

Lower childhood IQ associated with higher risk of adult mental disorders

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Researchers have hypothesized that people with lower IQs may have a higher risk of adult mental disorders, but few studies have looked at the relationship between low childhood IQ and psychiatric disorders later in life. In a new, long-term study covering more than three decades, researchers at Harvard School of Public Health (HSPH) found that children with lower IQs showed an increased risk of developing psychiatric disorders as adults, including schizophrenia, depression and generalized anxiety disorder. Lower IQ was also associated with psychiatric disorders that were more persistent and an increased risk of having two or more diagnoses at age 32.

The study will be published online December 1, 2008 and in the January print issue of The *American Journal of Psychiatry*.

The study participants were members of the Dunedin Multidisciplinary Health and Development Study, a cohort of children born in 1972-1973 in Dunedin, New Zealand. At the initial assessment at age 3, the study had 1,037 children. The participants were also interviewed and tested on their overall health and behavior at ages 5, 7, 9, 11, 13, 15, 18, 21, 26 and at age 32, when 96% of the original cohort participated. IQs were assessed at ages 7, 9 and 11. Psychiatric disorders were assessed at ages 18 through 32 in interviews by clinicians who had no knowledge of the subjects' IQ or psychiatric history.

The authors used IQ as a marker of a concept called cognitive reserve, which refers to variation between people in their brain's resilience to



neuropathological damage.

The results showed that lower childhood IQ predicted an increased risk of a variety of adult mental disorders. "Lower childhood IQ predicted increased risk of schizophrenia, depression, and generalized anxiety disorder. Individuals with lower childhood IQ also had more persistent depression and anxiety and were more likely to be diagnosed with two or more disorders in adulthood," said lead author Karestan Koenen, assistant professor of society, human development, and health at HSPH.

No association was found between lower childhood IQ and substance dependence disorders, simple phobia, panic disorder or obsessivecompulsive disorder.

The mechanism through which lower childhood IQ might lead to increased risk of adult anxiety disorders is not known, but the authors suggest some possible explanations. They write that lower childhood IQ might reveal a difference in brain health that makes an individual more vulnerable to certain mental disorders. Another possible mechanism is stress--individuals with lower childhood IQs are less equipped to deal with complex challenges of modern daily life, which may make them more vulnerable to developing mental disorders.

The findings may be helpful in treating individuals with mental health disorders. "Lower childhood IQ was associated with greater severity of mental disorders including persistence over time and having two or more diagnoses at age 32," said Koenen. "Since individuals with persistent and multiple mental disorders are more likely to seek services, cognitive ability may be an important factor for clinicians to consider in treatment planning. For example, individuals with lower cognitive ability may find it harder to follow instructions and comply with treatment regimens. By taking clients' cognitive ability into account, clinicians may improve treatment outcome," she said.



The results may also be helpful in prevention planning. "Educators and pediatricians should be aware that children with lower cognitive ability may be at greater risk of developing psychiatric disorders. Early detection and intervention aimed at ameliorating mental health problems in these children may prevent these problems from carrying over into adulthood," said Koenen.

Source: Harvard School of Public Health

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