Profile of Depression on Older Adults with the Risk of Dementia

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Abstract. Depression in older adults can lead to a decrease in quality of life and an increase in mortality risk. This will have an impact on the daily activities of the elderly and their families as caregivers. The aim of this study was to determine the depression profile in older adults with risk of dementia in the Greater Jakarta. Descriptive study was used in the study. The population of the study were all older adults who lived with their families in the Greater Jakarta, with a total of 354 respondents as the sample were selected through multistage random sampling. The instrument used was a modified 15-item Geriatric Depression Scale and the Clock Drawing Test. The majority of the elderly had a risk of dementia (92.1%). Older adults who suffered from depression accounted for 4.5%, and there was likely a depressive disorder in 18.9% of respondents. The question regarding whether older adults had many problems with memory (forgetfulness) compared to most people was answered positively by 42.1% of respondents. The question regarding whether older adults preferred to stay at home rather than go out and do something new was answered positively by 61% of respondents. Memory problems and lack of social interaction experienced by older adults with depression will have an impact on their quality of life. It is hoped that families can continue to improve and maintain the quality of life of the elderly to keep them active and productive in an effort to prevent dementia.

Keywords: dementia, depression, quality of life, elderly

Introduction

The prevalence of depression increases with age, with the highest rates among those aged 75 years and above at around 8.9%, followed by those aged 65-74 at 8.0%, and those aged 55-64 at 6.5%. Depression in the elderly is a serious condition that can significantly reduce quality of life and increase the risk of death. In developing countries like Indonesia, people with depression are often not properly diagnosed (Ministry of Health RI, 2017; World Health Organization, 2020).

Severe depression can cause cognitive dysfunction and exhibit neurodegenerative symptoms, such as pseudodementia. Cognitive improvement in older adults with depression is difficult to achieve completely. This can be influenced by the severity of the depression and the length of time in which the elderly has been experiencing depression. Nevertheless, electroconvulsive therapy is considered to be able to improve cognitive and behavioral functions in the elderly to overcome depression and reduce symptoms of pseudodementia in the elderly (Dua & Grover, 2018). Other opinions suggest that cognitive dysfunction is most commonly experienced by older adults with late-onset depression (Morimoto et al., 2014).

Older adults who experience cognitive decline require the role of nurses as educators for the community, especially families and the elderly, on how to stimulate cognitive function. Another role of nurses is to provide holistic nursing care by caring for and providing comfort to the elderly to improve their quality of life. The decrease in quality of life in the elderly can be caused by physical changes followed by psychological changes such as changes in roles within the environment, so the elderly feel unable to do activities that they normally do. Therefore, nurses can help families accept the condition of the elderly and help

prepare the elderly to face their own death. Preparing for death is important for the elderly so that they do not feel anxious and depressed, allowing them to live their lives with dignity and quality (Chairina & Ahyar, 2020; Naftali, Ranimpi, & Anwar, 2017).

The WHO Mental Health Action Plan 2013-2030 highlights the necessary steps to provide appropriate interventions for people with mental disorders including depression. Depression is one of the priority conditions in the Mental Health Gap Action Programme (mhGAP) (WHO, 2020). Depression in the elderly can be related to low socioeconomic status, death or chronic illness in their partner, comorbid physical illnesses, and social isolation. Signs such as social isolation, disrupted sleep patterns, irritability, nausea and dizziness, feelings of worthlessness, hopelessness, guilt, agitation, or suicide plans indicate that the elderly person is in a state of depression (Ong et al., 2015; Sopyanti, Sari & Sumarni, 2019; Tania, 2015).

Older adults with chronic illness and insufficient family support may experience depression and loneliness. The aging process in the elderly can affect their health status due to limitations resulting from the decline of various body systems (Miller, 2012). Elderly people who are neglected and experience chronic stress in life are more vulnerable than those who have effective coping mechanisms to deal with stress (Stanhope & Lancaster, 2016). The limitations and vulnerability of the elderly in their lives can be helped by their families to provide adequate care.

