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Bipolar disorder: evolution of the concept and current controversies

Evolução do conceito e controvérsias atuais sobre o transtorno bipolar do humor

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Abstract

The author reviews the evolution of the concept of bipolar disorder as an ongoing process. Its roots can be found in the work of Araeteus of Capadocia, who assumed that melancholia and mania were two forms of the same disease. The modern understanding of bipolar disorder began in France, through the work of Falret (1851) and Baillarger (1854). The pivotal concepts of Emil Kraepelin changed the basis of psychiatric nosology, and Kraepelin's unitary concept of manic-depressive insanity was largely accepted. Kraepelin and Weigandt's ideas on mixed states were the cornerstone of this unitary concept. After Kraepelin, however, the ideas of Kleist and Leonhard, in Germany, as well as the work of Angst, Perris and Winokur, emphasized the distinction between unipolar and bipolar forms of depression. More recently, the emphasis has shifted again to the bipolar spectrum, which, in its mild forms, expanded to the limits of normal temperament. In concluding, the author summarizes the polemic aspects concerning the nosology of bipolar disorder and its boundaries in comparison with those of with schizophrenia, schizoaffective disorders and cycloid psychosis.

Keywords: *Bipolar disorder/history; Mood disorders/history; History*

Resumo

O autor revê o conceito de transtorno bipolar como um processo em evolução. Suas raízes podem ser encontradas no trabalho de Araeteus da Capadócia, que assumia serem a melancolia e a mania duas formas da mesma doença. A compreensão atual da doença bipolar começou na França, através dos trabalhos de Falret (1851) e Baillarguer (1854). Os conceitos fundamentais de Kraepelin mudaram as bases da nosologia psiquiátrica, e o conceito unitário de Kraepelin sobre a insanidade maníaco-depressiva passou a ser amplamente aceito. Depois de Kraepelin, no entanto, as idéias de Kleist e Leonhard, na Alemanha, e o trabalho subseqüente de Angst, Perris e Winokur enfatizaram a distinção entre as formas monopolares e bipolares da depressão. Mais recentemente a ênfase mudou novamente para o espectro bipolar, que em suas formas leves expande-se às bordas dos temperamentos normais. Finalizando, o autor sumariza os aspectos polêmicos da nosologia da doença bipolar e seus limites com as esquizofrenias, a doença esquizoafetiva e as psicoses ciclóides.

Descritores: *Transtorno bipolar/história; Transtornos do humor/história; História*

The terms "mania" and "melancholia" date back to several centuries before Christ.[1] Among the ancients, Arataeus of Cappadocia (who lived in Alexandria in the 1st century AD) wrote the majority of the surviving texts that refer to a unified approach to manic-depressive illness.[2]

Aretaeus was the most prominent representative of the "Eclectics", distinguishing himself through the accuracy of his clinical descriptions, according to Angst[3] & Marneros.[4] Arateus was the first to explicitly establish a connection between mania and melancholia, considering them different aspects of the same illness. In chapter V of his book "On Etiology and Symptomatology of Chronic Illnesses",[3-4] he wrote*: "... I believe melancholia is the beginning, and as such part of, mania...The development of mania is the result of the aggravation of melancholia, rather than constituting an evolution to a different illness" More explicitly, he wrote: "In most melancholic patients, sadness is converted into happiness; and patients develop what is known as mania."*

It is worth noting that *Aretaeus[3-4] drew a distinction between melancholia (which has biological causes) and depressive states (caused by environmental influences and currently known as reactive depression).

