Mana PsychologyTM

Empowering University Students to Avoid the

Cognitive Decline Associated with Aging

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**Abstract:**

Mana Psychology conducted a simplified stratified, random sampling of 63 people ages 18 to 65, with two focus groups: college students 18 to 25, and senior citizens 65 and older. The survey sought to assess differences between confidence levels in forgetfulness, misplacing and memory compared by age as part of a larger study to be conducted. Initial survey results indicated the two groups display similarities in three categories: forgetfulness weekly, misplacing keys, wallets or phone yearly, and the memory to recall a best friends’ phone number. The use of technology was also surveyed with college students averaging in the high end of the tested spectrum at 8 or more hours daily compared to seniors which averaging less than 2 hours daily. With random sampling, college students 18 to 25, matched senior citizens 65 and older, expressing the highest levels of forgetfulness, misplacing or memory loss, with lower levels of forgetfulness seen in ages 36 to 65. This random sampling validates the need to empower college students to avoid the early onset of the same cognitive decline seen in aging.

**Introduction:**

Cognitive impairment in older adults has a variety of possible causes including medication side effects, metabolic and/or endocrine derangements, delirium due to intercurrent illness, depression, and dementia, with Alzheimer's dementia being most common (NIA Sep 26, 2014). Alzheimer disease (AD) and related disorders are a growing public health problem in the United States, with a prevalence ranging from 3% to 11% among people aged 65 years and older and from 25% to 47% among those aged older than 85 years (Galvin, 2012). There are an estimated 5.3 million cases of dementia in the United States, and this number is expected to increase to 18.5 million by 2050 (Galvin, 2012). The number of those afflicted is increasing annually as a result of the aging population. Dementia leads to a high burden of suffering for patients, families, and society, with an annual estimated cost of $172 billion (Alzheimer's Association. 2010). These costs are amplified when one understands that the struggles associated with cognitive disorders affect not only the elderly patient but also their families. Cognitive decline is a tremendous burden to families and appears to not be localized to senior citizens. This study was conducted to determine if general memory lapses, forgetfulness, and cognitive decline are similarly observed between different age groups.

**Methods:**

Mana PsychologyTM conducted a stratified, random sampling in which surveys were given out at targeted locations frequented by students from the University of Hawaii or by active, local senior citizens at the YMCA. The two focus groups were college students and senior citizens. All surveyed were from the island of Oahu. Those taking the survey were not asked their age prior to taking the survey and no adults from any age group were excluded from taking the survey.

Data was analyzed using averaging methods which allowed a comparison of the 18 college students age 16 to 25 compared with the 18 senior citizens age 65 and over.

The initial thought was to validate the vast differences with aging for cognitive remembering, recall, and memory. It was not expected that college age students would more closely match the results of the senior counterparts.

The survey submitted to participants follows.

**Mana PsychologyTM Memory Survey**

* Age Range (circle one)

18-25 26-35 36-45 46-55 56-65 65+

* Sex (circle one)

Male Female Do not wish to answer

* Have you ever been diagnosed with a cognitive disorder or injury?
  + Yes
  + No
* How many times per week do you forget something important?
  + 0-1
  + 2-4
  + 5-7
  + 7+
* How many times in the last year have you misplaced your keys, phone or wallet?
  + 0-3
  + 3-7
  + 7+
* Can you recite your best friends’ phone number without looking it up?
  + Yes
  + No
* How often do you use technology per day?
  + Up to 1 hour
  + 1-2 hours
  + 3-4 hours
  + 5-6 hours
  + 6-8 hours
  + 8+ hours

Thank you so much for participating in this brief survey. This information will be used to design memory-enhancing mindfulness activities by Mana Gardening Institute, LLC.



**Results:**

Mana PsychologyTM conducted a stratified, random sampling of 63 people to determine cognitive decline. Surveys were conducted at the University of Hawaii and the YMCA. The following describes the responses to each question on the one-page survey.

Question 1: 18 people responded in the 18-25 age group and 18 responded in the 65+ age group. 6 responded in the 26-35 age group, 8 responded in the 36-45, 5 responded in the 56-65 age range.

Question 2: 29 males, 34 females

Question 3: Of all the responses, 4 individuals stated they had been diagnosed with a cognitive or injury. 2 were in the 18-25 age range and 2 were in the 65+ age range.

Question 4:Of the 39 people who said they forget something important more than 7 times per week, 18 were seniors and 15 were 18-25 years old. In other age groups, only 1 person said they

forgot something important more than 7 times. In the 55-65 age group, 2 people responded similarly.

Question 6: All of the seniors and all of the college students aged 18-25 responded that they misplaced their keys, phone or wallet more than 7 times in one year. None of the other age groups responded at 7+ times per year.

Question 7: 54 people said they could not recite a friend’s phone number. All the seniors and all the college kids could not remember their friend’s phone numbers. All of the respondents aged 26-35, could not remember either. All of the respondents aged 36-45 could not remember either. 9 of the respondents that said they could remember a friend’s phone number. Of these, 7 were women aged 46-55, and 2 were men aged 55-65.

Question 8: 17 people said they use technology up to 1 hour/day. Of these, 15 were seniors. 22 people said they use technology 8 hours or more and 15 of those were 18-25 years old.

**Discussion and Conclusion:**

According to this Mana PsychologyTM study, seniors are not using technology at a high level; 90% only used technology up to one hour per day. Whereas those in the 18-25 age group used technology over 8 hours per day. Could relying on technology be inadvertently creating cognitive deficits that compare to those of aging populations? Should college age students be empowered to retain a higher level of recall and memory? Compounding variables in our data collection could be in number of people sampled, and the the location of where the sampling occurred**.** For example, random people from the University of Hawaii campus filled in the survey as did random individuals from the local YMCA. Future sampling would use general locations to achieve a wider range sample of citizens.The results of this study suggest thatcognitive decline most closely matches senior citizens with college aged students. It also suggests that use of technology may be a factor in potentially contributing to cognitive decline in 18-25 year olds. In conclusion, further contrast and compare of senior citizens to college aged students is warranted to determine the modalities or factors that may be affecting memory or cognitive decline in college-aged students. Larger studies can then be conducted to determine effectiveness of countermeasures such as Mana Gardening® On-The-Go Meditation as a tool to empower younger individuals to avoid cognitive decline normally associated with aging.

**References:**

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