



# Counseling and Examination of Sharp Vision for Presbyopia Screening (Old Eyes) and Provision of Reading Glasses to the Elderly at Tresna Werdha Social Institution Bengkulu Province

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## Abstract

According to World Health Organization (WHO), the age group >60 years is categorized as elderly (elderly). Normally with age, a decrease in organ function will also occur naturally, one of which is in the organs of vision. So far, the community considers the decline in the function of vision in the elderly group as a normal thing to happen and does not require routine checks. Even though this condition will increase the risk of falling in the elderly and can cause other complex problems. The social institution is a place that aims to accommodate the elderly so that they can live their old age in a more quality manner, the Tresna Werdha Social Institution is one example and is under the guidance of the Social Service of Bengkulu Province which accommodates quite a number of elderly as its fostered citizens with various existing health problems, One of them is the problem of decreased visual acuity. In view of the conditions above, then community service needs to be done in this place, such as counseling, visual acuity checks and providing reading glasses to the elderly at the Tresna Werdha Bengkulu social institution. The purpose of this activity is to improve the quality of life for the elderly and reduce the risk of falling, especially for the assisted residents of the Tresna Werdha Social Institution, Bengkulu Province. The result of this activity was that 43 elderly people took part in educational activities, visual acuity checks and the provision of reading glasses which were carried out on October 2, 2022 by a community service team from the Faculty of Medicine and Health Sciences, University of Bengkulu. From this activity, it was found that 21 elderly people (49%) received assistance in the form of reading glasses while 22 (51%) other elderly people could not receive assistance in the form of reading glasses because they had cataracts.

## A. Introduction

Elderly (elderly) is the age group >60 years based on the criteria of the World Health Organization (WHO). This elderly group has its own health problems in accordance with the decline in organ function in humans of that age group. Promotional measures for the health of the elderly are also getting better these days. In the past, the health aspect of the elderly only emphasized curative aspects of the degenerative diseases they experienced, but now services are more focused on improving functional abilities and quality of life (Swenor et al., 2015; Whitson et al., 2016; WHO, 2007).

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One important aspect is the functions related to sensory functions such as vision and hearing which will indeed decrease with age. So far, increasingly blurry vision is only considered "common" so it is often neglected for routine checks. Presbyopia (old eye) is a normal change that occurs in the elderly caused by various conditions such as reduced elasticity of the lens or weakness of the muscles that support the movement of the eyeball and can usually be treated by providing reading glasses (Laviors et al., 2010; Swenor et al., 2020). It is recorded that the incidence of presbyopia in Indonesia is still quite high, namely around 2,000,000 cases per year. This condition causes the elderly to lose their ability to see objects at close range. This condition of decreased vision will affect many things in the lives of the elderly, for example, they will find it difficult to identify their surroundings and this will be quite dangerous for the elderly, especially if they only live alone in their homes. In addition, unclear vision will also increase the risk of falling which will have an effect on the greater the risk of injury in the elderly, for example fractures or fractures (Clarke et al., 2018; Jin, 2022; Nur et al., 2021). If this is allowed, it will be fatal and certainly greatly reduce the quality of life for the elderly. In a study conducted by Zheng et al in 2016 it was also said that if this decrease in visual acuity is not treated, it will also affect aspects of their cognition (Spierer et al., 2016; Swenor et al., 2019; Varin et al., 2020; Zheng et al., 2018).

Bengkulu is a province in Indonesia which has quite a large number of elderly population, recorded in 2020. The elderly population in Bengkulu Province reaches 162.26 thousand people or around 8.06% of the total population. The percentage of elderly in Bengkulu Province is dominated by young elderly (60-69 years) which is equal to 5%, the rest are middle elderly (70-79 years) amounting to 1.91% and old elderly (> 80 years) amounting to 0.55%. The condition of the elderly in Bengkulu is also quite diverse, although most of them still live with their families, but there are also some who live with their age group in social institutions (Rosalin, 2021; Riskesdas Team 2018, 2019).