In the middle of the XIX century in France, Falret and **Baillarger (independently) described a condition of alternating forms of mania and depression, designated *folie circulaire* ("circular insanity") by the first and *folie à double forme*[5] ("dual-form insanity") by the second (Sedler, 1983). After publishing a brief text in 1851 ("De la folie circulaire"), ***Falret wrote, in 1854, the study entitled: "Mémoire sur la folie circulaire, forme de maladie mentale caracterisée par la reproduction sucessive et régulière de l'état maniaque, de l'état mélancholique, et d'un intervale lucide plus ou moins prolongué".[6]

This study was translated to English, with comments, by Sedler[5] in the *American Journal of Psychiatry* under the title: "Falret's discovery: the origin of the concept of bipolar affective illness", which gives modern readers greater access to the text. Baillarger read his study on the *folie à double forme* to the *Académie de Médicine* (Academy of Medicine) in 1854, three years after the initial communication by Falret, but prior to the 1854 publication of his more extensive work, cited above. To Berrios,[7] the issue of precedence does not seem so important since other authors in France, such as: Billod (*folie à double phase*, "dual-phase insanity") and Legrand du Saulle (*folie al-*

Note: ***Araeteus apud[3-4]; ****Baillarger (1851) apud[5]; *****Falret (1854) apud[6]; ****Kahlbaum (1845) apud[4]*

terne, "alternating insanity") were working on the same theme.

The concept introduced by Falret,[5] in fact, differs from that of Baillarger, since it takes into account the "lucid intervals" between the phases. Therefore, even manic and depressive phases separated by long periods would still embody the concept of folie circulaire. In contrast, Baillarger does not consider the intervals, but only the phases which are immediately consecutive.[3-4]

Kahlbaum**** supported Falret, in opposition to Baillarger, recalling that the ideas conceived by Griesinger, published in 1845, influenced Falret (Griesinger had written that the change from melancholia to mania was "normal").[4]

However, at the end of the XIX century, in spite of the contributions of Falret, Baillarger and Kahlbaum (among others), most clinicians continued to consider mania and melancholia as distinct and chronic entities with a deteriorating course.[8]

It was Kraepelin who consolidated the importance of the concepts discussed above, by separating psychoses in two large groups (dementia praecox and manic-depressive insanity). It is unnecessary to say that the modern classifications (DSMs and the CID-10, among others) are still generally based on the Kraepelin concepts, which emphasized the nosological importance of both clinical profile and longitudinal course.

Until the end of the 1890s, Kraepelin tended to divide the manic-depressive illness into numerous and complex subtypes. In the sixth (1899) edition of his textbook,[9] Kraepelin adopted the unitary point of view, stating that the manic-depressive infirmity branched into the depressive states, simple mania and circular insanity.

Around 1913, in the eight edition of his textbook (see the 1919 English translation), Kraepelin included practically all forms of melancholia (with the exception of a few forms of involutional melancholia) and mania, in his concept of "manic-depressive insanity".

Kraepelin[9] put special emphasis on the characteristics of the illness that clearly distinguished it from dementia praecox: periodic or episodic course, more favorable prognosis and family history of homologous (manic-depressive) profiles

In a relatively short period of time, the viewpoints expressed by Kraepelin gained wide acceptance, contributing to a relative conceptual unification of European Psychiatry.[8]

The extremely valuable ideas introduced by Kraepelin brought a medical model firmly entrenched in clinical observations (regarding symptomatology and evolution over time) to the field of psychiatry and continue to provide fertile ground. While remaining true to the medical model of the illness, Kraepelin did not exclude psychic and social factors from his conceptualizations. Instead, he valued them as only a few had done up to that time. Including the "mild forms of the disease, which reach the limits of temperament" to the concept of manic-depressive infirmity, Kraepelin strewed the seed, which, in recent years, has grown into an entity known as "bipolar spectrum". [8]

One of the most important contributions of Kraepelin[9] and of his disciple Weigandt (1899) was the concept of "mixed manic-depressive states". In fact, the key to the Kraepelin formulation of a unitary concept of manic-depressive illness was recognizing the existence of mixed states.[9]

In fact, mixed states had already been mentioned by other authors. However, none of those authors gave mixed states the importance that Kraepelin & Weigandt did. Wilhelm Griesinger wrote that, during the transition from a state to another, "a conglomerate of manic symptoms may occur".[4] Wernicke, in his "Outline of Psychiatry"[11] (translated into Spanish by Outes & Tabasso, 1996), dedicated chapter 36 to "compound psychoses". In the chapter, Wernicke included the clinical description of "agitated melancholia", in which there is intense anxiety, pressure to speak and flight of ideas. "Agitated melancholia", in this conceptualization, would combine elements of both the depressive and manic categories.

