

## COGNITIVE DEFICITS IN MOOD DISORDERS: ROLE AND CONTRADICTIONS IN PSYCHIATRY

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### SUMMARY

*The principal aim of this work is to reflect about the assessment and management of cognitive deficits in psychiatric disorders, and, particularly, in mood disorders (MDD and BD). The current trend of research and clinical practice is to give more importance to cognitive dysfunctions in psychiatric disorders. There are numerous studies that highlighted the cognitive alterations as the core deficit in MDD and BD, observed across several domains (e.g., executive function, working memory, attention). There are also numerous tools that allow the identification of these cognitive deficits, as well as assessment tools. But are these, really, effective and usable in daily clinical practice? Are they accepted by patients? Could relying only these tools run the risk of forgetting the good clinical practice? Can the doctor-patient (or HCW-patient) relationship and deepening of psychopathological aspects to be marginalized? These and other considerations are carried out in this work.*

**Key words:** cognitive deficits - major depressive disorder - bipolar disorders - temperament

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### INTRODUCTION

For the psychiatric healthcare worker (HCW), the "main observation tool is himself, his personality, himself as an individual" (Sullivan 1954).

There are no purely objective data and there are no valid subjective data in psychiatry. The available material is shaped by the reciprocal interaction of acquired and related skills, assuming a scientific characteristic in the form of "inference". To infer a person-specific network for a patient, time-series data are needed (Bringmann 2021, Lervåg 2019).

The person / patient brings to the HCW its history, its past and present existence, and its entire essence, not only in the psychiatric field.

In turn, the HCW lead to the patient its experience, competence and experiences. Clouded by the illusion of competence, free from doubts and uncertainty, sometimes the health care worker runs the risk of putting his knowledge at the service of its own image of expert. The current health organization attracted by scientific and social certainties favors a standardization of skills according to a horizontal judgment scale. Sullivan warned clinicians of the risk of such leveling; labeled the psychiatric expert as a professional who "does not trade in instruments or baggage of his profession, it is not a collector, a merchant, an amateur, a dreamer, since these use their skills mainly in their own interest "(1954). The client / patient places himself towards the waiting expert, with reference and respect for his skills, his information and the products needed to meet his expectations.

All this increases in drama when the expert / competent has fragile people as a client / patient as well as cancer patients, patients in the terminal phase, and patients suffering from severe psychiatric diseases, as

well as psychosis. The psychiatric expert must consider what Henry Ey (1960) called the "psychic body", the must study the forms of integration of the neuro-physiological functions necessary for psychic organization.

Following the teachings of Karl Jasper, health professionals working in the psychiatric field, aid the "individual as a whole: whether he has to guard him, assist him, heal him, or have to make a judgment on his personality ...".

They must be aware that "... in every single individual there is something unknowable".

"Giving dignity to the other" inevitably exposes the one person who assists in one's own dignity. This work of research of one's dignity in the other derives not only from the examination of the "... lived experience (Erleben) of man but also (of)" the conditions and causes on which it depends, what relations it has and the ways in which it manifests itself objectively "(Jasper 1959).

### THE GREAT CONFUSION

In the early 1970s, what Nassir Ghaemi (2012) defined as the battle between the "Young Turks" and the "Old Guard", was taking place in the psychiatric and psychological world.

In those years, psychiatry was traversed by three main currents: the tendency towards interdisciplinary research, the expansion of the domain of psychiatry and the tasks of the psychiatrist; the tendency to enhance the welfare role of psychiatry and the tendency to extend the borders in the social sphere. At the end of the battle, the three currents generated the interdisciplinary approach. The interdisciplinary approach in the

management of psychiatric pathologies has assumed the decisive role in the assessment and management of disorders of the psychosis group (eg, schizophrenic spectrum and BD). Already in the seventies the question of the difficulty of understanding each other and the need to use the same language was known. Urlic (2019) warned against the misunderstandings that arise from the attempt to speak with two different languages, for which there is "nothing more inconclusive than the hybridization between scientific and philosophical discourse". One of the main problems of the interdisciplinary approach is that of using a single language. Although also fiercely criticized by intellectuals rooted in their professional world, the DSM has tried, with its innumerable limitations, to find that language understandable and usable by the different disciplines. Are there still winds of war today?

Are there any new Young Boys and Old Guard? The battle could grant psychiatry new growth opportunities.

The entrenchment in one's own world generates the ability to "strengthen the already existing Babelic confusion", stated Bazzi (1960). Another forgotten teaching of Bazzi concerns "the confusion of skills and roles". The author was aware of the advantages that individual disciplines can bring to the development and improvement of the "care" of psychiatric patients. However, the professional reality has determined that "not infrequently the knowledge or new discoveries of a specific (new) discipline are hastily applied to psychiatry".

