

Empowerment of Caregivers and Families in Making Elderly People 'SEBASIS'; Healthy, Tuberculosis Free

Farsida^{1*}, Rahma Ayu Larasati², Kemalasar Nas Darisan³, Dadang Herdiansyah⁴, Ikrimah Nisa Utami⁵, Katharina Setyawati⁵, Arvin Alfarizi Kurniawan⁶

¹Departemen Ilmu Kedokteran dan Komunitas, Fakultas Kedokteran dan Kesehatan, Universitas Muhammadiyah Jakarta

²Departemen Biomedik, Fakultas Kedokteran dan Kesehatan, Universitas Muhammadiyah Jakarta

³Departemen Pulmonologi, Fakultas Kedokteran dan Kesehatan, Universitas Muhammadiyah Jakarta

⁴Fakultas Kesehatan Masyarakat, Universitas Muhammadiyah Jakarta

⁵Departemen Penyakit Dalam, Fakultas Kedokteran dan Kesehatan, Universitas Muhammadiyah Jakarta

⁶Departemen Pulmonologi, Fakultas Kedokteran dan Kesehatan, Universitas Muhammadiyah Jakarta

Email : farsida@umj.ac.id

Abstract

Empowerment of caregivers and families in making the elderly 'SEBASIS'; healthy free of tuberculosis. Tuberculosis (TB) is an infectious disease that is still a public health problem, and one of the biggest causes of death in Indonesia. According to BPS, the number of elderly people in 2022 is around 30 million people and in 2050 will increase by 74 million people. This demographic shift shows that the elderly are an age group that deserves attention, especially in terms of Health. The impact of the Covid 19 pandemic coupled with decreased endurance and lung capacity that is not optimal, can cause the elderly to be susceptible to tuberculosis. The team of lecturers and students of FKK UMJ seeks to prevent tuberculosis by providing special education for elderly companions or caregivers at the Tresna Werdha Budi Mulya 1 social institution in East Jakarta. The event includes pre-test, education on the prevention and diagnosis of tuberculosis in the elderly, and post-test. T test results obtained p-value of 0.000, with an increase in the average knowledge after education of 6.72. It can be stated that educational activities for caregivers provide a significant increase in knowledge.

Keywords: Caregiver, Elderly, Family, Tuberculosis.

Abstrak

Tuberkulosis (TB) merupakan penyakit menular yang masih menjadi masalah kesehatan masyarakat, dan salah satu penyebab kematian terbesar di Indonesia. Menurut BPS, jumlah lansia tahun 2022 sekitar 30 juta jiwa dan pada tahun 2050 akan meningkat sebanyak 74 juta orang. Pergeseran demografi ini menunjukkan bahwa lansia merupakan kelompok usia yang patut diperhatikan terutama dari segi Kesehatan. Imbas pandemi Covid 19 ditambah dengan daya tahan tubuh menurun serta kapasitas paru yang sudah tidak optimal, dapat menyebabkan lansia rentan terkena tuberkulosis. Tim dosen dan mahasiswa FKK UMJ berupaya melakukan pencegahan penyakit tuberkulosis dengan cara memberikan edukasi khusus untuk pendamping atau *caregiver* lansia di Panti Sosial Tresna Werdha Budi Mulya 1 Jakarta Timur. Acara meliputi *pre-test*, edukasi mengenai pencegahan dan diagnosis tuberkulosis pada lansia, dan *post-test*. Hasil uji T didapatkan nilai-p sebesar 0,000, dengan adanya peningkatan rata-rata pengetahuan setelah edukasi sebesar 6.72. Sehingga dapat dinyatakan bahwa kegiatan edukasi terhadap *caregiver* memberikan peningkatan pengetahuan yang signifikan.

Kata Kunci: Caregiver, Keluarga, Lansia, TB.

INTRODUCTION

Law Number 13 of 1998 concerning the Welfare of the Elderly defines the elderly population as those who have reached the age of 60 (sixty) years and over. Humans will experience a decline in both the structure and function of organs and this situation can lead to a reduced ability to adapt to the environment(1). In almost five decades, the percentage of elderly Indonesians has approximately doubled (1971-2017). Apart from that, Indonesia's elderly are dominated by the age group 60-69 years (young elderly) whose percentage reaches 5.65% of the

Indonesian population, the rest is filled by the age group 70-79 years (middle elderly) and 80+ (older elderly)(2).

Every year 10 million people fall ill from TB, and although it is a preventable and curable disease, 1.5 million people die from TB every year(3). It has long been known that the elderly are vulnerable to TB(4). This is already known in developed countries, but not yet realized in developing countries. Altered T cell-mediated immunity is associated with advanced aging, resulting in reduced capacity to control TB infection(5,6). The group with the largest

percentage of TB cases by age ranges from 25 to 54 years. However, in the Eastern Mediterranean, Southeast Asia, and Western Pacific regions, TB epidemics are most common in the elderly with a progressive increase in notification rates with age, and a peak among those aged 65 years and over(3).