Although precedence of publication is important, Kraepelin and his disciple Weigandt were unquestionably those who best systematized the study of mixed states.

According to Salvatore et al,[10] the work of Weigandt probably influenced Kraepelin in the formulation of his unitary concept of the manic-depressive illness. This is a controversial subject, since Weigandt was the disciple of Kraepelin, and it is likely that both worked together in the development of these concepts. In any case, Kraepelin mentions Weigandt in his chapter on mixed states.[9]

The monograph written by Weigandt was translated into Italian by Salvatore (unpublished manuscript, 2002) and later into English.[10]

Weigandt goes back to the Platonic-Aristotelian tradition when dividing psychic activity into the domains of affect, thought and (motor) activity. The same division is found in the Kraepelin manual: emotion, volition and intellect.

In the "pure" manic or depressive states, the three domains are altered in the same direction. In typical mania, for example, there is flight of ideas, mood elevation and increased motor activity. In "pure" depression, there is thought inhibition, psychomotor delay and sadness. Alternately, in mixed states, there are changes in different directions, considering the areas of affect, activity and thought.

According to Koukopoulos & Koukopoulos,[12] Weigandt was the first to employ the term "agitated depression" to designate one of the mixed states, giving it a precise clinical description.

In the eighth edition of his textbook (see the 1999 English translation), Kraepelin classified mixed states in a manner very similar to that adopted by Weignandt:

Table 1 - Classification of Mixed States according to Kraepelin, 1913, 1919

Types	Mood	Activity	Thought
Anxious or depressive mania	-	+	+
Agitated depression	-	+	-
Mania with thought inhibition	+	+	-
Manic stupor	+	-	-
Depression with flight of ideas	-	-	+
Inhibited mania	+	-	+

Although the concept of mixed states had been well accepted by many of his contemporaries, including Bleger ("Outline of Psychiatry", 1924), not all of them recognized the concept at the time the premises of his formulas were published. "Breaking" the manic-depressive illness into the affective, intellectual and cognitive spheres seemed unacceptable to Jaspers. Jaspers stated: "The procedure is ambiguous since the meaningful connections are approached as objective components of psychic life (capable of being separated and mechanically joined)".[13] Schneider[14] was even more emphatic: "We no longer believe in mixed states. (...) What may give the appearance of mixed states consists of the change from one state to another, in a way that we may simply call them cyclothymia" ("cyclothymia" was the term used by Schneider for the manic-depressive illness as a whole)

On the other hand, Leonhard,[15] a disciple of Kleist, not only accepted but emphasized the importance of the "mixed" characteristics in the bipolar forms of the illness. These would almost always show a combination of symptoms ("...The rapid course of all these variations cannot be assessed as an expression of distinct phases, but rather shows the potential of the disease to exhibit characteristics from the opposite pole").

When the interest in accurate diagnosis in the United States began to grow anew in the 1970s, interest in the works of Kraepelin, including the topic of mixed states, reappeared.

McElroy et al[16] suggested a working definition for "dysphoric mania" or "dysphoric hypomania": complete manic or hypomanic episode concomitant with three or more depressive symptoms.

Perugi et al[17] of Pisa (Italy) made an important contribution to the study of mixed states, working together with the San Diego group (Akiskal and others), when formulating the diagnostic criteria. The inclusion of the symptom "perplexity" in the criteria is particularly interesting since American authors rarely use this term. It is similar to a significant characteristic of the French *bouffée delirante* ("transient psychosis").