Some reflections on the "confusion of roles and competences which not only causes damage to knowledge but also involves many dangers for the individual" can be added. Jasper already insisted on this risk. Jasper referred to the "scientific imprinting" as fundamental to open "all the possibilities of empirical investigation and defense against the temptation to place, in a certain sense, the human being on a single denominator", but it allows us to consider always man as a totality (Jasper 1959).

It is becoming accepted that psychiatric diagnostic categories are pragmatic, manmade constructs that should be interpreted as guidelines for clinical communication rather than true representations of underlying disorders (Chavez-Baldini et al. 2021). Everything revolves around the symptoms. But the symptoms are not disorder-specific. To address these limitations, clinicians and researchers have begun to work on the dimensional approach of psychiatric disorders. The phenomenological investigation thus becomes an extraordinary tool because "it gives us a series of fragments of the psychic life actually lived". The risk feared by the cited authors and other authors is that of being trapped by the confusion of judgments, expectations, training and the presumption of competence. The risk is that of definitively settling the mark of "mentally ill", of "schizophrenic" already produced by a clumsy diagnosis or even worse by a lack of diagnosis, or by a

hidden diagnosis to avoid the label itself (Ben-Zeev et al. 2010). Mario Maj notes that "It is with respect to the assessment of the above variables that clinicians need today a systematic guidance, which current diagnostic systems and related tools do not provide, or do not provide satisfactorily, thus contributing to a therapeutic practice which, being guided just by diagnostic labels, is often oversimplified and stereotyped" (Maj 2020).

Ultimately, over the last few years, the psychiatrist, in seeking an ethical purification from alleged past misconduct and negligence, has lost the overall management of psychic distress trying to appropriate territories that are not congenial. Supported by proactive assumptions, the psychiatrist has sought the essence of its existence in the social, educational, even legal and legislative territory, without being able to reach the appropriate skills of professionals working in this sector. The laudable attempt was born from the need to deal with the different aspects that characterize the overall picture of psychic distress but it has had the consequence of taking on a role that does not satisfy one's competences.

## **TRANSDIAGNOSTIC ROLE OF COGNITIVE DEFICITIES IN MDD AND BD**

The scientific research and the clinic of the last decades have rapidly passed from enthusiasm to disappointment, from etiological certainties to uncertainties about the causes and consequently to uncertainties about the current knowledge and causes of psychosis. Recent research has focused on cognitive processes. There is a growing literature which suggests that neurocognitive deficits can be essential elements of psychiatric disorders (Zhang et al. 2022, Yang et al. 2022, Romanowska et al. 2018). Therefore, cognitive dysfunction is currently considered a transdiagnostic dimension (Matsumoto et al. 2022, McTeague et al. 2016), suggesting that is a construct independent from psychiatric symptoms. The study of psychopathology prompts researchers to recognize the boundaries among distinct psychiatric disorders. However, they face a complex symptomatological dimensional organization of human experience that manifest itself as mental illness (Barch 2017). Probably, there is a heritable common component of cognitive function in humans associated with psychopathological dimensions. These symptomatic modifications reflect abnormalities in brain circuits (Zhang et al. 2022, Albert et al. 2019), shown in several neuroimaging studies. A meta-analysis by Zacková on structural magnetic resonance imaging studies suggests that the shared volumetric decreases might, at least in part, underlie the comorbidity of mild cognitive impairment and depression (Zacková et al. 2021). The authors conclude that "Considering the rapid demographic aging

occurring in populations worldwide, the number of people struggling with comorbid MDD-MCI is likely to increase, and thus early interventions targeting mentally and socially stimulating activities, which would stimulate communication and the relevant brain regions should be developed”.

Cognitive deficits can be considered the symptomatic elements of the transdiagnostic dimension of mental disorders. The situation becomes complicated when the psychopathology of cognitive deficits enters the study of the cognitive processes of mood disorders.

The cognitive deficit represents a core primary characteristic of the illness, rather than being secondary to the mood state or medication. They are present in very high percentages in various psychiatric disorders (e.g., 84% in schizophrenia, 58.3% in psychotic major depressive patients, and 57.7% in bipolar disorder (Tsitsipa & Fountoulakis 2015).

One of the first problems clinicians and researchers face is the performance of most tests. Tsitsipa and Fountoulakis maintain that “It is a fact that the boundaries between neurocognitive processes are unclear, and no process is completely independent from the others. Different approaches in their classification and nomenclature have been proposed, adding to the confusion”. Another limiting aspect is the scarce quantitative and qualitative difference of cognitive deficits compared to healthy controls. This is most evident in (bipolar disorder) BD patients. Furthermore, the cognitive deficits change in the different disorders only quantitatively and not qualitatively; the deficit is qualitatively similar but quantitatively milder in comparison to schizophrenia. “A significant limitation in the literature is that the performance in most test is influenced by more than one neurocognitive process” (Fountoulakis 2020). This is due to the unclear boundaries among the different neurocognitive domains.