Elderly people who experience depression can become a burden for their families, as research shows that around 55.4% of families report that older adults are no longer able to perform routine tasks such as shopping, cooking, preparing meals, and doing laundry. Similarly, the experience of older adults no longer recognizing their families is 10.7% (Maryam, 2023). This requires control by managing various risks that affect the occurrence of dementia, one of which is depression. The target audience for this control are those who already have risk factors as well as clients with dementia (Ong et al., 2015; Ministry of Health, 2016; WHO, 2017; WHO, 2019). Therefore, a description of depression in the elderly and several questionnaire items that may indicate depression problems need to be identified early.

Methodology

This study is a descriptive study with a population of all families who have elderly members in DKI Jakarta. The sampling technique used in this study is multistage random sampling with a total of 354 elderly respondents. The inclusion criteria for elderly respondents are aged 60 years and over, living with family, able to receive information and communicate effectively. The assessment instrument for depression uses the Geriatric Depression Scale (GDS) with a validity and reliability test result of Alpha Cronbach 0.781. Meanwhile, the assessment of cognitive function of the elderly uses the Clock Drawing Test (CDT) instrument with Alpha Cronbach 0.73.

Ethical Consideration

This study has also passed the ethical review by the Ethics Committee of the Faculty of Nursing, University of Indonesia with No. 46/UN2.F12.D/HKP.02.04/2018 and has applied three basic ethical principles, namely respecting the dignity of others, not causing harm, and justice. The study began with an explanation of its purpose and obtained voluntary consent from the respondents by signing a consent form. All data are kept confidential and used for research purposes only.

Results

Assessment of Depression Status and Cognitive Function of the Elderly

The results of the analysis of depression status and cognitive status in the elderly can be seen in the following table.

Table 1. Frequency distribution of depression status and cognitive status in the elderly in DKI Jakarta in 2018 (n=354)

Characteristics of the elderly	Frequency (n)	Percentage (%)
Depression status		
Suffered from Depression	16	4.5
Likely to suffered from depression.	67	18.9
Normal	271	76.6
Cognitive status		
Risk of dementia	326	92.1
Normal	28	7.9

Table 1 shows that 4.5% of older adults suffer from depressive disorders and 18.9% are at risk of depression. Older adults at risk of dementia based on Clock Drawing Test (CDT) screening is 92.1%.

Description of Depression Items in the Elderly

Assessment of depression status was carried out to get an idea of the elderly person's feelings in the past two weeks. The following is the distribution of 15 items from the Geriatric Depression Scale (GDS) instrument, where a score of 1 is given for bolded yes or no options.

Table 2. Frequency distribution of depression item descriptions in the elderly based on GDS assessment in DKI Jakarta in 2018 (n=354)

Question(s)	Frequency (n)	Percentage (%)
1. Do you feel fulfilled and satisfied in your entire life?		
Yes	312	88.1
No	42	11.9
2. Did you end up neglecting a lot of hobbies/habits/activities recently?		
Yes	131	37.0
No	223	63.0
3. Do you feel left out/hollow recently?		
Yes	75	21.2
No	279	78.8
4. Do you feel bored often?		
Yes	94	26.6
No	260	73.4
5. Do your get excited on something all the time?		
Yes	305	86.2
No	49	13.8

6. Are you afraid of something bad is going to happen soon to you?		
Yes	69	19.5
No	285	80.5
7. Are you happy with your life?		
Yes	329	92.9
No	25	7.1
8. Do you feel often helpless?		
Yes	68	19.2
No	286	80.8
9. Do you often prefer to stay at home rather than to go outside do something new?		
Yes	216	61.0
No	138	39.0
10. Do you often feel forgetful lately than most people?		
Yes	149	42.1
No	205	57.9
11. Do you think your life now is much happier than in the past?		
Yes	308	87.0
No	46	13.0
12. Do you often feel worthless lately?		
Yes	35	9.9
No	319	90.1
13. Are you excited right now?		
Yes	307	86.7
No	47	13.3
14. Do you feel hopeless right now?		
Yes	35	9.9
No	319	90.1
15. Do you think other people have better life than you?		
Yes	41	11.6
No	313	88.4