According to Marneros,[4] Hagop Akiskal[18-19] made the most important contribution to the study of mixed states since Kraepelin. According to the Akiskal formula, mixed states emerge when an affective episode is manifested over a temperament of opposite polarity. For instance: either a manic episode occurs in a person with a depressive temperament or a manic episode occurs in a person with hyperthymic temperament. Similarly, in a mixed state, the instability of the cyclothymic temperament can be transformed into a depressive episode.

In a recent study on the epidemiology of mania conducted in France, Hantouche et al[20] achieved statistical confirmation of some of the hypotheses made by Akiskal. The authors stated that *"Temperament in women seemed to contribute to the genesis of mixed (dysphoric) mania in accordance with Akiskal's hypothesis of opposition of temperament and polarity of bipolar episodes in mixed states"*.

All these studies focused on the importance of and the current state of the art regarding mixed states. This is not only because of the therapeutic challenge presented but also for the formulation of new theoretical models related to diagnosis (emphasizing, for example, the importance of the interaction between temperament and ways of becoming ill).

After Kraepelin, the evolution of the concept of manic-depressive illness moved in different directions in Europe and in the United States. In the latter, Adolf Meyer and his so-called school of "psychobiology" had a marked influence, paving the way for the wide acceptance of psychoanalysis. As a consequence of his influence, one need only remember that the 1952 DSM classifies manic-depressive illness as a "type of reaction". According to Aldolf Meyer, the clinical profiles would be a "type of reaction", shaped by individual vulnerability, as well as by specific psychological and social influences.[21]

Until the 1970s, the American nosology (for affective illnesses) was based on a series of etiological assumptions, often included in dichotomous series (antagonists). The depressive states were thus classified into: endogenous versus reactive; neurotic versus psychotic; and, more recently, into primary versus secondary. According to Goodwin & Jamison,[8] these dichotomies failed to take into account that a sole parameter could not differentiate aspects of the disease that are partially independent form one another: severity, neurotic characteristics, presence of delusions or hallucinations, genetic factors, precipitating events, etc.

In Europe, the evolution of psychiatry in the post-Kraepelin period followed a different course from the one adopted in the United States, where the influence of psychoanalysis was more prominent.

Bleuer[22] suggested that there was a continuum between schizophrenia and manic-depressive psychosis, and a given patient would be predominantly schizophrenic or predominantly manic-depressive. In addition, the patient could oscillate between these two polarities over the course of the illness. Therefore, Bleuer had a dimensional rather than categorical view regarding the two nosological entities proposed by Kraepelin.

On the other hand, following in the footsteps of Wernicke, the school of Kleist and his disciple Leonhard expanded in Germany. This school of thought had a profound influence in Europe, especially in Portugal[23] and Spain. In Latin America, influenced by Kleist, prominent groups formed. These included those of Aníbal Silveira in Brazil, Honório Delgado in Peru and Diego Outes in Argentina.[23]

Leonhard challenged the Kraepelin dichotomy in the introduction to his book, "Classification of Endogenous Psychoses", in which he wrote: *"Kraepelin's classification of only two illnesses has been prejudicial. (...) Whereas neurology recognizes hundreds of endogenous diseases and continues to describe others, psychiatry recognizes only two. (...) While neurology tries to describe the heredity of each one of its genetic diseases, psychiatrists still argue about the heredity of schizophrenia (in the singular), as if so many and so different profiles could have the same genetic origin and the same pattern of inheritance. (...) The development would certainly have been different if Wernicke hadn't died so young."* [15]

In 1957, *Leonhard proposed the distinction between the unipolar forms and the bipolar forms of the illness. Although Leonhard was secluded in a certain way, given that he lived in Eastern Germany (after World War II), his works were independently replicated in Europe by Perris et al[25] and by Angst[3] and later, in the United States, by Winokur.[24] His famous book "Classification of Endogenous Psychoses" [15] was not translated into English until 1979, when it was finally published in the United States, thanks to the influence of Washington University professor Eli Robins.

