



## Influence of Self-Help Group towards Self-Management and Quality of Life among Older Adults with Chronic Non-communicable Disease in Malang

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### ABSTRACT

The increasing of older adults population concomitant with the increasing of chronic non-communicable diseases. Chronic non-communicable diseases can have an impact on the quality of life of the older adults. Chronic non-communicable diseases require long-term management through self-management. This study aimed to analyze the Self Help Group (SHG) intervention towards self-management and quality of life for older adults with chronic non-communicable diseases. The research method was Quasi Experimental pre-post test with control group on 120 respondents selected by purposive sampling. The inclusion criteria were age  $\geq 60$  years, had DM or gout, communicating well, capable to read and write. The SHG intervention hold on four meetings is a group activity of fellow sufferers to share problems and experiences. The instruments were the self-management behavior questionnaire and WHOQOL-BREF. The results of the Mann Whitney test showed  $p$ -value of 0.000 which mean that there was a significant difference between self-management and quality of life in the control group and the SHG intervention group. The conclusion was that SHG influenced self-management and quality of life among older adults with chronic non-communicable diseases. Need to apply self help group regularly among chronic non-communicable disease patients.

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### Kata kunci:

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### ABSTRAK

Peningkatan lansia seiring dengan peningkatan penyakit tidak menular kronis. Penyakit tidak menular kronis dapat berdampak pada kualitas hidup lansia. Penyakit tidak menular kronis memerlukan penatalaksanaan jangka panjang melalui manajemen diri. Tujuan penelitian ini untuk menganalisis penerapan Self Help Group (SHG) pada manajemen diri dan kualitas hidup lansia dengan penyakit tidak menular kronis. Metode penelitian adalah Quasi Eksperimental pre-post test with control group pada 120 responden yang dipilih dengan purposive sampling. Kriteria inklusi yaitu usia  $\geq 60$  tahun, mengalami DM atau gout, dapat berkomunikasi, dapat membaca dan menulis. Intervensi SHG selama empat kali pertemuan merupakan kegiatan kelompok sesama penderita untuk berbagi masalah dan pengalaman. Instrumen yaitu self-management behaviour questionnaire dan WHOQOL-BREF. Hasil uji mann whitney menunjukkan  $p$ -value 0.000 yang bermakna terdapat perbedaan yang signifikan antara manajemen diri dan kualitas hidup pada pada kelompok control dan kelompok intervensi SHG.



## INTRODUCTION

Every country in the world is experiencing growth in both the size and the proportion of older persons in the population. By 2030, 1 in 6 people in the world will be aged 60 years or over. At this time the share of the population aged 60 years and over will increase from 1 billion in 2020 to 1.4 billion. By 2050, the world's population of people aged 60 years and older will double (2.1 billion). The number of persons aged 80 years or older is expected to triple between 2020 and 2050 to reach 426 million (WHO, 2022).

Indonesia has experienced an increase in the number of older adults population from 7.60% in 2010 become 10.70% in 2020. This is projected to be increase continually, where in 2035 it will be 16.60% and in 2045 it will be 19.90% (Central Bureau of Statistics, 2022). An increase in the number of older adults population will be accompanied by an increasing of health problems for the older adults population. Based on Riskesdas data in 2018, the most common diseases in the older adults population are non-communicable diseases, including hypertension, joint disease, diabetes mellitus, heart disease and stroke (Ministry of Health, 2019).

Chronic non-communicable diseases are diseases that are not caused by microorganisms infection and last a long time, even a lifetime, which are responsible for at least 70% of deaths in the world. Even though it cannot be transmitted, weak control of risk factors can affect the increase in cases every year. This is in line with the results of Riskesdas in 2013 and 2018 which show a trend of increasing prevalence of chronic non-communicable diseases such as diabetes and joint disease. Riskesdas (2018) shows an increase of cases compared to 2013, where the national percentage of diabetes mellitus based on blood tests increased from 6.9% to 8.5%, and joint disease from 7.3% to 18%.

Uncontrolled chronic non-communicable diseases will lead to further complications and affect quality of life. Research by Nezu, et al (2014) states that elderly people with diabetes mellitus in Japan experience a decrease in their quality of life physically (Nezu, et al, 2014). The quality of life among elderly patients struggling with chronic diseases is not without meaning. Recent data shows that hypertension contributes to reducing the quality of life of hypertensive patients (Uchmanowicz, Chudiak, Mazur, 2018). Acute arthritis will lead to chronic gout and result in decreased kidney function and decreased quality of life (Madyaningrum et al., 2021). Chronic disease greatly affects sufferers throughout their lives. There are many changes in clients who suffer from chronic diseases and affect their quality of life as seen from the physical, psychological, social and environmental domains.

