

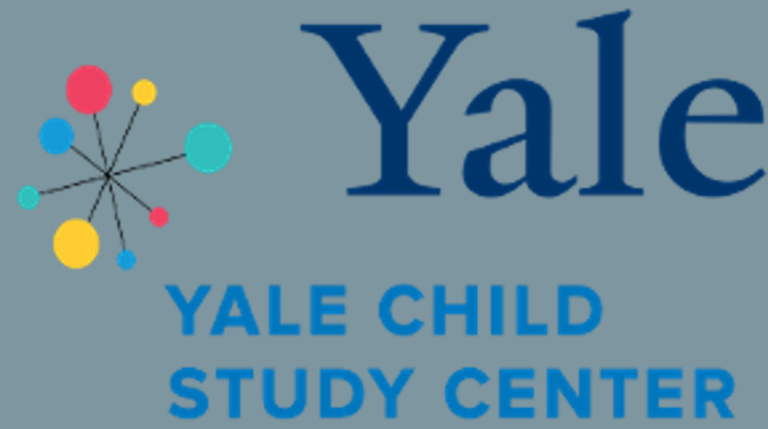
Grandparenthood as a Means of Social Interaction and its Impact on Subjective and Objective Measures of Cognition: A Mixed Methods Approach



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Introduction

- Becoming a grandparent provides the potential for a series of novel and engaging social interactions and activities that can stimulate cognitive mechanisms and may protect against decline.
- Grandparenthood and what it can constitute varies greatly between individuals and situations, meaning possible discrepancies in cognitive outcomes across a sample.
- The goal of the current study was to take a more holistic approach to analyzing the experience of grandparenthood and its effects on cognition.

Methods

Participants: 133 Grandparents aged 60 years and older (M_{age} = 75.79 years, SD_{age} = 5.48 years).

Participants were asked to complete a 30–60-minute survey containing the following elements:

- **Demographics Questionnaire** (age, sex, ethnicity)
- **Grandchild Interaction Frequency**: Calculated as days per year for both *in-person* and *telephone interaction*
- **Prospective and Retrospective Memory Questionnaire** (PRMQ; Smith et al., 2000)
- **Montreal Cognitive Assessment** (MoCA; Nasreddine et al., 2005)
- **Open Response Question**: How do you think grandparenthood has impacted your mental ability (memory ability, concentration, and cognitive ability)?

Data Analysis

- Total grandchild interaction frequency values (in-person and over-the-phone interaction) were correlated with PRMQ and MoCA total scores.
- A collaborative reflexive thematic analysis (Braun & Clarke, 2006) was conducted on qualitative responses. To ensure the themes developed during the analysis process were sufficient in characterizing the data, intercoder reliability values for each code and sub-code were calculated (67% - 100%)

Themes

Perspective

- Emotion
- World view/staying current
- Finding meaning in grandparenthood

"If mental ability includes being open and empathic to a new community, then I definitely feel that grandparenthood has impacted me and for the better."

Grandparenthood as a continuous experience that promotes healthy cognitive functioning

- Flexibility, creativity, and stimulation
- Concentration, alertness, and focus

"Keeping actively engaged in their lives whether school or leisure activities has given me a chance to stay active, enthusiastic in many various new experiences, which I believe helped with all of my mental abilities."

The interplay of grandparenthood and memory

- Semantic memory
- Storytelling and reminiscing

"Recalling the various aspects of their growing into adulthood have fine tuned our memory and established eight memory banks that we visit regularly."

