THE CONVERGENCE OF PSYCHOLOGY, TECHNOLOGY & AGING: The Strengths & Limitations of Gerontechnology

Sharon A. Bell, PsyD

Objectives:

- Discuss components of successful aging
- Review methods for creative use of technology to improve functional adaptation in older adults
- Describe five ways the internet can have a positive or negative impact on older adults.

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Five Components of Successful Aging

• Finding purpose and acceptance with life as it is - with little regret or remorse
• Ability to adjust and adapt to changing circumstances
• Reduced sense of suffering, adequate motivation, and continued willingness to learn
• Engage/Maintain connections, activities, exercise, balance between activity and rest
• Sense of personal control, independence, dignity, self-worth

The Aging Myths

• Sick, frail, irreversibly ill, disabled, weak, demented, alone, unhappy, passive
• Unable to learn
• Unable to recover lost functioning
• Doomed to their genetic makeup
• Inadequate mental, physical, and sexual ability
• Unproductive, a burden, holds back society, needy

Decline in Cognition

• The speed of processing information
• Recall of memory on demand of such things as names, numbers, or locations
• Older people do not learn well when there are given complicated instructions or there are distractions. They learn better when they can learn at their own pace, on their own in private, and by learning one project at a time
Sensory Decline

- Method of receiving information from environment changes (taste, touch, smell, hearing, vision). Threshold increases in the brain.
- Hearing and vision most impacted
- Problems with communication, enjoyment of activities, balance/mobility, and social interactions.
- May lead to isolation.

Mobility Decline

- Among women, approximately 40% of those aged 70-79 years, and over 60% of those over 80 years reported restrictions on their mobility outside the home (Wilkie et al. 2006).
- Physiologic changes (respiratory, muscles, bone degeneration, incontinence, endurance)
- Sensory decline (vision, hearing, balance) Falls are the 7th leading cause of death in older adults (Tyrer, et al 2006)
- Emotional instability (depression, anxiety, fear), lack of motivation, resistance
- Low SES
- Environmental influences (home hazards, street or sidewalk conditions, lighting)

Functional Decline

Functional Impairment

Interventions

Cognitive Decline

Sensory Decline

Mobility Decline

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Improving Independence

- Technology improves visual intelligence/performance, hand-eye coordination, peripheral vision, and reaction time
- Improves mobility (assistive devices)
- Improves safety, acute care (monitoring systems)
- Provides connections to family, friends, social media (internet)
- Improves self-care (computer programs, internet)

Potential Pitfalls of Technology

- Loss of attention and concentration, reduced patience
- Reduced critical thinking and problem solving, loss of creativity, loss of contemplation (quality of thought)
- Loss of ability to form and maintain relationships, loss of identity
- Loss of individual control, cognitive overload
- Loss of reality
Successful Aging With Technology

- Improved mobility, ADLs, monitoring
- Remain independent in spite of physical or emotional dysfunction; sense of control/dignity
- Utilizes technology to engage in activities, exercise, and maintain connections in safe manner
- Reduced sense of suffering, adequate motivation, and continued willingness to learn
- Ability to adjust and adapt to changing circumstances

Questions for the Future

- Possible increases in dementia, new dementias
- Increases in ADD/ADHD in older adults?
- Increases in Autism- “ism” in older adults?
- Increase in crime among older adults? (loss of reality, relationship, empathy)
- Increases in psychiatric illness? (loss of ability to adjust and adapt, problem solving)
- Further decline in quality of families, religion, morals, values, and ethics?
Thank you for allowing me to share information today!

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