



Mather LifeWays Orange Papers are provided as a resource on topics related to the growing fields of aging, wellness, and workforce development. Their content reflects the expertise of

Mather LifeWays researchers, educators, and other professionals who are leaders in creating Ways to Age Well.<sup>SM</sup>

# Participation in Online Communities and Psychosocial Well-being Among Older Adults

*By Cate O'Brien, MPH, MA, Director of Workforce Research  
Mather LifeWays Institute on Aging*

## SOCIAL ISOLATION AS A PUBLIC HEALTH PROBLEM

Extensive research has established the strong relationship between social isolation and health (Berkman & Syme, 1979; House, Landis, & Umberson, 1988; House, Robbins, & Metzner, 1982; Uchino, Cacioppo, & Kielcolt-Glaser, 1996). Those who are socially isolated have more health problems and consequently consume more health care resources than those who are not socially isolated (Ellaway et al, 1999). Among those who are ill, socially isolated individuals also have worse outcomes from acute surgical procedures (Ruberman et al, 1984; Williams et al, 1992; Farmer et al, 1996). In addition, there is growing evidence from studies of stress and the immune system that loneliness can contribute to disease processes through its influence on an individual's stress levels (Hawkey, Bosch, Engeland, Marucha, & Cacioppo, 2007). Research on social network size, another indicator of social well-being, has demonstrated that having a small social network (Berkman and Syme 1979; Seeman et al 1994), infrequent contact with others in that network (Brummett et al 2001), and a lack of social network diversity (Barefoot et al 2005) leads to adverse health outcomes. Older adults may be particularly vulnerable to social isolation and diminished social networks because of transitions from work, loss of a spouse, and the onset of illnesses that limit social participation (Ferraro 1984; Weiss 2005, Li and Ferraro 2006; Thoits and Hewitt 2001).

In addition to an increased risk of physical health problems, numerous studies have demonstrated a positive association between social isolation and mental illness, including depression, distress, and dementia (Berkman and Syme, 1979; Turner, 1981; House et al, 1982; Kawachi et al, 1996; Fratiglioni et al, 2000; Rokach, 2000; Ellis and Hickie, 2001; Silveira and Allebeck 2001; Warner 1998). Other studies have shown links between social isolation and depression and suicide (Gutzmann 2000; Lester and Yang, 1992). Considering that older adults may comprise 20% of the population by 2030, the potential mental and physical health consequences resulting from social isolation may be tremendous (Cacioppo & Hawkey, 2003; Gurung, Taylor, & Seeman, 2003).

## THE HEALTH BENEFITS OF SOCIAL ENGAGEMENT

Conversely, social engagement has been shown to contribute to the successful aging of older adults (Stevens-Ratchford & Cebulak, 2004). Social engagement has been defined as *making social and emotional connections with people and the community* (Park, 2009). Specifically, it has been shown that social engagement is the primary driver of improved psychological well-being in older adults (Dykstra, 1990; Tomaka, Thompson, & Palacios, 2006). Social engagement provides older adults with resources to cope with the common health problems and life changes associated with aging. Some benefits include decreased rates of mortality (Minkler & Fadem, 2002; Rowe & Kahn, 1998), reduced functional decline, (Mendes de Leon, Glass, & Berkman, 2003), increased happiness and improved quality of life (Graney, 1975; Thompson & Heller, 1990), and reduced risk of cognitive impairment (Bassuk, Glass, & Berkman, 1999). According to recent studies, aspects of social connectedness such as integration within dense social networks

may also promote healthy behaviors, resulting in better health outcomes for socially connected individuals (Kinney et al 2005; Rook and Ituarte 1999; Umberson 1987).

## THE INTERNET AND SOCIAL ENGAGEMENT

Communicating with friends and family through e-mail and online discussion formats has been one of the most popular online activities among Internet users (e.g., Patterson & Kavanaugh, 1994; Madden & Rainie, 2003). As the proportion of those online has increased, so has research examining how these new forms of communication affect social support and psychosocial well-being; however, studies in this area have produced conflicting findings, with some suggesting that the Internet strengthens social networks among a general population (Katz & Aspden, 1997; Kraut et al, 2002; Wellman et al, 2001; Boase et al, 2006) and others concluding it weakens them, displaces existing face-to-face relationships (Nie & Hillygus, 2002), and creates additional stress (Kraut, 1998). In addition, the majority of these studies suggest that the social benefits of Internet use are realized least by those who need them most. Individuals who are highly educated, extroverted, and already have a strong sense of community belonging are also those who are most likely to use and benefit from participation in online communities (Kraut, 1998; Kavanaugh, 2005). Conversely, individuals who are less educated, more introverted, and more isolated do not use the Internet or social networking as often, and when they do (Kavanaugh, 2005), they experience a negative effect on their emotional and social lives (Kraut, 1998). Such findings have led some researchers to suggest that social networking is actually widening the digital divide (Kavanaugh, 2005).

