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Personality Change in Dementia: A Meta-Analysis

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Background

Dementia refers to the decline in mental ability of individuals to the point where it begins to interfere with tasks during daily life. Dementia is more prevalent among older individuals. Alzheimer's disease is the most common form of dementia. Symptoms of dementia include memory loss, difficulty with communication, and personality change. Personality change is one of the clinical criteria for the diagnosis of dementia.

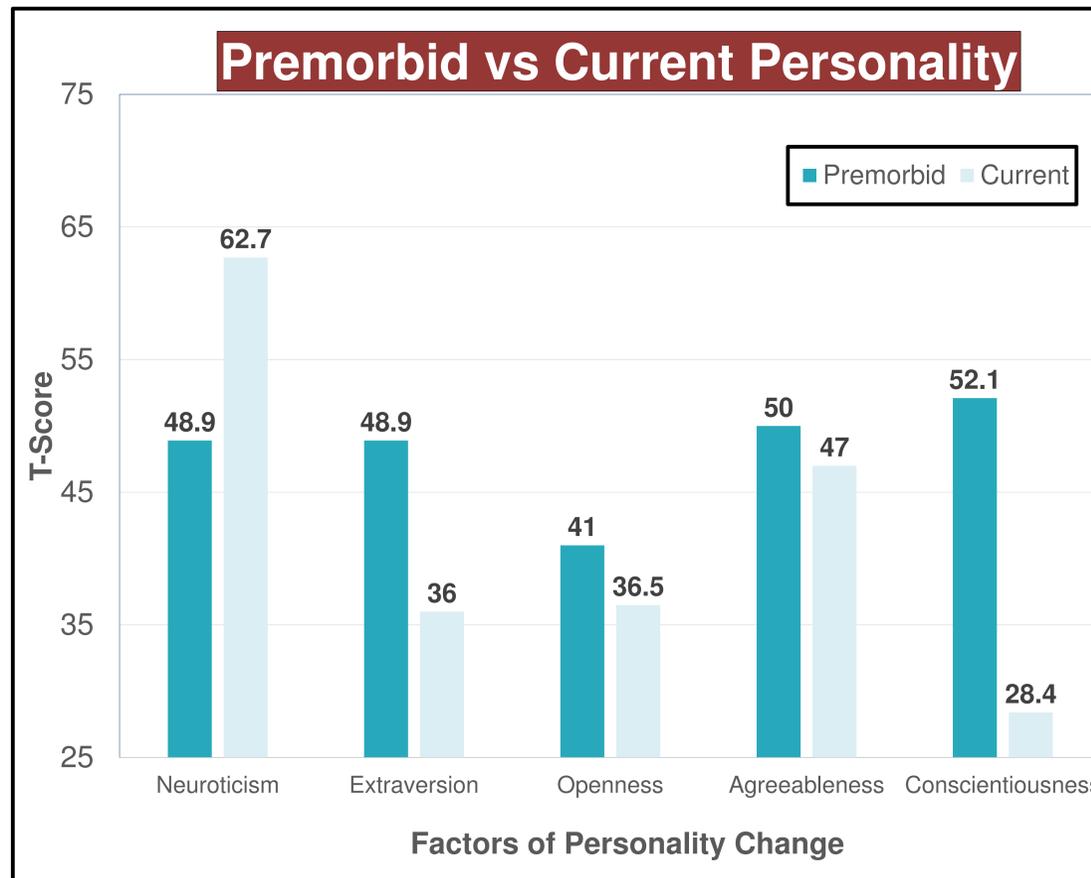
Research studies have examined personality change using standardized measures of the five-factor model of personality, which includes Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. The difference between premorbid personality of individuals who develop dementia and the personality of these individuals after the diagnosis of the disease gives an idea on the progression of the disease. This is due to the fact that personality change is seen as a reflection of progressive brain damage. The change of personality is most notably seen by family members of the individuals who have dementia.

This study summarizes results from published articles and new local data. All studies considered compared the premorbid and current personality of individuals with dementia, as rated by their family members. I expected Neuroticism to increase while Extraversion, Openness, Agreeableness, and Conscientiousness to decrease with the development of dementia.

Methods

Study Design

- A meta-analysis was done to examine personality change in individuals with dementia
 - Most of the articles used the NEO Personality Inventory (NEO PI-R)
 - Several Articles used the NEO Five-Factor Inventory (NEO-FFI)
- Average change was calculated for each of the five-factors
- In each study caregivers rated current and premorbid personality traits



Five Factor Model of Personality Change

Neuroticism	Tendency to experience negative emotions such as anger, anxiety, and sadness
Extraversion	Inclination to being more sociable, enthusiastic and energetic
Openness	Tendency to be imaginative, curious, emotionally and artistically sensitive while agreeableness is the interpersonal dimension defined by altruism, trust, modesty, and cooperativeness
Agreeableness	Interpersonal dimension defined by altruism, trust, modesty, and cooperativeness
Conscientiousness	Tendency to be organized, strong-willed, persistent, and a follower of rules and ethical principles

Results

- 14 different studies were examined, including 1 local study
- Increase in Neuroticism seen in all articles
- Decrease in Extraversion, Openness, Agreeableness, and Conscientiousness seen in all articles

	N	E	O	A	C
Standardized Difference	1.168	-1.281	-0.492	-0.235	-2.16

Conclusions

- Change of personalities from premorbid to current personality for people who have dementia is consistent across studies.
- The hypothesis that people who have dementia suffer personality change in a similar manner with increases and decreases in specific personality characteristics was confirmed by this data.
- Limitations can be found in the accuracy of the caregiver's interpretation of the premorbid and current personality of the individuals with dementia.

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