The increasing prevalence and impact of chronic non-communicable diseases has attracted global attention and has become a strategic issue in the 2030 Sustainable Development Goals (SDGs) agenda. This makes non-communicable diseases a development priority in every country, with the global target of reducing mortality by 25% due to non-communicable diseases in 2025 (Ministry of

Health of the Republic of Indonesia, 2020). According to the Directorate General of Disease Prevention and Control (2020), the government has made various efforts to overcome the risk factors for non-communicable diseases, namely by issuing Guidelines for Surveillance of non-communicable diseases and various counseling on healthy lifestyles through the Healthy Living Community Movement (GERMAS) (Ministry of Health RI, 2016). In addition, there are also guidelines for Posbindu which are implemented nationally in villages or sub-districts (Mahdur and Sulistiadi, 2020).

However, national policies and strategies still cannot be implemented optimally in all provinces and districts in Indonesia. From the results of the Posbindu evaluation, it was found that the implementation process had been running routinely, but the quality of Posbindu services was inadequate, so that the results of the evaluation of the Posbindu output had not reached the target and non-communicable diseases control was not achieved (Mahdur and Sulistiadi, 2020). The ratio of posbindu per 1,000 elderly population is 2.3 (Ministry of Health, 2022). One of the factors that influence the successful management of chronic non-communicable diseases in the community is the knowledge, attitudes and behavior of the community. The success of every program created by the government also needs to be supported by community behavior. Community behavior in the treatment of chronic diseases in the form of how they do self-management. Self-management is an important part of treating chronic diseases by behaving positively. Self-management of chronic illness refers to an individual's ability to maintain their effective behavior including using prescribed medications, following diet and exercise, monitoring independently, and coping emotionally with the illness they are experiencing (Lorig & Holman, 2003 in Zhong, Tanasugarn, Fisher, et al, 2011). But the implementation of self-management such as changing eating behavior, alcohol consumption habits and physical activity is not easy. The implementation of an action continuously requires great faith and will. According to Putri (2020), a person's confidence can increase when they receive guidance and advice from other people, and one method that supports the process of exchanging experiences, receiving information, and getting emotional support from friends is the Self Help Group (SHG).

Self Help Group (SHG) is an activity consisting of a group of people who provide mutual support for other group members. Each member in this group shares experiences about illness, addiction problems and feelings (Ahmadi, 2013; Maryam et al, 2019). Learning activities in groups can increase changes in lifestyle behaviors, such as diet and physical activity (Wilandika et al, 2018). Good self-care management behavior is needed by people with chronic diseases such as hypertension, diabetes mellitus, and Gout Arthritis, because the implementation of self-management will have an impact on quality of life and decrease blood pressure, blood sugar, and uric acid levels (Kristianingrum, Wiarsih, Nursasi ( 2020); Lumintang, Suprapti & Tjitra, (2021).

From the results of a preliminary study conducted at the Dau Health Center in Malang Regency, data was obtained that the total number of visits for chronic non-communicable diseases (hypertension, DM, and gout) in 2021 was 1,520, if the average per month was 130 patients. At the Dau Health Center there is no self-help group program for people with chronic non-communicable diseases. The purpose of this study was to analyze self help group intervention towards self-management and quality of life among older adults with noncommunicable disease in Malang.

## METHODS

### Participant characteristics and research design

The research design of this study was Quasi Exsperimental pre-post test with control group. The inclusion criteria of sample were age  $\geq 60$  years, had DM or gout, communicate well, capable to read and write.

### Population and sample

The research was conducted in September-November 2022 at Dau Public Health Center, Malang. The population are older adults with noncommunicable disease. The sample in this study was 120 older adults selected by purposive sampling. Control groups consists of 60 persons and intervention groups were 60 persons. Older adults were given informed consent to participate in the research.

### Intervention and Measures

The control group received information in the form of leaflets about chronic non-communicable diseases and their treatments. The treatment group was divided into 4 groups, where each group consisted of 15 people. The treatment group received the SHG intervention for 4 meetings, where each meeting lasted 50-60 minutes. Meetings were held every week. The first session was the relational stage and includes building relationships, sharing thoughts, feelings, and behaviors. The second session was sharing experiences and awareness about disease or health problems. At this stage the researcher also focuses the participants attention and forms feelings of empathy and emotional closeness between group members. The third session was developing self-esteem and positive practice. The fourth session was evaluation and follow-up. The control and intervention groups were measured pre and post using the Self-Management Behavior Questionnaire and WHOQOL-BREF questionnaires.

