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Language Components as Predictors for Cognitive Changes in the Aging Process

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Currently, reaching old age is a population reality anywhere in the world, even in developing countries. Although the substantial improvement in population health parameters observed in the twentieth century is far from equitably distributed in different countries and socioeconomic contexts, aging is no longer the privilege of few people. With the increase in the life expectancy of the population, the concern with the Quality of Life in the aging process has been gaining expression in the last decades in different aspects.

Aging is part of the natural process of human development, and involves multiple associated factors, such as structural, functional, chemical, molecular, cellular, systemic, behavioral, cognitive and social neurobiological changes, among others. These interact and regulate both the typical and atypical functioning of the aging individual [1-4]. This process is not always associated with the existence of a disease, it does not occur simultaneously and equally to all people, involving multiple endogenous and exogenous factors that must be considered in an integrated and broader way, such as physical, cognitive, Lifestyle and variables dependent on the cultural context, especially in public policies and diagnostic situations [5-8]. On the other hand, under optimum conditions of influence of genetics, environment and lifelong behavior, individuals may age adequately and autonomously and may present normative changes in senescence, but with small functional losses, few Controlled chronic diseases and with maintenance of activity and social participation [9].

As it occurs with all organs of the human body when they age, the brain also exhibits a decrease in its functions, which, consequently, leads to loss in its functional capacities, such as in language alterations. As for language, for example, manifestations such as slower reasoning, lapses of memory or forgetfulness, impoverishment of language, impairments in psychomotor skills, number of neurons that are reduced in the speed of nerve conduction, in the reduction of responses motor functions among other diminished functions of this component [10].

Among the linguistic changes that may occur during aging, the elderly may present: decline in syntactic complexity, although they do not lose the ability to produce complex sentences; Performance in naming tasks, due to difficulties of lexical representation, and may also impair performance in discursive tasks. Regarding linguistic and discursive understanding, the understanding of complex linguistic stimuli may be impaired. Moreover, deficits in comprehension can be caused by cognitive impairments in attention, memory and reasoning, which end up causing linguistic problems in turn. Decreases in vision, hearing and health skills also affect language skills, and are generally perceived in changes in word recognition, syntactic-semantic processing, changes in reading practices, and story recall. Low educational level can also negatively influence tasks such as dictation, copying writing, reading and graphic comprehension [10-16].

For a linguistic analysis of impairment or cognitive changes during the aging process, it is very important to consider the sociocultural and economic context in which these individuals are inserted. It should also be noted that schooling, good social and cultural habits and physical activities increase the connections between the different areas of the brain, providing protection against other cognitive alterations in the course of aging, making brain functioning more resistant and flexible, which can make is a preventive factor for the dulling of

the mental state during normal aging and of a protective character towards aspects of cognition [13,17-19]. In this sense, it is extremely important to consider the different cognitive components in the evaluation processes, both in their functional integrity, and separately / specifically in order to verify in these individuals potential risk of loss or cognitive decline, which would predispose them to dementia.

In this same perspective, it is still necessary to identify the factors associated with cognitive decline, such as the involvement of language components, since the literature has pointed out that changes in linguistic components can be observed before the dementia and / or symptoms themselves. Herein lies the importance in the evaluation process of aging, more specifically in cognitive assessments as the components of language, in order to help and provide clues in the tracking of changes that facilitate the diagnosis of possible interventions in dementia.

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