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ORIGINAL RESEARCH

# EFFECTIVENESS OF THE SELF-HELP GROUP (SHG) METHOD ON BLOOD PRESSURE IN PRODUCTIVE WOMEN WITH HYPERTENSION

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**ABSTRACT**

Productive women are an age group that is vulnerable to experiencing health problems. This problem increases as a person gets older. The increase in age experienced by productive women causes all systems and functions to decline. This shows that hypertension sufferers' awareness of taking medication is still low. So this can be minimized with community empowerment activities, one of which is a self-help group (SHG). The aim of this research is to determine the effect of self help group (SHG) on the blood pressure of productive women with hypertension. The design used was "Quasi experimental pre-post test with control group" with Self Help Group intervention. The sampling method was purposive sampling with a sample of 48 women. Self Help Group is measured using SOP, and a blood pressure measuring device.

**Keywords**

**Productive women, Hypertension, Self Help Group , Blood Pressure**

## INTRODUCTION

Productive women are an age group that is vulnerable to experiencing health problems. This problem increases as a person gets older. The increase in age experienced by productive women causes all systems and functions to decline. One of the functions that has decreased is physiological function. This decrease in function gives rise to non-communicable and infectious diseases. Some of the non-communicable diseases experienced by productive women include hypertension, arthritis, stroke and diabetes mellitus. Hypertension ranks first among the health problems for productive women. The prevalence of productive women who experience hypertension in the 2016 Productive Women Infodatin data states that those aged 55-64 years are 45.9%, those aged 65-74 years are 57.6% and those aged over 75 years are 63.8% (Tasić, Tadić, & Lozić, 2022).

The prevalence of hypertension according to Riskesdas 2018 states that hypertension sufferers in Central Java among people aged over 18 years are 8.4% (Riskesdas, 2018). Semarang City Department Health Profile Data (Wen & Wei, 2021) in 2018, the number of hypertension was 161,283 cases . Based on health profile data from Central Java Province, the number of hypertensive sufferers in Semarang City was 6.88% (Suharto, Jundapri, & Pratama, 2020). This

indicates that the majority of hypertension cases in the community have not been diagnosed and health services have not been reached. The further impact that is obtained is an increase in complications because hypertension that occurs over a long period of time and continuously can trigger strokes, heart attacks, heart failure, and is the main cause of chronic kidney failure. The prevalence of hypertension according to diagnosis by health workers and doctors and according to medication, showed that in 2013 it was 9.5%, decreasing to 8.8% in 2018 . This shows that hypertension sufferers' awareness of taking medication is still low. So this can be minimized with community empowerment activities, one of which is a self-help group (SHG).

Hypertension is an abnormal increase in blood pressure in the arteries continuously for more than a period (Sitepu, Sipayung, & Hayati, 2023). Hypertension is also defined as persistent elevation of systolic blood pressure (BP) at a level of 140 mmHg or more and diastolic blood pressure (BPD) at a level of 90 mmHg or more (Wen & Wei, 2021) . High blood pressure can be caused by several factors, namely age, obesity, smoking, or stress. This can be minimized by the role of health workers, especially nurses, in the community. The task of nurses in providing nursing care in the field of public health efforts is that nurses are authorized to carry out public health nursing assessments at the family and community group level, carry out public health nursing actions or health promotion, carry out health education and counseling, and carry out community empowerment (Anthony, Damasceno, & Ojjii, 2016). One of these community empowerment activities is group therapy activities.

