ELDERLY FAMILY KNOWLEDGE ABOUT DEMENTIA IN WONOKERTO VILLAGE, TURI DISTRICT, SLEMAN REGENCY, YOGYAKARTA

 ¹ Hillary Shelyn Harsono
² Faculty of Medicine Duta Wacana Christian University, 5-25 Dr. Wahidin Sudirohusodo No. 5-25 Yogyakarta, 55224, Indonesia <u>Shelynharsono@gmail.com</u>

² The Maria Meiwati Widagdo, ³ Johan Kurniawan Djonggianto Faculty of Medicine Duta Wacana Christian University, 5-25 Dr. Wahidin Sudirohusodo No. 5-25 Yogyakarta, 55224, Indonesia <u>mariawidagdo@yahoo.com</u>, dr.jkdjongianto@gmail.com

Abstract

Background: According to WHO, an elderly person is someone who has reached the age of 60 to 65 years and over. The development of the number of elderly people in Indonesia in 2020 reached 9.93 percent. The incidence of dementia generally increases with age. Dementia is a syndrome that characterized by a progressive and persistent decline in cognitive function. In the condition of dementia, there is a decrease in the independence and dependence of the elderly on the productive population, one of which is the family.

Objective: This study aims to describe the knowledge of elderly families about dementia in Wonokerto Village, Turi Sleman Regency, Yogyakarta.

Methods: The subjects of this study were elderly families who cared for and lived at home with the elderly in Wonokerto The research was conducted using a qualitative research method with a phenomenological approach. Data was collected by *means of in-depth interviews*. The sample was taken by *purposive sampling* with a total of ten research subjects. The interview transcript was analyzed using *the thematic framework*.

Results: Three research subjects with the latest high school education and experience caring for the elderly more than ten years were able to answer questions about dementia knowledge well. The remaining seven research subjects did not know the knowledge related to dementia or answered undecided.

Conclusion: The results showed that most of the research subjects still do not understand about dementia knowledge such as the definition, types, examination, and management of dementia. While most research subjects have sufficient knowledge related to elderly support, how to care for the elderly with dementia.

Keywords: knowledge, dementia, family, elderly, aging process

I. INTRODUCTION

The Indonesian Ministry of Health defines the elderly as those who have reached the age of 60 years and over (Kementerian Kesehatan RI, 2019). According to the Central Statistics Agency for the Elderly 2020, the world's population is currently in the era of the aging population where the population aged over 60 years exceeds 7 percent of the total population in the world (Central Bureau of Statistics, 2020). The development of the number of elderly in Indonesia alone in 2020 the percentage of the elderly reached 9.93 percent or around 26.82 million people (WHO, 2021). Biologically in the elderly group there will be a normal body process, namely the aging process. The aging process is a complex process of accumulation of changes (da Costa et al., 2016). These changes are marked by a decrease in body resistance due to changes in the structure, function of cells, tissues and organ systems, resulting in physiological, psychological and social setbacks (Central Bureau of Statistics, 2020). Dementia is a syndrome that occurs due to a disease in the brain. Dementia is characterized by a progressive and persistent decline in cognitive function (Duong & Tajel, 2017). The incidence of dementia generally increases with age (Holmes & Amin, 2020). The results of the 2015 study on dementia in DIY showed that the prevalence of dementia in the population aged 60 years or older was 20.1% (DIY Health Office, 2021). In this dementia condition, it will cause a decrease in the number of independence and increase the number of elderly dependence on productive populations, one of which is the family (DIY Health Office, 2021). Based on the description above, it can be seen that the elderly who experience the aging process have a risk of developing dementia. This causes the dependence of the elderly on a productive population to increase. Family is one of the most important sources of support for the elderly in carrying out daily activities, both physically and psychologically. This study will discuss further the knowledge of elderly families about dementia in Wonokerto Village, Turi District, Sleman Regency.

II. METHODS

The research was conducted using a qualitative research method with a phenomenological approach. Data was collected by *means of in-depth interviews*, which was preceded by a screening process for the elderly. The affordable population in this study were all elderly families who cared for and lived at home with the elderly in Wonokerto Village, Turi District, Sleman Regency, sampling was done by *purposive sampling* with a total of ten research subjects. From the results of the interviews, the interview transcript process was carried out in the form of text verbatim and analyzed using *the thematic framework*.

III. RESULTS AND DISCUSSION

Characteristics of Research Subjects

Overall, the ten research subjects did not know the definition of dementia itself. They are more familiar with dementia as senility.

a. Three of the research subjects with the last education of high school and equivalent and having experience caring for the elderly 10 years, were able to answer almost all dementia knowledge questions according to existing theory, namely risk factors, symptoms, impacts, and

prevention of dementia conditions. While questions such as support for the elderly, how to care for and success in caring for the elderly can be known, understood in more detail and applied in daily life

b. Seven out of ten other study subjects who had the last education of junior high school and elementary school and had experience caring for the elderly < 10 years and 20 years did not know about dementia knowledge or answered with doubt.

