



The Investigation and Comparison of the underlying needs of common disruptive behaviors in patients with Alzheimer's disease

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The MOST project in BPSD

PART I (2 years)

A. Characteristics and underlying meaning of BPSD.

B. Relations of BPSD and commonly occurred health problems in elderly PwD.

PART II (2 years)

Test of Complementary therapies in alleviating BPSD and improving cognition and quality of life in PwD.



The series of my publication

- Yang, Y., Lee, F., Chao, H., Hsu, F., & Wang, J.* (2016). Comparing the Effects of Cognitive Stimulation, Reminiscence, and Aroma-Massage on Agitation and Depressive Mood in People with Dementia. *Journal of the American Medical Directors Association*, 17(8), 719-724. 【SCI】
- Yang, Y., Wang, C., & Wang, J.* (2016). Effect of aromatherapy massage on agitation and depressive mood in individuals with dementia. *Journal of Gerontological Nursing*, 42(9), 38-46. 【SSCI】
- Yang, Y., Wang, C., & Wang, J.* (2016). The initial development of a checklist for assessing thirst in patients with advanced dementia. *The Journal of Nursing Research*, 24(3), 224-231. 【SSCI】
- Wang, C., Pai, M., Hsiao, H., & Wang, J.* (2015). The investigation and comparison of the underlying needs of common disruptive behaviours in patients with Alzheimer's disease. *Scandinavian Journal of Caring Sciences*, 29(4), 769-775. 【SSCI】
- Shih, Y., Wang, C., Su, E., & Wang, J.* (2015). Behavioral characteristics of bowel movement and urination needs in patients with dementia in Taiwan. *Journal of Gerontological Nursing*, 41(6), 22-29. 【SSCI】
- Wang, J., Cheng, W., Lai, P., & Pai, M*. (2014). Delusions and Underlying Needs in Older Adults with Alzheimer's Disease: Influence of Earlier Life Experiences and the Current Environment. *Journal of Gerontological Nursing*, 40(12), 38-47. 【SSCI】 .
- Hsiao, H., Chao, H., & Wang, J.* (2013). Features of problematic eating behaviors among community-dwelling older adults with dementia: Family caregivers' experience. *Geriatric Nursing*, 34(5), 361-365. 【SSCI】
- Wang, J., Feldt, K., & Cheng, W. (2012). Characteristics and underlying meaning of hoarding behavior in elders with Alzheimer's dementia: caregivers' perspective. *Journal of Nursing Research*, 20(3), 189-196. 【SSCI】



Functional Assessment Staging

Returning to childhood?

| FAST stage | cognition | description | Cognitive age |
|------------|--------------|--|---------------|
| 1 | Normal | Normal ADL | >12 yrs |
| 2 | MCI | Subjective forgetfulness | >12 yrs |
| 3 | | Decline in working competence | 12 yrs |
| 4 | Early stage | Difficulty in manipulating objects or handling complicated daily tasks | 8-12 yrs |
| 5 | | Need reminding with ADL | 5-7 yrs |
| 6 | Middle stage | Need assistance with ADL, bowel and urinary incontinence | 2-5 yrs |
| 7 | Late stage | Meaningless conversation within 6 words or cannot walk independently | < 1.5 yrs |

Clan & Reisberg, 1992





Prevalence of BPSD

- Behavior and psychological symptoms of dementia (BPSD) are present in 80-90% of all dementia patients throughout the course of the disease with varying degrees of severity, resulting in greater risk of caregiver distress, increased health costs, and early nursing home placement.

(Cerejeira, Largarto, & Mukaetova-Ladinska, 2012)



Need-driven Dementia Compromised Behavior (NDB)

- Behaviors can be seen as attempts to communicate inner distress in the face of unmet needs.

(Algase et al., 1996)

- The underlying needs of behaviors in patients with dementia must be understood before carrying out a person-centered care intervention.



