martini, L. Fregna, I. Vanelli, G. Bigai, L. Tonet, and R. Cavallaro

2.1 Signs and Symptoms

In all branches of medicine, it is essential to use precise terms to describe signs and symptoms in order to guarantee optimal communication between practitioners.

A *symptom* is usually defined as a subjective experience described by the patient, while a *sign* is defined as an objective finding observed by the examiner. For instance, a patient with anxiety may complain of a sense of internal restlessness, an inability to relax and excessive worry. The related signs, in this case, may be visible motor restlessness, tremor, sweating, or a request for reassurance.

Finally, a *syndrome* is a set of signs and symptoms which co-occur and together make up a recognizable disorder.

Unlike other medical branches, in which the distinction between symptoms and signs is clear, in psychopathology the terms are sometimes used as synonyms because mental state alterations are largely elicited by exploring, with the patient, his internal experiences.

Whenever feasible, the examiner should try to corroborate symptoms with signs. Behaviors may be consistent with the symptom. For example, a patient who reports

F. Martini (✉) · L. Fregna (✉) · I. Vanelli
IRCCS San Raffaele Scientific Institute, Milan, Italy
e-mail: francesca.martini1@hsr.it; fregna.lorenzo@hsr.it; vanelli.irenelucia@hsr.it

G. Bigai · L. Tonet
Vita-Salute San Raffaele University, Milan, Italy
e-mail: bigai.giorgia@hsr.it; tonet.leonardo@hsr.it

R. Cavallaro
IRCCS San Raffaele Scientific Institute, Milan, Italy

Vita-Salute San Raffaele University, Milan, Italy
e-mail: cavallaro.roberto@hsr.it

R. Cavallaro, C. Colombo (eds.), *Fundamentals of Psychiatry for Health Care Professionals*, https://doi.org/10.1007/978-3-031-07715-9_2

hearing voices (symptom) may appear worried, in an attitude of listening or even mumbling to himself (signs).

However, it is not always easy to recognize a psychopathological phenomenon, especially concerning a mental activity, such as a delusional thought, that may not have direct behavioral or somatic equivalents and may be not spontaneously described or even denied by the subject.

The collaboration between the patient and the examiner, in this context, is therefore fundamental to examine accurately all psychopathological phenomena.

In the next pages, psychopathologic phenomena will be described, divided according to the main mental functions (consciousness, motor activity, thinking, perception, mood and affect, cognition and insight).

2.2 Consciousness

2.2.1 Introduction

Consciousness can be defined as a "state of awareness of the self and the environment." An individual must be conscious to be able to experience the world.

The three dimensions of consciousness are vigilance, lucidity, and self-consciousness.

2.2.1.1 Vigilance (Wakefulness)–Drowsiness (Sleep)

The term vigilance, though used in different ways, refers to the arousal level on the sleep–wake spectrum (alert–drowsy/asleep). This is not a uniform or unvarying state, but a fluctuating one. Factors that favor vigilance are interest, anxiety, terror, or excitement, whereas boredom promotes drowsiness. Some psychiatric conditions may increase vigilance, while many may diminish it. For example, hypervigilance is one of the symptoms of posttraumatic stress disorder.

2.2.1.2 Lucidity–Clouding

The sensorium that may be defined as the awareness of all stimuli, internal or external, presenting to the organism can be clear or clouded. Evidently, lucidity is related to vigilance: only a fully awake person can be clear in consciousness. In clouding, most cognitive functions are impaired, including attention and concentration, understanding, logical thinking, judgment, verbal communication, and purposeful action.

2.2.1.3 Consciousness of Self

Jaspers and Sharfetter described self-awareness, that is, the ability to distinguish *I* from *not I*, as having the following features

- Awareness of being or existing (ego vitality): I know that I am alive and exist.
- Awareness of activity (ego activity): I know that I am an agent who starts and executes my thoughts and actions.

– Awareness of unity (ego consistency and coherence): I know that I am one person, at any given moment.
– Awareness of identity (ego identity): I have been the same subject all the time.
– Awareness of the boundaries of self (ego demarcation): I am distinct from others and I am aware of the boundary between self and non-self.

2.2.2 Disturbances of Consciousness

The terminology in this area is quite unclear, with the same term sometimes representing different concepts and analogous phenomena being described by different words.

2.2.2.1 Quantitative Changes of Consciousness

Consciousness may be considered as a continuum from full vigilance and awareness to coma. In that sense, it may be considered as quantitative.

Enhanced consciousness is characterized by a subjective sense of richer perception, of increased alertness and a greater capacity for intellectual activity, associated with mood changes, usually exhilaration. Such a state may occur in healthy individuals, especially during intense emotional experiences (e.g., falling in love, sudden religious conversion). Heightened awareness is common with certain drugs (hallucinogens, stimulants) and may occur occasionally in early psychotic phases, in particular mania, or less frequently in schizophrenia.

However, more frequently, altered states of consciousness are represented by a lowering of consciousness. Different levels or stages of diminished consciousness lie on a continuum from full alertness to coma. These levels of lowered consciousness are quite nonspecific and can be determined by various causes: head injury, infection, tumor, cerebrovascular disorder, epilepsy, metabolic disorder, or toxic state.