### Data analysis

The characteristics of the respondents include demographic data were presented in the form of tables and narratives. Next, analyze the difference in the mean of self-management and quality of life before and after the intervention of control and intervention groups. Prior to bivariate analysis, the normality test of the data was first tested using the Kolmogorof Smirnov test. The data is said to be normally distributed if the p value  $> 0.05$ . Furthermore, the analysis used mann whitney test.

## RESULTS AND DISCUSSION

Table 1. Characteristics of Respondents (n=120)

Characteristics of Respondents	Intervention group f (%)	Control group f (%)
<b>Gender</b>		
Male	6 (10)	10 (16.7)
Female	54 (90)	50 (83.3)
Total	60 (100)	60 (100)
<b>Education</b>		
No	3 (5)	2 (3.3)
Elementary School	14 (23.3)	14 (23.3)
Junior High School	10 (16.7)	9 (15)
Senior High School	22 (36.7)	20 (33.3)
College	11 (18.3)	15 (25)
Total	60 (100)	60 (100)
<b>Job</b>		
superannuation	1 (1.7)	3 (5)
Private sector	2 (3.3)	10 (16.7)
Self employed	5 (8.3)	7 (11.7)
Laborer	3 (5.0)	6 (10)
Housewife	45 (75)	31 (51.7)
Trader	3 (5)	3 (5)
Farmer	1 (1.7)	0 (0)
Total	60 (100)	60 (100)
<b>Disease</b>		
<i>Diabetes Mellitus</i>	30 (50)	30 (50)
Type 2		
<i>Gout Arthritis</i>	30 (50)	30 (50)
Total	60 (100)	60 (100)

Table 1 showed that most of the respondents in control group were female (83.3%), education were senior high school (33.3%) and work as housewives (51.7%). The most of the respondents in intervention group were female (90%), education were senior high school (36.7%) and work as housewives (75%).

The results of this study prove that the older adults according to gender are in accordance with data from the Badan Pusat Statistic (2022) that the number of elderly female residents is more than male, where males are 13,5 millions and females are 14,5 millions. This is related to the life expectancy of women is higher than of men, where the life expectancy of women reaches 73.35 years and that of men reaches 73.33 years.

For virtually all the primary causes of death and at virtually all ages, mortality rates are higher for men. Women do not live longer than men because they age more slowly, but because they are more robust at every age. Several hypotheses have been proposed for sex differences in longevity, including more active female immune functioning, the protective effect of estrogen, compensatory effects of the second X chromosome, reduction in the activity of growth hormone and the insulin-like growth factor 1 signaling cascade, and the influence of oxidative stress on aging and disease. (Austad, 2006). Beside that, after age 75 lifestyle behaviours such as not smoking and physical activity are associated with longer survival (Rizzuto, et al 2012).

The data from this study showed that majority of respondent have job in older people. This is in accordance with the data of the WHO that Labour force participation rate by older people in Indonesia is 42.49%. The older Thai people who still have to work for a living due to insufficient savings. Those who are older, with a primary education, and who are usually employed in the informal sector suffer from poverty and require more assistance from others

(Paweenawat, 2021). Indonesia and Thailand are developing country so that the fulfillment of needs is not fully guaranteed in the elderly. Beside that, the elderly are trying

to be active and productive in old age so that they are independent.

**Table 2. Score of Self-Management and Quality of Life (n=120)**

Variable	Kelompok		Mean	SD	Min	Max
Self-Management	Intervention	Pre	49.05	12.2	23	68
		Post	61.48	13.03	37	84
	Control	Pre	49.70	11.52	25	72
		Post	50.43	11.96	23	73
Quality of Life	Intervention	Pre	85.53	9.78	64	105
		Post	101.9	11.84	76	121
	Control	Pre	87.43	11.59	54	112
		Post	88.38	11.71	51	117

Based on Table 2, it was found that there was an increase in the average score of self-management and quality of life among all of groups. Self-management in the intervention group increased from 49.05 to 61.48. Likewise, the quality of life in the intervention group increased from 85.53 to 101.9. Whereas in the control group, the increase in self-management and quality of life was lower than the intervention group, namely from 49.70 to 50.43 for self-management and 87.43 to 88.38 for quality of life.