Social institutions in Bengkulu Province, one of which is the Tresna Werdha Social Institution, is a place that has quite a lot of elderly people when compared to other social institutions in Bengkulu Province in general and Bengkulu City in particular. Based on the data collected during the initial visit, it was carried out by a team from the Faculty of Medicine and Health Sciences, Bengkulu University, approx 70 elderly are under the auspices of this social institution. Some of the elderly who were met during the first visit said that they had difficulty being able to read, especially when they were going to read the Koran, some of them also said that they had previously had cataract surgery but still had not been able to fully improve their vision function. Of course, this condition is very much influenced by other factors, one of which is caused by presbyopia (old eyes) that have not been corrected. For that activity visual acuity examination for presbyopia screening and provision of reading glasses to the elderly at Tresna Werdha Social Institution Bengkulu Province is expected to be useful in efforts to improve the quality of life of the elderly.

Social institutions are a place that is often used by the community to place the elderly for various reasons and backgrounds. Even though they have a structured organizational system, vision screening is still not a routine examination that is often carried out periodically. For that activity visual acuity examination for presbyopia screening (old eyes) and provision of reading glasses to the elderly at Tresna Werdha Social Institution Bengkulu Province is expected to be useful in efforts to improve the quality of life of the elderly (Laviors et al., 2010; Shah et al., 2021).

## **B. Research Method**

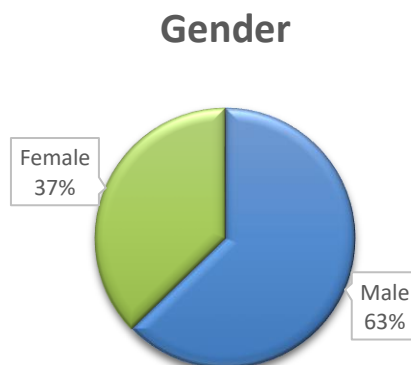
This activity was carried out at the Tresna Werdha Social Institution which is under the supervision of the Bengkulu Provincial Social Service. The activity was carried out on October 2, 2022, starting with the provision of education through brief counseling to assisted residents and employees at the Tresna Werdha Social Institution. The counseling was delivered regarding the importance of visual acuity checks, especially in the elderly, where as you get older there will be many risk factors for the elderly, one of which is reduced visual acuity. After being given a brief education, the activity was continued with a visual acuity examination by a team of doctors who were lecturers at the Faculty of Medicine and Health Sciences. Provision of reading glasses is carried out after obtaining the results of the examination, so that they can be adjusted to the needs of each elderly person.



**Figure 1.** Photo of community service activities in the form of checking the visual acuity of the elderly in the Tresna Werdha Bengkulu Social Institution

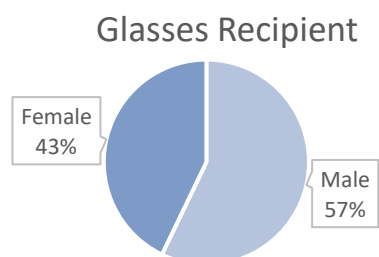
**C. Results and Discussion**

Service participants Tresna Werdha Social Institution It is planned to be attended by as many as 70 inmates Tresna Werdha Social Institution, Bengkulu Province. The details of the participants in this activity were 42 men and 28 women. Like the initial survey that was carried out by the community service team one month before the community service activities were carried out, an initial picture was obtained that the health conditions of the elderly were not all capable of mobilizing out of their respective rooms, so this activity could only be attended by 43 residents of the orphanage. social Tresna Werdha. Of the 43 assisted residents who participated in the inspection activity, this activity got 27 people (62.8%) men and 16 people (37.2%) women as shown in Figure 1.

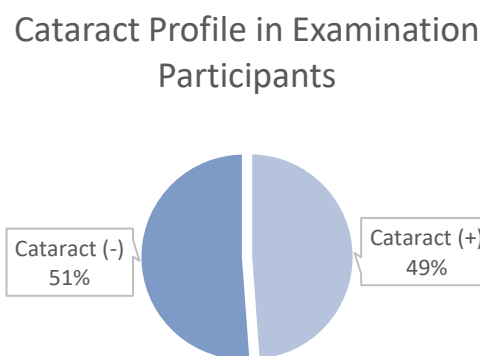


**Figure 2.** Gender profile of the assisted residents of the Tresna Werdha Social Institution in Bengkulu Province who took part in the visual acuity examination.

