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ADVERSE EARLY-LIFE EXPERIENCES AND ACCELERATED TELOMERE AGING

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INTRODUCTION:

Telomeres are nucleoproteic structures arranged in a double helix, located at the end of chromosomes protecting them from deterioration. Each time a cell divides, the enzymatic machinery is unable to replicate integrity of telomeres and by this way, they became smaller, leading to cell aging and death. This shortening can be accelerated by inflammation, oxidative stress, radiation and toxins.

Several studies have shown that the adverse early-life experiences may also contribute to premature aging of the telomeres.

OBJECTIVES:

This work aims to make a review of the literature published about the impact of adverse life experiences in the shortening of telomeres and premature aging.

METHODS:

Bibliographic review.

RESULTS:

Several studies show that early childhood abuse contribute to accelerated shortening of telomeres, some suggest that there is a direct relationship between the severity and duration of abuse and the degree of shortening. Some studies also show that exposure to trauma in adulthood contributes to the accelerated aging, particularly in individuals who develop PTSD.

DISCUSSION:

The interaction of the environment in the biology of the organism seems very deep and precocious. These findings will possible allow the reconstruction the of the biopsychosocial model, opening up new avenues for holistic understanding of the human being.

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