Self-management is an important part of chronic diseases caring by behaving positively. Self-management of chronic illness refers to an individual's ability to maintain their effective behavior including using prescribed medications, following diet and exercise, monitoring independently, and coping emotionally with the illness they are experiencing (Lorig & Holman, 2003 in Zhong, Tanasugarn, Fisher, et al, 2011). But the implementation of self-management such as change eating behavior, alcohol consumption habits and physical activity is not easy. The implementation of an action continuously requires great faith and willness. According to Putri (2020), a person's confidence can increase when they receive guidance and advice from other people, and one method that supports the process of exchanging experiences, receiving information, and getting emotional support from friends is the Self Help Group (SHG). Self Help Group (SHG) is

an activity consisting of a group of people who provide mutual support for other group members. Each member in this group shares experiences about illness, addiction problems and feelings (Ahmadi, 2013; Maryam et al, 2019). Learning activities in groups can increase changes in lifestyle behaviors, such as diet and physical activity (Wilandika et al, 2018). Good self-care management behavior is needed by people with chronic diseases such as hypertension, diabetes mellitus, and Gout Arthritis, because the implementation of self-management will have an impact on quality of life and decrease blood pressure, blood sugar, and uric acid levels (Kristianingrum, Wiarsih, Nursasi ( 2020); Lumintang, Suprapti & Tjitra, (2021).

Broadly, quality of life is an individual's assessment of every aspect of his life, including how the individual's psychology is in dealing with problems that occur, a sense of life satisfaction both in work, personal relationships and health. An understanding and assessment individually of his life conditions is associated with life values, cultural situations, and the concept of his goals and life expectations (Rosyiani, 2015). According to Ekasari et al (2019), quality of life is an individual's perception of his physical health, social and emotional relationships, which is associated with the individual's ability to carry out activities.

**Table 3. Statistic Test of Self-Management and Quality of Life**

Variable	Groups	N	Mean Rank	Sig. (2-tailed)
Self-Management	Intervention	60	73.64	0.000
	Control	60	47.36	
Quality of Life	Intervention	60	78.48	0.000
	Control	60	42.53	

Based on table 3, it is found that based on the statistic analysis, there is a significant difference in the self-management and quality of life of the respondents with a p-value of 0.000. Self Help Group (SHG) is a form of group therapy, where each member of the group supports, helps and provides benefits. Each member in the group can share feelings, experiences related to the illness and problems that occur due to the disease (Maryam et al., 2019). The focus of the Self Help Group is changing the attitude and behavior of the participants. The purpose of the Self Help Group itself is to create relationships within the group, so that each member of the group does not feel alone because of the illness they are experiencing, and is motivated to carry out

treatment behaviors that have been successfully implemented by other group members. This activity will direct each member to provide support to each other in solving health problems (Putri, 2020).

Self-management is the ability possessed by individuals to understand themselves as a whole both physically and psychologically, so that they can see their own needs and support efforts to maintain health or the process of healing and controlling the disease experienced (Empraninta, 2018). In chronic disease care, self-management is an important part that needs attention. Structured programs on improving self-management have also been shown to be effective in arthritis (Hui et al., 2017). Therefore various efforts need to

be made to improve self-management of Gout Arthritis sufferers. Self-management that can be done by Gout Arthritis sufferers is with a high-purine diet, exercising regularly, losing weight if obese, and limiting alcohol consumption (Madyaningrum et al., 2021).

This study proves that SHG has an effect on the older adults with chronic non-communicable diseases. A study showed that there was a significant influence on the quality of life of those who were under chemotherapy treatment after self-help group intervention (Turnip, Ritarwan, SStepu, 2022). Other study showed that SHG influenced the quality of life of the elderly in Tresna Werda Social Institutions (Anggarawati & Sari, 2021). Through SHG activities, the older adults can share experiences, get new information, and get social support so they can change healthy behavior, improve social and emotional relationships. therefore, the fulfillment of physical, social, and spiritual comfort is fulfilled which affects the quality of life to increase

## CONCLUSIONS AND SUGGESTIONS

Self Help Group intervention effect on self-management and quality of life among older adults with chronic non-communicable diseases. Self-management help the older adults to get social activity, get information, and share experience so its important to apply self help group regularly among chronic non-communicable disease patients.

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## ETHICAL CONSIDERATIONS

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### Conflict of Interest Statement

There is no conflict of interest

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