



The Relationship between Well-being and Risk of Wondering among Elderly with Dementia in Mental Health Hospital, Dr. Radjiman Wediodiningrat Lawang, Malang

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Abstract. Dementia is a syndrome in the form of decreased cognitive function. Wandering is a neuropsychiatric symptom that has an impact on mortality rates, which are indicators of achievement of subjective well-being. The study aimed to determine the relationship between subjective well-being and risk of wandering among the elderly with dementia. A quasi-experimental study, one group pre-post test design was applied in this study. We recruited 34 elderlies and their caregivers using the purposive method. The result showed that there is a positive effect of social leisure activity in reducing wandering risk ($p=0,000$) and increasing subjective well-being ($p=0,000$). Subjective well-being has a significant correlation with the risk of wandering at the post-test ($p=0,000$). The result given between characteristic's elderly and subjective well-being showed a p-value of less than 0,05 excepted on neuropsychiatric symptoms. Subjective well-being correlation with decreased risk of wandering by providing regular physical activity

Keyword: subjective well-being, Risk of wandering, dementia, elderly



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INTRODUCTION

Dementia is a clinical syndrome in the form of memory loss, language and communication skills, decision-making ability and assessment, financial management, disorientation, confusion, anxiety and if it continues can become wandering (1). Progressive decline in cognitive function and the ability to independently implement ADL (2). Dementia

with neuropsychiatric symptoms can have a very detrimental effect, one of which is wandering behavior.

Wandering has a complex, challenging, and potentially dangerous impact on dementia, behavioral disorders, running away, injury, and even death (3), which can affect the mortality rates in the elderly population in general and dementia in particular (4). The mortality rate of a community can be one indicator of achieving subjective well-being. The elderly group with higher mortality rates has lower subjective well-being (5). Dementia elderly must have a positive perception of feelings, whereas can provide happiness and well-being, which is the root of subjective well-being (6). Dementia provides consequences in the subjective well-being of the elderly due to their acute illness (7). Subjective well-being is a way of self-evaluation of one's own life, which contains three components, life satisfaction, positive and negative affect (8), which consists of cognitive and affective domains (9). Older adults who are not able to maintain or improve subjective well-being can experience decreased functions in the body and can not belong (10), high mortality rates, reduced health, and psychosocial status, depression, stress, immunological function disorders (11).

The population of elderly dementia in the world is 47.6 million, and it is estimated that the number has increased by 7.7 million per year tripling in 2050 (12-13). Alzheimer Australia (2011) conducted a study that noted that 1800 new dementia cases were enforced every week (14). According to DY. Suharya (2017) estimates the number of elderly dementia in Indonesia in 2017 will be 1.2 million; every three seconds, there is one person the newly diagnosed (15). The study in the Netherlands noted that the incidence of wandering was 15% - 28% in nursing homes and health facilities, which was 80% dementia clients (16). A study in Texas said one in five people with dementia had to wander, and 40% were lost and needed help to go home (17). A study reported that 60% of the elderly see themselves as quite happy (9). Another study mentioned that subjective well-being in more than a million people from 45 countries is on average at 6.75 on a scale of 10. In Indonesia, achieving subjective well-being tends to be low in the early adult population, and tends to be stable even increased in late adulthood (9).

Studies of elderly dementia have been carried out. However, studies on the risk of wandering in elderly dementia are still minimal. Likewise, studies on subjective well-being in the elderly are scarce. The results of this study can be used as material to provide an overview of subjective well-being relationships with risk of wandering

OBJECTIVE

The study aimed to examine the relationship between subjective well-being and risk of wandering among the elderly with dementia.

METHOD

This study used the quasi-experimental design with pre-post test one group design. The intervention used in this study is the social leisure activity, which is a series of activities to fill free time by prioritizing social relations factors which include four activities, namely watching videos, listening to music, taking a walk in the neighborhood around the house, and participating in gardening activities.

The population in this study was 47 elderly dementia and their caregivers who visited the Psychogeriatric Clinic of Dr. RSJ Radjiman Wediodiningrat Lawang Malang. Samples selected using a purposive sampling method based on inclusion and exclusion criteria such as 34 samples. The inclusion and exclusion criteria in this study were divided into two namely, inclusion and exclusion criteria for the elderly and caregivers. Inclusion criteria for the elderly

include elderly mild to moderate dementia, aged 60-75 years, living with family or caregiver, having a risk of wandering, being able to carry out physical activities independently where showed 14-16 scores from, and the KATZ Independence Index. The inclusion criteria for caregivers are over 18 years old, able to read and write, at least high school education. Exclusion criteria for the elderly are elderly dementia who live in anti-dip, experience severe hearing loss, and experience severe visual impairment. Exclusion criteria for caregivers include caregivers who have chronic illnesses who are not capable of physical activity and have dementia.

