Logotherapy Increase Self-efficacy and Improve Blood Pressure's Regulation in Patients with Hypertension

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Abstract: Strong self-efficacy is needed to ensure patients with hypertension follow their long-term treatment and regulate their blood pressure. Logotherapy is one type of psychotherapy that can heal through discovering the meaning of life. This study was aimed to analyze the influence of logotherapy towards self-efficacy and blood pressure regulation in patients with hypertension. A quasi-experimental research method was used. The selected sample were 30 patients with hypertension, selected through purposive sampling, and divided into treatment and control group. The data were collected through a self-efficacy questionnaire and blood pressure measurement. Data were analyzed using the Wilcoxon Signed Ranks Test and Mann Whitney Test with $\alpha = 0.05$. The result showed differences in self-efficacy between pre- and post-test results in the treatment group ($p = 0.001$), but there were no differences in the control group. There were differences in systolic and diastolic blood pressure in the treatment group ($p = 0.001$; $p = 0.001$), but there were no differences in the control group. There were significant differences between treatment and control groups in self-efficacy ($p = 0.038$) and the regulation of systolic and diastolic blood pressure ($p = 0.006$; $p = 0.032$). Logotherapy can increase self-efficacy and improve blood pressure regulation in patients with hypertension. Nurses can use logotherapy as an alternative nursing intervention, both in clinical and community practice.

1 BACKGROUND

Hypertension is a chronic disease that cannot be cured, but can be controlled through long-term treatment, both through pharmacological and nonpharmacological treatments (Soenarta et al., 2015). Treatment compliance with low hypertensive control, results in high rates of morbidity and mortality in hypertensive patients (World Health Organization, 2013). A survey on hypertensive treatment compliance in China indicated that out of 232 hypertensive patients there was low adherence (26.3%), moderate adherence (22.0%) and high adherence (51.7%) to treatment (Yue, Bin, Weilin, & Aifang, 2015). WHO (2013) estimates that uncontrolled blood pressure in hypertensive patients results from a 50%–70% non-compliance rate.

Self-efficacy is defined as optimistic self-belief in competence or chances of successfully accomplishing a task and producing a favorable outcome (Bandura, 1994). Self-efficacy plays an important factor in improving long-term treatment adherence to chronic disease (Warren-Findlow & Huber, 2013). Strong self-efficacy is significantly associated with the prevalence of medication adherence (Bash, 2015). Huber & Warren Findlow (2011) also explain that management of chronic diseases, such as hypertension, require patients to have the confidence to care for themselves. Self-efficacy is a dominant factor affecting self-care management so action is recommended, improving self-efficacy aims to produce good self-care management (Prasetya, Handayani, & Purbandari, 2013).

Self-efficacy improvement can be achieved through psychological approaches using psychotherapy, such as logotherapy. Logotherapy has been used as a therapeutic intervention for individuals who struggle with long-term treatment disease, such as cardiac illness (Marshall, 2012). Logotherapy is defined as therapy that seeks to heal through accessing the meaning and purpose of life (Viktor E Frankl, 1966). By discovering the meaning of life, one can increase their confidence and view each moment as a positive experience (Engel & Yusuf, 2013). Bastaman (2007) explains that logotherapy can be done over four session: 1) identify the problems and changes; 2) express an individual's life

expectations and the reasons; 3) determine the most important meaning of life; and 4) evaluate the implementation of logotherapy.

The results of research conducted by Agustini (2016) explains that someone who finds the meaning of life in accepting their disease will have stronger self-efficacy when undergoing treatment. DeWitz (2004) also mentioned that discovering the purpose of life affects individual's self-efficacy. Self-efficacy will drive motivation, cognitive ability, and action to achieve a desired goal (Bandura, 1994). Research conducted by Julom and de Guzmán (2013) shows the effectiveness of logotherapy on the meaning of life. The use of logotherapy in finding the purpose of life can be done in hypertensive patients to increase self-confidence and achieve treatment success. The success of treatment in hypertensive patients is that blood pressure regulation can be controlled normally.