From the profile above, the results showed that most of the elderly had cataracts. This is obtained from the initial inspection carried out. Service participants are categorized as mature and immature cataracts, as it is known that mature cataracts have damaged the entire lens so that it requires treatment in the form of lens replacement and this is quite different from the condition of immature cataracts where the lens has not experienced total turbidity. Even though these conditions are generally experienced in the elderly, the effect will certainly be quite different in affecting the ability of the elderly to see. There are also several residents of the orphanage who have undergone cataract surgery, but most of them have received new operations on only one eye. Operations are carried out in stages according to the quota given by the organizers. This condition is almost similar to that encountered by Nur et al, where many patients aged over 40 years who were found at the Makassar City Community Eye Health Center had cataracts and also presbyopia. This condition is certainly caused by the aging process that occurs, but how quickly these symptoms appear in a person will still be determined by various factors such as nutrition, environmental exposure and genetics. This condition certainly made it difficult for the team to be able to provide reading glasses to all the assisted residents of the Tresna Werdha Social Institution who were present at the time (Nur et al., 2021; Pan et al., 2013; Whitson et al., 2016).



**Figure 3.** The Number of Beneficiaries of Glasses Assistance to the Assisted Residents of the Tresna Werdha Social Institution in Bengkulu Province who Took Part in A Visual Acuity Examination.



**Figure 4.** Cataract screening results for residents assisted by the Tresna Werdha Social Institution in Bengkulu Province who took part in a visual acuity examination.

Out of a total of 43 elderly who took part in the examination, only 21 received glasses based on measurement results (figure 3). Taking into account the conditions resulting from field checks and the needs of the assisted residents of the Tresna Werdha Social Institution, prescription glasses are adjusted according to the actual needs of residents. From the examination results obtained, it turns out that these glasses can accommodate the needs of reading glasses, and there are also other diopter size glasses that accommodate the needs of residents with complaints of not being able to see far (glasses for myopia patients). This is done to accommodate the visual needs of the elderly assisted by the Tresna Werdha Social Institution. There are some residents of the orphanage who are given protective glasses due to having very low visual acuity. so as to reduce the condition of dry eyes in the elderly. The profiles of Tresna Werdha Social Institution assisted residents who are recipients of glasses assistance are as follows. In Figure 4, the number of

participants with cataracts is shown based on the results of the initial examination. From the examination results, it was found that 21 (49%) people had cataracts. Of the 21 residents who have cataracts, there are 9 elderly who can be given glasses, namely residents whose cataracts are still immature. Even though giving glasses to immature cataract patients cannot help completely, it is hoped that they can help vision as well as provide eye protection in the elderly. As is known, the problems that can be experienced by the elderly are not only limited to presbyopia and cataracts. Tendency to experience other disorders, both those that can be corrected using glasses and those that cannot be corrected. There are also those that are temporary or permanent in nature, causing limitations in the elderly who are also permanent and of course this will complicate the mobilization of the elderly themselves (Nur et al., 2021; Swenor et al., 2020).

#### D. Conclusion

From the results of examinations carried out on elderly residents assisted at the Tresna Werdha Social Institution in Bengkulu Province, it was found that most of the elderly had eye disorders which are common in the elderly. The most common problem encountered is cataracts which cause opacities in the lens of the eye. As many as 21 elderly people (49%) could get assistance in the form of reading glasses while 22 (51%) other elderly people could not receive assistance in the form of reading glasses because they had mature cataracts. The condition of cataracts significantly affects the results of the examinations carried out, so that some elderly people cannot get reading glasses. However, this activity is expected to be carried out regularly and monitored regularly. This aims to improve the quality of life of the elderly and reduce the risk of falls that can occur.

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