

# People **Do** Need People: Social Interaction **Boosts** Brain Health In Older Age

Research shows that people with regular social ties demonstrate significantly less cognitive decline when compared to those who are lonely or isolated. Some researchers believe that socialization boosts brain reserve, and is an essential component of a brain-healthy lifestyle.

**R**elationships. As Barbara Streisand sang, “People...people who need people...” Over the human lifespan, relationships are of paramount importance, but never more so than in middle and older adulthood. Increasingly, both science and personal experience affirm that good relationships are correlated with physical, psychological, and cognitive well-being and longevity (Charles and Mavadadi, 2004).

***‘Use it or lose it’ applies to social engagement as much as it does to physical well-being.***

Socialization, social interaction, and social engagement are terms commonly used in scientific literature to describe relationships, structures, and roles people experience during their lifetimes. These get played out in the social arena—in families, communities, schools, workplaces, and culture—interwoven with goals and activities (Lang and Fingerma, 2004).

Middle and later adulthood present new challenges for remaining socially engaged, as well as exciting opportunities to form and

sustain social networks. The motivation is clear: “use it or lose it” applies to social engagement as much as it does to physical well-being.

## **What Does the Research Tell Us?**

Research has shown that people with regular social ties are significantly less likely to demonstrate cognitive decline when compared to those who are lonely or isolated. Laura Carstensen, professor and founding director of the Stanford Center on Longevity, reports (2009) that our social arena “influences not only our happiness in everyday life but the ways in which our brains process information, the levels of hormones circulating in our bodies and our physiological responses to stress.”

Some researchers suggest socialization contributes to brain reserve, which is the ability of the brain to function adequately despite physiological evidence of damage. Guest editor and clinical neuropsychologist Paul Nussbaum advocates socialization as an essential component to a brain-healthy lifestyle. He cites studies showing that the brain continues to be influ-

enced in older adulthood by enriched environments, including rich social networks (2009). Exposure to an enriched environment, defined as a combination of more opportunities for physical activity, learning, and social interaction, may produce structural and functional changes in the brain, and influence the rate of neurogenesis in adult hippocampi (Brown et al., 2003).

A review of the literature on socialization and aging research suggests growing evidence that healthy social relationships contribute to positive health outcomes, including cognitive functioning. Among the findings are the following:

- The MacArthur Study of Successful Aging demonstrated that non-genetic factors contribute to health and well-being as people age. People who are socially connected may survive up to 20 percent longer than those who live more isolated lives, and emotional support is associated with lower blood levels of cortisol and better cognitive health (Rowe and Kahn, 1998).
- Social disengagement is a risk factor for cognitive impairment in older people (Bassuk, Glass and Berkman, 1999), and is independently associated with depressive symptoms (Glass et al., 2006).
- Researchers at Kaiser Permanente California found that active social networks are a

### **Mary's Story: Finding New Purpose in Later Life**

Mary is an eighty-two-year-old widow whose husband died seven years earlier. The last thirty years of her marriage were punctuated with periods of caring for her husband, who had a series of health challenges, including renal failure, coronary artery disease, and skin cancer. Family members were concerned about how Mary might cope after her husband died, wondering how the losses of her most significant relationship and her caretaking role might affect her functioning.

protective factor for cognitive function (Crooks et al., 2008). Strong social connections and pro-social activities act to reduce the risk or delay the onset of cognitive impairment like dementia and Alzheimer's Disease. The results showed that women with the larger social networks were 26 percent less likely to develop dementia than those with smaller social networks. And women who had daily contact with friends and family cut their risk of dementia by almost half (Diament, 2008).

