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Obsessive-Compulsive Disorder in the Context of Neurosciences and a New Clinical Practice

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Обсессивно-компульсивное расстройство в контексте нейронауки и новой клинической практики

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Abstract. On human mental activity, the cellular orientation by R. Virchow is no longer so heuristic. The cell (neuron) is not the unit of mental life, but human activity. Plasticity depends not only on genetics, proteins, information in the DNA inside neuron or other cells, but it depends also on the object-oriented activity performed by the individuals in ontogenesis. More and more information from neuroscience and molecular biology and molecular genetics, helps to build our understanding on human mind and behavior. Advances in science pushed us to rethink our clinical practice. Vygotsky's cultural-historical and activity theory seems consistent in the integration of neurosciences with psychological science, is the fact that is a monistic approach. We illustrate our idea with a clinical case of a man diagnosed by psychiatry with obsessive-compulsive disorder (OCD). The neuropsychological education program includes the methodology of neuropsychological rehabilitation proposed by A. R. Luria and mental human developmental (step-by-step) theory of P. Galperin. The prevalence of OCD is high, and remission rates are extremely low (at 15 years, 60 % continue to show the symptoms). The results with the clinical case presented here, as well as in several hundred other clinical cases are encouraging. Vygotsky's cultural-historical and activity theory seems to be a good proposal for a new clinical practice in clinical psychology and psychiatry. This article is an invitation to other colleagues to experiment the same methodology, in other clinical centers

and even in other countries, in the sense that we study the possibility of this being an efficient and effective response that we intend to have available to our clients.

Keywords: *obsessive-compulsive disorder; historical-cultural neuropsychology; rehabilitation; formation of mental actions; neurosciences; psychiatry*

Аннотация. В отношении психической деятельности человека клеточная теория Р. Вирхова уже не столь эвристична. Не клетка (нейрон) является единицей психической жизни, а деятельность человека. Пластичность зависит не только от генетики, белков, информации в ДНК внутри нейрона или других клеток, но и от объектно-ориентированной деятельности, осуществляемой индивидами в онтогенезе. На данных нейронауки, молекулярной биологии и молекулярной генетики основывается наше понимание человеческого разума и поведения. Научные достижения подталкивают нас к переосмыслению клинической практики. Культурно-историческую теорию Л. С. Выготского можно считать последовательной в интеграции нейронаук с психологической наукой, так как она является монистическим подходом. Программа нейропсихологического обучения включает в себя методологию нейропсихологической реабилитации, предложенную А. Р. Лурия, и теорию психического развития человека («шаг за шагом») П. Гальперина. Мы иллюстрируем нашу идею конкретным клиническим случаем (мужчина, которому психиатры поставили диагноз «обсессивно-компульсивное расстройство», ОКР). Распространенность ОКР высока, а уровень ремиссии крайне низок (в 15 лет симптомы сохраняются у 60 %). Результаты клинического случая, описанного здесь, а также нескольких сотен других клинических случаев обнадеживают. Культурно-историческая концепция Л. С. Выготского представляется хорошим предложением для новой клинической практики в клинической психологии и психиатрии. Статья является приглашением для наших коллег к экспериментам с использованием данной методологии в других клинических центрах и даже в других странах, поскольку это может оказать эффективную помощь клиентам.

Ключевые слова: *обсессивно-компульсивное расстройство; историко-культурная нейропсихология; реабилитация; формирование умственных действий; нейронауки; психиатрия*

Introduction

The word neuroscience is very important in psychology. It remembers the ideas from A. R. Luria, A. N. Leontiev and L. S. Vygotsky, sometimes misunderstood by psychologists. A large group of psychologists never spends time trying to understand the contributions of these important engineers of psychological science. And because of it, we continue to have crisis in psychology as Vygotsky wrote in 1927, in his beautiful and important text *The Historical Meaning of Crisis in Psychology* (Quintino-Aires, 2016a). In last two decades we receive from neuroscience important reports, articles and even books that show us

the same ideas as Luria's, Vygotsky's and Leontiev's introduced us. And now, I believe, it is easier to charge, to prepare, to do an upgrade of our psychological clinical practice.

The XX century was a technological century. Today, we live in Moral Sciences XXI century, when we are concerned and involved to understand behavior in a different way, as a technology was understood different in the last century. We have more and more information from neuroscience, and more information from molecular biology and molecular genetics. This new knowledge helps to build our understanding on human mind and behavior.

