

TEND TO YOUR MIND! THE IMPACT OF GARDENING ON MENTAL HEALTH



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Let's Talk About Mental Health

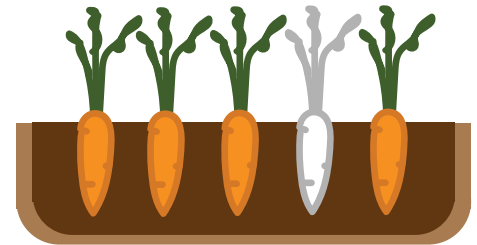
Mental health has three main components: emotional, psychological, and social well-being [1]. According to the World Health Organization (WHO), good mental health is a "state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community" [2].

Everyone has a state of mental health just as everyone has a state of physical health. An individual can be mentally healthy, just like an individual can experience good physical health. Good mental health is critical to how we think, feel and act [1].



People can also experience poor mental health, just as someone can feel sick or physically injured. In addition to poor mental health, some individuals are also affected by mental illness.

About 1 in 5 adults in the US experienced mental illness in 2019 [3].



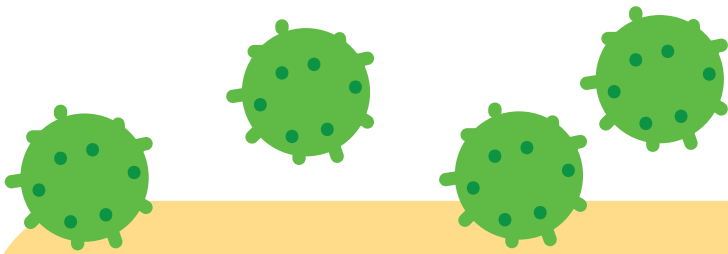
40 million adults in the US are affected by anxiety disorders every year [4]. In 2019, 19.4 million adults in the US had at least one major depressive episode [5].

Many factors contribute to mental health. Some of them are outside of our control. The WHO recognizes socio-economic, biological, and environmental factors as key contributors to mental health [2].

Mental Health in Baltimore City and Prince George's County, MD



Mental illness and poor mental health are affecting both Prince George's County and Baltimore City, Maryland. In 2014, 39% of Baltimore City residents reported 1+ days of "not good" mental health in the last month [6]. In Prince George's County there was an increasing trend of emergency room visits due to mental health between 2011 and 2016 [7].



How did COVID-19 impact mental health?

People's mental health was affected by the COVID-19 pandemic. In the United Kingdom, people reported mental health effects from the first 6-weeks of lockdown. The worst of the outcomes, including symptoms of depression and anxiety, defeat, entrapment, etc. were reported most by people of socially disadvantaged backgrounds and those with existing mental health conditions [8]. Young adults were also disproportionately negatively impacted by the pandemic. Young adults in the metropolitan Mid-Atlantic region of the US experienced heightened anxiety during the pandemic [9]. Overall, the COVID-19 pandemic has added mental burdens for many people.

How can you improve your mental health?

GARDENING!

Engage with greenspaces! Try planting and tending to food producing plants and other decorative plants (like flowers!). There was a 42% increase in gardening in 2020 [10].

Can gardening really improve mental health?

Researchers are studying the effect of gardening on mental health. Many studies provide evidence that gardening improves mental health. Studies from the US, Europe, Asia, and the Middle East showed that gardening had a positive effect on health outcomes [11]. Health outcomes included "reductions in depression, anxiety, and body mass index, as well as increases in life satisfaction, quality of life, and sense of community" [11].



Researchers using data collected in Scotland determined that there was a positive relationship between gardening and mental health [12]. A positive relationship means that people are experiencing better mental health when they are gardening.

Similarly, a study in the Minneapolis-St. Paul area, US, showed that greater emotional well-being (positive emotion score, happiness, meaningfulness, frequency of peak happiness and meaningfulness) was associated with household gardening [13].

There have even been findings specific to certain age groups. Cognitive function was improved in a group of 20 elderly (65+ years old) residents of Seoul, South Korea after participating in a 24-session gardening program [14]. Overall, researchers are finding that improved mental health and gardening are connected.

How do gardeners compare to non-gardeners?

Evidence suggests that gardeners experience better mental health than non-gardeners. Community gardeners in Singapore reported higher levels of resilience and optimism compared to non-gardeners [15]. Gardeners in Japan had higher “perceived general health, mental health and social cohesion” compared to the non-gardeners [16]. The results hold true to previous findings that showed improved mental health with gardening. Gardening is beneficial to participants' mental health.



Did gardening help during COVID?

While it may be too soon to tell for sure, one study thinks gardening may have helped. People living in Italy during the first phase of COVID lockdown were asked questions about their gardening habits and mental health. Results showed that there was a relationship between gardening and lower psychopathological distress [17]. Gardening helped to avoid negative mental health effects.

Can gardening be used as a mental health intervention?