The instrument used in this study is Elopement Screening to measure the dependent variable, namely the risk of wandering developed by Barnard-Brak (17). Independent variables were measured using the SWB-O questionnaire instrument (Observation Subjective Well-Being). This instrument was developed from the modified WHOQOL-BREF questionnaire so that the assessment was carried out by observers. Another instrument used the KATZ Independence Index.

Paired T-Test and Pearson Correlation Test were used to analyze the data. This research has obtained a certificate of ethical feasibility from the KEPK of the Faculty of Nursing, Airlangga University, Surabaya, with 1291-KEPK and KEPK numbers from Dr. RadjimanWediodiningratLawang Malang number LB.02.03 / XXVII.5.7 / 3336/2019.

RESULTS

Demographic characteristics of the caregiver

Table 1.1 shows the characteristics of the caregiver respondents, where most of the aged 31-40 years old n=15 (29.4%). The most men n=18 (26.5%). The most education's caregivers are high school n=17 (25.0%). Most of the jobs are private n=14 (20.6%), married people n=25 (36.8%). The status of the residence is mostly the parent's owned n=18 (26.5%). The majority did not have chronic diseases n=30 (44.1%).

Table 1 Demographic characteristics of the caregiver

Respondent Characteristic	Caregiver		Mean	SD
	n	%		
Age				
18 – 30 years	7	13.7		
31 – 40 years	15	29.4	38.765	0.970
41 – 50 years	7	13.7		
51 - 60 years	5	9.8		
Gender				
Male	18	26.5	1.471	0.507
Female	16	23.5		
Education				
SLTA	17	25.0		
D1	2	2.9	2.206	1.343
D3	7	10.3		
Bachelor	7	10.3		
Master	1	1.5		
Job				
Government Employees	3	4.4		
Private	14	20.6		
Entrepreneur	4	5.9		
Farmer	3	4.4	3.647	2.334
Trader	2	2.9		
Lecturer	1	1.5		
Nurse	3	4.4		
Others	4	5.9		

Marriage Status				
Single	7	10.3		
Marriage	25	36.8	1.853	0.500
Widow/widower	2	2.9		
Residence Status				
One's own	15	22.1		
Parent's own	18	26.5	1.618	0.652
Others	1	1.5		
Chronic Disease				
Yes	4	5.9	1.118	0.327
No	30	44.1		

Demographic characteristics of patients

Table 1.2 showed the demographic characteristics of patients, age mostly 70-75 years old n=17 (50.0%). The majority of women n=19 (55.9%). The duration of illness was mostly for more than 12 months of n=23 (67.6%). The elderly's education is junior high school n=13 (38.2%). The family is the closest person, n=25 (73.5%). The psychological support most types received n=24 (70.6%). The job status of most did not work n=17 (50.0%). Most of the income sources came from retired n=11 (32.4%). The widower/widow is most n=20 (58.8%). The owner's residence is mostly n=21 (61.8%). Dementia elderly mostly suffer from chronic diseases n=24 (70.6%). The type of disease most suffered was hypertension n=10 (29.4%). The most neuropsychiatric symptoms found were forgetfulness and confusion n=17 (50.0%). The characteristics of age (p=0.049), duration of illness (p=0.022), education (p=0.041), closest people (p=0.015), employment status (p=0.050), status income (p=0.020), residence status (p=0.046), and the characteristics of sex, marital status, chronic illness, and types of support (p=0,000), that there is a relationship between demographic characteristics and subjective well-being. While the neuropsychiatric symptoms showed no correlation (p=0.556) with subjective well-being

Table 2 Demographic characteristics of patients

Respondent Characteristic	Elderly		Mean	Sd	P-Value
	n	%			
Age					
60–65 years	10	29.4			
66–70 years	7	20.6	2.50	0.880	0.049
71 – 75 years	17	50.0			
Gender					
Male	15	44.1	1.56	0.504	0.000
Female	19	55.9			
Long Illness					
< 6 months	4	11.8	2.56	0.705	0.022
6 – 12 months	7	20.6			
>12 months	23	67.6			
Education					
Primary school	12	35.3	2.97	0.904	0.041
Junior high school	13	38.2			
High school	7	20.6			
Bachelor	2	5.9			
Close Person					
Health workers	3	8.8	2.09	0.514	0.015
Family	25	73.5			
Spouse	6	17.6			
Support					
Psychology	24	70.6	2.29	0.462	0.000
Financial	10	29.4			