Brain has an enormous plasticity. Plasticity depends not only on genetics, proteins, information in the DNA inside neuron or other cells, but it depends also on the object-oriented activity performed by the individuals in ontogenesis. Object-oriented activity is mandatory for neuroplasticity. Brain of human-beings is the same, from the point of genome, today or 400.000 years ago (Tyler-Smith, 2002). But activity we ask to our children, adolescents, or adults, it is very different. Regulatory activity, for example, is today absolutely asked to our children. But not once distant in ancient time. So, on construction of brain, which depends on activity not only from molecular information inside cell, but object-oriented activity should also receive our attention to understand and explain cognition and behavior.

To become a healthy citizen, depends more on personal activity history that genome. The brain is a self-regulated and self-controlled organ, which develops and works similarly to the Prigogine's theory of dissipative structures, that is, it has a historical nature (Ardila, 2018; Firth et al., 2019; Maguire et al., 2003; Maguire, Woollett, & Spiers, 2006). Brain will construct itself to respond the activity asked to each one. Particularly, the frontal cortex of brain is extremely dependent from the different kind of activities in the history of each person. Activity is also important to rebuilding brain, and in the possibility to reduce or loss the participation of some important parts of the brain (Grote & Hannan, 2007; Hastings, Tanapat, & Gould, 2001; Kempermann, 2015; Montoya, 2010).

This information must be integrated into our clinical reasoning when a client comes to us with complaints such as anxiety, depression, inability to argument or say no, inability to speak and talk with friends, inability to solve even simple questions. Even when we refer to smart people with professions that require high academic level, it means, in cognitive domain they are pretty good, but if unable to get a job, for example, because anxiety turn them unable to working.

Janna Glozman (2020), in an article on history of neuropsychology, shows that today neuropsychology is no longer focused on the study of the brain to understand mental activity (studying the brain's organization of mental activities), nor on the study of mental activity to understand the brain (studying mental disorder syndromes), but the interaction of the brain and mental activity in society (studying patients with mental disorders in the real world).

The advance of knowledge in science pushed us to rethink our clinical practice, that throughout the 20th century seemed insufficient for us. In universities, at psychology departments, contradictory theoretical approaches coexisted (Quintino-Aires, 2016a),

without this fact seeming to bother those who worked there, and despite a clinical practice not based on evidence. In psychiatric departments, we come across lists of infinite signs and symptoms tentatively grouped into syndromes, plus some knowledge of pharmacology, without a complete psychopathological theory, organizing all information.

So it is important in our days to come back to B. Zeigarnik (1976) and read her books, so we can remember that psychology is the basis of psychiatry. "Insufficient psychological preparation can lead to serious errors, a simplistic point of view on complex psychic phenomena, or erroneous deductions" (p. 9).

Cellular and molecular medicine school by R. Virchow is very important. What medicine did in the last 100 years, it would be impossible without the study of the cell. This, when we speak about heart, liver, pancreas, skin, bone, blood, etc. When we speak about psychological activity, human mental activity, we have important question about this proposal. On human mental activity, the cellular orientation by R. Virchow is no longer so heuristic. The cell is not the unit of mental life, but human activity. And then, should we try to find more information from genome and molecular biology, or should we put our attention in extra-cortical origin of psychological systems, as proposed by L. Vygotsky (1930/1996)?

A. R. Luria (1987) presented the Vygotsky's idea: "In order to explain the most complex forms of human conscious life, it is essential to leave the limits of the organism, to look for the origins of this conscious life and 'categorical' behavior, not in the depths of the brain or soul, but of all, of relational life, in the social-historical forms of human existence" (p. 21). This idea was not as strong in international science in that time as it is today, even because the same idea is now presented by neurosciences. We have no more why to continue to hesitate, and not put our attention in these words of L. Vygotsky and change our clinical practice (almost nothing based on evidence), and to provide good services to our clients.

It is impossible to psychologists or psychiatrists to continue without realizing images like the one published by B. D. Perry (2004). TC scan shows the clear differences between the brain morphology of two three-year-old children. One, growing up in a family, the other neglected in an institution for orphaned children. The neurosciences have given us information showing that activity is the unit that allows us to understand, and interfere as clinicians, in the brain as the organ of mental activity, and work to promote mental health.