Clouding of Consciousness

Clouding of consciousness refers to a stage of impairment of consciousness characterized by a minor deterioration in thinking, attention, perception and memory, and, usually, slight drowsiness and diminished awareness of the environment. The individual may be drowsy or agitated.

Drowsiness

It is the subsequent and persistent level of reduced consciousness. The drowsy patient is “awake” but will laps at times into unconsciousness if not stimulated and subjectively feels sleepy. His actions are slowed, his speech is slurred, his intention is sluggish. Basic reflexes, including coughing and swallowing, are diminished, muscle tone is reduced, and the patient tries to avoid painful stimuli. In psychiatric practice, it may appear following overdosage with central nervous system depressant medications or drugs.

Coma

Unlike the drowsy patient, in coma the subject is mainly unconscious, although in early stages, with strong stimuli, he may still be temporarily arousable. The patient does not respond to painful stimuli, he/she has lost the righting response of posture, reflexes, and muscle tone are markedly diminished, and breaths are slow and deep. In later stages, the patient is unconscious and cannot be awakened.

2.2.2.2 Qualitative Changes of Consciousness

These are always associated with some degree of quantitative alterations.

Delirium

According to *DSM-5*, delirium is a transient, rapid-onset, clinical condition characterized by deficits in attention, awareness, and cognition that fluctuate in severity over time. Primary signs and symptoms of delirium include global impairment of cognitive functions, reduced and/or restricted awareness of the environment, attentional abnormalities, increased or decreased psychomotor activity, disordered sleep–wake cycle, and emotional disturbances. Cognitive impairments are highly variable and affect several domains, such as memory, orientation, language, visuospatial ability, and perception. Delirium typically occurs with pronounced diurnal fluctuation: in the late evening, the patient becomes more disorientated, with lower mood and more perceptual disturbances.

Confusion

It refers to subjective symptoms and objective signs indicating reduced capacity for clear and coherent thinking. Both the individuals describe himself as confused, and the external observer considers the subject's thinking as altered and confused. It is a descriptive word and should not be used as a synonym for clouding of consciousness. It may occur with impairment of consciousness or disruption of thought processes in acute and chronic organic states, but it may be observed also in nonorganic disturbances, such as functional psychoses and neurotic disorders.

Twilight State

It refers to a state of altered consciousness, which is characterized by a combination of features: sudden onset and end, variable duration, ranging from hours to weeks, and the occurrence of unexpected irrational and sometimes aggressive acts. Besides altered consciousness, delusions or hallucinations can occur. The individual is temporarily unaware, and he/she has little or no recollection of what happened. It is generally secondary to an organic condition, such as temporal lobe epilepsy, alcoholic intoxication, and brain trauma. However, it may also occur with dissociative states, or as an acute reaction to massive catastrophe.

Dream-Like (Oniroid) State

It is an altered state of consciousness with a prevalence of psychotic symptoms.

It is not easy to differentiate this state from twilight state or delirium. The subject is disoriented and perceives elaborate hallucinations, often visual but also auditory

or tactile, that may determine intense emotional change, congruent with hallucinatory experiences. The patient may appear to be living in a dream world.

It is crucial to investigate other symptoms or organic states to distinguish between organic illness and a dissociative nonorganic condition. In physiological condition, it characterizes phases of awakenings or falling asleep, possibly associated with hallucination.

Stupor

This term indicates a syndrome that is characterized by the presence of mutism, akinesia, and unresponsiveness to stimulation. The patient appears awake and even alert but is unable to speak or act. It is different from coma and does not lie on the continuum from vigilance to coma, but it is qualitatively distinct. There is usually some degree of clouding of consciousness, not just in terms of lowering. Subsequent amnesia is common.

It may occur with organic conditions, such as lesions in diencephalon and upper brainstem, frontal lobe and basal ganglia, but also with psychiatric conditions, such as schizophrenia, affective psychoses (both depressive and manic), and dissociative states.

Psychogenic (functional) and neurological (organic) stupor can be particularly difficult to differentiate.

Automatism

Automatism implies actions, simple or complex, taking place in the absence of intentionality. It is generally inappropriate to the context and may be out of character for the subject, although usually purposeful and directed. The individual has an impaired awareness of the environment, seems to be only partially aware of being spoken to, and does not reply pertinently. Afterwards, the patient may not be able to recall the episode or may only partially remember his actions. Automatism may occur in epilepsy, usually arising from temporal lobes, during, or immediately after, a seizure.

2.2.2.3 Disorders of Self

In descriptive psychopathology, self-disorders, also called ipseity disturbances, describe the abnormal inner experiences of *I-ness* and *my-ness*. Each of the five formal characteristics of the self (ego vitality, ego activity, unity of the self over time, self-identity, and boundary of the self) can be impaired by psychiatric disorders.

The sense of vitality can be impaired to produce a feeling of deadness, the extreme example being nihilistic delusions, which may occur in affective psychoses. In disorder of activity, the sense of being an agent executing one's will can be impaired as occurs in passivity phenomena. *Autoscopy* and *dissociative identity* disorders are examples of impairment of the unity and consistency of self. Disorder of self-identity and continuity can be observed in psychotic or affective states. Abnormalities of self-demarcation may occur in LSD intoxication or in schizophrenia as passivity experiences, thought insertion, and thought withdrawal.