Code	Ages	Gender	Last Education	Long time caring	As a	MMSE (Elderly)
R1	50 years	Female	Primary school	3 years	children	16
R2	41 years	Female	Primary school	20 years	children	16
R3	46 years	Male	Primary School	34 years	children	12
R4	46 years	Female	Junior High School	18 years	children	26
R5	50 years	Male	Senior High School	10 years	children	13
R6	50 years	Female	Vocational school	10 years	children	16
R7	42 years	Male	Senior High school	13 years	children	28
R8	40 years	Female	Senior high school	15 years	children	16
R9	43 years	Male	Junior high school	22 years	children	14
R10	50 years	Male	Primary	29 years	children	25

Table 1

Discussion

Knowledge becomes the basis for a person to make decisions and determine actions to problems faced in everyday life (Mrl et al., 2019). Broadly speaking, knowledge is divided into six levels (Mrl et al., 2019) namely knowing (*know*) the knowledge possessed at this level such as describing, mentioning, defining, and stating something, understanding (*comprehension*) an ability to explain about objects or things. correctly, application (*application*) an ability to be able to apply the material studied in real or actual conditions, Analysis (*analysis*) an ability to describe a material or an object into components that are related to each other, Synthesis (*synthesis*) synthesis abilities, for example, such as compiling, planning, categorizing, designing, and creating, and evaluation (*evaluation*) which can be described as the process of planning, obtaining, and providing the information needed to make decisions.

The theme of dementia knowledge that was first asked was the definition of dementia itself. All research subjects (100%) understand the condition of dementia with the term senile, which is a condition associated with parents, memory problems, and reduced understanding. This is not in accordance with the theory because according to (Shaji et al., 2018) dementia is not limited to memory disorders but is a chronic or progressive syndrome, where there are several disturbances in cognitive function, including impaired memory, thinking, orientation, understanding. , calculation, learning ability, language, and assessment. Dementia can be caused by genetic factors that are passed down from family. All study subjects (100%) did not know and understand that genetics is a risk factor for non-modifiable dementia. According to (Silva et al., 2019) about 70% of the risk of developing dementia is associated with genetics. Dementia in the late stages is mainly associated with polymorphisms of the apolipoprotein E gene. six out of ten study subjects (60%)

knew that metabolic disease is a risk factor for dementia. Metabolic diseases such as high blood pressure and high blood sugar are risk factors for developing dementia (Alzheimer Society Of Canada, 2018). As many as 4 out of ten study subjects (40%) know that traumatic brain injury is a risk factor for dementia. According to Frontiers in Aging Neuroscience (2019), the risk of dementia is doubled in those with head injuries. Five out of ten research subjects (50%) know and understand that lifestyle is a risk factor for dementia. Lifestyles such as lack of physical activity, smoking, drinking alcohol and not maintaining a healthy diet are risk factors for dementia (Silva et al., 2019). As for the symptoms of dementia. As many as 8 out of 10 research subjects (80%) know and understand that the symptoms of dementia are easy to forget or lost memory, 1 study subject (10%) know that the symptoms of dementia are reduced physical abilities of the body but can still carry out daily activities as usual. The remaining one study subject (10%) knew the symptoms of dementia, namely easily feeling tired and cold. Some of the common symptoms of dementia from existing theories are memory loss, difficulty concentrating or organizing things, problems in communication and language, hallucinations, confusion, personality changes, and some experience paralysis conditions (The Alzheimer's Society, 2021). As many as 8 out of 10 study subjects (80%) know and understand that dementia cannot be cured. According to Zoe Arvanitakis (2019), dementia is not a common disease and cannot be cured. The current treatment only aims to relieve symptoms, slow the progression of the disease (Arvanitakis, 2020). Furthermore, related to the impact of dementia on daily life as many as five out of ten research subjects (50%) know and understand the impact of dementia on sufferers' daily lives is memory loss. According to The Alzheimer's Society (2021) memory loss is a consequence of dementia that can occur in the early stages. While the other four research subjects (40%) knew and understood the impact of dementia causing a person to have difficulty in carrying out daily activities and unable to work. This is in accordance with the existing theory where one of the most common impacts of dementia is the loss of a person's ability to perform daily activities (Shuman et al., 2017). While 1 study subject (10%) did not know that dementia can cause a person to have difficulty with daily activities. This causes the dependence of the elderly with dementia to the family. Regarding the prevention of dementia three other research subjects (30%) know that exercise can prevent dementia Performing physical activities such as exercising plays a role in preventing the risk of dementia (Dementia Australia, 2020). One in ten study subjects (10%) know and understand that dementia can be prevented by stimulating the brain by reading and doing repetitive activities. According to Alzheimer's UK (2020) Reading and carrying out daily activities cause a person to remain mentally active. In addition, other activities such as painting, playing music, playing puzzles, brushing teeth, changing calendars and others can also help prevent dementia when included in one's daily routine (De Sousa & Lodha, 2019). Then one in ten research subjects (10%) know that dementia can be prevented by reducing strenuous activities such as work. This is not in accordance with the existing theory according to the Alzheimer's Society Against Dementia (2020) that work can prevent dementia by stimulating and keeping the brain active. There are seven out of ten study subjects (70%) who know that dementia can be prevented by controlling metabolic diseases such as high blood pressure and blood sugar but cannot explain why. Based on the existing theory that dementia can be prevented by controlling the risk factors that cause dementia such as hypertension, diabetes (Livingston et al., 2020). Then seven of the study subjects (70%) knew that not smoking can prevent dementia. According to Scotland (2015) not smoking can prevent dementia. A person who does not smoke has a lower risk of developing dementia than those who smoke (Scotland, 2015). Furthermore, related to family support for families with dementia, there are six research subjects who know and understand the support