Neurosciences teaches us that what is unique about the brain, which makes it different from any other organ in the body, is its ability to transform. The brain does it itself, to do what somebody ask it to do. Of course, the society and culture change, and what somebody ask the brain to do would be different. A. N. Leontiev wrote: "The cortex of the human brain […] it has become […], an organ capable of forming functional organs" (Leontiev, 1981, p. 271). This idea should be included in our clinical practice.

A. R. Luria (1987) wrote: "Attempts to search for the material substrate of consciousness at the level of the individual synapse or neuron (a level that, of course, plays a very important role in the basic physiological mechanisms, essential for all psychological

activity) are beginning to be totally useless" (p. 22). It is consequently necessary to look for new clinical practices, and the information from the neurosciences can guides us to focus these new practices in the activity.

In fact, neurosciences today, such as cultural-historical and activity theory in the past. When we do research on articles on neuroscience and cognition or behavior, published during the last year of 2020, we find that we can group them into three themes: brain plasticity, systemic organization, and extra-cortical principle. Exactly the three pillars that support the Vygotsky's cultural-historical and activity theory (Akhutina, 2003; Glozman, 2020; Semenova & Kotik-Friedgut, 2021).

Another aspect that makes Vygotsky's cultural-historical and activity theory more consistent in the integration of neurosciences with psychological science, is the fact that is a monistic approach. In its conceptualization, it does not separate mind and brain as different substances, as in classical approaches, whether cognitive-behavioral, psychoanalysis, existentialism, gestalt, etc. On the contrary, mind and brain are different categories of the same substance (Quintino-Aires, 2016a; Robbins, 2003; Vygotsky, 1930/1996).

Virchow's cellular theory is very useful in medicine, but not in mental health. And a clinical practice in mental health that is effective and efficient must look for a different path. Is in this position that we ask if could a cultural-historical and activity theory be a new proposal in the field of psychiatry, clinical psychology, and psychotherapy?

Neuropsychological Education as a Therapy Methodology in Mental Health

In Vygotsky Institute, in Portugal, we realized that in the different syndromes studied and worked in mental health clinical practice, it is possibly made two groups. Some disorders (congenital hypothyroidism, Prader-Willi syndrome, Down's syndrome, Angelman syndrome, X fragile syndrome, delirium, etc.), it affects primarily, not only nervous system but also other systems or organs, like endocrine, respiratory, cardiovascular, etc. Other pathologies (anxiety, depression, bipolar disorder, schizophrenia, etc.) affect, primarily, only nervous system. It's a very important difference, because most proteins are not specifical from one tissue or organ. And we have some pathologies like autism spectrum disorders, social behavioral disorders, attention deficit hyperactivity disorder, etc., that scientists find changes in anatomy and chemistry only in the central nervous system (CNS).

So, it can mean that these two groups may receive different orientations in the therapeutic intervention, as they will certainly also have different "natures." In the first group, morphological and molecular changes found will have their origin in the genome (all the hereditary information of an organism that is encoded in its DNA), giving rise to structural and functional proteins that disrupt mental and cognitive development and functioning. In the second group, morphological and functional changes are originated from oriented and related (social) activity, and therefore, an extra-cortical, or extra-brain,

origin. They are different groups, with different mechanisms of pathogenesis, and for this reason they must also receive different therapeutic proposals.

In Vygotsky Institute we consider the first group as medical group, pathologies depending on genome and specific proteins pathogenesis. And in the second group, a psychological group of disorders, depending on socially oriented activity, that generates different brain morphologies and biochemistries, compromising mental health. So, the first group, which we consider in biological frames, should benefit with medical intervention plus psychological. And the second group, in psychological frames, should benefit with psychological (historical-cultural) intervention plus medical intervention.

We decided to give in cases of anxiety, obsessive-compulsive disorders, depression, ADHD, etc., the same proposal from neuropsychological rehabilitation. To choose activities and design programs in a neuropsychological education plan (the context of human development, not about medical treatment), we used the original neuropsychological rehabilitation proposed by A. R. Luria, and presented in his books (Luria, 1963, 1966a, 1966b, 1970). Regardless of diagnosis of each patient, and in the path proposed by A. R. Luria for neuropsychological rehabilitation, with each patient carrying out a neuropsychological investigation (assessment), before designing a specific therapeutic plan, to meet syndromic analysis, analysis of the psychological structure (of the client), and the activity structure analysis of the activity exercises to include in that individual patient's neuropsychological education plan.