- A longitudinal Swedish population-based study (Wang et al., 2002) found that daily to weekly engagement in mental, social, or productive activities 6.4 years before a diagnosis of dementia is inversely related to incidence of dementia.
- A study of a community-based Swedish cohort found a poor or limited social network increased the risk of dementia by 60 percent (Fratiglioni et al., 2000).
- Researchers at Rush University Alzheimer's Disease Center found that social engagement might also modify the severity of dementia. Although individuals with larger social networks did not have fewer plaques or tangles than more isolated individuals in the study, Alzheimer's Disease pathology had a smaller effect on cognition in more socially connected individuals. This correlation was similar to the protective effect provided by years of formal education (Bennett et al., 2006).
- Another Rush University Alzheimer's Disease Center study of older adults living in community-based settings concluded that social activity is associated with a decreased risk of incident disability in activities of daily living, mobility, and instrumental activities of daily living (James et al., 2011).
- Individuals who have had positive relationships throughout life reported fewer physiological risk factors for a spectrum of health problems than did those with few or poor relationships (Ryff and Singer, 2008).

- Researchers have found those with greater purpose in life were less likely to be impaired in carrying out living and mobility functions, such as housekeeping, managing money, and walking up or down stairs. And across a five-year period they were significantly less likely to die—by some 57 percent—than those with low purpose in life (*Wall Street Journal*, 2011).

### Socialization Habits Differ Across Gender

What's become clear over the past fifty years is that it is not easy to predict the life trajectory of men and women. In the 1950s, work and family responsibilities—and the attendant social roles—were more clearly delineated along gender lines. There were clear demarcations for when we went to school, got married, had children, and worked. Each brought a specific set of social relationships, some transitory and some lasting nearly a lifetime.

Today, we hear advertising slogans shouting out “Seventy is the new fifty!” It's not just clever advertising that makes what was once considered old now seem younger. The markers are much more blurred in the new model of aging. It is common for people to marry or have children later, not have children at all, remarry and start a second family, remain single, return

Mary was a stay-at-home mom like most of her generation, raising her children and managing the household on income provided by her husband. Since early in her marriage, she was a regular member of her church's Mothers Circle, a social network of women seeking to live their faith and support one another as parents. She volunteered regularly helping with her children's school and recreational activities. When her children left home, Mary increased her volunteer work by working one day a week at the local hospital thrift store, a twenty-five-year commitment she keeps to this day.

to school, and re-career or retire more than once in their lifetime. And for many midlife and older adults, the challenges of caregiving for their parents or grandchildren adds a new twist to what has been referred to traditionally as “the empty nest” years.

Among the many changes that accompanied the baby boomer generation was the increased number of women in the workforce. George Guilder's 1986 article in *The Atlantic Monthly*, “Women in the Workforce,” describes the shift in gender roles: “Drastic shifts in sex roles seem to be sweeping through America. From 1890 to 1985 the participation in the workforce of

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women between the ages of twenty-five and forty-four soared from 15 to 71 percent, with the pace of change tripling after 1950. At the end of the Second World War only 10 percent of married women with children under the age of six held jobs or were seeking them. Since then mothers of preschool children have thronged the job market: by 1985 the census had classified more than half of these young mothers as participants in the work force.”

This workforce trend culminated in early 2010 with the U.S. Department of Labor's announcement that women outnumbered men in the workforce.

As men and women in midlife and older adulthood approach retirement or other employment transitions, they often face the loss of an important source of their identities, as well as close working and personal relationships. Once predominantly the domain of men, this phenomenon also occurs for women today. The loss of a sense of purpose, whether adjusting to an empty nest or retirement, in addition to losing the related structure, activities, and social connec-

Even while being the primary caregiver to her husband, Mary maintained relationships with her friends, several of them from her high school days some fifty years earlier. She had experienced many of her friends' family milestones, including the birth of grandchildren and great grandchildren, the death of or divorce from spouses, and witnessed the health challenges and deaths of her friends. She joined the local senior center where she took classes in yoga, exercise, dance, mental stimulation, and computer basics.

tions, may leave midlife and older adults feeling isolated, devalued, and underutilized.