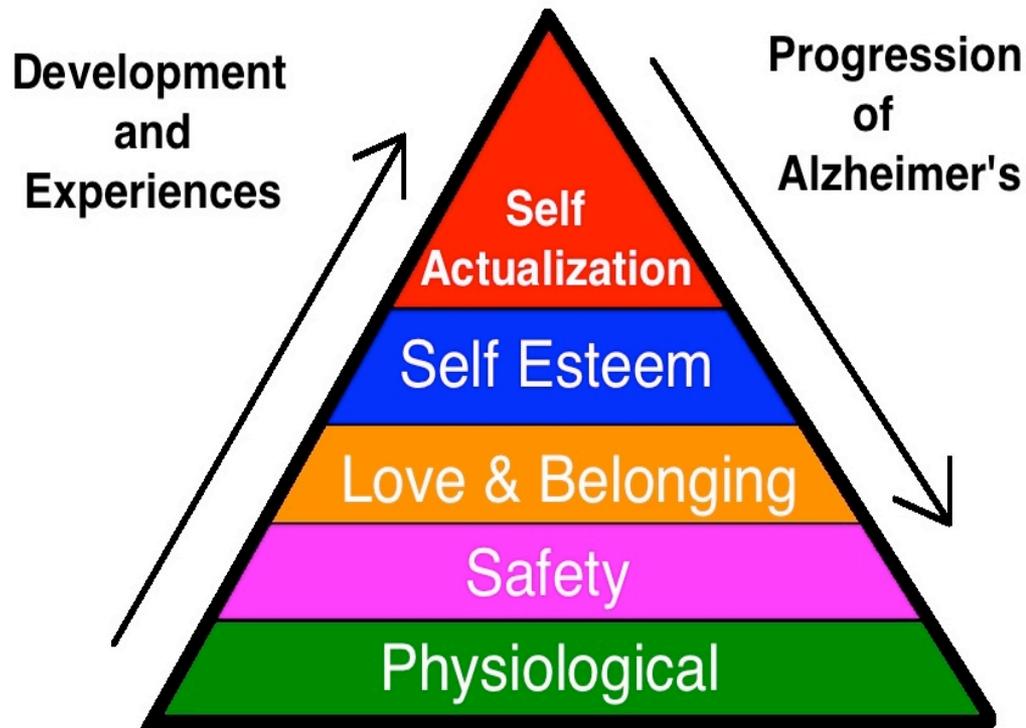


Significance of the Study

- The Hierarchy Model offers a new theoretical framework to address the interplay between meeting of needs and improvement of quality of life in dementia (Carla et al., 2010).
- However, there is **a lack of empirical evidence** with regard to how it might be related to the underlying needs of disruptive behaviors in patients with AD.



Maslow's Hierarchy of Needs





Purposes

- To explore the underlying needs of five common disruptive behaviors including hoarding, aggressive behavior, repetitive behavior, altered eating behavior, and delusion in patients with AD.
- To depict these needs from the perspective of Maslow's hierarchy.





Design

- This study was drawn from a large research project, the current report explore the differences among the underlying needs of five disruptive behaviors.
- An **exploratory research design with qualitative data collection techniques** was employed to achieve this goal.





Participants

- The participants were **primary adult family caregivers** of patients with AD (PwAD) referred by an outpatient dementia clinic at a university hospital and a district home care setting in southern Taiwan.
- The caregivers needed to be **knowledgeable about their care-recipient's current conditions**, while the behavior of the care recipients must have happened during **the past 2 weeks**.





Interview Guide

A semi-structured interview guide was used during the interviews, and it included the following questions:

- What do you think your relative is trying to express through this specific behavior?
- Based on your experience of caring for your relative, what is the underlying need related to this behavior?



Results

Participants' Characteristics-1

- A total of 65 caregivers of PwAD participated in the study, ages ranged from 34 to 81.
- For the PwAD, the majority were taken care of by their daughter and spouse.
- The PwAD ages ranged from 67 to 94, 44 were female, 19 were illiterate, 20 had lost their spouses, and seven had no children.



Results

Participants' Characteristics-1

- Of the 65 PwAD, 39 had aggressive behavior, 34 had repetitive behavior, 30 had hoarding behavior, 28 had altered eating behavior, and 37 had delusions.
- Almost one third of them were at the advanced stage of Alzheimer's dementia.
- The majority of the PwAD had more than one type of disruptive behavior.



Results

4 themes

- A desire for comfort (physical and psychological).
- A desire for security (psychological and economic).
- A need for a sense of belonging (a need to connect with the outside world and a need for attention).
- A need for self-control.





A desire for comfort

physical and psychological

A desire for physical comfort refers to the need that a person has to satisfy their physiological functions in a comfortable manner.

A desire for psychological comfort refers to the need to feel good or be free from psychological pain.

PwAD tend to communicate a desire for **physical comfort through aggressive behavior and delusions**, while they often use **altered eating behavior to express a need for psychological comfort**.



A desire for security

psychological and economic

A desire to be secure refers to feelings of security and stability in the minds of care recipients.

a desire for security primarily refers to **economic or material-related security** when it is expressed through hoarding behavior, but it refers to **mental security and stability** when expressed through repeated behavior, altered eating behavior, and delusion.



A need for a sense of belonging

connect with the outside world and attention

A sense of belonging was found to refer to a person's need for social interaction and emotional exchanges with others, in order to avoid the feelings of loneliness and alienation.

A need to **connect with the outside world** was **associated with repetitive behavior** in this study, while the **need for attention** was expressed through **altered eating behavior**, and the need for emotional exchanges with others was related to delusion.





A need for self-control

A need for self-control was found to be expressed by hoarding, aggressive behavior and altered eating behavior, with some differences in the meanings.

By **hoarding**, the patients believed that they were able to keep their personal possessions safely within their control.

On the other hand, by using **aggressive behavior and altered eating behavior**, the patients attempted to take control of their daily lives.



Comparison of the underlying needs of the five disruptive behaviors

| Behavior | Underlying needs | Maslow's hierarchy of needs |
|-------------------------|--|---|
| Hoarding | A desire for economic security A need for self-control | II: safety needs IV: self-esteem |
| Repeated behavior | A desire for psychological security A sense of belonging, to connect with outside world | II: safety needs III: belongingness and love |
| Aggressive behavior | A need for physical comfort A need for self-control | I: Physiological needs IV: self-esteem |
| Altered Eating behavior | A need for psychological comfort A sense of belonging, receive attention from others A need for gentle treatment | II: safety needs III: belongingness and love IV: self-esteem |
| Delusion | A need for physical comfort A desire for psychological security A need for a sense of belonging and emotional exchange with others | I: Physiological needs II: safety needs III: belongingness and love |



Conclusion

- Needs that are unable to be clearly expressed by PwAD are often hidden behind disruptive behaviors.
- PwAD convey different needs through different behaviors, while a single type of behavior can also convey different needs, and a single demand can be expressed through different types of behaviors.





Contribution to Clinical Practice

- This study depicts underlying needs of different behavior symptoms of PwAD from the perspective of Maslow's hierarchy of human needs.
- This study provides valuable information for health care providers to better understand the underlying needs of common disruptive behaviors in PwAD.





Reflection

- The need for self-actualization is connected to something beyond the ego and the full realization of a person's potential.
- The cognitive impairments impede their capability of expression of a need for self-actualization via disruptive behaviors.
- The highest levels of self-actualization are transcendent in nature.