In the procedure of conducting a neuropsychological education session, we include the mental human developmental (step-by-step) theory of P. Galperin (Engeness, 2020a, 2020b, 2020c, 2020d; Galperin, 1969). As we have already had the opportunity to mention in other published works (Quintino-Aires, 2012, 2016b, 2020a, 2020b, 2021). A. R. Luria's conceptual proposal for neuropsychological rehabilitation is well known to those who work in the clinic. The step-by-step theory of P. Galperin is less known, as it has been used more in pedagogy than in clinical practice. For this reason, we will make a brief presentation on how we understand and apply this approach in practice.

P. Galperin's Theory in Neuropsychological Education Practice

P. Galperin (1902–1988) tried to explain how the process of forming internal mental actions during development takes place, that is, the steps through which the action goes through the process of appropriation by the individual, in the attempt (achieved) to guide the process in a more effective way pedagogically. Galperin worked within Vygotsky's theory, and in Leontiev's theory of activity. But it unfolds, explaining each one, the stages of transformation from interpsychic to intrapsychic. Galperin developed "a theory to explain the ontogenetic development of psychic reality, that is, the assimilation by man of the historical-social experience and culture" (Núñez & Ramalho, 2018, p. 11). The theory operationalizes the how mental processes and the laws of their formation are formed (theoretical contribution) and presents methodological principles for effectively

organizing teaching and learning processes (methodological and practical contribution), which we adopt in neuropsychological education (habilitation). From the beginning, we believed that this would be the guidance we needed to work with clients.

Within this approach, it is understood that human action has three functional elements: guidance, execution, and control. The therapist's intervention focuses on guidance and control since execution alone can be carried out (if the purpose is transformation and development). Proper and intended execution presupposes the existence of an *Action Guiding Base (AGB)*, which is initially in the therapist's brain. In the process of skill formation, the person appropriates, in the sense of assimilation and updating, this AGB. It is this appropriation that must be directed in the therapeutical process and will allow the client (trainee) to be the one to guide and control the execution, that is, he is autonomous to execute it. The quality of the execution depends on the orientation, which must contain: (a) the content object of assimilation; (b) the representation of the final product of the action and its quality; (c) the representation of the order of actions and operations that must be carried out, and modes of action control (Núñez & Ramalho, 2018; Solovieva & Quintanar, 2018, 2019, 2020).

In Galperin's theory, the formation of new mental actions takes place in stages, which are designed to allow the passage from social to individual experience. In Vygotsky's cultural-historical and activity theory, the passage from the interpsychological plane to the intrapsychological plane, is always an expression of the construction of *brain neoformations*, new neuropsychological functional systems. In skill formation, it is first necessary to find a system of operations (action model), to represent it in materialized form, and finally to organize and develop training that leads to the realm of execution and its control.

The formation of a skill is planned in three moments: (a) initial diagnosis of the development of the skill to be formed, here the domain that the person has over the operations that enter the structure of action is established; (b) the stages of assimilation of the orientation of the action; (c) final control of the process, which more broadly should include the follow-up of the assimilation process. The objective is to diagnose the degree of real development of the skill formed, meeting the qualitative indicators established in the objectives.

Regarding the stages of assimilation of the orientation of action, and according to theory, the first is the stage of *motivation.* This is directly linked to the trainee's needs, and it is up to the therapist, usually looking at the "help request," to focus on that person's specific needs. Of course, the link between the proposed tasks and what motivated the "call for help" is almost always not immediate. It is up to the therapist to make it explicit so that the person can make the link.

The second is the *preparation phase of the AGB.* Understanding a given situation is a general task of the guiding activity, which is supposed to clearly distinguish which consecutive actions comprise it. And what is the logarithm for its execution. For this, we assume with the parents from the first day that our "material of work" includes only what has happened during a week. From the last session to this one. The events of the past,

because we do not have "a time travel machine," would only be idealistic forms of work; that would not allow any transformation.

The third step is the *materialized orientation* step. The activity develops between client and therapist, therefore, on the inter-psychological level. Always guided by AGB, control is on the responsibility of the therapist. The cooperative, relational and guiding character is a key point in the historical-cultural approach. At this stage begins the process of assimilation, skill formation, so the AGB should progressively reduce the degree of detail.