Women may adapt to these transitions more effectively than men, in part, because of their more developed social competency. Their natural tendency to give and receive emotional support, and to more easily affiliate with others than do men, helps them cope with and adapt to these changes (Hatch, 2000). After retirement or the end of a long career, men often are ill-equipped to navigate the many interpersonal and interior shifts that accompany such transitions, or to tap into the resources they need.

The Transition Network ([www.thetransitionnetwork.org](http://www.thetransitionnetwork.org)), a community of professional women older than age 50 in career and life transition, illustrates this reality. Established in 2002, this real and virtual national network supports professional women to create lives of purpose in the intimacy of community. It uses the best of women's social competency, blending it with resources, learning opportunities, skill-building activities, and fun to help women discover and create their future.

While the workplace has seen an influx of baby boomer women setting new social standards for women in the generations that follow, the role of caregiving has remained largely in the realm of women. Baby boomer men participate more in family caregiving roles with their children and parents than their fathers did, but

## Living a Socially Engaged Life

In his popular bestseller *Blue Zones* (2008), Dan Buettner and his researchers identified pockets around the world where people are living measurably better and longer lives. The Blue Zones are enriched environments characterized by healthy eating and exercise, cognitive and social stimulation, and purposeful living.

Activities that contribute to enriched social environments include the following:

- **Committing and connecting daily with family and friends.** Happiness comes primarily through connection, from giving and receiving love and friendship.
- **Engaging actively in group activities.** Find a group in your community, public library, or church with common interests and pursuits.
- **Re-careering.** Find a part-time job using your experience and skills—rely on co-workers to help you learn new skills that keep you sharp and current.
- **Seeking intergenerational connections.** Find activities that interest people of all ages, mentor children, or learn computer skills from a teenager.
- **Developing a sense of purpose and living it out.** Create opportunities to nurture, reflect upon, and share your values and legacy.
- **Pushing yourself to try new relationships and to learn new skills.** Explore how technology may help you to stay connected with friends and family: join an online group or activity.
- **Going back to school.** Be a lifelong learner and cultivate shared interests with others.
- **Building social capital.** Contribute what matters to your social network or community so that you can receive them when in need; find ways to serve your community as a volunteer.
- **Rotating your crops.** You get a better yield!

women continue to shoulder the majority of these family responsibilities.

Whether it's as friends, sisters, wives, daughters, mothers, or grandmothers, women are the keepers of relationships (Carstensen, 2009). And in the end, this “social capital” serves them well.

It has been well-documented that women's health status after the death of their husbands is far better than men's health after the death of their spouse (Carstensen, 2009). Studies show rapid declines in men's immune systems after being widowed, and researchers have speculated this may be because of being cut off from social networks largely formed by women (Crowley and Lodge, 2004). It may be for similar reasons that men tend to remarry more often than women after the death or divorce of a spouse (Carr, 2004).

### **Finding Work That Matters**

As I have written elsewhere (Ristau, 2010), the notion of purposeful work—using one's skills and experience to make a difference in the lives of others—has become increasingly attractive for people of all ages, but to baby boomers in particular. Organizations like Civic Ventures

After her husband died, Mary's participation in her church expanded to organizing craft fairs, knitting caps for cancer patients, and preparing medical and clothing packages for people in Haiti. She visits her only surviving sister weekly in the nursing home, just as she had cared for her brother when he was in his last days. She continues to meet regularly for lunch with a group of close high school friends.

Her adult children jokingly scold her for not keeping them aware of her busy schedule as their phone calls often are answered by voice-mail. “I like to keep busy,” she says, and then in a more reflective moment adds, “for as long as I am able. I can't imagine any other way to be.”

([www.civicventures.org](http://www.civicventures.org)) have led a national movement to engage midlife and older adults in encore careers, paid and unpaid work options that address society's greatest socioeconomic, educational, health, and ecological challenges.