It is important to understand the relationship between Internet use and social well-being, given the growing importance of this new media in the lives of older adults. Previously, access to and use of the Internet by older adults has been very limited, but now 42% of adults 65 and older and 78% of adults 50-64 are online (Pew Research Center, 2010). Social media sites are also increasing in popularity. According to a 2010 report from the Pew Internet and American Life Project, nearly half (47%) of Internet users ages 50-64 and one in four (26%) Internet users age 65 and older reported using social networking sites, with rates of use among these age groups rapidly increasing. While younger groups continue to use social networking sites in greater proportions (86% reporting use of Facebook or LinkedIn), older groups may soon catch up. In just the past year, social networking use among Internet users ages 50 and older has nearly doubled (from 22% to 42%) (Madden, 2010).

A limited number of studies examine the relationship between various types of Internet use and social support among an older adult population. For those over 50, Internet use in general is significantly and positively associated with frequency and satisfaction of contact with friends and family, a greater sense of community (Sum, Mathews, Pourghasem, & Hughes, 2009), and attendance at social gatherings (Hogeboom, McDermott, Perrin, Osman, & Bell-Ellison, 2010); (Russell, Campbell,

& Hughes, 2008). Another study found that using the Internet as a communication tool is associated with decreased social loneliness if interactions are between existing contacts; however, consistent with studies of other age groups (Gross, Juvonen, Gable, 2002), using the Internet to make new social contacts is associated with a higher level of loneliness among older adults (Sum, Mathews, Hughes, & Campbell, 2008). It should be noted, however, that the cross-sectional nature of these studies makes the direction of the associations unclear. As with younger groups, it may be that those who are already more socially connected are more frequent users of the Internet and online communication tools. In fact, one study found that the more older adults use the Internet, the more satisfied they are with the quality of their social interactions online (Wright, 2000).

## ONLINE COMMUNITIES AS PUBLIC HEALTH INTERVENTIONS

Individuals who are older, have one or more disabilities, are living with a chronic disease, or are socially isolated are least likely to use the Internet; however, a number of studies suggest that it is possible to reach these subsets of the older adult population with Internet-based interventions. For example, researchers examined the effects of a Web-based intervention on psychosocial well-being among adults 60 and older with diabetes. The intervention group showed significant improvement on quality of life, depression, social support, and self-efficacy (Bond, Burr, Wolf, & Feldt, 2010). Another study found that homebound and disabled older adults who participated in an online community designed for their use significantly increased satisfaction in the amount of contact with others (Bradley & Poppen, 2003). Similarly, physically frail elders participating in an Internet-based intervention to help them monitor self-care needs reported feeling more connected to friends and family and less socially isolated as a result of their computer use (Malcolm, Mann, Tomita, Fraas, Stanton, & Gitlin, 2001). Lastly, there is evidence that Internet-based interventions can improve social well-being even among those in poor health with limited or no computer experience. In a randomized controlled trial among individuals in congregate housing and nursing facilities, researchers demonstrated that Internet training and access improved psychosocial outcomes even though the great majority of participants (69%) had no previous experience with computers (White, McConnell, Clipp, Branch, Sloane, Pieper, & Box, 2002). Notably, most individuals (60%) were still using the Internet on at least a weekly basis at the conclusion of the trial. The positive findings from these studies together with trends of increasing use among older adults overall suggest that the Internet may represent a promising avenue to increase psychosocial well-being among diverse groups of older adults.