Job						
None	17	50.0	1.71	0.799	0.050	
Working	10	29.4				
Retirement	7	20.6				
Income status						
None	8	23.5				
Fixed salary	5	14.7	2.68	1.147	0.020	
Retired	11	32.4				
Family	10	29.4				
Marriage status						
Marriage	14	41.2	2.59	0.500	0.000	
Widow/widower	20	58.8				
Residence Status						
One's own	13	38.2	2.62	0.493	0.046	
Parent's/Family's Own	21	61.76				
Chronic Disease						
Yes	24	70.6	1.71	0.462	0.000	
No	10	29.4				
Disease						
HT	10	29.4				
DM	2	5.9	1.74	1.831	-	
Arthritis	3	8.8				
Hyper cholesterol	7	20.6				
Gout	2	5.9				
None	10	29.4				
Neuropsychiatric						
Forget	6	17.6				
Forget and Confused	18	52.9	5.68	2.358	0.556	
Forget and Disorientation	4	11.8				
Forget and anxieties	6	17.6				

Risk of wandering

Table 3 explained the mean before and after receiving the treatment. The results showed that the mean 21.09 ± 1.54 before receiving treatment and after treatment was 17.44 ± 2.61 with $p\text{-value} < 0.001$

Table 3. Risk of wondering

	Risk of wandering				<i>p-Value</i>
	<i>Mean</i>	<i>SD</i>	<i>Minimum</i>	<i>Maximum</i>	
Pretest	21.09	1.54	18	13	
Posttest	17.44	2.61	24	24	0.000

Subjective well-being

Table 4 explained that after receiving the treatment, Mean \pm Sd was 54.09 ± 6.75 , while before treatment was Mean \pm Sd (46.53 ± 3.86) with $p\text{-value}$, 0.001

Table 4 The Subjective Well-Being Value Distribution

	<i>Subjective Well-Being</i>				<i>p-Value</i>
	<i>Mean</i>	<i>SD</i>	<i>Minimum</i>	<i>Maximum</i>	
Pretest	46.53	3.86	39	54	0.000
Posttest	54.09	6.75	39	65	

Correlation between subjective well-being with the risk of wandering

Table 5 showed the Correlation between subjective well-being with the risk of wandering. The results explained that there is a significant relationship between Subjective Well-Being and Risk of Wandering $p < 0,001$.

Table 5 Correlation between subjective well-being with the risk of wandering

Measurements	r Count	p-Value
Pretest SWB – Pretest Risk of Wandering	- 0.064	0.718
Posttest SWB – Posttest risk of Wandering	- 0.672	0.000
Delta SWB – Delta Risk of Wandering	0.206	0.243

DISCUSSION

The characteristic's elderly dementia was significantly associated with subjective well being except for neuropsychiatric symptoms. That results contradict existing theories, where the theory states that health status and psychosocial symptoms are related to Subjective Well-Being. George (2010) said that the concept of multidimensional subjective well-being is related to demographic diversity, education, income, health, and psychosocial symptoms. Self-evaluation of the health status of the elderly is different; the elderly does not easily complain about the symptoms they feel compared to adults or young people, especially against psychological symptoms (18). Respondents' neuropsychiatric symptoms have improved along with treatment carried out by the elderly, but have not been able to restore the ability of self-assessment of the elderly. High gratitude is only able to improve the psychological domain.

The characteristics of elderly dementia, although analytically related to subjective well-being but substantively have differences with the theory, are found in the aspects of age, sex, duration of illness, education, marital status, and chronic disease. On the characteristics of age, the theory states that young age is positively related to subjective well-being. Age, gender, income is mildly associated with subjective well-being, but happy individuals are more related to subjective well-being so that demographic factors are also related to subjective well-being (19). The study shows that the oldest age groups show the most subjective well-being changes. The most former age group is better able to accept health conditions as they are and adapt to stress, have better gratitude, and are more easily happy.

The most related sex characteristics are in women, which shows differences with theory. Gender is related to subjective well-being, but its influence differs between men and women; men are more influential (6). Women are abler to express what they feel than men. Women are more able to feel satisfaction and dissatisfaction and are better able to explore their feelings and express their feelings.