The fourth is the *orientation stage in the form of external language*. After performing a required number of tasks with external support, and when this support can already be dispensed with, the skills training should continue with *external language guidance*. Speech is the highest means of regulating activity (Vygotsky, 1934/2001), and to achieve the autonomy that one wants to achieve, one must pass the verbal stage. Skill formation requires external and internal verbal communication, sustained by the generalizing power of the word (Núñez & Ramalho, 2018; Solovieva & Quintanar, 2018, 2019, 2020).

In this step, the activity is performed using rules and symbols (Veraksa, Quintino-Aires, Leonov, & Musálek, 2018). The tasks presented are like those of the materialized stage, but structured based on the possibilities that language (oral and written) offers. Communication, shared language, in close relation to action oriented, provides content and helps transform external action into internal action. And we remember here A. N. Leontiev's theory of activity. A. N. Leontiev, in which Galperin's theory begins, action, and communication form a unit (Leontiev, 1981).

This stage of external language will bring what N. F. Talízina (Núñez & Ramalho, 2018; Solovieva & Quintanar, 2018, 2019, 2020) named *reflection*, the ability to be aware of what one does, to argue and explain. Comparing its activity with the model (AGB), the client learns to regulate its actions, acquiring internal control, i. e. self-regulation. Just as in the materialized stage the external support decreases until it disappears, in the external language stage it is also going to be reduced to a mental resolution. It frees itself from external speech.

The fifth stage is the *orientation stage on the mental plane*. The action reduces and becomes *internal speech,* where the *orientation* that directs the execution and the control of the skill becomes formed. Now there is no external help whatsoever, which means that the orientation activity here is on the intrapsychological level. Once the skill is formed, it is available to integrate the formation of other skills. And the formation and development of the skill must lead one to enjoy the development that the skill offers, to recreate it, to be satisfied with personal growth.

This work of integrating the new knowledge of neurosciences into clinical practice, mediated by the Vygotsky's cultural-historical and activity theory, it is the core of our clinical work in the context of several clinical syndromes in mental health. In the following section we share a clinical case of a man diagnosed with obsessive-compulsive disorder, worked at the Vygotsky Institute in the clinical methodology presented here.

Therapeutic Intervention in a Clinical Case of Obsessive-Compulsive Disorder

A concise description of obsessive-compulsive disorder is:

> […] a feeling of subjective compulsion — which must be resisted — to carry out some action, to dwell on an idea, to recall an experience, or ruminate on an abstract topic. Unwanted thoughts, which include the insistency of words or ideas, ruminations or trains of thought, are perceived by the patient to be inappropriate or nonsensical. The obsessional urge or idea is recognized as alien to the personality but as coming from within the self. Obsessional actions may be quasi ritual performances designed to relieve anxiety, e. g. washing the hands to deal with contamination. Attempts to dispel the unwelcome thoughts or urges may lead to a severe inner struggle, with intense anxiety. (Harrison, Cowen, Burns, & Fazel, 2018, p. 184)

Regarding the epidemiology of OCD, and based on information from the US, the report of the National Comorbidity Survey Replication (Ruscio, Stein, Chiu, & Kessler, 2010) found a lifetime risk of 2.1 %, and noted high rates of comorbidity, not only with other anxiety disorders but also with mood disorders, impulse control disorders, and substance misuse. Obsessive-compulsive symptomatology that did not meet the full criteria for DSM–IV was reported by 25 % of those surveyed, with checking and hoarding being the most common behaviours (ibid.). In clinic populations the female-to-male ratio is closer to 1 (Zohar, Fostick, & Juven-Wetzler, 2009).

Structural imaging in patients with OCD has revealed rather variable changes, but the most consistent are an increase in grey matter volume in the striatum and decrease in orbitofrontal, dorsomedial, and anterior cingulate cortex (Harrison et al., 2018; Yun et al., 2020). Some theories have advocated interference from circuits involving the base nuclei (Fineberg et al., 2014; Milad & Rauch, 2012), but they appear to be more theoretical and with little evidence.