Fatimah (2009) mentions that logotherapy influences decreasing the level of blood pressure in elderly patients with hypertension. Previous research also determines that the improvement of self-efficacy significantly decreases systolic and diastolic blood pressure (Yu, Song, & Lee, 2001).

The effect of logotherapy on self-efficacy and blood pressure regulation in hypertensive patients needs to be analyzed. The results of this study are expected to provide new knowledge for hypertensive patients and nurses as an alternative in the management of hypertension, through discovering the meaning of life to increase self-efficacy in continuing long-term treatment and maintaining stability in blood pressure. The aim of this research is to analyze the influence of logotherapy towards self-efficacy and blood pressure regulation in patients with hypertension.

2 METHODS

This research used a quasi-experimental research method with a pre- and post-test control group design. The total population were 108 patients with hypertension. The sample of 30 respondents was selected by using a purposive sampling technique, divided into treatment and control groups (15 respondents in each).

Each respondent in the treatment group received four meetings for individual logotherapy during the afternoon, over two weeks. Each meeting took 45 minutes to complete. At the end of each meeting, respondents fill out the logotherapy workbook, and the researcher evaluates their achievement, against the criteria listed in the standard operational

procedures. If the respondent meets the outcome indicators for the session, the respondent can proceed to the next session. If the respondent is not able to meet the outcome indicators of the session, the respondent remains at the same session at the next meeting.

Data were collected by using a hypertension management self-efficacy scale and blood pressure measurement. Patients' blood pressure was measured using a sphygmomanometer and stethoscope. The level of self-efficacy and blood pressure of the treatment group were measured before treatment (pre-test) and after the four meetings (post-test). The control group was measured twice: firstly, a pre-test measurement, then after two weeks for post-test. Data were then analyzed using Wilcoxon Signed Ranks Test and Mann Whitney Test with a level of significance $\alpha = 0,05$.

This research protocol was ethically accepted by the Ethical Committee of Health Research at the Faculty of Nursing, Universitas Airlangga, Indonesia. Ethic approval certificate number 321–KEPK at January 24, 2017.

3 RESULTS

Table 1 shows the distribution of respondents' characteristics in the control and treatment groups. The number of respondents altogether in both groups was 30. The characteristics of respondents in the control group were as follows: twelve (most) respondents (80%) were 55–64 years old, six (46.7%) were retired, nine (60%) were elementary school graduates, and five (46.7%) respondents had suffered from hypertension for five years. The characteristics of respondents in the treatment group were as follows: eight respondents (53.3%), were 55–64 years old, eight (53.3%) were housewives, eight (53.3%) were elementary school graduates, and seven (46.7%) had suffered from hypertension for seven years.

Table 1: The characteristics of respondents.

Characteristic	Control groups		Treatment groups	
	n	%	n	%
Age				
45–54	3	20	7	46.7
55–64	12	80	8	53.3
Total	15	100	15	100
Jobs				
Housewife	2	13.3	8	53.3
Entrepreneur	5	33.3	3	20
Private employee	2	13.3	2	13.3

Retired	6	40	2	13.3
Total	15	100	15	100
Level of education				
Elementary school	9	60	8	53.3
Junior high school	2	13.3	1	6.7
Senior high school	4	26.7	6	40
Total	15	100	15	100
How long experiencing hypertension				
5 years	5	33.3	3	20
6 years	4	26.7	4	26.7
7 years	2	13.3	7	46.7
8 years	2	13.3	0	0

10 years	2	13.3	0	0
13 years	0	0	1	6.6
Total	15	100	15	100

Table 2 explains the distribution of respondents' self-efficacy in both the treatment and control groups. The level of respondents' self-efficacy in both groups at pre-test were mostly at a moderate level (11 respondents on control group and 12 respondents in the treatment group). Post-test, the level of respondents' self-efficacy was also on a moderate level (10 respondents in each of the control and treatment groups).

Table 2: The level of self-efficacy.

Category	Control group				Treatment group			
	Pre		Post		Pre		Post	
	n	%	n	%	n	%	n	%
Strong	2	13.3	1	6.6	-	-	5	33.3
Moderate	11	73.4	10	66.7	12	80	10	66.7
Weak	2	13.3	4	26.7	3	20	-	-
Total	15	100	15	100	15	100	15	100
Mean	66.67		65.80		57.00		72.27	
Wilcoxon signed Rank test	p = 0.507				p = 0.001			
Mann Whitney Test	p = 0.038							

Table 3: The regulation of blood pressures.