Yes! Therapeutic horticulture was used in a study in Norway and researchers found it to be beneficial. Therapeutic horticulture involves engaging with plant activities, including gardening, to improve well-being. There was observed improvement to mental health factors during the therapeutic horticulture program and 3-months afterwards [18]. This is a unique case of prolonged mental health benefits.



Do greenspaces improve mental health?

Greenspaces can include anything from a nature preserve to a park or a garden. Greenspaces are beneficial to people. Interacting with greenspace can limit adverse mental health outcomes, cardiovascular disease, and mortality [19]. One reason is because greenspaces can provide opportunities for physical activity [19]. As little as 10 minutes in natural settings was beneficial to the mental well-being of college-aged people [20]. Greenspaces, inside and outside, also supported mental health for students during quarantine [21]. People were happier, they experienced lower mental distress and higher life-satisfaction, when living with more greenspace [22]. Although the individual benefit was small, an entire community experiencing the benefits could be significant [22].

Not everyone has equal access to greenspaces

Low-socioeconomic communities have fewer parks and smaller park acreage [23]. The lack of access to greenspaces is connected to poor health. Fewer public parks and open spaces in a community was associated with more asthma emergency department visits [24]. Smaller garden sizes were also linked to the highest levels of poor health and health inequities related to low income [25]. Equal access to greenspaces is important for public health, and specifically mental health.



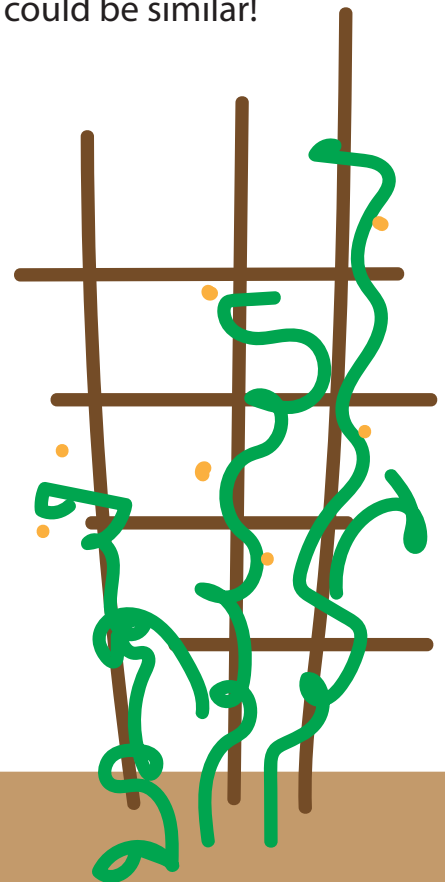
Gardening can do more than improve mental health!

In addition to improving mental health, there are physical and social benefits to gardening. Improved health and wellbeing, and increased physical activity was reported from people who gardened and used gardens to relax [26]. Communal gardening helped elderly communities in England to reduce social isolation and build networks [27].



What can you gain from gardening?

By participating in gardening, you could experience positive mental health outcomes. This has happened before! In Santa Clara County, CA, households were given gardening supplies and participated in 10 monthly workshops on nutrition and gardening skills through the Valley Verde Garden Program. Households in this study were asked about their experiences during interviews. Analysis of these surveys showed that home gardening supplemented with nutrition education could improve nutrition and health (mental and physical) in marginalized populations at high cardiometabolic risk [28]. Participants experienced greater capacities to deal with stress and trauma. Their physical health benefited from healthier eating and improved activity levels. In your community, the results could be similar!




Recommendations for getting started:

Step 1: Learn about gardening. There are a lot of great organizations working to provide gardening resources. Check out:




University of Maryland Extension's Home & Garden Information Center
<https://go.umd.edu/hgic>

Check out these toolkits: <https://go.umd.edu/HealthyGardens>



National Gardening Association
<https://garden.org/>



University of Maryland Extension's Master Gardener Program
<https://go.umd.edu/mg>

Step 2: Start your own garden! With a little bit of research and space, you can start gardening at home. Container gardens are a great way to start.

Step 3: Get involved with community gardens.

In Prince George's County, the Department of Parks and Recreation has five community garden plots where residents can garden.

<https://www.pgparcs.com/546/Community-Garden-Plots>

In Baltimore City, The Department of Recreation and Parks runs the City Farm program where city residents and employees can rent garden plots.

<https://bcrp.baltimorecity.gov/special-programs/farms>

Gardens are important greenspaces that can benefit a community's mental health.
Tend to your mind!



Source: Prince George's Soil Conservation District

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For gardening questions use the “Ask Extension” search feature through the University of Maryland Extension [<https://extension.umd.edu/ask-extension>].

For specific questions about this fact sheet, please contact Dr. Rachel Rosenberg Goldstein, Assistant Professor, Maryland Institute for Applied Environmental Health, School of Public Health, University of Maryland: rrosenb@umd.edu.

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