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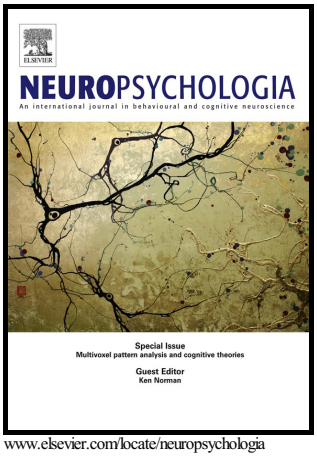

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Risk taking, decision-making, and brain volume in youth adopted internationally from institutional care

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Abstract

Early life stress in the form of early institutional care has been shown to have wide-ranging impacts on the biological and behavioral development of young children. Studies of brain structure using magnetic resonance imaging have reported decreased prefrontal volumes, and a large literature has detailed decreased executive function (EF) in post-institutionalized (PI) youth. Little is known about how these findings relate to decision-making, particularly in PI youth entering adolescence—a period often characterized by social transition and increased reliance upon EF skills and the still-maturing prefrontal regions that support them. As decision-making in risky situations can be an especially important milestone in early adolescence, a clearer knowledge of the relationship between risky decision making and prefrontal structures in post-institutionalized youth is needed. The youth version of the Balloon Analogue Risk Task and a two-deck variant of the Iowa Gambling Task were used to assess risky decision-making in post-institutionalized youth and a community control group (N = 74, PI = 44, Non-adopted = 30; mean age = 12.93). Participants also completed a structural MRI scan for the assessment of group differences in brain structure. We hypothesized that participants adopted from institutions