	Control Group						Treatment Group					
	Systolic			Diastolic			Systolic			Diastolic		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
R1	140	140	0	100	80	-20	150	130	-20	100	90	-10
R2	160	150	-10	80	100	+20	170	150	-20	110	100	-10
R3	150	160	+10	90	90	0	150	140	-10	90	90	0
R4	170	160	-10	110	100	-10	160	150	-10	100	80	-20
R5	150	150	0	100	90	-10	160	140	-20	100	90	-10
R6	150	150	0	90	90	0	170	140	-30	100	100	0
R7	170	170	0	110	100	-10	140	140	0	90	80	-10
R8	140	150	+10	100	90	-10	160	130	-30	100	90	-10
R9	140	150	+10	80	100	+20	160	150	-10	100	90	-10
R10	140	150	+10	90	90	0	150	130	-20	90	80	-10
R11	170	170	0	100	110	+10	160	160	0	100	90	-10
R12	140	150	+10	90	90	0	160	150	-10	100	90	-10
R13	130	150	+20	90	90	0	140	130	-10	90	80	-10
R14	140	150	+10	90	100	+10	170	150	-20	100	90	-10
R15	150	140	-10	90	90	0	160	140	-20	100	80	-20
Mean	150	152		94	94		157	141		98	88	
SD	12.53	8.61		9.1	7.36		9.612	9.904		5.606	6.76	
Wilcoxon	p = 0.366			p = 0.951			p = 0.001			p = 0.001		
Mann Whitney Test	Pre-test		Systolic				p = 0.080					
			Diastolic				p = 0.131					
	Post-test		Systolic				p = 0.006					
			Diastolic				p = 0.032					

The distribution of self-efficacy in the control group showed that there were only two respondents who had strong self-efficacy in the pre-test and this decreased to one respondent in the post-test. The number of respondents with a moderate level of self-efficacy decreased from 11 in the pre-test to 10 respondents in the post-test. In the opposite group, the number of respondents with a weak level of self-efficacy increased from two respondents in the pre-test to four respondents in the post-test.

The distribution of self-efficacy in the treatment group showed a significant increase. The number of respondents with a strong level of self-efficacy scored zero in the pre-test, then increased to five respondents in the post-test. However, the number of respondents with a weak level of self-efficacy decreased from three respondents in the pre-test to zero in the post-test.

Statistical analysis was conducted using the Wilcoxon Signed Rank Test, which compares respondents' level of self-efficacy between the pre- and post-tests in each group. The results showed that there were significant differences in the treatment group (p = 0.001), but no significant differences in the control group (p = 0.507).

The Mann Whitney Test was used to compare the level of self-efficacy in the post-test between the control and treatment group. The result had shown p = 0.038 (p<0.05), which means there was a significant difference in the level of self-efficacy between the control and treatment group after logotherapy.

Table 3 shows the average systolic and diastolic blood pressure pre- and post-test in both groups. The mean of systolic blood pressure in the control group pre-test was 150mmHg and post-test it was 152mmHg. The highest difference between pre-and post-test was +20mmHg and the lowest was -10 mmHg. The mean of diastolic blood pressure in the pre-test was 94mmHg, and this was the same in the post-test. The biggest difference between pre- and post-test was +20mmHg and the smallest was -20 mmHg. On the other hand, the mean of systolic blood pressure in the treatment group pre-test was 157.33 mmHg and post-test it was 141.33mmHg. The greatest difference between pre- and post-test was 0mmHg and the smallest was -30mmHg. The mean of diastolic blood pressure pre-test was 98mmHg and post-test it was 88mmHg. The greatest difference between pre- and post-test was 0mmHg and the smallest difference was -20mmHg.