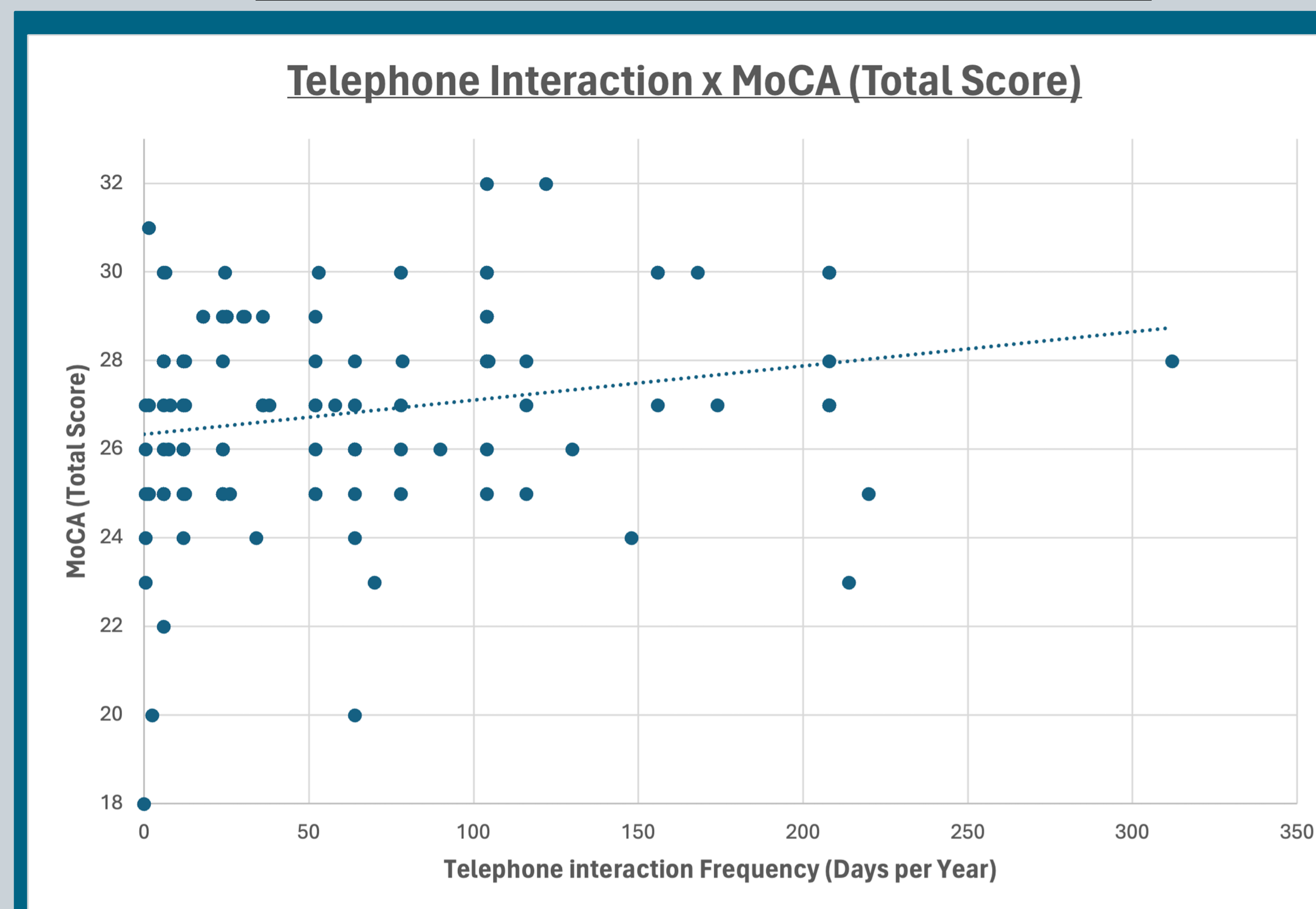
The negative impacts of grandparenthood

"Grandparenthood has been even more stressful due to our provision of a significant amount of childcare."

Limited interaction

"Being a true grandparent has been somewhat elusive because they live so far away."

Interaction Frequency and Cognition



Results and Discussion

- In-person interaction was not significantly correlated with PRMQ ($r = .006, p = .944$) or MoCA ($r = -.064, p = .506$).
- Telephone interaction was not significantly correlated with PRMQ ($r = .054, p = .538$).
- **Telephone interaction was significantly correlated with MoCA ($r = .233, p = .024$).**
- A reflexive thematic analysis performed for this data set helped to reveal some of the nuances and prominence of certain experiences regarding grandparenthood.
 - Respondents indicated that grandparenthood serves as a life experience that changes one's perspective and that activities associated with grandparenthood serve as stimulating experiences that they believe positively impact cognition.
 - Some reported negative experiences especially in the context of health, behavioral, or familial issues that required them to take a larger responsibility in caring for grandchildren.

Future Directions

- Evaluating sub-measures of cognition may illustrate more compelling and informative relationships.
- Emphasize recruitment of a more diverse sample to determine whether the hypothesized relationships differ significantly between various demographic groups.