Table 2 shows that all the bolded questions were selected by the elderly, which means that they may be experiencing depression. Question (1) states that some elderly are not satisfied with their life (11.9%); question (2) indicates that elderly people have left many activities/interests/pleasures behind (37%); question (3) shows that some elderly people feel that their lives are empty (21.2%); question (4) reveals that some elderly people feel bored frequently (26.6%); question (5) states that some elderly people lack motivation (13.8%); question (6) reveals that some elderly people are afraid that something bad will happen (19.5%); question (7) shows that some elderly people are unhappy with most of their lives (7.1%); question (8) indicates that some elderly people feel powerless/weak (19.2%); question (9) reveals that most elderly people feel happy staying at home rather than going out and doing new things (61%); question (10) shows that some elderly people tend to forget more than most people (42.1%); question (11) states that some elderly people do not think that their current life is enjoyable (13%); question (12) indicates that some elderly people feel worthless (9.9%); question (13) shows that some elderly people feel lack of enthusiasm (13.3%); question (14) reveals that some elderly people feel that there is no hope in their current situation (9.9%); and question (15) indicates that some elderly people feel that other people are better off than them (11.6%).

Description of Elderly Characteristics

The characteristics of the elderly that can be described are age, gender, education level, involvement in social activities, and routine physical exercise.

Table 3. Frequency distribution of elderly characteristics in DKI Jakarta in 2018 (n=354)

Characteristic(s)	Frequency	Percent (%)
Age		
60 – 65 years old	169	47.7
≥ 66 years old	185	52.3
Sex		
Male	105	29.7
Female	249	70.3
Educational Background		
Poor	309	87.3
High	45	12.7
Social Activity Involvement		
Yes	262	74.0
No	92	26.0
Physical Exercise		
Yes	95	26.8
No	259	73.2

Table 3 shows that the majority of the elderly are aged ≥ 66 years, female, and have a low level of education, namely elementary and junior high school. There are still some elderly people who do not participate in social activities such as recitation, group meetings, and other gatherings. Most elderly people do not exercise or engage in physical activities.

Discussion

The results of the study illustrate that the status of depression among the elderly is present in 4.5% of them and at risk of depression in 18.9% of them. Meanwhile, the cognitive function status of the elderly is at risk of dementia by 92.1% based on CDT (Clock Drawing Test) screening. Depression as one of the modifiable factors needs to be assessed because it can be found in dementia patients and accelerate deterioration. The Geriatric Depression Scale (GDS) is used to assess the presence of depression in the elderly. People who experience depression need to receive pharmacological and non-pharmacological management (counseling and psychotherapy) according to indications (Ong et al., 2015; Ministry of Health, 2016; Nasrun et al., 2017; Turana, 2019; Livingston et al., 2020).

The measurement of depression in the elderly is carried out by filling out the Geriatric Depression Scale (GDS) questionnaire. The questions evaluated in the questionnaire are satisfaction with life, pleasurable activities, feelings of emptiness, feelings of boredom, enthusiasm for activities, fear of something that might happen, feelings of happiness, feelings of helplessness, feelings about doing something new, feelings about memory, happy thoughts in life, feelings of worth and loveability, feelings of enthusiasm, hope for the future, and feelings about their current condition. The 15-item GDS has a strong relationship with depression because problems with dissatisfaction with life, dysfunction in daily life, despair, and cognitive problems they present are generally part of the problems experienced by people with depression (Tania, 2015). This is consistent with the choice of the elderly who feel more problems with memory (forgetfulness) compared to most people, which is 42.1%. This result

is in line with research where the most commonly experienced symptoms by the elderly are frequently forgetting recent events, asking and telling the same things repeatedly (42.4%) (Maryam et al., 2021).