The results of the Wilcoxon Signed Rank Test show that there were no significant differences in respondents' systolic and diastolic blood pressure between pre- and post-tests in the control group (p = 0.366 for systolic blood pressure; p = 0.951 for diastolic blood pressure). In the opposite group, results show a significant difference in respondents' systolic and diastolic blood pressure between the pre- and post-tests (p = 0.001 for both systolic and diastolic blood pressure).

The Mann Whitney Test compared the systolic and diastolic blood pressure of respondents in both groups pre- and post-test. The result of the pre-test on systolic blood pressure comparison showed p = 0.131 and diastolic blood pressure showed p = 0.080, indicating that there was no significant difference between the two groups in the pre-test. However, in comparison, the results of the post-test on systolic blood pressures showed p = 0.032 (p<0.005) and diastolic blood pressures showed p = 0.006 (p<0.005), meaning there were significant differences between the control and treatment groups regarding to systolic and diastolic blood pressure after logotherapy.

4 DISCUSSION

Most respondents within the control group had a moderate level of self-efficacy in the pre-test. Only two respondents who had a high level of self-efficacy, as well as weak level of self-efficacy. However, in the post-test, respondents mostly demonstrated a moderate level of self-efficacy, but, the number of respondents with strong level of self-efficacy were decreased by one respondent only. In the opposite group, the number of respondents with a weak level of self-efficacy increase to four respondents. It can be concluded that the level of self-efficacy in control group decreased.

Bandura (1986) cited in Quigley (2005), stated that self-efficacy has three dimensions: magnitude, strength, and generality. Magnitude refers to the level of difficulty a person believes he or she is capable of performing. Strength refers to the level of conviction a person has to perform a task or behavior. Generality refers to the extent to which a person's success or failure in a task or behavior will influence the person's self-efficacy in other tasks or behaviors.

Most respondents in the control group were primary education graduates. Low levels of education lead to low knowledge, skills, and self-ability. It will also decrease respondents' strength of self-efficacy.

Coincidentally, six respondents had a higher post-test score than pre-test. The highest increase in the respondents scores, whose post-test results were

higher than the pre-test was +4, and the lowest was +1.

According to Bandura (1986) individuals acquire information about their personal self-efficacy from six primary sources: 1) actual experience; 2) vicarious experience; 3) verbal persuasion; 4) physiological states; 5) imaginal experience; and 6) distal and proximal sources.

Respondents in the control group who experienced an increase in self-efficacy had mostly suffered from hypertension for more than five years. Actual experience is a source for self-efficacy belief. When dealing with hypertension and its treatment, one will have more experience and learn lessons from their past experiences. They will build better self-efficacy to face their health condition. Bandura (2004) states that if individuals experience a condition of pain, higher self-efficacy would be owned.

Before the logotherapy was administered, most respondents in the treatment group had moderate levels of self-efficacy. Pre-test results determined that respondents with a moderate level of self-efficacy were aged 55–64 and had already suffered from hypertension for almost seven years. There were three respondents who had shown a weak level of self-efficacy in the pre-test score. All of them had only completed elementary schooling. There were no respondents with a strong level of self-efficacy. This is reflected by Bandura (2004), who states that that there are several factors that affect self-efficacy, such as: (1) age; (2) level of education; and (3) how long a problem has been experienced. It can be concluded that the level of self-efficacy in the treatment group before logotherapy may differ because they have a different age range, level of education, and a longer period in dealing with hypertension.

After the logotherapy, it is evident by seeing respondents score in post-test that most of the respondents had a moderate level of self-efficacy, five respondents had a strong level, and none demonstrated a low level. The data also indicated that the mean of the post-test score was higher than the pre-test. This demonstrates that logotherapy increased the level of self-efficacy in the treatment group.

Bandura (2004) believes that self-efficacy can be established through four processes: cognitive, motivational, affective, and selection. The process of establishing self-efficacy begins with a cognitive process whereby one will predict the outcome of an action as a control in their life. The second is a motivational process whereby a person who has purpose based on cognitive activity will motivate themselves to perform actions to achieve their goals. The affective and selection process refer to a person's generation of an emotional reaction to their ability to act and make a choice regarding the action they can carry out. The statement shows that cognition and motivation play an important role in the formation of life goals. When cognitive and motivational processes are achieved, the affective and selection processes continue as the next stage of self-efficacy for controlling the condition that it faces. Researchers argue that a person who is able to discover the meaning of life through the cognitive process will tend to motivate themselves to take action to achieve their purpose in life, thereby fostering self-efficacy to achieve their goals. The existence of the meaning of life or the achievement of the purpose of life will improve self-efficacy and the ability to achieve it.