Types of group therapy that can be used are supportive groups, task groups, activity therapy, and self-help groups (SHG) (Fithria, Hartaty, & Susanti, 2023). The implementation of SHG which was carried out based on Ahmadi in Utami's research revealed that the SHG/self-help group is a group in which each member shares problems both emotionally and physically. This activity discusses solving problems faced together, the result is that each member benefits from being given the SHG method (Biswas, Asokan, Lenka, & Subhransupatro, 2018). Other research related to SHG shows that the SHG method is effective in improving the health status and life satisfaction of productive women with hypertension (Reni Nurhidayah & Prima Dewi Kusumawati, 2023). Other research shows that there is an increase in knowledge about hypertension after being given SHG from a mean value of 9.20 to 13.20 11 . The influence of SHG is also effective in improving the self-management of productive women with diabetes with a result of 5.37 increasing to 6.58 12. The aim of this research is to determine the effect of self-help groups (SHG) on the blood pressure of productive women with hypertension

## METHOD

This research is a quantitative study with a quasi-experimental design, namely a pre-post control group design aimed at analyzing the effect of the effectiveness of the Self-Help Group (SHG) Method on Blood Pressure in Productive Women with Hypertension (Lê & Schmid, 2022).

Table 3.1 Quasi experimental research design pre-post test with control group.

| Subject | Pre Test | Treatment | Post-Test |
|---|---|---|---|
| KA | OA | I | OI-A |
| KB | OB | - | OI-B |
| | *Time 1* | - | *Time 2* |

Information
KA : Intervention group (Self Help Group)
KB : Control group (Self Help Group)
OA : Pre test intervention observation (Self Help Group)
OB : Control group pre-test observation (Self Help Group)
I : Self Help Group Intervention

OI-A : Post test intervention observation (Self Help Group)

OI-B : Control group post test observations (Self Help Group)

This research will be conducted on productive women in Bangkalan sub-district. The research was carried out by measuring blood pressure before (pre-test) and after (post-test) the SHG was carried out. The research design was a quasi-experimental pre-test post-test with control group. The research sample was determined by purposive sampling with certain criteria, namely: 1) age under 45 years, 2) sufferers of hypertension, 3) can read, write, communicate well, 5) do not experience cognitive, hearing and movement disorders, 6) follow all activities with 100% attendance. The group division was 24 people for the intervention group and 24 people for the control group. Group division for the intervention group was divided into small groups, namely 3 groups @ 8 people. SHG actions are carried out in 3 meetings over 3 weeks. In the control group, only education regarding hypertension was given. The independent variable in this research is the Self-Help Group (SHG) Method and the dependent variable in the research is Blood Pressure. Data from female students in each group will then be reviewed for *editing*, *scoring*, *coding* and *tabulating processes* before being analyzed. Data analysis was carried out univariately with a frequency distribution table and bivariate, namely:

a. If the data is normally distributed, then use the "Paired T Test" statistical test.
b. If the data is not normally distributed, then use the statistical test "Wilcoxon Signed Rank Test

## RESULTS

The results and discussion of this research are as follows, involving 47 productive women, and this group was divided into 2, namely 2 5 for the intervention group and 2 5 for the control group. The characteristics of respondents in this study describe the distribution of respondents based on age, gender, education level, religion, occupation, in the intervention group and the control group. The following are the results of the characteristics of respondents in this study.

Table 1. Characteristics of Respondents Group Intervention And Group Variable Control

| | **Intervention Frequency (%) (n=25)** | **Control Frequency (%) (n=25)** |
|---|---|---|
| Age | | |
| 20- 30 | 13 (54) | 6 (26) |
| 30- 40 | 6 (25) | 13 (57) |
| 40- 45 | 5 (21) | 4 (17) |
| Type sex | | |
| Man | 12 (50) | 8 (35) |
| Woman | 12 (50) | 15 (65) |
| Education | | |
| Elementary school | 5 (21) | 10 (43) |
| Junior high school | 4 (18) | 5 (22) |
| Senior high school | 9 (37) | 5 (22) |
| D3 | 3 (12) | - |
| S1 | 3 (12) | 3 (13) |
| Religion | | |
| Islam | 21 (88) | 18 (78) |
| Catholic | 3 (12) | 5 (22) |
| Work | | |
| Irt | 10 (43) | 12 (52) |
| Laborer | - | 2 (9) |
| Private | 1 (4) | 2 (9) |
| Teacher | 1 (4) | - |
| Civil servants | 2 (8) | 1 (4) |
| Self-employed | 2 (8) | 3 (13) |

Based on the results in table 1, it shows that the dominant age group in the intervention group was 13 people (54%) in the 20-30 year age range, 13 people (57%) in the control group were in the 30-40 year age range. The results of the education level show that the intervention group at the high school level was 9 people (37%) and the control group at the elementary school level was 10 people (43%).

