

Mini Review

A garden and a library: Ancient wisdom for wellness

Celia M Ross*

Founder, Delaware Gerontology Institute, Delaware, USA

Abstract

“If you have a garden and a library, you have everything you need.” —
Marcus Tullius Cicero (1)

This review ponders the benefits of gardens and libraries on brain health from an eclectic perspective.

Gardens

“Wisdom begins in wonder.” —*Socrates (1)*

“The soul cannot thrive in the absence of a garden.” — *Thomas More*[1]

“Everybody needs beauty...places to play in and pray in where nature may heal and cheer and give strength to the body and soul alike.” —
John Muir[1]

Let us first consider gardens from the aspect of nature therapy. Natural botanical environments may help to support cognitive capabilities, mood, and well-being [2,3,4,5,6,7,8,9]. Botanical gardens and natural surroundings provide a multi-sensorial experience which can translate into feelings of peace, tranquility, gratitude, spirituality, sacredness, and awe [7,10,11,12,13,14]. Upon viewing the majesty of natural landscapes, which infinitely surpass every lowly human artifice, many individuals feel an intense sense of awe, gratitude, and love for the Creator [12]. Both botanical environments and the positive emotions associated with spirituality promote resilience [15,16,17,18,19, 20]. In recent years, fMRI has allowed researchers to map the locations within the mammalian brain that active during positive emotions (such as: love, joy, connection, and gratitude) and to consider their links to spiritual health, cognitive flexibility, creativity, and innovation[17,21,22,23,24,25,26,27,28,29,30,31]. Positive emotions and spirituality were rarely mentioned in psychiatry texts and their importance unrecognized by many medical professionals until fMRI enabled brain activity to be visualized [27].



Figure 1 : Muir Woods National Monument.

“Let food be thy medicine and medicine be thy food.” —*Hippocrates (1)*

“Employment is nature’s physician.” — *Galen (1)*

***Corresponding Author:** Celia M Ross, Founder, Delaware Gerontology Institute, Delaware, USA, E-mail: degerontology@gmail.com

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Secondly, let us consider some fruits of gardening – both polyphenol nutrients and resilience. Several lines of evidence point to polyphenols as being key nutrients for brain health. Some bioactive phenolic metabolites specifically localize in the brain, possibly indicating that they are of critical importance for brain function[32]. Epidemiological studies indicate that a healthy diet, which includes ample produce, is associated with better cognitive performance, better academic performance, calmer mood, flourishing (curiosity, creativity, motivation), and reduced risk of dementia [33,34,35,36,37,38,39]. Gardens are a backup source of produce during uncertain times while the proactive work of gardening may also promote resilience [40,41,42]. During World War II, Americans turned their lawns and flower gardens into Victory Gardens to cope with rationing and also to gain satisfaction in taking proactive measures to support freedom [40,43]. The sculptures of wheat wreaths on the World War II Memorial pay homage to this home-front effort. Likewise, Cubans increased their gardening efforts to achieve food self-reliance when Soviet subsidies ended in the early 1990's[44]. During uncertain times, people work vegetable gardens to maintain a sense of control and resilience, while providing nutrient-rich food for their families [40,41,42].



Figure 2 : World War II Memorial, Washington DC, USA.

Libraries and Reading

“Cultivation of the mind is as necessary as food to the body” — *Marcus Tullius Cicero (1)*

All that is necessary for a student is access to a library” — *Thomas Jefferson (1)*

“Where they have burned books, they will end in burning human beings.”— *Heinrich Heine (1)*

Reading engages diverse regions of the brain, supports a child's cognitive development, and may help to preserve the cognitive capacities of middle aged and older adults [45,46,47,48,49,50,51,52]. Health educators encourage reading, which stimulates the mind and they discourage television viewing because passive screen time suppresses active reasoning and psychophysiological resilience [47,52,53,54]. Television viewing is simply passive absorption of superficial content, while reading a well-written book is proactive in that it fosters imagination and analysis of the subject matter. Contemplatively reading the works of individuals with diverse perspectives, backgrounds, viewpoints, and life stories can foster understanding and ripen one's own wisdom. For example, students in the health sciences read medical memoirs and stories to help cultivate empathy, thus improving care[55,56,57,58,59, 60,61]. Could the discord seen developing in some sectors of society today stem from a deficiency of contemplatively reading books from diverse perspectives and viewpoints?.



Figure 3 : Boston Public Library

Conclusion

Individual and societal wellness benefit from: botanical environments and a truly intellectual culture that embraces comprehensive reading.

Conflict of Interest Statement

Dr. Ross is the founder of the Delaware Gerontology Institute, LL. (www.DEGerontology.com). One line of products is extra-large text books for seniors with poor eyesight. Some of the books have large photos of flowers and landscapes.

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