


The Impact of Online Interactive Platform Services on Oral Health Behaviors in Older adults with Mild Cognitive Impairment: Protocol for a Randomized Controlled Trial [Letter]

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Dear editor

We found the article by Yin et al, “The Impact of Online Interactive Platform Services on Oral Health Behaviors in Older Adults With Mild Cognitive Impairment: Protocol for a Randomized Controlled Trial”, published in your journal, to be of considerable interest.¹ The authors are to be commended for developing a study protocol centered around a novel online interactive platform and its potential to influence oral health behaviors in older adults experiencing mild cognitive impairment. Nevertheless, we believe some aspects of the study design require further elucidation.

First, while the authors outlined the study’s aims, they did not explicitly state the study’s hypotheses. Assuming a two-tailed hypothesis, the alternative hypothesis should be: “Online interactive platform services may have an effect on oral health behaviors in older adults with mild cognitive impairment”. The corresponding null hypothesis would then be: “Online interactive platform services may have no effect on oral health behaviors in older adults with mild cognitive impairment”.

Second, including secondary outcomes such as cognitive level, perceived stress, and social support in the title would have provided readers with a clearer and more comprehensive understanding of the study’s scope.

Third, the authors did not report baseline scores for each outcome measure, including the Oral Health Behavior Scale, Mini-Mental State Examination, Perceived Stress Scale-10, Interpersonal Support Evaluation List-12, and Geriatric Oral Health Assessment Index.² Providing these scores would have clarified the initial extent of cognitive and oral health impairment at the time of participant recruitment. For example, the authors should have specified an MMSE score of 18–24 in the inclusion criteria to clearly indicate that only individuals with mild cognitive impairment were being recruited.³

Additionally, using the Montreal Cognitive Assessment (MoCA) scale to assess cognitive impairment would have been a better choice, as it is a more reliable and valid tool, with an inter-rater reliability of 0.96 and a Cronbach’s alpha of 0.79.⁴

Fourth, in the exclusion criteria, the authors could have considered excluding older adults with vision impairment, as it is commonly associated with cognitive decline and increased burden, making it difficult for participants to complete the online assessments.

Fifth, the study’s estimated sample size does not align with the actual calculation performed using G*Power software,⁵ considering the specified effect size, statistical power, and alpha value, as shown in [Figure 1](#).

We encourage the authors to consider these points and believe that addressing these remarks and concerns will enhance the study protocol, allowing for more effective implementation in the main study.

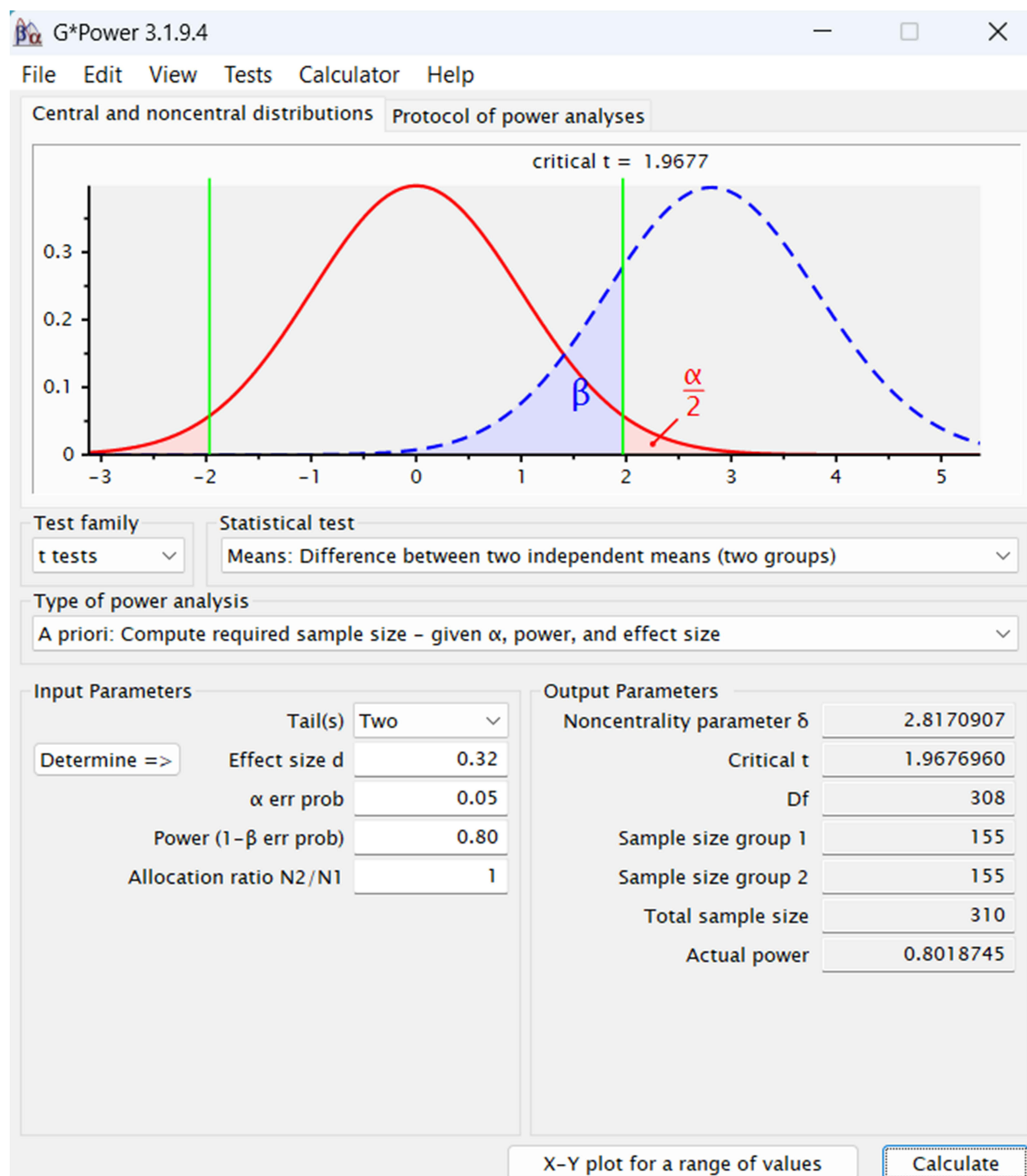


Figure 1 Sample Size Estimation using G*Power Software.

Abbreviation

MMSE, Mini Mental State Examination.

Disclosure

The author(s) report no conflicts of interest in this communication.

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