## POTENTIAL AREAS OF FURTHER RESEARCH

As noted above, research focusing on the relationship between Internet use, and specifically participation in online communities, and psychosocial well-being among older adults is quite limited. Remaining questions include the following:

- How does the affect of online communities on social support differ among older adults according to racial/ethnic group, rural vs. urban residence, gender, and health status?
- What are the best ways to engage high-risk groups, particularly those who are socially isolated, in online communities? What characteristics differentiate the online communities employed in the successful interventions described above?
- How does long-term participation in online communities affect older adults' ability to age in place? Will current users (who are younger and healthier) be able to translate the online support systems they cultivate into enhanced capacity to deal with both social losses that occur as they age (e.g., loss of a spouse, loss of employment) and increasing frailty?

# Participation in Online Communities and Psychosocial Well-being Among Older Adults

## **Cate O'Brien, MPH, MA, Director of Workforce Research**

Ms. O'Brien has worked in a research capacity for Mather LifeWays Institute on Aging since 2005. Since then, she has been responsible for designing and overseeing large-scale multi-year evaluations for grant-funded projects relating to the field of aging. As a project director on grant funded research projects, she has been responsible for forging collaborations with aging services organizations nationwide, and for recruiting older adults into various studies. Ms. O'Brien's academic training is in the areas of Epidemiology and Public Health/Community Health Sciences.

## **About Mather LifeWays**

Based in Evanston, Illinois, Mather LifeWays enhances the lives of older adults by creating Ways to Age Well.<sup>SM</sup> Founded in 1941 by entrepreneur and humanitarian Alonzo Mather, Mather LifeWays is a unique non-denominational, not-for-profit organization dedicated to providing a continuum of living and care; making neighborhoods better places for older adults to live, work, learn, contribute, and play; and identifying, implementing, and sharing best practices for wellness, workforce issues, memory care support, and empowering caregivers. To learn more about our senior residences, Community Initiatives, and Mather LifeWays Institute on Aging, call (847) 492.7500 or find your way to [www.matherlifeways.com](http://www.matherlifeways.com)

# Participation in Online Communities and Psychosocial Well-being Among Older Adults

## References

- Baltes, M. M. (1996). *The many faces of dependency in old age*. New York: Cambridge University Press.
- Barefoot, J.C., Gronbaek, M., Jensen, G., Schnohr, P., Prescott, E. (2005). Social network diversity and risks of ischemic heart disease and total mortality: Findings from the Copenhagen City heart study. *American Journal of Epidemiology*. 161:960–67.
- Bassuk, S. S., Glass, T. A., & Berkman, L. F. (1999). Social disengagement and incident cognitive decline in community-dwelling elderly persons. *Annals of Internal Medicine*, 3, 165-173.
- Berkman, L.F., & Syme, S.L. (1979). Social networks, host resistance, and mortality: A 9-year follow-up study of Almeida County residents. *American Journal of Epidemiology*, 109: 186-204.
- Bond, G.E., Burr, R.L., Wolf, F.M., Feldt, K. (2010). The effects of a web-based intervention on psychosocial well-being among adults aged 60 and older with diabetes: a randomized trial. *Diabetes Education*. 36(3):446-56.
- Bradley, N. & Poppen, W. (2003). Assistive technology, computers and Internet may decrease sense of isolation for homebound elderly and disabled persons. *Technology and Disability*. 15:19–25.
- Brummett, B.H., Barefoot, J.C., Siegler, I.C., Clapp-Channing, N.E., Lytle, B.L., Bosworth, H.B., Williams, R.B., Mark, D.B. (2001). Characteristics of socially isolated patients with coronary artery disease who are at elevated risk for mortality. *Psychosomatic Medicine*. 63:267–272.
- Cacioppo & Hawkley, 2003; Cacioppo, J. T., & Hawkley, L. C. (2003). Social isolation and health, with an emphasis on underlying mechanisms. *Perspectives in Biology and Medicine*, 46, S39-S52.
- Dykstra, P. A. (1990). Next of (non) kin: The importance of primary relationships for older adults' well-being. Rockland, MA: Swets & Zeitlinger.
- Ellaway, A., S. Wood and S. MacIntyre: 1999, Someone to talk to? The role of loneliness as a factor in the frequency of GP consultations, *British Journal of General Practice* 49, pp. 363–367.
- Ellis, P. & I. Hickie (2001). What causes mental illness?, in S. Bloch and B. Singh (eds.), *Foundations of Clinical Psychiatry* (Melbourne University Press, Melbourne), pp. 43–62.