Results test *T-test* on group intervention and control on *systolic* blood pressure results :

T-test test results:

**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Selisih Sistole dan Diastole | Equal variances assumed | 5.860 | .019 | 5.702 | 48 | .000 | 12.80000 | 2.24499 | 8.2861 | 17.313 |
| | Equal variances not assumed | | | 5.702 | 43.062 | .000 | 12.80000 | 2.24499 | 8.2727 | 17.327 |

**Group Statistics**

| | Selisih | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Selisih Sistole dan Diastole | Selisih Sistole | 25 | 24.8000 | 9.18332 | 1.83666 |
| | Selisih Diastole | 25 | 12.0000 | 6.45497 | 1.29099 |

Interpretation :

The average value (mean) for systole pressure is 24,800 while the r for diastole pressure is 12,000. Thus, from descriptive statistics it can be concluded that there is a difference in the average blood pressure results between systole and diastole.

Interpretation :

Based on the output above, the Sig value is known. Levene's Test for Equality of Variances is 0.019 < 0.05, which means that the data variance between group A and group B is not homogeneous or different.

Based on the "Independent Samples Test" output table in the "Equal variances assumed" section, it is known that the Sig. (2-tailed) is 0.000 < 0.05, so as is the basis for decision making in the independent sample t test, it can be concluded that HO is rejected and Ha is accepted. Thus it can be concluded that there is a significant (real) difference between the average blood pressure results in the systole and diastole group and group B.

Furthermore, from the output table above it is known that the "Mean Difference" value is 12,800. This value shows the difference between the average blood pressure results in the systole group and the average student learning outcomes in the diastole group.

## DISCUSSION

Results from table 2 shows that the *T-test results* of the SHG method on systolic blood pressure on productive women in group intervention decreased from before SHG treatment, namely the *mean value* of 155.83 mmHg decreased to 148.75 mmHg after being given SHG with a significance value of 0.0001 *(p<0.05)*. This is different from the results in the control group where systolic blood pressure increased from 145.65 mmHg to 147.17mmHg even with a significance value of 0.0001 *(p<0.05)*.

*T-test* results of the SHG method on pressure systolic blood in productive women in the intervention group and control is equally significant with a result of p=0.0001 (<0.05), will but results the looks different in mark mean of each group. The mean systolic blood pressure value of the intervention group was 155.83 mmHg, decreasing to 148.75mmHg after being given SHG. This is different from the results in the control group, where systolic blood pressure rose from 145.65mmHg to 147.17mmHg. The results of this research are in line with previous research conducted by Salmiyati in 2018. This research explains that the average systole value in the intervention group decreased from 164 mmHg to 139.5 mmHg after given SHG act (Fithria et al., 2023). The series of SHG activities in the research conducted by this author was divided into 3 groups, each group consisting of 8 people. SHG actions are carried out in 3 meetings over 3 weeks. The first meeting is for the respondent to have their blood pressure measured first, then the respondent grouped become 3 groups.

Material meeting First is formation of the SHG organizational structure, group regulations, confidentiality of participants, program objectives, goals of group members, socialization of SHG formation, and building relationships (self-introduction between group members). As well as filling in the list problem health family written in columns problem, date activity done in the date column. The list of health problems was completed by all respondents being given the SHG module/guide created by the author. The results of the first meeting with this first

material were that respondents were enthusiastic, and respondents wrote a list of health problems they had experienced so far, namely frequently feeling dizzy in the neck and nape, some also complained of diabetes mellitus, gout and cholesterol. The material for the second meeting is a list of solutions to health problems experienced, and the material for the third meeting is a list of ways to prevent recurrence of the disease experienced.