The prognosis is better when there has been a precipitating event, social and occupational adjustment is good, and the symptoms are episodic. The prognosis is worse when there is a personality disorder, and onset is in childhood. Male gender, tic-related forms of OCD, and overvalued ideas about the obsessions also predict a poor prognosis. Remission rates in the first year of illness were low (16 %; what means that after one year of diagnosis 84 % proceeds with symptoms): gradually increased during follow-up, and at 15 years to just over 40 % (what means 60 % continue to show the symptoms). The presence of comorbid major depression diminished the chance of recovery. Pharmacology and classical psychotherapy proposals, such as cognitive-behavioral therapy or psychoanalysis, is not a response for this kind of disorders that are today more and more incidence this aim (Harrison et al., 2018). Of course, these data bother us, and make clinicians feel urgently needed to find new forms of therapeutic intervention.

The clinical case that I bring to this article is part of the casuistry of the clinical department of Neuropsychology and Psychotherapy at the Vygotsky Institute in Lisbon,

with about 400 cases worked on in recent years, with different syndromes, from anxiety and obsessive-compulsive disorders, depression, eating, sleep, and sexual disorders, personality disorder, reactions to stressful experiences, and in child psychiatry, conduct (antisocial or externalizing) disorders, attention deficit hyperactivity disorders, and emotional (internalizing) disorders.

Our client presented here is a young man, 19 years old. When he arrived at our institute, he had diagnosis by psychiatrist with an obsessive-compulsive disorder (OCD). In *Table* below, in the second column, the signs that he presented positive are marked with a cross. We prepared the neuropsychological education program, after syndrome analysis based on neuropsychological Luria's assessment. The methodology in this program was guided by the neuropsychological rehabilitation model of A. R. Luria and the developmental human mental (step-by-step) model of P. Galperin, both already mentioned in this article, and has already been presented in a more developed and detailed way in other publications (Quintino-Aires, 2016b, 2020a, 2020b, 2021). The materials that served as mediators of the proposed activities are simple and easy-to-build materials, which I will describe in the next section.

Materials Used in Therapeutic Intervention and Results

The tasks that constitute the activity, in this case, the rehabilitating activity, are not a prebuilt and edited kit, not even a set of tasks or activities that the therapist should follow by reading an instruction's manual. On the contrary. The therapist must have the necessary preparation to begin by conducting a client's psychological laboratory investigation, to be able to interpret the data and connect it to the complaint given by the client. And then, draw up a work plan for neuropsychological education (habilitation).

The therapist should be prepared to do the syndromic analysis (Luria, 1966a, 1966b) and identify the factors that may justify the complaint. He must have enough knowledge of systemic-dynamic neuropsychology, be able to analyze the psychological structure of his client's difficulty and understand the brain neuro-dynamics involved. This means that it is up to the therapist to design the specific work plan for that client. Each case involves the elaboration of a specific plan, which should always be reevaluated and may be reformulated at any time during the therapeutic program.

"Piano" is the use of an A4 size card which is presented to the client horizontally. On this card are small 2 × 2 cm squares, printed in five different colors, green, red, yellow, blue and black, randomly distributed. The direct or changed color naming, or the omission of one of the colors previously agreed upon, requires permanent inhibition of collateral stimuli.

"Control and Flexibility" originated from a proposal by H. G. Craine, H. E. Gudeman, and M. Ahn (1981). On an A4 sheet shown vertically, a table of five columns and six rows, with each cell measuring 2.5 cm sideways, has numbers from 1 to 30, distributed at random. Also, at random the numbers are printed in black, red or blue, in the form

A; and in black, red, blue, yellow, green or orange in form B. The client is told to point each number in numerical order. When finding and pointing the number the client must name, not the number, but the color in which it is printed. This implies that he has two tasks permanently in mind, and that he systematically switches from one to the other.

In "Attention 100" is indicated to the client to count from 1 to 100, saying one number out loud and the next in low voice. He is explained that when he says in a low voice he should do so as a whisper, but still the therapist must be able to hear what number is said. He is also explained that the correct procedure requires switching the focus of sound production between the mouth and throat. That is, when you say out loud think the sound coming out of your mouth; When you say in a low voice, think of the sound coming out of your throat. In guidance, the therapist can help by pointing in one's own body to the mouth or throat, depending on whether the client should say it out loud or in a low voice. You can also use your own hands and forearms to make upward or downward movements for the same purpose. These external mediators are especially important in the early stages of the activity.