needed by the elderly with dementia is to provide emotional support such as attention and enthusiasm. People with dementia experience reduced control over their feelings and emotional responses such as being easily emotional, distant and disinterested in the environment around them (Alzheimer's Society, 2018). Therefore someone with dementia needs love, good relationships, enthusiasm, and attention from the closest people including family (Better Health, 2014). While the remaining two research subjects knew the support needed by the elderly with dementia by being given physical support. A person with dementia gradually becomes more dependent on other people to perform daily activities. In dementia, a person needs physical support in performing daily activities (ADL) such as eating, bathing, walking and instrumental activities of daily living (IADL) such as preparing meals, shopping, managing finances and health (Shuman et al., 2017). There are six research subjects who know and understand that the elderly with dementia can be cared for by paying attention and meeting their daily needs.

IV. CONCLUSION

a. The majority of research subjects still do not understand about dementia knowledge such as the definition, type, examination, and management of dementia.

b. The majority of research subjects have sufficient knowledge related to elderly support, how to care for, and success in treating dementia conditions.

c. The level of knowledge of research subjects regarding dementia knowledge is influenced by the level of education, experience, and the environment in which the person lives.

ACKNOWLEDGMENTS

The first author would like to thank colleagues at Duta Wacana Christian University, Faculty of Medicine, especially dr. The Maria Meiwati Widagdo, Ph. D, dr. Johan Kurniawan. Cht, M. Biomed, Sp. KJ, who offered support and feedback whenever requested. She would also like to thank the research participants, family, friends and other parties who contributed to this research. The author hope that this research can be used for future researchers that related to this research and Improve promotive and preventive health care programs from government related to dementia carried out by puskesmas officers and posyandu cadres, to reduce the risk of dementia and reduce the cost of managing dementia

REFERENCES

- Kementrian Kesehatan RI. (2019). Menkes: Lansia yang Sehat, Lansia yang Jauh dari Demensia. Kementerian Kesehatan RI. https://www.kemkes.go.id/article/view/19093000001/penyakit-jantung-penyebab-kematianterbanyak-ke-2-di-indonesia.html
- [2] Badan Pusat Statistik. (2020). Statistik Penduduk Lanjut Usia 2020 (2020th ed.). Badan Pusat Statistik.
- [3] WHO. (2021). Ageing and health. WHO.
- [4] da Costa, J. P., Vitorino, R., Silva, G. M., Vogel, C., Duarte, A. C., & Rocha-Santos, T. (2016). A synopsis on aging—Theories, mechanisms and future prospects. *Ageing Research Reviews*, 29, 90–112. https://doi.org/10.1016/j.arr.2016.06.005
- [5] Duong & Tajel. (2017). Dementia : What Every Pharmacist need to know. Canadia Pharmacist Journal.
- [6] Holmes, C., & Amin, J. (2020). Dementia. *Medicine (United Kingdom)*, 48(11), 742–745. https://doi.org/10.1016/j.mpmed.2020.08.014
- [7] Dinas Kesehatan DIY. (2021). Hari Lanjut Usia Nasional 29 Mei 2019: Lansia Sehat dan Berdaya, Keluarga Bahagia. https://www.dinkes.jogjaprov.go.id/berita/detail/malaria-eliminasi-diy-penguatan-pengendalian-malaria-melalui-dusun-peduli-malaria-
 - [8] Mrl, A., Kes, M., Jaya, I. M. M., Kes, M., Mahendra, N. D., & Kep, S. (2019). Buku Ajar Promosi Kesehatan. 1–107. http://repository.uki.ac.id/2759/1/BUKUMODULPROMOSIKESEHATAN.pdf
 - [9] Shaji, K. S., Sivakumar, P. T., Rao, G. P., & Paul, N. (2018). Clinical practice guidelines for management of dementia. *Indian Journal of Psychiatry*, *60*(7), S312–S328. https://doi.org/10.4103/0019-5545.224472