As social creatures, humans always interact and need help from other humans. Several previous studies found that the role of the family/caregiver is very important in finding TB cases and in patient compliance with therapy/taking medication(7–9). Elderly people who live in nursing homes have very close interactions with elderly companions or caregivers. So through this activity we will focus on the role of caregivers in finding tuberculosis patients in the elderly(10).

IMPLEMENTATION METHOD

We collected data and approached the elderly community at the Tresna Werdha Budi Mulia I Social Home. This activity was carried out on 7 - 8 September 2023, which was held for 2 days and took place at the Budi Mulia I Cipayung Tresna Werdha Social Home (PTSW). Jl. Highways No. 58 7 6, RT.7/RW.5, Cipayung Kec. Cipayung, East Jakarta City. This activity was attended by 40 elderly people consisting of men and women aged 60-80 years, as well as 30 elderly companions or caregivers who served in the orphanage and from the family. We conducted a pre-test first on the caregivers who were present. Questions were asked regarding clinical manifestations and diagnosis of TB in the elderly. After that we carry out education using the counseling method. After the counseling was conducted, we held a discussion and closed by conducting a post-test. The pre-test and post-test results were analyzed using the T Test.

RESULTS AND DISCUSSION

Tuberculosis in the elderly is often undiagnosed. This is caused by several factors, including unclear clinical symptoms and inadequate caregiver skills and knowledge. The caregiver's lack of ability to care for tuberculosis sufferers can be caused by a lack of knowledge. This shows that knowledge and experience in treating elderly people who have tuberculosis are

really needed in providing nursing care to elderly people who have tuberculosis.

Fast and accurate diagnosis can increase the success of therapy and improve the quality of life of the elderly. Elderly people basically experience a decline in various functions so that in carrying out all their activities they must get support from family and caregivers. Caregivers are providers of health care for children, adults and the elderly who experience chronic physical or psychological disabilities(11). Other research states that the family/caregiver is influential in providing support in the form of physical and psychological care for successful treatment of pulmonary tuberculosis(12). So it is very important to increase family/caregiver knowledge in caring for patients suffering from pulmonary tuberculosis(12).

However, Dewi et al's research revealed that not all elderly people have an adequate family or caregiver role around them. Of the 66 respondents, it was found that only 35 respondents (53%) had family with a good role as caregivers. 11 respondents (1.5%) have families with a poor role, and 30 respondents (45.5%) have families with a fairly good role(13,14). Older adults may face significant challenges in accessing TB services, which can be attributed to a variety of socioeconomic factors and health system challenges. One factor includes the lack of a comprehensive support system to help manage the complex health issues that disproportionately affect this population, as well as the physical and financial barriers that impede health care in older adults.(15,16).

The results of the pretest and post-test of this community service activity show that from the 29 subjects observed, it can be seen that the average or mean level of knowledge of respondents before being given education was 91.90 and the average level of knowledge after being given education was 98.62, statistically there is a significant difference between The average level of knowledge before and after counseling, there was an increase in knowledge after education of 6.72. The results of the T test obtained a p-value of 0.000, so it can be stated that educational activities for respondents, namely caregivers at the Tresna Werdha Budi Mulia I Social Home, produced results or education was acceptable to

the respondents. Caregiver knowledge in finding TB cases in the elderly is very important in creating an increase in the health level of the elderly. Fast and accurate diagnosis can increase the success of tuberculosis treatment in the elderly. These results are in line with Karim who found an increase in education on the prevention and treatment of TB among elderly caregivers (17).

Through this counseling, elderly companions can understand that tuberculosis in



Figure 1. Counseling for Caregivers, elderly and families

CONCLUSION

There is an increase in the average knowledge after education and the p-value is 0.000, so it can be stated that educational activities for caregivers provide a significant increase in knowledge. Caregiver knowledge in finding TB cases in the elderly is very important in creating an increase in the health level of the elderly. Fast and accurate diagnosis can increase the success of tuberculosis treatment in the elderly.

THANK-YOU NOTE

We would like to express our deepest thanks to the grant funders for this service, namely from Muhammadiyah University Jakarta and LPPM UMJ. We also thank the East Jakarta Social Service and the Tresna Werdha Budi Mulia I

the elderly is atypical. Symptoms often include miliary tuberculosis, TB meningitis, bone TB and urinary tract TB. TB patients in the elderly often do not show classic symptoms such as coughing up phlegm, coughing up blood, night sweats and fever. Elderly people with decreased independence, decreased ability to carry out activities, anorexia and recurrent low-grade fever should be suspected of suffering from tuberculosis (3.18)

Social Home as partners in this service. We are also very grateful to the parties who support the smooth running of this activity, namely from the Medical Study Program, Medical Professional Study Program, and Nutrition Science Study Program, Faculty of Medicine and Health, as well as the Faculty of Public Health, Muhammadiyah University, Jakarta..

