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CHILDHOOD TRAUMAS LINGER AS HEALTH RISK FACTORS FOR ADULTS

DURHAM, N.C. -- Negative experiences in childhood may alter not only an adult's psychology but also his or her physical health into middle age and beyond.

In the latest findings from a long-term study of New Zealanders who have been tracked from birth through their mid-30s, a team led by Duke University researchers has found sustained health risks that apparently stem from childhood abuse, neglect, social isolation or economic hardship.

At age 32, the study subjects who had experienced these childhood traumas were more likely to exhibit depression, chronic inflammation and metabolic markers of increased health risk. These three factors are known to be associated with the physiology of stress-response systems, and predict higher risk for age-related illnesses such as cardiovascular disease, diabetes and dementia.

Adults who had been maltreated as children were twice as likely to suffer major depression and chronic inflammation. Children who grew up poor or socially isolated were twice as likely to show metabolic risk markers at age 32.

"What we're learning is that poor adult health is, in part, manufactured in childhood," said Avshalom Caspi, the Edward M. Arnett Professor of psychology and neuroscience at Duke. "The human stress response is implicated not only in psychological conditions but in other health conditions as well."

The findings, which appear in the December issue of *Archives of Pediatric and Adolescent Medicine*, suggest that childhood experiences can affect nervous, immune and endocrine functioning, which agrees with earlier findings in animal experiments.

After the analysis controlled for family history and other established risk factors, it showed that adults who had two or more of the adverse childhood experiences were nearly twice as likely to have disease risk factors as those who had not suffered in childhood.

"It appears to be a classic dose-response relationship," Caspi said. "The more difficult the childhood, the more adult age-related disease risk factors we see." The biology of why and how negative experiences in childhood lead to these health risk factors aren't addressed by this study, Caspi said, but needs to be explored.

"Ever since Freud, if not Plato, the assumption has been that early childhood experience shapes adult functioning and psychological well-being," said Jay Belsky, from the Birbeck

University of London, who was not involved with this study. "What we see here is even more than that. The early years are important for reasons we haven't even considered."

The mid-life subjects in the study are too young yet to fully manifest the diseases of concern, Caspi said, but these markers are known to be predictors of age-related disease. "They're already developing conditions that will predispose them to later health effects."

Addressing childhood poverty, abuse and neglect are important policy aims that could prevent costly long-term health concerns, Caspi added. "It's multiple and cumulative childhood experience that predisposes adults to poor health."

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