- [10] The Alzheimer's Society. (2021). What is dementia? *Alzheimer Society United Againts Dementia*, 34(6), 463–464. https://doi.org/10.1142/9789813109261 0004
- [11] Savica, R. (2015). Prevention of Dementia. In *Evidence based Dementia Practice* (pp. 654–668). https://doi.org/10.1002/9780470752340.ch39
- [12] Silva, M. V. F., Loures, C. D. M. G., Alves, L. C. V., De Souza, L. C., Borges, K. B. G., & Carvalho, M. D. G. (2019). Alzheimer's disease: Risk factors and potentially protective measures. In *Journal of Biomedical Science* (Vol. 26, Issue 1). https://doi.org/10.1186/s12929-019-0524-y
- [13] Alzheimer Association. (2019). 2019 ALZHEIMER'S DISEASE FACTS AND FIGURES Includes a Special Report on Alzheimer's Detection in the Primary Care Setting: Connecting Patients and Physicians. In *Alzheimer's & Dementia Volume 15, Issue 3* (pp. 321–387). https://www.alz.org/media/Documents/alzheimers-facts-and-figures-2019r.pdf%0Ahttps://alz.org/media/Documents/alzheimers-facts-and-figures-2019-r.pdf
- [14] Shuman, S. B., Hughes, S., Wiener, J. M., & Gould, E. (2017). Research On Care Needs And Supportive Approaches For Persons With Dementia. In *Dementia Care* (Issue March, p. 10). https://aspe.hhs.gov/sites/default/files/migrated legacy files//174551/Session 1 Background.pdf
- [15] Alzheimer Association. (2019). 2019 ALZHEIMER'S DISEASE FACTS AND FIGURES Includes a Special Report on Alzheimer's Detection in the Primary Care Setting: Connecting Patients and Physicians. In Alzheimer's & Dementia Volume 15, Issue 3 (pp. 321–387). https://www.alz.org/media/Documents/alzheimers-facts-and-figures-2019r.pdf%0Ahttps://alz.org/media/Documents/alzheimers-facts-and-figures-2019-r.pdf
- [16] Alzheimer's Australia. (2020). Tests Used in Diagnosing Dementia. June. https://www.dementia.org.au/files/helpsheets/Helpsheet-DementiaQandA10-TestsUsedInDiagnosingDementia_english.pdf
- [17] Roth, H. L. (2012). Dementia and Sleep. Neurologic Clinics, 30(4), 1213–1248. https://doi.org/10.1016/j.ncl.2012.08.013
- [18] Livingston, G., Sommerlad, A., Orgeta, V., Costafreda, S. G., Huntley, J., Ames, D., Ballard, C., Banerjee, S., Burns, A., Cohen-Mansfield, J., Cooper, C., Fox, N., Gitlin, L. N., Howard, R., Kales, H. C., Larson, E. B., Ritchie, K., Rockwood, K., Sampson, E. L., ... Gitlin, N. (2020). Dementia prevention, intervention, and care: 2020 report of the Lancet commission. In *The Lancet* (Vol. 390, Issue 17, pp. 2673–2734). http://dx.doi.org/10.1016/
- [19] Scotland, A. (2015). Smoking and Dementia. Alzheimer Scotland, May, 1-15.
- [20] Alzheimer's Society. (2018). The psychological and emotional impact of dementia | Alzheimer's Society. https://www.alzheimers.org.uk/get-support/help-dementia-care/understanding-supporting-person-dementiapsychological-emotional-impact#content-start%0Ahttps://www.alzheimers.org.uk/get-support/helpdementia-care/understanding-supporting-person-dementia-psyc
- [21] Better Health. (2014). *Dementia emotional changes Better Health Channel*. https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/dementia-emotional-changes
- [22] Family Caregiver Alliance. (2020). Caregiver's Guide to Understanding Dementia Behaviors Family Caregiver Alliance. https://www.caregiver.org/resource/caregivers-guide-understanding-dementiabehaviors/
- [23] Frontiers in psychology. (2018). Frontiers | Association of Lower Spiritual Well-Being, Social Support, Self-Esteem, Subjective Well-.
- [24] C-Care Health Service. (2017). Why Family Support Is Important When Caring For The Elderly | C-Care. https://www.c-care.ca/blog/elder-care/family-support-important-caring-elderly/