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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**

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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



**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)	
Quality of life	0.48 (0.19)	0.57 (0.12)	N.S.
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