



Neuropsychology Intervention

Intervenção Neuropsicológica

Manuel Domingos (M.Sc., PhD)

Unidade de Neuropsicologia/CHPL, Hospital da Cruz Vermelha Portuguesa e Universidade Lusíada de Lisboa.

Mail - manuel.neurocognidom@gmail.com

OPINION



Abstract

Neuropsychology, whose cradle (although classically located in Broca's France and Wernicke's Prussia during the last quarter of the XIX century) is in the confines of the history of knowledge, daring to secure that even in the Neolithic a Neuropsychology "avant la lettre" was already made. This (opinion) article aims to address the central concepts of neuropsychology, areas of intervention, general and specific mode of action and, as it could not be otherwise or we would continue to refer to only what is happening abroad, provide some historical data to help understand some milestones of progress in this area in Portugal, which seemed significant to us.

Keywords: neuropsychology, intervention, clinical neuropsychology, Portuguese neuropsychology, syndromes

Resumo

A Neuropsicologia, cujo berço (embora classicamente localizado na francesa área de Broca na área de Wernicke da Prússia) durante o último quarto do século XIX) está nos confins da história do conhecimento, podemos atrever-nos a garantir que, mesmo no neolítico, já era feita uma neuropsicologia "*avant la lettre*". Este artigo (de opinião) tem como objetivo abordar os conceitos centrais da neuropsicologia, áreas de intervenção, o modo geral e específico de ação e, como não poderia deixar de ser, ou teríamos que continuar a referirmo-nos apenas ao que está a acontecer apenas no estrangeiro, fornecer alguns dados históricos que nos pareceram significativos, para ajudar a compreender alguns marcos de progresso nesta área em Portugal.

Palavras-chave: neuropsicologia, intervenção, neuropsicologia clínica, neuropsicologia portuguesa, síndromes

Neuropsychology is a common field to the Neuroscience and Psychology, which is dedicated to the correlation between several dynamics of the Human behavior and the activity of the brain structures that support them, directly or indirectly, in a normal or pathological situation. Known with respect to their assumptions and objectives since antiquity (Greece, Egypt, Sumeria, Aztec empires and Inca) it became known by the Scientific and Clinical classes in the mid-nineteenth century by the hand of the French surgeon Pierre Paul Broca when he located the language articulation area in the frontal region of the left cerebral hemisphere.

We will not take up much time talking about the history of Neuropsychology since, although it is of great interest and fascination, it is not the focus of this text. However, we do not want to fail to mention two points. The first concerns the main person responsible for the preparation of these lines as he was the Father of clinical aspect of neuropsychology. It is Alexander Luria (1902-1977) a Russian neuropsychologist that created after the 2nd

World War a whole system to study and monitor injured military during that conflict which, from there on, spread the diagnosis and rehabilitation of mental changes caused by brain lesions to the rest of the population. On the other hand, he has inspired a variety of European and North American neuropsychologists who were gradually creating and adapting means for screening and intervention techniques.

The second refers to Portugal. Our neuropsychology, although based on very old roots and connected to the Psychiatric School of the late nineteenth century and early decades of the twentieth century (Miguel Bombarda, Júlio de Matos, Barahona Fernandes) and to a neurology that in the third decade of last century began to take the first steps revealing, however and from the start, great value signals (Egas Moniz), it installs itself as such from the 70s with the creation of a research strand (Antonio Damasio, Castro-Caldas, José Ferro, Carlos Garcia, Jorge Teixeira Grosso and later Manuela Guerreiro). However, it was only in

1983 that the first Neuropsychology unit was created at the Júlio de Matos Hospital (Manuel Domingos, Gois Horacio, Teresa Constantino) dedicated to the care of patients with brain injury. This unit gave, in its early days, support to patients from the Neurosurgery Centre in Lisbon and was subsequently requested by several neurology and neurosurgery services nationwide. Afterwards, and stopping here, the history of Portuguese Neuropsychology has been driven by favorable winds, spreading over several hospitals and clinical centers in various cities of the country (including the Autonomous Regions).

