- Emotionally disturbed children

Childhood trauma linked to major biological, health risks

Impact differs depending on sex

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Childhood trauma can elevate the risk of developing 20 major diseases in adulthood, especially for women, a new study indicates.



The study, led by UCLA Health, with funding from the National Institute on Aging, was published Tuesday in the journal Brain, Behavior, and Immunity.

While considerable scientific evidence has demonstrated long-lasting consequences of childhood adversity, few studies have explored the impact of different stressors on particular biological functions and health risks.

The risk for multiple health problems varied depending on sex and the type of childhood adversity, such as financial distress, abuse and neglect, the researchers noted.

People who had encountered intense stress in childhood faced a much greater risk for almost all health problems as adults, the study's senior author, George Slavich, a clinical psychologist and director of the Laboratory for Stress Assessment and Research at the University of California-Los Angeles told UPI.

Such people had higher levels of inflammation and worse metabolic health — a measure of how well the body converts food into energy. Metabolic health is based on optimal levels of blood sugar levels, triglycerides, high-density lipoprotein cholesterol, blood pressure and waist circumference.

Stress in childhood also correlated with more heart disease, cancer, metabolic disorders, thyroid dysfunction, arthritis, alcoholism, depression, and other mental and behavioral health problems many years later.

"Although stress is implicated in nine of the 10 leading causes of death in the United States today, most people who have experienced significant early-life trauma or ongoing stress never get assessed," said Slavich, who also is a professor of psychiatry and behavioral sciences.

The study categorized stressors into two classes for men (high and low stress) and three classes for women (high, moderate and low stress). Overall, low-stress participants had the least major health issues, with the risk rising as stressor exposure increased.

Both men and women in the high-stress classes exhibited the worst metabolic health and highest inflammation.

However, researchers observed differences between the sexes.

Influences of adverse childhood experiences on metabolic health were more significant for women than men. Yet, emotional abuse and neglect were likely to have more profound effects on men for

several health indicators and conditions, such as blood disorders, mental and behavioral health problems, and thyroid diseases.

These findings highlight the importance of incorporating evaluations of stress biology and exposure into medical care, Slavich said.

"The results are reliable in the sense that they are based on a relatively large sample that is nationally representative," he said. "At the same time, more research is needed to investigate how these negative effects of stress on health can be mitigated."

Slavich said several evidence-based strategies can minimize harm — cognitive behavior therapy, mindfulness mediation, yoga, eating well, regular exercise and spending time in nature and with friends.

People who integrate any of these practices into daily living can reduce the detrimental impact of stress on well-being, he said.

"If they are experiencing significant mental or physical health problems, those health issues could be driven in part by stress," Slavich added. "If so, they may want to have a healthcare provider assess their stress levels."

Slavich's team analyzed data from more than 2,100 participants in the "Midlife in the United States: A National Longitudinal Study of Health and Wellbeing" study, identifying clusters of adults who had experienced numerous childhood stressors.

They linked childhood trauma to 25 different biomarkers of inflammation, metabolism and stress, as well as 20 major health conditions.

The assessments included results from participants' blood tests, which measured 25 disease markers, and documented if they had ever been diagnosed with any of these conditions.

Participants also recounted the types and severity of adverse childhood experiences. They reported how frequently they relocated, whether they resided separately from their biological parents and if they had received welfare support.

Other experts said they found value in the research.

Dr. Lane Strathearn, director of the Center for Disabilities and Development at University of Iowa Health Care in Iowa City, said "an extensive body of research, including our own, has shown that child abuse, neglect and other forms of early adversity are associated with a wide range of negative physical and mental health outcomes." He was not involved in the study.

"Boys and girls who experience stress early in life may be at higher risk for multiple physical and mental health challenges in adulthood. Early intervention programs that support high-risk families to limit stress may enhance healthy outcomes and potentially prevent some of these conditions," said Strathearn, who also is a professor of pediatrics.