Children's Hospital of Philadelphia PolicyLab

How Does Fasting Affect Cognition? An Updated Systematic Review (2013-2020)

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The goal of this review was to provide an update on the literature examining how voluntary, temporary abstention from eating impacts cognitive function. We evaluated peer-reviewed articles published between August 2013 and January 2021 that assessed adults, included a measure of cognitive functioning with neutral stimuli, and compared individuals in a fasted state to individuals in a fed state (either within- or between-subject designs). Nineteen articles (21 studies) met inclusion criteria. Sample sizes, fasting methods, and tasks varied across studies. Review of studies indicated that fasting was associated with deficits in cognitive functioning; few studies indicated a benefit in cognitive functioning following a single voluntary fast. The heterogeneity and rarity of available studies limits the conclusions that can be drawn. Several crucial psychosocial and sociodemographic moderators remain unexplored. Recommendations for future work are discussed.

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