Leonhard[15] established two classes of phasic psychosis: 1) Unipolar (mania, melancholia, depressions, euphoria) and 2) Bipolar (manic-depressive illness and cycloid psychoses).

According to Leonhard,[15] the bipolar forms are polymorphs, whereas the unipolar forms are "pure". Leonhard created the unipolar form classes: I) pure melancholia and pure mania and (II) pure depression and pure euphoria. We observe that Leonhard considered melancholia different from depression and mania different from euphoria. While pure melancholia showed changes in affect, psychomotor activity and thought, pure depression showed only changes in affect, with no changes with psychomotor activity and thought. The same is seen in the distinction between mania and euphoria: in mania, affect, will and thought are altered, whereas in euphoria, only emotional changes are observed.

The polymorphic forms, according to Leonhard, include not only manic-depressive psychosis (bipolar), but also cycloid psychoses, of which there are three classes: anxiety-happiness psychosis, excited-inhibited confusion psychosis and hyperkinetic-akinetic motility psychosis.

Some of the concepts introduced by Leonhard were incorporated into the DSM-III, DSM-III-R and DSM-IV,[26] as well as into the CID-10, all of which accepted the distinction between unipolar and bipolar profiles. In the CID-10, cycloid psychoses are, understandably, placed in category F23 (Acute Schizophrenia-Like Psychotic Disorder).

The distinctions between bipolar illness (manic-depressive), cycloid psychoses and the so-called schizoaffective psychoses are still extremely controversial. To Leonhard, the schizoaffective psychoses included the cycloid psychoses on one hand and the "benign" forms of schizophrenia (called "non-systematic schizophrenias" in his classification) on the other.

One of the most controversial topics, the distinction between unipolar and bipolar depression still stimulates debate. In their

Note: **Leonhard (1957) apud[15]*

study of manic-depressive illness, Goodwin & Jamison[8] summarized the characteristics that differentiate unipolar profiles from bipolar depressive profiles. These include age at onset (unipolar > bipolar), number of episodes (bipolar > unipolar), cycle duration (unipolar > bipolar), psychomotor retardation (bipolar > unipolar), total sleep time (bipolar > unipolar), puerperal episodes (bipolar > unipolar), anxiety (unipolar > bipolar) and physical complaints (unipolar > bipolar). Another distinction is distribution between the sexes: unipolar depression is more prevalent in women, whereas the proportions are equal for bipolar patients (see pages 63 to 67 in the work cited).

As the concept of bipolar spectrum has broadened, revisiting the unitary concept introduced by Kraepelin, the extent of unipolar depressions has been reduced, and the debate between the supporters of one and those of the other has intensified apace. On one side are the defenders of expanding the bipolar spectrum,[2,12,17] and on the other are those who try to reduce, in a certain way, the limits of the bipolar illness.[27]

The borders between manic-depressive illness and schizophrenia, the distinction between unipolar and bipolar depression, and the question of whether other cycloid psychoses exist are still polemic subjects. These issues are of more than just theoretic import. They also have implications for clinical practice and, especially, for therapeutic intervention. The discovery of novel genetic, as well as clinical and epidemiological, links will likely contribute to a better understanding of these issues in the future.

References

1. Marneros A. Handbuch der unipolaren und bipolaren Erkrankungen. Thieme, Stuttgart; 1999.

2. Akiskal HS. The prevalent clinical spectrum of bipolar disorders: beyond DSM-IV. J Clin Psychopharmacol. 1996;16(2 suppl 1):4S-14.

3. Angst J. The course of affective disorders. Psychopathology. 1986;19(Suppl 2):47-52.

4. Marneros A. Origin and development of concepts of bipolar mixed states. J Affec Disord. 2001;67(1-3):229-40.

5. Sedler M. Falret's discovery: the origin of the concept of bipolar affective illness. Translated by M.J. Sedler and Eric C Dessain. Am J Psychiatry. 1983;140(9):1127-33.