The results of reducing diastolic pressure are in line with research conducted by Salmiyati year 2018, Which mention that there was a decrease in diastolic blood pressure from 91 mmHg to 80.5 mmHg after the procedure was given SHGs [11] . Action SHGs on This research in the Bangkalan area was carried out in 3 sessions, between member group each other provide input and suggestions as well as problem solving for health problems experienced, namely hypertension. According to Notoatmodjo in 2010, if a productive woman gets the correct information, the productive woman can implement a healthy lifestyle and reduce risk of degenerative diseases, especially hypertension (Braunthal & Brateanu, 2019).

The results showed that there was a significant influence of systolic blood pressure in the intervention and control groups on the blood pressure of productive women *(p = 0.001).* The results of *the Independent T-Test Delta Test* of the SHG Method on Blood Pressure in Productive Women in the Intervention Group showed a *p value of 0.001,* which means that the *self-help group* (SHG) method was significant in reducing blood pressure in the intervention group compared to the control group who were not given treatment. SHGs.

This action is in line with research conducted by Salmiyati in 2018 which stated that there was a difference in the level of knowledge of productive women after being given the SHG method with a value of p=0.000 for systolic blood pressure, and p=0.001 for diastolic blood pressure (Tasić et al., 2022). The SHG method is also effective in improving *the self-management* of productive women who experience diabetes mellitus with a *mean value* of 5.37 to 6.58 (Jiang, Lu, Zong, Ruan, & Liu, 2016) .

The mechanism for providing the SHG method is carried out in 3 sessions over 3 weeks. these activities attended by 25 participants with shared 3 small groups. SHG activities for women are given SHG modules/guidelines modified by the author. The first session was on the theme of forming the SHG organizational structure, group regulations, participant confidentiality, program objectives, group members' goals, socialization on the formation of SHGs, as well as a list of health problems.

The theme in the second session was a list of solutions to health problems experienced by productive women, And For session third containing about a list of ways to prevent recurrence of the problem health Which experienced productive women Which is in the second session. This is also in line with research conducted by Sari, et al in 2018 which stated that the *self-management process* in productive women with diabetes mellitus effectively increased after being given SHG measures ( $p<0.05$ ) (Mills, Stefanescu, & He, 2020).

Implementation method SHGs Which implemented by researcher is give This module is so that productive women can write about what they feel while suffering from hypertension. Productive women are also given knowledge regarding hypertension, both in terms of understanding, signs and symptoms, and also treatment at the beginning of the meeting. As a result of this first meeting, the entire group understood well and were able to accept the explanation well. The group also shared information and discussed hypertension. Research according to (Flack & Adekola, 2020) states that sharing knowledge and

experience can be done if each group member has ample opportunity to express opinions, ideas, criticism and comments to other members .

The three groups in this study provided each other with input, ideas, suggestions and input regarding the hypertension health problems they were experiencing between member in group the. Some members complained that they felt dizzy, felt heavy in the nape of the neck. The members stated that they regularly take medication from the doctor/health center they are going to for control and have minimized consumption salt in food everyday.

Member other groups mention that they like with held group This SHG, because the existence of this group can each other share experience And solutions related to health problems experienced. It is hoped that this productive women's group will continue to exist during productive women's posyandu meetings, so that they not only measure blood pressure, but there is an opportunity to share experiences with each other regarding the health problems of hypertension they are experiencing. This is in accordance with Bose's SHG objectives in 20 20, namely SHG aims to improve ability social, increase self-confidence, self-efficacy and mutual sharing experience in knowledge knowledge . This research is also in line with previous research done by Hidayati et al year 2018 which states that there has been a positive change in attitude in preventing recurrence hypertension productive women in Mojokerto East Java was 83.4% after being given the support group technique (Wiles, Damodaram, & Frise, 2021) .

## CONCLUSION

Giving the SHG method has an effect on reducing blood pressure in productive women with hypertension. This is proven by the results of reducing blood pressure before and after implementing SHG in the group intervention. Recommendations for further research are that it can be carried out over a longer period of 3 to 6 months. It is also hoped that this SHG activity can be included in the routine activities of Prolanis Health Center

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