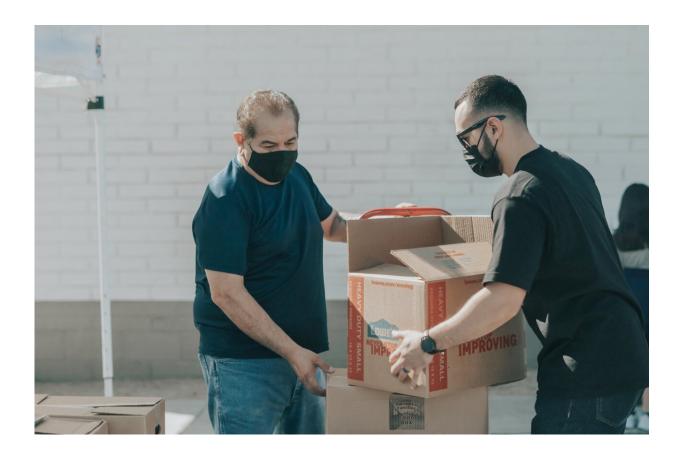


# Volunteering boosts cognitive performance of participants, finds review study

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Volunteering in your free time is a good thing. For example, it can strengthen the team spirit in a club, is beneficial to the environment and provides support to older people. However, something that has not yet



been the subject of much research are the health benefits for people who do the volunteering. A team of researchers at FAU and the digiDEM Bayern Digital Dementia Register (digiDEM Bayern) has now discovered that voluntary work can have a positive effect on the cognitive abilities of the volunteers themselves.

According to estimates, more than 1 billion people worldwide are involved in voluntary work. Researchers have already discovered that voluntary work can have varying effects on cognitive, social, and physical activation. For example, a <u>volunteer</u> soccer referee has to talk to the players, remember the rules of the game, follow the game while it is being played and "think for themselves" as well as have enough physical fitness to be able to run around on the pitch.

### **Reducing risk factors**

Using <u>dementia</u> as an example, the research team led by Anne Keefer demonstrates to what extent volunteering can have an effect on the health of volunteers. This is because dementia has several different <u>risk factors</u>. Some of them can be influenced, such as low levels of education, <u>high blood pressure</u>, obesity, smoking and diabetes.

"Volunteering is a very promising approach for reducing the three most important risk factors of social isolation, lack of physical activity and depression," says Anne Keefer, research associate in the DigiDEM Bayern Digital Dementia Register (digiDEM Bayern) project.
"Volunteering not only helps people to socialize, but also often keeps volunteers active and can have a positive effect on their mood."

## Systematic overview

In their systematic overview, the researchers analyzed a total of 14



studies published between 2017 and 2021 in the U.S., Korea, Taiwan, Brazil, England, England and Scotland, New Zealand, China, and Japan. The aim of the overview was to investigate the connections between volunteering and the brain capacity (known as cognitive health) of volunteers and to identify influencing factors such as gender, education and frequency of voluntary work. The research is published in the *Journal of Multidisciplinary Healthcare*.

"Nine of these studies reported a positive correlation between volunteering and brain functions such as thinking, perception, attention skills and language ability," explains Anne Keefer. However, the studies showed conflicting results as regards the frequency of volunteering. "It remains unclear whether the principle of 'the more, the better' has an important influence on the cognition of volunteers," says Prof. Dr. med. Peter Kolominsky-Rabas, co-author, neurologist and digiDEM Bayern project manager.

More frequent volunteering seems to have a more positive effect on cognitive health. Other study findings suggest, however, that it is important to carry out <u>voluntary work</u>, regardless of how often.

#### Who benefits most from volunteering

The research also unearthed another finding that indicates that volunteering has a positive effect on the cognitive health of women in particular. This is significant with regards to dementia because women are more frequently affected by dementia than men. This means that women can benefit to a greater extent from volunteering.

Voluntary activity could also also be greatly beneficial to another group of people. Two of the 14 studies showed that people with low levels of education benefit to a greater extent than people with a higher level of education. Since people with low levels of education have a higher risk



for dementia, volunteering could prevent or delay the risk of developing cognitive deficits or dementia.

The average age of the participants in the studies was between 61 and 74. The results of a positive correlation between voluntary activity and cognition are thus limited to this age group. Lead author Anne Keefer states, "Our study findings suggest that volunteering can improve the cognitive abilities of volunteers. However, collectively, the study findings are not consistent enough to make a definitive statement."

## Benefit for society

Nonetheless, the authors of the study arrive at the fundamental conclusion that it is a benefit for society: "Voluntary activity should be promoted to a greater extent, because it not only benefits society as a whole, but can also improve the cognitive abilities of individuals." For example, people with dementia receive support with their everyday lives enabling them to stay in their own homes for longer.

On the other hand, volunteers can improve their own cognitive abilities by volunteering for people with dementia and thus delay their own cognitive decline. Volunteering can also have a positive effect for caregiving relatives as it lessens the burden placed on them. "We're talking about a classic win-win situation," says co-author Prof. Dr. med. Peter Kolominsky-Rabas.

**More information:** Anne Keefer et al, Does Voluntary Work Contribute to Cognitive Performance?—An International Systematic Review, *Journal of Multidisciplinary Healthcare* (2023). DOI: 10.2147/JMDH.S404880



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