# Participation in Online Communities and Psychosocial Well-being Among Older Adults

Farmer, I., P. Meyer, D. Ramsey, D. Goff, M. Wear, D. Labarthe and M. Nichaman: 1996, Higher levels of social support predict greater survival following acute myocardial infarction: the Corpus Christi Heart Project, *Behavioural Medicine* 22, pp. 59–66.

Ferraro, K.F. (1984). Widowhood and social participation in later life: Isolation or compensation? *Research on Aging*. 6:451–68.

Fratiglioni, L., Wang, H., Ericsson, K., Maytan, M. & Winblad, B. (2000). Influence of social network on occurrence of dementia: a community-based longitudinal study. *Lancet*, 355: 1315–1319.

Graney, M. J. (1975). Happiness and social participation in aging. *Journal of Gerontology*, 30(6), 701-706.

Gross, E.F., Juvonen, J., Gable, S.L. (2002). Internet use and well-being in adolescence. *Journal of Social Issues*. 58:75–90.

Gutzmann, H. (2000). Diagnosis and therapy of depression in advanced age. *Therapeutische Umschau*, 57(2): 95–9.

Gurung, R. A. R., Taylor, S. E., & Seeman, T. E. (2003). Accounting for changes in social support among married older adults: Insights from the MacArthur studies of successful aging. *Psychology and Aging*, 18, 487-496.

Hawkey, L.C., Bosch, J.A., England, C.G., Marucha, P.T., & Cacioppo, J.T.(2007). Loneliness, dysphoria, stress and immunity: A role for cytokines.

Hogeboom, D.L. , McDermott, R.J. , Perrin, K.M. , Osman, H. & Bell-Ellison, B.A. (2010). Internet use and social networking among middle aged and older adults. *Educational Gerontology*, 36(2):93 – 111.

House, J. S., Robbins, C., & Metzner, H. M. (1982). The association of social relationships and activities with mortality: Prospective evidence from the Tecumseh Community Health Study. *American Journal of Epidemiology*, 116: 123-140.

House, Landis, & Umberson, 1988; House, J. S., Landis, K., & Umberson, D. (1988). Social relationships and health. *Science*, 241, 540-545.

House, J. S., Robbins, C., & Metzner, H. M. (1982). The association of social relationships and activities with mortality: Prospective evidence from the Tecumseh Community Health Study. *American Journal of Epidemiology*, 116, 123-140.

Kawachi et al, 1996 – need to find full reference.

# Participation in Online Communities and Psychosocial Well-being Among Older Adults

- Kavanaugh, A., Carroll, J. M., Rosson, M. B., Zin, T. T., and Reese, D. D. (2005). Community networks: Where offline communities meet online. *Journal of Computer-Mediated Communication*, 10(4), article 3. Accessed January 3, 2010 at: <http://jcmc.indiana.edu/vol10/issue4/kavanaugh.html>
- Kraut, R. , Patterson, M. , Lundmark, V. , Kiesler, S. , Mukopadhyay, T. and Scherlis, W. (1998) Internet paradox. A social technology that reduces social involvement and psychological well-being? *American Psychologist* 53:1017-1031.
- Lester, D. and B. Yang: 1992, Social and economic correlates of the elderly suicide rate. *Suicide and Life Threatening Behavior*. 22: 36–47.
- Li, Y., Ferraro, K.F. (2006). Volunteering in middle and later life: Is health a benefit, barrier or both? *Social Forces*. 85:497–519.
- Madden, M. (2010). The Internet and Civic Engagement. Pew Internet and American Life Project. Retrieved December 21, 2010 at: <http://pewInternet.org/Reports/2010/Older-Adults-and-Social-Media.aspx>
- Malcolm, M. , Mann, W. , Tomita, M. , Fraas, L. , Stanton, K. and Gitlin, L. (2001) Computer and Internet use in physically frail elders. *Physical Occupational Therapy in Geriatrics* 19, pp. 15-32.
- McMellon, C. and Schiffman, L.G. (2002). Cybersenior empowerment: How some older individuals are taking control of their lives, *The Journal of Applied Gerontology*, 21:157–175.
- Mendes de Leon, C. F., Glass, T. A., & Berkman, L. F. (2003). Social engagement and disability in a community population of older adults. *American Journal of Epidemiology*, 157(7), 633-642.
- Minkler, M. and Fadem, P. (2002). *Successful aging*. *Journal of Disability Policy Studies*, 12 (4):229-235.
- Nie, N., & Hillygus, D. S. (2002). The impact of Internet use on sociability: Time diary findings. *IT & Society*, 1, 1–20.
- Park, N. (2009). The relationship of social engagement to psychological well-being of older adults in assisted-living facilities. *Journal of Applied Gerontology*, 28(4): 461-481
- Pew Research Center. (2010). Pew Internet and American Life Project, April 29–May30, 2010: Tracking Survey.
- Rokach, A. (2000). Loneliness and the life cycle, *Psychological Reports*. 86: 629–642.