But, what constitutes a consultation in this field of healthcare? I'll start by saying that it is a multifaceted and comprehensive activity. So we operate in different age groups (infants, children, adolescents and adults) with particularly pronounced concerns in the field of aging - normal (senescence) and pathological (senility). On the other hand, we work with patients with various pathologies (neurological, psychiatric, cardio-vascular,

endocrine) with impact on the cognitive dynamics (language, concentration, memory, organization of thought and activities, etc.), emotional, behavioral and personality, resulting from (direct or indirect) dysfunctions of the brain tissue.

Generally speaking, the whole interventional "philosophy" in neuropsychology is necessarily based on a clinical act involving:

1. A careful, phenomenological and anatomical-clinical diagnosis, based on a medical history and a neuropsychological examination. This diagnosis also allows us to estimate the prognosis and lay out the restructuring/rehabilitation plan that is based on a variety of means and techniques, such as "paper and pencil" and computerized, always supported by a (constant) humanizing attitude. In this sense, in addition to clinical measures we put the patients through, we contemplate a follow up of families and other caregivers because we know that in some more severe situations, the familiar array will

suffer a more or less dramatic impact due to the pathologies of their loved ones.

2. An intensive work in terms of restructuring/rehabilitation or (as discussed above) of detected malfunctions, with the aim of providing a return to a bio-psycho-social functioning as close as possible to the premorbid state (prior to the installation of the "altered mental status"). We know that these desired objectives cannot always be achieved, given the nature of the pathology causing changes, but none of that makes us decrease the desire to make the best possible functionality of patients trying to give them a decent and active quality of life for a period of time they want as long as possible. Fortunately, we now have tools and data that allow us to operationalize this objective.

It is now common for people of diverse ages to complain about impaired concentration and/or memory. Neuropsychology currently has simple but effective instruments that can clinically detect such changes and generally distinguish which have a pathological profile from those who

have an etiologic profile that arise from what we may call "everyday events" (anxiety, stress, fatigue, ...). On the other hand, as you could foresee from the preceding paragraphs, there is (now) a number of techniques that can eradicate or at least minimize those changes, freeing the patient of the negative impacts that they have in their daily lives.

Sleep disorders, namely the (common) insomnia impair cognitive and operative functionality of those who suffer from them. In these cases, we carried out a screening of all disturbances commonly associated with sleeping disorders and we submit patients to neurocognitive and emotional rehabilitation programs.

Headache only recently began to be a concern on the Intervention Neuropsychology field, after identifying multiple cases with changes in the cognitive sphere. That way, and trying to follow the news and developments in this field, we established a plan of care for people with headaches complaints that, sharply and continuously, cause (mostly) problems in terms of

concentration and programming capacity and carrying out daily activities. This consultation is always held in conjunction with the family medicine specialty.

Pain in the generic sense, could only be contemplated. Thus, and using techniques of cognitive stimulation and psycho-physiological relaxation, we have created in conjunction with the General Clinic consults a multi and interdisciplinary care, in order to alleviate these painful conditions.

Finally, a note that seems quite important in this age of hyper-information, often disturbing, in which we live. We know the "fear" that diseases causing dementia cause to a significant range of the population and increasingly, from the 5th decade of life. People often tell us that they may already have "the disease" they heard about on television or read in the press, referring to

Alzheimer's, because they forgot their glasses at home or because the dog's name is "in the tip of the tongue" and they cannot say it. We are not making fun or undervalue the situation. We seek, with this more relaxed speech, defuse the situation that, in most cases, is just a benign disorder, resulting from "life" and absolutely possible to overcome with some mnesic and emotional rebalancing training sessions. Thus, we have developed a screening program in order to outwit hypothetical situations that can be compatible with significant clinical memory and other cognitive aspects of behavioral dynamics changes,

We hope, despite some terminological obligation (more or less complex) in the context of clinical terms, have clarified readers about what we can offer, whenever it is justified.