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Being part of a community group could protect you from cognitive decline

Social engagement through civic group activities, such as being a member of a political party, an environmental group, neighborhood watch, a voluntary service group or other community based groups, is associated with better cognitive function at age 50, according to a study published in the open access journal *BMC Psychology* which included 9,119 men and women from England, Scotland and Wales.

Researchers at the University of Southampton found that a person's cognitive ability at age 11; their participation in civic activities at ages 33 and 50; frequent physical activity; higher educational qualification and female gender were all associated with better cognitive function at age 50. Having low socio-economic status as a child and reporting worse mental well-being in adulthood were both associated with worse cognitive function at age 50.

Professor Ann Bowling, lead author of the study said: "While the associations between adult social engagement and cognitive function at age 50 we found were moderate, they persisted after we adjusted for covariates, such as health, socio-economic status and gender. The implication is that if people continue to engage socially throughout life, maintaining related behaviours that require cognitive skills such as memory, attention and control, there may be some protection from cognitive decline. Public health policy interventions aimed at promoting cognitive health could include encouraging civic engagement and providing people with opportunities for this."

Previous research has suggested that social integration, social engagement and strong social networks may be associated with better cognitive outcomes. Furthermore, social capital - opportunities within communities for social, leisure, recreational activities, voluntary work or group membership - have been shown to be associated with enhanced well-being and better reported mental health, as well as reduced levels of stress, loneliness and isolation. However, few of these studies followed participants throughout their life.

To investigate associations between people's social engagement throughout their adult life and cognitive function at age 50, the researchers used data from the British National Child Development Study (NCDS), a general population sample in England, Scotland and Wales. Baseline data was collected at birth in 1958 and study participants were followed up at several points later in life.

At age 33, 83% of all respondents reported that they did not participate in any civic organization. This number dropped to 64% at age 50. Participating in one civic organization was reported by 14% of respondents at age 33 and by 25% at age 50. Out of the overall sample, 8,129 participants completed cognitive tests at ages eleven (reading, writing, math, and general ability tests) and 50 (memory and visual attention, speed and concentration tests). The researchers found that almost a third of the sample population's cognitive ability deteriorated between ages eleven and 50, while remaining unchanged in less than half of participants (44%). A quarter of participants showed improved cognitive ability at age 50. Those who reported that they participated in civic groups at age 33 and 50 scored higher in cognitive tests. Also, participation in each additional civic group was found to further increase scores on cognitive tests.

The present study used a large, longitudinal cohort with strong initial response rates, allowing the researchers to take into account complex interactions between social and biological processes and to adjust for various confounding factors. However, observational studies like this one cannot show cause and effect, but can describe possible links.

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