# Participation in Online Communities and Psychosocial Well-being Among Older Adults

Rowe, J., Kahn, R. (1998). *Successful aging*. New York: Random House.

Ruberman, W., E. Weinblatt, J. Goldberg and B. Chaudhary. (1984) Psychosocial influences on mortality after myocardial infarction. *New England Journal of Medicine*, 311:552–559.

Russell, C., Campbell, A. & Ian Hughes. Ageing, social capital and the Internet: Findings from an exploratory study of Australian ‘silver surfers’. (2008). *Australasian Journal on Ageing*, 27(2): 78–82.

The SCAN Foundation technology summit: Enhancing social action for older adults through Technology (2010). Organized by The Center for Technology and Aging. May 5, 2010. Oakland, CA.

Seeman, Teresa E.; Berkman, Lisa F.; Blazer, Dan G.; Rowe, John W. (1994). Social ties and support and neuroendocrine function: The MacArthur Studies of Successful Aging. *Annals of Behavioral Medicine*.16:95–106.

Silveira, E. and Allebeck, P. (2001). Migration, ageing and mental health: an ethnographic study on perceptions of life satisfaction, anxiety and depression in older Somali men in east London. *International Journal of Social Welfare*, 10 (4):309–20.

Stevens-Ratchford, R., & Cebulak, B. J. (2004). Living well with arthritis: A study of engagement in social occupations and successful aging. *Physical and Occupational Therapy in Geriatrics*, 22(4), 31-52.

Sum, S., Mathews, M., Hughes, I. & Campbell, A. (2008). Internet Use and Loneliness in Older Adults. *Cyberpsychology & Behavior*. 11(2): 208-209.

Sum, S., Mark M., Pourghasem, M. & Ian Hughes (2009). Internet use as a predictor of sense of community in older people. *CyberPsychology and behavior*. 12(2). 235-239.

Thoits, P.A.; Hewitt, L.N. Volunteer work and well-being. (2001). *Journal of Health and Social Behavior*. 42:115–31.

Thompson, M. G., & Heller, K. (1990). *Facets of support related to well-being: Quantitative social isolation and perceived family support in a sample of elderly women*. *Psychology and Aging*, 5(4), 535-544.

Tomaka, J., Thompson, S., & Palacios, R. (2006). The relation of social isolation, loneliness, and social support to disease outcomes among the elderly. *Journal of Aging and Health*, 18(3), 359-384.

# Participation in Online Communities and Psychosocial Well-being Among Older Adults

- Turner, R. J. (1981). Social support as a contingency in psychological wellbeing, *Journal of Health and Social Behavior*, 22: 357–367.
- Uchino, Cacioppo, & Kielcolt-Glaser, 1996. Uchino, B. N., Cacioppo, J. T., & Kielcolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin*, 119, 488-531.
- Warner, J. P. 1998. Quality of life and social issues in older depressed patients. *International Clinical Psychopharmacology*, 13, Supplement 5, S19–24.
- Weiss, R.S. (2005). Retirement, marriage, and social isolation. *Illness, Crisis, and Loss* 13:75 84.
- White, H., McConnell, E., Clipp, E., Branch, L., Sloane, R., Pieper, C., & Box, T. (2002). A randomized controlled trial of the psychosocial impact of providing Internet training and access to older adults. *Aging & Mental Health*, 6(3), 213-221. Retrieved from EBSCOhost.
- Williams, R., J. Barefoot, R. Califf, T. Haney, W. Saunders, D. Pryor M. Hlatky, I. Siegler and D. Mark. (1992). Prognostic importance of social and economic resources among medically treated patients with angiographically documented coronary artery disease. *Journal of the American Medical Association*, 267:520–524.
- Wright, K. (2000). Computer-mediated social Support, older adults, and coping. *Journal of Communication*. 50(3):100-118.