How growing up in a poor neighborhood can damage a child’s developing brain

Children growing up in more disadvantaged neighborhoods — meaning those with poor housing quality, more poverty, and lower levels of employment and education — show observable increases in brain activity when viewing emotional faces on a screen, according to our team's new study. But we found that this association was true only when the adults in those neighborhoods also did not have strong shared norms about preventing crime and violence.

Our findings emphasize that where children live and the resources of others in the neighborhood may affect brain development.

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To get at these findings, we recruited families from neighborhoods in southern Michigan with above-average levels of hardship. We used functional magnetic resonance imaging, or fMRI, to measure adolescents’ brain activity while they looked at facial expressions of different emotions. We focused on observing brain activity in the amygdala, a region of the brain responsible for detecting threats and processing emotions.

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We found that youth ages 7 to 19 who lived in neighborhoods with more disadvantage had greater reactivity in the amygdala to fearful and angry faces. But neighbors who shared strong social norms, such as believing that adults should do something if children are fighting, seemed to offset this effect.

This is an excerpt. Read the original post here