Examination with the GDS is also supported by Saari et al.'s (2020) study, which shows that the 15 questions can be categorized as signs of depression and signs of apathy. For questions that can identify signs of depression, they are related to satisfaction with life (1), emptiness (3), boredom (4), good spirits (5), fear (6), happiness (7), helplessness (8), memory problems (10), pleasure in life (11), feelings of worthlessness (12), no hope (14), and feeling that others are better than them (15). Meanwhile, questions about signs of apathy, i.e., decreased activity (2), desire to stay at home (9), and energy or enthusiasm for activities (13). Some things related to the possibility of depression are when the elderly feel dissatisfied with life, feel bored, fear bad events, feel worthless, have no hope, and feel that others are better.

Recognizing the presence of signs of depression in the elderly is an important part of early dementia prevention. Screening performed regularly is one of the goals of care. This is in line with the WHO statement (2017) that the main goals of dementia care include early diagnosis for optimal care management from an early stage; optimizing physical, cognitive, daily activity, and well-being health; identifying and treating accompanying physical diseases; detecting and treating existing behavioral and psychological symptoms; as well as providing long-term information and support to caregivers. According to the study by Juniarta & Aryana (2018), a significant relationship between depression and cognitive function can occur due to a decrease in performance related to neuropsychological aspects and executive function disorders. Deficits in executive function, response inhibition, planning, and performance monitoring, which are related to long-term treatment response, are more likely to occur in the elderly with depression (Zaliavani et al., 2019).

The research results showed that the education level of most elderly people is elementary and junior high school. Nugroho et al. (2017) stated that low education level can be one of the factors affecting a person's cognitive function. Ardiani et al. (2019) mentioned that the low level of education in the elderly can occur due to various reasons, including a lack of awareness of the importance of education, limited educational facilities, and difficulty in accessing education. The study also stated that the higher the education level, the better the possibility of understanding health and utilizing health facilities.

In this research, many elderly people were found to participate in social activities, which accounted for 74.0%. This is in line with research indicating that the higher the social activity, the higher the quality of life of the elderly (Sagitta, 2017). Another study conducted by Azmi et al. (2021) showed that mental and physical development of the elderly through community service, group prayers, religious lectures, and several other social interactions could affect and enhance the spirituality of the elderly. The study also stated that increased spiritual experience can reduce the level of depression experienced by the elderly. Therefore, it can be concluded that elderly people who actively participate in social activities can reduce the level of depression and improve their quality of life.

This research also shows that many elderly people have a normal category, which is 76.6%. This is in line with research by Prabhaswari and Putu Ariastuti (2016) who found that elderly people who did not experience depression were 76.7%. Factors that cause the absence of depression in the elderly are maintaining a healthy quality of life and the elderly's activity in social activities. According to Prinadiyanty (2018), factors that affect the occurrence of depression in the elderly are female gender, low education, psychosocial factors, and lack of good social and family support. The number of elderly people who do not experience depression still needs support from their families and those around them to maintain their quality of life.

Family plays a significant role in shaping the healthy behaviors of each family member. Poor knowledge about depression within the family can correlate with unhealthy attitudes and behaviors. Primary prevention in the form of health promotion and disease prevention is a fundamental effort in family nursing to create healthy and prosperous lifestyle changes (Friedman, Bowden & Jones, 2003; Notoatmodjo, 2012). Several factors that affect the health of the elderly include economic factors, environmental factors including their family environment, nutritional intake, and patient knowledge (Kemenkes, 2015; Kusumawardani & Andanawarih, 2018). Some actions that families can take include encouraging the elderly to consult with psychologists for further treatment, motivating them, and being present to accompany clients in their daily activities (Sopyanti, Sari & Sumarni, 2019; Tania, 2015).

Conclusion and Recommendations

The selection of questions by the elderly in the Geriatric Depression Scale (GDS) instrument indicates the possibility of depression issues. This requires attention and support from healthcare providers to conduct regular screening and counseling related to depression through Posbindu PTM activities, as well as involving family members who care for the elderly at home. These efforts are made to prevent the high incidence of dementia in 2030.

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