Elderly who suffer from dementia longer are most associated with subjective well being. Elderly who have the chronic physical illness are more related to subjective well-being than those who do not have chronic diseases. Decreasing health functions such as physical and chronic diseases can increase the physical and psychological burden of the elderly, especially if the elderly has dementia (7). Each individual interprets his quality of life based on his physical illness, his social role, how to deal with psychological distress, and how to interact with his environment (21). Chronic diseases suffered by the elderly have experienced a stable phase due to routine treatment. Routine treatment and experience of suffering from chronic diseases make the elderly abler to surrender and be grateful for their condition due to

increased adaptability. The caregiver's role in providing support to the elderly also dramatically influences the acceptance of the elderly in their illness.

Higher education is positively related to subjective well-being, but in secondary education, studies are more related to subjective well-being. The level of education is the most significant factor related to subjective well-being compared to age, gender, and income (18). Higher education correlates with sufficient income, health, optimism, and self-esteem, where these factors are positively significant towards subjective well-being (19). Elderly who have a secondary education are better able to feel happiness and adapt to their conditions, because those with limited levels of knowledge and experience do not think about the pain more deeply so that it is easier to internalize the information they receive in their thinking, making them more adaptable to their pain.

Elderly widowed or widowed are more related to subjective well-being. Many studies state that someone who is not married or who are divorced lives separately from a partner is less happy than a married person (22). Older adults who have lost their spouses have been able to get up and find their social support. Most support is obtained from the family, and the type of psychological support is more felt by the elderly. So that the elderly are increasingly able to feel happy with the family in life.

Wandering is a condition that causes a burden both for the elderly and their caregivers. The elderly who feel the burden in their lives influence subjective well-being. Neuropsychiatric symptoms that even occur at the beginning of dementia can cause risk factors for deterioration in the condition of the elderly, where this can create a burden for caregivers and the elderly measured by subjective burden (24), the burden can prevent the elderly from feeling happiness, thereby reducing subjective well-being. The elderly need to get stimulation to reduce the burden they feel. One way to reduce the burden while providing happiness is to continue to do activities together. Activities in the elderly are useful for physical abilities, mood, cognitive, and quality of sleep for the elderly, which can be described through subjective positive feelings (25). Dementia elderly in carrying out activities requires social support from the surrounding environment. Social relations can increase support and friendship, which relates to SWB and PWB, comfort, reduce feelings of loneliness, and deal with stress (26).

Social leisure activity has proven to be able to improve subjective well-being and reduce the risk of wandering. Other factors that influence the reduction in risk of wandering are the length of illness, education of the elderly and caregiver, the presence or absence of chronic diseases in the elderly and caregivers, the status of a marriage of the elderly and caregivers, caregiver's age, and good relations between the elderly and caregivers. Nahm et al. (2010), in his study, stated that the satisfaction and happiness of the elderly would be low if the elderly feel a multidimensional burden, emotional distress, and role conflict. Some interventions have been believed to have a positive influence on social interaction and mortality, disability, cognitive functions and neuropsychiatric, depressive, and subjective well-being symptoms (23). Heikkinen (2006), in his research, showed that participation in leisure activities is strongly related to subjective well-being. Elderly who actively participate or try to maintain their participation in leisure activities can improve their quality of life, which affects subjective well-being (10). Social leisure activities that are carried out correctly and continuously can provide happiness for both. The happy feeling after doing social leisure activity gives a positive subjective feeling as well as effective and cognitive both of elderly and caregiver

CONCLUSION

Subjective well-being is positively associated with a reduced risk of wandering in dementia elderly. Dementia elderly who continue to do physical activities such as social leisure activities can feel happy so that they are still able to feel positive perceptions subjectively. Subjective positive perception is an expression of subjective well-being that can divert the attention of the elderly from neuropsychiatric symptoms, thus preventing the emergence of wandering behavior.

STRENGTH AND LIMITATION

This research is different from previous studies because it uses elderly dementia respondents. Elderly dementia with various problems due to decreased cognitive function requires special difficulties in retrieving data, so it needs to be discussed carefully to assist in collecting data. Besides, this study uses recreational activity interventions that prioritize social relations with families and related communities. In research on casual activities that have been carried out so far, no one has included social interaction. The expectation of this intervention is to be accepted by respondents to reduce negative perceptions in the community.

The limitations of this study were the first to be conducted to make this study irreversible. Samples that are less able to represent particular groups. The intervention group with no control group had difficulty comparing the results of the study. Researchers always try to improve on caregivers to be able to intervene according to schedule by always doing and improving communication with caregivers. Second, this study uses an instrument consisting of a questionnaire that takes its data through observations from caregivers so that honesty in answering questions determines the correctness of the data. To overcome this problem, the researcher always repeats questions to make sure the answers from the caregiver are not changed.

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