"Unfolded Speech." The passage from internal (predicative) speech to external (discursive) speech is one of the most important mental health skills. But for a number of reasons not to be discussed here, it is more common to find people with poorly structured neoformations needed for this skill. The methodology is based on the passage from the internal synthesis of the psychological process to the regulation of this process during the speech. Particular attention is paid in the beginning to the client's ability to "see" every single detail in the image, and the therapist works permanently so that the learner will use an Action Guiding Basis (AGB) that allows him to have a planned view of the entire drawing. For this activity we used a set of twenty cards with simple designs. It is suitable for the trainee to describe ALL what they see, and in greater detail. In counseling the therapist should present an Action Guiding Basis that helps the client make an appropriate "sweep" of the figure to meet all the details. In controlling the activity, the therapist should ask for the correction of all expressions such as "thing," descriptions using body movements or limbs in place of words. When the client cannot find a word, it can be said by the therapist, but then repeated by the client. Each card should be worked as many times as necessary for the activity to be performed smoothly and quickly. Many colleagues, after a first realization, cover the drawing and ask the client to perform the memory activity. Here the goal is not to work on memory, but to make the trainee more attentive to details next time.

During the program designed based on the assessment carried out in January 2020, the patient was evaluated again in April and June of the same year. In this third assessment, we registered that the complaints were no longer present, so we stopped the program and scheduled a new assessment in October 2020. The results we had achieved with the program were maintained, as can be seen in the third column of *Table*.

Table

Male, 19 years old. Obsessive-compulsive disorder. Criteria at the beginning and end of the neuropsychological education program

Clinical features in OCD (Harrison et al., 2018)	Words from the patient. January 4th, 2020	January 4th, 2020. First assessment	October 27th, 2020. Last assessment
Obsessional thoughts Combination of an inner sense of compulsion and of efforts at resistance.	I have convictions, which doesn't make sense, but I can't stop.	+	-
Obsessional ruminations Internal debates in which arguments for and against even the simplest every day actions are reviewed endlessly.	Fear of cross the cross-walk. I justify the risk, but mathematically it doesn't make sense. I waste a lot of time and don't cross.	+	-
Obsessional impulses Urges to perform acts, usually of a violent or embarrassing kind (e. g. leaping in front of a car, injuring a child, or shouting blasphemies at a religious ceremony).	Self-mutilation. I know it's wrong, but I can't change it.	+	-
Obsessional rituals Both mental activities (e. g. counting repeatedly in a special way or repeating a certain form of words) and repeated but senseless behaviours (e. g. washing the hands 20 or more times a day).	Sequences of turning off the light in the toilet. Count to 25 before anything.	+	-
Obsessional slowness. Obsessional thoughts and rituals lead to slow performance, a few obsessional patients are afflicted by extreme slowness.	I spend in this much more than 2 hours of my day. Because of this, I cannot study for college or spend time with people.	+	-
Anxiety	Because of anxiety, I block and can't take my college exams.	+	-

End of Table

Clinical features in OCD (Harrison et al., 2018)	Words from the patient. January 4th, 2020	January 4th, 2020. First assessment	October 27th, 2020. Last assessment
Depression	I can't like myself physically and psychologically. I never talked the least. I have no confidence because I feel that others don't like me.	+	-

Results similar cases were registered in October 2021, so we thought we could close the case.

Conclusion

We live in times of change and development. The many advances in neurosciences in recent decades encourage and allow the paradigms that we have been working on in clinical psychology and psychiatry, can, and should, be rethought, and that new approaches to be designed.

Vygotsky's cultural-historical and activity theory, due to its conceptual structure, proved to be an excellent approach to integrate the new knowledge that neurosciences have allowed us to know with a psychological approach to mental health. The results already achieved in several hundred clinical cases are encouraging. I believe that this way we can reformulate clinical practice and offer more efficient and effective responses to our clients.

These new clinical practice proposals are even more urgent in highly prevalent clinical syndromes and conditions, for which our old therapeutic proposals result in very low remission rates, as in the case of obsessive-compulsive disorder.

This article is not, nor is it intended to be, a finished work. On the contrary, I understand it as an invitation for other colleagues to experiment the same methodology with new cases, in other clinical centers and even in other countries; it will provide a possibility of later progressing to studies that can guarantee us a new practice, based on evidence, which could be the efficient and effective response to our clients.

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