

Children's chores improve brain function

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Requiring your kids to do chores on a regular basis may be associated with them having better academic performance and problem solving skills, according to new research from La Trobe University.

The study, led by Ph.D. candidate Deanna Tepper and published in



Australian Occupational Therapy, found that regular chores were associated with better executive functions—planning, <u>self-regulation</u>, switching between tasks and remembering instructions.

Tepper said the study's results indicate that interventions that incorporate household chore-like activities such as cooking or gardening may be particularly beneficial for <u>children</u>.

"Parents may be able to use age and ability-appropriate chores to facilitate the development of executive functions," Tepper said.

"Children who cook a family meal or weed the garden on a regular basis may be more likely to excel in other aspects of life—like schoolwork or problem solving."

The study looked at parents and guardians of 207 children aged between 5 and 13 years. In mid-2020, the parents/guardians were asked to complete questionnaires on the number of chores their children completed daily and their child's executive function.

The researchers found that engagement in self-care chores, such as making themselves a meal, and family-care chores, for instance making someone else a meal, significantly predicted working memory and inhibition (the ability to think before acting), after controlling for the influence of age, gender and presence or absence of a disability.

While previous research has shown that engaging children in ageappropriate chores can increase feelings of autonomy and is associated with improved <u>prosocial behaviors</u> and greater life satisfaction, this is the first study to look at the association between regular chores and child <u>cognitive development</u>, particularly executive functioning.

Executive functions are commonly defined as: working memory; the



ability to monitor and manipulate temporary information; inhibition, the ability to inhibit automatic responses or suppress irrelevant information to focus on a task; and shifting, the ability to move focus between tasks

"Typically, these skills begin to develop in <u>early childhood</u> and continue to develop into late adolescence and early adulthood," Tepper said.

"Impairments or delays in executive functioning development can lead to difficulties in the ability to self-regulate, plan, and problem solve as adults, having implications later in life on reading performance and mathematical ability, as well as predicting overall academic achievement in later childhood."

Early development of executive functioning has also been linked to engagement in tertiary education and improved physical health and better financial status in adulthood.

"Research indicates it may be possible to improve executive functions by developing individualized learning activities and routines," Tepper said.

"We hypothesized that children who engaged in more household chores would have better inhibition and working memory. Our findings likely reflect that most chores require individuals to self-regulate, maintain attention, plan, and switch between tasks, thereby supporting the development of executive functioning."

More information: Deanna L. Tepper et al, Executive functions and household chores: Does engagement in chores predict children's cognition?, *Australian Occupational Therapy Journal* (2022). DOI: 10.1111/1440-1630.12822



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