6.Falret. Mémoire sur la folie circulaire, forme de maladie mentale caracterisée par la reproduction sucessive et régulière de l'état maniaque, de l'état mélancholique, et d'un intervale lucide plus ou moins prolongué. Bull l'Acad Méd. 1854;19:384-415.

7. Berrios GE. The history of mental symptoms: descriptive psychopathology since the nineteeth century. Cambridge, UK: Cambridge University Press; 1996.

8. Goodwin F, Jamison K. Manic depressive Illness. Oxford: Oxford University Press; 1990.

9. Kraepelin E. Dementia praecox and manic-depressive insanity. reed 1989, New York, NY: The classics of psychiatry and behavioural sciences library; 1919.

10. Salvatore P, Baldessarini RJ, Centorrino F, Egli S, Albert M, Gerhard A, et al. Weigandt's on the mixed states of manic-depressive insanity: a translation and commentary on its significance in the evolution of the concept of bipolar disorder. Harvard Rev Psychiatry. 2002;10(5):255-75.

11. Wernicke C. Tratado de psiquiatría. Trad. de Outes DL, Tabasso JV. Buenos Aires, Argentina: Polemus Editorial; 1996.

12. Koukopoulos A, Koukopoulos A. Agitated depression as a mixed state and the problem of melancholia. Psychiatr Clin North Am. 1999;22(3):547-64.

13. Jaspers K. General psychopathology. Translated by Hoenig J, Hamilton MW. Baltimore (Md): Johns Hopkins University Press; 1997.

14. Schneider K. Clinical psychopathology. Translated by Hamilton MW, Anderson EW. New York, NY: The Classics of Psychiatry and Behavioural Sciences Library; 1993.

15. Leonhard K. The Classification of endogenous psychoses. Translated by Berman R. New York, NY: John Wiley and Sons; 1979.

16. McElroy SL, KeckPE, Pope, HG, Hudson JI, Faedda GL, Swann AC. Clinical and research implications of the diagnosis of dysphoric or mixed mania or hypomania. Am J Psychiatry. 1992;149(12)1633-44. Comment in: Am J Psychiatry. 1993;150(12):1907-9.

17. Akiskal HS, Mallya G. Criteria for the "soft" bipolar spectrum: treatment implications. Psychopharmacol Bull. 1987;23(1):68-73.

118. Perugi G, Akiskal HS, Micheli C, Toni C, Madaro D. Clinical characterization of depressive mixed state in bipolar I patients: Pisa-San Diego collaboration. J Affec Disord. 2001;67(1-3):105-14.

19. Akiskal HS. Delineating irritable and hyperthymic variants of the cyclothymic temperament. J Personal Disord. 1992;6(3):326-42.

20. Hantouche EG, Allillaire JP, Bourgeois JM, Azorin JM, Sechter D, Chatenet-Duchêne L, et al. The feasibility of dysphoric mania in the French EPIMAN study. J Affec Disord. 2001;67(1-3):97-103.

21. Shorter E. A history of psychiatry. New York: John Wiley & Sons; 1997.

22. Bleuler E. Handbook of psychiatry. New York: The MacMillan; 1924

23. Barahona Fernandes J. O sentido actual da obra de K. Kleist e as repercussões nos países ibero-americanos. Actas Luso-Esp Neurol Psiquiatr Ciênc Afines. 1979;7(6):341-52.

24. Winokur G. Unipolar depression: Is it divisible into autonomous subtypes? Arch Gen Psychiatry. 1979;36(1):47-52.

25. Perris C. A study of bipolar (manic-depressive) and unipolar recurrent depressive psychoses. I. Genetic investigation. Acta Psychiatr Scand. 1966;Suppl 194:15-44.

26. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders- DSM-IV. 4th ed. Washington (DC): American Psychiatric Association; 1994.

27. Soares JC, Gershon S. The diagnostic boundaries of bipolar disorder. Bipolar Disord. 2000;2(1):1-2. Comment on:Bipolar Disord. 2000;2(1):3-7.

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