Cognitive test batteries applied to evaluate cognition in these disorders confirmed the common cognitive structure and measurement invariance between healthy controls (HCs) and patients with MDD (Yang et al. 2022). An effective, quick and simple identification and evaluation of cognitive dysfunction is increasingly required. An effective psychometric tool for assessing cognition should comprehensively assess the several domains. Despite the prevalence and significant impact on patient’s live cognitive deficit are neither fully identified (Franza et al. 2018, Franza 2016).

In recent years there has been considerable information and training on cognitive deficits in psychiatric disorders. Perhaps, clinicians today are aware of the importance of evaluating these symptoms. They probably also studied them. However, they face the difficulty of using them in clinical practice. The most widely used scales (e.g., MCCB, EUFEST, MATRICS, WAIS-IV) for complexity and long compilation time are

difficult to use in daily clinical practice. Most of these tests are time-consuming and often tiring. How many patients accept and / or manage to adequately complete these tests in daily clinical practice? For this reason, several authors have developed faster, faster and more practical tools (e.g., PDQ, Epitrack, Thinc-integrated).

Therefore, cognition impairments in several cognitive domains (e.g., attention, memory and executive functions) occur across several neuropsychiatric disorders, including bipolar disorder (BD) and major depressive disorder (MDD). Cognition deficits is a key treatment target in MDD and BD. These deficits are rather stable and relatively independent from mood changes, probably reflecting trait features (Tavormina 2021, Fountoulakis 2020).

A consensus has been sought in recent years on how cognitive impairment should be assessed and managed (ISBD Targeting Cognition Task Force – Miskowiak et al. 2022, 2018).

Miskowiak question the necessary interventions to use the huge amount of data on the role of cognitive alterations (Miskowiak et al 2022). They claim that “While cognitive advantages were reported by most studies, the pattern of the improvements was heterogeneous and not replicated across trials. Taken together, the evidence for efficacy on cognition of behavioral, pharmacological and other biological interventions in mood disorders is mixed”.

## CONCLUSIONS

There is numerous scientific evidence of the fundamental of cognitive disorders in the pathogenesis of mood disorders (MDD and BD). Their identification and management are a challenge for current and future psychiatry. However, as research progresses, contradictory scientific evidence appears supported by clinical observations of daily practice. The doctor / psychiatrist aware and initially enthusiastic about the importance of intercepting cognitive disorders, complains about the absence of “facilitating” therapeutic measures and tools. These suggestions of daily practice begin to be supported by experimental evidence. Especially in patients with mood disorders, the data are often contradictory. On the one hand, this is due to the lack of identification methods and techniques that are still simplistic, on the other hand, there is evidence of the lability of the boundaries between normality and the pathology of cognitive domains.

The current risk of the psychiatrist is to abdicate the central role of clinician and psychopathologist in favor of new professional figures. The evident confusion of roles is the result of the reorganization of the therapeutic position and the overwhelming entry of new professional figures who have entered, and who have the right and skills, in the management of the rehabilitation path

of the psychiatric "patient". Education in cognitive rehabilitation is the center of the current debate in psychiatry which sees the increasingly preponderant idea of the need to delegate the task of care, rehabilitation and education to these figures. Education (also understood as training and acquisition of skills), underline Jamison and Kaplin (2020), it is an integral part of the good treatment of any disease, but this is especially true when the diseases are chronic and shrouded in secrecy caused by social and personal stigma. Serious psychiatric pathologies, as well as schizophrenias and mood disorders, represent the "cornerstone" of relational problems and the possible risks on the re-explosion of the battle between the "psychics" and the "somatics" (as Jasper designates them), to which the "rehabilitatives". "In order to avoid this futile battle, mental health professionals must reclaim the role of educators and of Masters", claimed Jamison & Kaplin, to "provide" the patient with their knowledge and skills to combat the confusion and unpredictability surrounding mental illness". "We must always remember that no drug, no therapeutic strategy can replace a good clinical experience and the kindness of a healthcare professional. No drug can ever replace active listening to the fears and desperation of patients who try to come to terms with what has happened to them". The healthcare worker, even with people suffering from severe psychiatric disorders, must never forget that it is dealing with a woman, a man, with her/his history.

It becomes evident how a jumble of problems risk falling into a single cauldron, becoming indistinguishable and unable to highlight the more relevant ones from the less significant ones.

The result becomes evident when you leave the scientific path, the result of constant work, full of studies, errors, defeats, doubts, successes (few) and above all a lot of effort.

It becomes evident in the abdication of the role of competent figures exhausted by fatigue and by the search for a professional identity debased by the success of other languages towards which a cultural barrier must be raised to avoid being incorporated by them.

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