Many lifespan development theorists, including Erik Erikson (1959), suggest that it is during the last two stages of life that our orientation moves from being self-absorbed to other-

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oriented. One's view at age 50 and beyond, perhaps because we recognize our own inevitable mortality, seems to shift to thinking more about generativity—what we are leaving for the generations that follow. An identity examination like the one we had in adolescence emerges, focusing on what our legacy—our life work—will stand for and what life wisdom we will pass on.

The themes of giving back, making a difference, and finding meaning and purpose reflect this developmental shift in orientation from self to other in older adulthood. It also speaks to midlife and older adults' growing need for social connections and purposeful works.

Surveys from AARP indicate that more than 80 percent of baby boomers report that they plan to work in some way after they retire or transition from their primary career (2007). Motivated by the need to stay engaged in meaningful ways, to be nurtured by social relationships, and even to earn a paycheck, there exists a unique opportunity to use the talents, experience, and passion of older adults in work that matters in communities across the country.

The research on older adults and volunteerism supports this movement, positing that civic engagement is vital to them and that the loss of valued roles, responsibilities, and connections can result in declines in well-being (Hinterlong and Williamson, 2007). Civic engage-

These days, Mary relies heavily on her calendar to plan and organize her myriad activities and commitments. In addition to maintaining her home and gardens, she spends about twelve hours weekly in volunteer work, participates another six hours or more in senior center programs, attends faith meetings at least three times a week, and goes on AARP-sponsored trips with friends about once a month. She communicates almost daily via phone and e-mail with her son and daughter, who live a distance from her, and gets together locally with her other son and his family, including twin great granddaughters, at least weekly. She reads the newspaper online and enjoys regular e-mail communication with many friends and relatives. She has never been more engaged.

ment can be a pathway to greater privilege, power, status, emotional and spiritual gratification, self-esteem, and self-efficacy, all of which enhance an individual's life satisfaction (Hinterlong and Williamson, 2007).

### Do Virtual Networks Count?

The explosion of social media technology is transforming the ways people work, socialize, and play. Once thought as exclusively the domain of Gen Xers and Millennials, recent research (Madden, 2010) suggests that people ages 50 and older are among the fastest-growing demographic to use such online platforms as Facebook, Twitter, Skype, and LinkedIn. Social network use among Internet users ages 50 and older has nearly doubled, to 42 percent over the past year. In 2010, there were more than 9 million Americans ages 55 and older using Facebook, representing a 944 percent increase over the previous year (Corbett, 2010).

According to the Pew Research Center, older adults who have high-speed and broadband Internet connectivity use social media to reconnect with former co-workers and friends (a powerful support network while navigating

retirement and family transitions), to seek information and support for chronic medical conditions, and to bridge generational connections. There are few other spaces—online or offline—where tweens, teens, Sandwich Generation members, grandparents, friends, and neighbors regularly intersect and communicate across the same network (Madden, 2010).

Online activities may do more than benefit the social connections—they may also contribute to brain health. Recent studies by Gary Small, director of UCLA's Memory and Aging Research Center, found an association between routine Internet searching and neural circuitry activation in middle-aged and older adults (Small and Vorgan, 2008). While further research is necessary to determine whether computing and online navigation actually build brain reserve, these early findings suggest that these behaviors may promote healthy aging.

Some skeptics suggest that online activities might increase social isolation, but actually new technologies are making it easier for social interaction. One-on-one conversations through e-mail and instant messaging, combined with webcams, make regular contact possible, especially between family, friends, and colleagues who live a distance apart. Blogs and other online forums allow people with common interests to share ideas, learn, and advocate. Most online dating services allow people to meet others discreetly and safely. Gaming sites encourage interactivity with friends and family members and may lead to new friendships. Nothing was more convincing to me personally of this brave new world than receiving a LinkedIn request last month from the 87-year-old priest at our church!

People...people who have people...are the luckiest people in all the world—and they just might be the healthiest. 

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