BIBLIOGRAPHY

1. Nugroho W. Keperawatan Gerontik dan Geriatrik. Jakarta: EGC; 2008.
2. Silviliyana M, Maylasari I, Agustina R, Ramdani KD, Sulistyowati R, Annisa L, et al. Statistik Penduduk Lanjut Usia. Badan Pusat Statistik; 2018 p. xxiv + 260 halaman.
3. Caraux-Paz P, Diamantis S, de Wazières B, Gallien S. Tuberculosis in the Elderly. *J Clin Med.* 2021 Dec;10(24).
4. Schaaf HS, Collins A, Bekker A, Davies PDO. Tuberculosis at extremes of age. *Respirology.* 2010 Jul;15(5):747–63.
5. Stead WW. Tuberculosis among elderly persons, as observed among nursing home residents. *Int J Tuberc Lung Dis Off J Int Union against Tuberc Lung Dis.* 1998 Sep;2(9 Suppl 1):S64-70.
6. Orme IM. Aging and immunity to tuberculosis: increased susceptibility of old mice reflects a decreased capacity to generate mediator T lymphocytes. *J Immunol.* 1987 Jun;138(12):4414–8.
7. Zeladita-Huaman J, Yuen CM, Zegarra-Chapoñan R, Curisinche-Rojas M, Egusquiza-Pozo V. Caregivers' knowledge and perceptions are associated with children's TB preventive treatment completion. *Public Heal action.* 2021

- Jun;11(2):85–90.
8. Emerson C, Ndakidemi E, Ngowi B, Medley A, Ng'eno B, Godwin M, et al. Caregiver perspectives on TB case-finding and HIV clinical services for children diagnosed with TB in Tanzania. *AIDS Care*. 2020 Apr;32(4):495–9.
 9. Dewi NLPT, Wati NMN, Juanamasta IG. Dukungan Caregiver Berdampak Terhadap Penerimaan Diri Pasien TBC. *J Kesehat Masy [Internet]*. 2019;9(2):192–8. Available from: [http://download.garuda.kemdikbud.go.id/article.php?article=1617845&val=10571&title=Dukungan Caregiver Berdampak Terhadap Penerimaan Diri Pasien TBC](http://download.garuda.kemdikbud.go.id/article.php?article=1617845&val=10571&title=Dukungan%20Caregiver%20Berdampak%20Terhadap%20Penerimaan%20Diri%20Pasien%20TBC)
 10. Subadi T. *Sosiologi dan Sosiologi Pendidikan: Suatu Kajian Boro dari Perspektif Sosiologis Fenomenologis*. UMS [Universitas Muhammadiyah Surakarta] Press. 2009.
 11. Stanley M. *Gerontologi*. Jakarta: EGC; 2006.
 12. Kristinawati B, Muryadewi A, Irianti AD. The Role of Family as A Caregiver in Caring for Family Members that are Suffering from Pulmonary Tuberculosis. *J Ners*. 2019;14(3 Special Issue):362–6.
 13. Baroroh DB, Irafayani N. Peran keluarga sebagai Care Giver Terhadap Pengelolaan Aktivitas Pada Lansia Dengan Pendekatan NIC dan NOC. *J Keperawatan*. 2017;3(2):141–51.
 14. Hidayat CT. Pengaruh Pelaksanaan Asuhan Keperawatan Keluarga terhadap Perawatan Kesehatan Anggota Keluarga Lansia. *Indones J Heal Sci*. 2021;13(1):103–9.
 15. World Health Organization. Age-friendly primary health care centres toolkit. *World Heal Organ*. 2008;14–9.
 16. Onozaki I, Law I, Sismanidis C, Zignol M, Glaziou P, Floyd K. National tuberculosis prevalence surveys in Asia, 1990-2012: an overview of results and lessons learned. *Trop Med Int Health*. 2015 Sep;20(9):1128–45.
 17. Karim UN, Dewi A. Pelatihan Kelompok Caregiver Dalam Pencegahan Penyakit Tuberculosis Pada Lansia Di Panti Sosialtresna Werdha Budi Mulia I *J Din Pengabd [Internet]*. 2022;7(2):235–41. Available from: <https://journal.unhas.ac.id/index.php/jdp/article/view/18071>
 18. Negin J, Abimbola S, Marais BJ. Tuberculosis among older adults--time to take notice. *Int J Infect Dis IJID Off Publ Int Soc Infect Dis*. 2015 Mar;32:135–7.