



# THE EFFECTS OF A NEW TECHNOLOGY, THE MAGIC TABLE, ON THE WELLBEING OF NURSING HOME RESIDENTS SUFFERING FROM ADVANCED NEURODEGENERATIVE DISEASES AND EXHIBITING BEHAVIORAL DISORDERS

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# THE EFFECTS OF A NEW TECHNOLOGY, THE MAGIC TABLE, ON THE WELLBEING OF NURSING HOME RESIDENTS SUFFERING FROM ADVANCED NEURODEGENERATIVE DISEASES AND EXHIBITING BEHAVIORAL DISORDERS

Journées d'Étude du Vieillissement Cognitif Tours juin 2023

## INTRODUCTION

Considering the worldwide soar of both new technologies and elderly demographics this research aims to deepen Anderiesen's works (2015, 2017). Given the specific characteristics of neuro-degenerative diseases (Prado-Jean, 2010 ; Grosclaude, 2019) and their impact on daily life (WHO, 2022), adapted tools are necessary. Focusing on wellbeing (internal) as well as quality of life (external) – as explained by Salvador-Carulla and al. (2015) – is essential to care for the elderly suffering from these issues.



What are the effects of the magic table on the wellbeing, the quality of life and the agitation of nursing home residents with dementia?

H1 The use of the magic table on nursing home residents suffering from advanced neurodegenerative diseases leads to



wellbeing  
quality of life



agitation



H2 positive correlation between  
wellbeing & quality of life

## METHODOLOGY

### Material :

- Pre & post test evaluations
  - Wellbeing Index (WHO, 1999)
  - Quality of life (Rabins and al., 1999)
  - Agitation (Cohen-Mansfield & Billig, 1986)
  - Depression (Alexopoulos and al., 1988)
- The magic table : overhead projector attached to the ceiling, projecting interactive images and games on the table placed below

### Protocol :

- Pre test phase : evaluations
- Training phase : 1 x 30 min session / week, 8 in total for both experimental (magic table) group and control group
- Post test phase : reevaluations

Participants : N=32, ages 60+, 23 women and 9 men, 16 participants per group



## RESULTS H1



### PRE + POST TEST comparison of each variable

experimental + control groups had improvements for each variable



MORE wellbeing & quality of life



LESS agitation

Variable	Group	Pre test M (SD)	Post test M (SD)	
Wellbeing	Experimental	28.25 (17)	30.75 (19.03)	*
	Control	34.25 (13.22)	36.75 (13.40)	**
Quality of life	Experimental	0.46 (0.19)	0.48 (0.19)	*
	Control	0.55 (0.11)	0.57 (0.12)	**
Agitation	Experimental	68.19 (28.32)	66.88 (28.67)	*
	Control	68.00 (34.74)	66.63 (34.49)	**

Note. \*p<.05, \*\*p<.01, \*\*\*p<.001



### POST TEST comparison of each variable experimental vs control group

Variable	Experimental group Post test M (SD)	Control group Post test M (SD)	
Wellbeing	30.75 (19.03)	36.75 (13.40)	N.S.
Quality of life	0.48 (0.19)	0.57 (0.12)	
Agitation	66.88 (28.67)	66.63 (34.49)	

## DISCUSSION H1

- Improvements may result from playful & supportive human interaction.
- However magic table allows for : time efficiency + opening care to ≠ medical & paramedical professions (Dondelli, 2022)



## RESULTS H2



### Strong positive correlation between wellbeing and quality of life

Variable	M (SD)	Statistic R	p
Wellbeing	31.25 (15.29)	0.87	.001***
Quality of life	0.51 (0.16)		

## DISCUSSION H2

Wellbeing & quality of life are variables that are :

- distinct
- potentially complementary (Bruchon-Schweitzer & Boujut, 2014)

Furthermore, it would be interesting to study the link between quality of life and agitation or wellbeing and agitation, if agitation reflects internal feelings, then its reduction = serenity

## PERSPECTIVES

- Evaluating effects of the magic table on : engagement + social interactions / relationships, during the activity + long term
- Studying how each profession uses the magic table and the different benefits for the users