Logotherapy was an intervention which used psychotherapy techniques to heal and reduce or alleviate a disease through discovering the meaning of life (Frankl, 1966). Logotherapy in this research was conducted over four sessions. The first session identified changes and problems that had been experienced. The second session expressed individuals' life expectations and the reasons for their choices. The third session determined the most important meaning of life, and the fourth session evaluated the implementation of logotherapy (Bastaman, 2007).

This study shows that most of the respondents were able to follow logotherapy. Logotherapy can increase one's self-efficacy through verbal persuasion. The logo therapist mobilizes innate human qualities during therapy (Frankl, 2006). As many as 11 respondents were able to achieve the goal of each session during one meeting only. During the third session, respondents generated their new purpose and meaning in life. Respondents' meaning of life was typically that they want to have more time to care for their children and grandchildren. Respondents who were able to determine the meaning of life experienced a significant change in their level of self-efficacy. This can be observed in the differences between pre- and post-test scores, although the category remained.

According to Frankl (2006), the core of logotherapy saw optimism as a source of strength and embedded a positive approach to life. Logotherapy presupposes that human capacity is creative and can turn life's negative aspects into something positive and constructive, and the insight gained through reflection should be applied in the daily tasks of life (Graber, 2004). Respondents who were not able to determine the meaning of life also experienced a

change in their self-efficacy score but it was not significant to change their category. This can be seen regarding Respondents 4, 8, 11, and 13. The differences in self-efficacy scores between pre- and post-test can happen because each respondent has unique and creative learning behavior and their own method of finding the meaning of their lives if they follow a logotherapy session.

Respondents who were able to discover the meaning of their life have a goal to live their life by and accept the disease. This is reflected in the opinion of Bastaman (2007), who states that one of the characteristics of the meaning of life is to provide guidance and direction towards the actions taken, so they will be more motivated to implement and achieve their goals. Motivation arising from discovering the meaning of life will affect self-efficacy and people can act in order to achieve their purpose in life. Bandura's (1994) theory suggests that the perceived power of self-efficacy is not necessarily directly related to behavioral choices, but to the self-efficacy of stronger individuals, greater persistence, and the chance to achieve what they pursue.

Results indicate that there were significant differences between the control and treatment groups regarding the level of self-efficacy following logotherapy. Respondents in the treatment group mostly demonstrated an increase in the self-efficacy score, while respondents in the control group demonstrated the opposite. From the data analysis, it can be determined that after two weeks of logotherapy, respondents in the treatment group had a higher mean of self-efficacy score than the control group.

The differences in post-test results in both groups may occur depending on how long they have suffered from hypertension and the implementation of logotherapy. Data regarding respondents' characteristics across the two groups showed a difference in the length of time suffering from hypertension; the control group mainly had hypertension for five years, while the treatment group mainly had hypertension for seven years. These data indicate that the treatment group had suffered for longer from hypertension. So, the level of self-efficacy in the treatment group was better than the control group. These results reflect with Bandura (2004), who states that the longer an individual has experienced a specific negative condition, the higher the level of self-efficacy they will have to overcome their problems. In addition, the treatment group also received logotherapy. So, the level of self-efficacy in the respondents in the treatment group was better than in the control group.

The findings of this research correspond with that of Agustini (2016), who mentions that someone who finds the meaning of life has good self-efficacy and accept their health condition. Another study conducted by DeWitz (2004) also states that the discovery of a life goal affects a person's self-efficacy. This can drive motivation, cognitive ability, and action to achieve the desired goal (Bandura, 1994). This statement is in accordance with research by Ariani (2014), who states that someone who has a good motivation will have a greater chance of having good self-efficacy. Bandura (2004) explains that the process of establishing one's self-efficacy depends on the demands and goals they want to achieve. Discovering the purpose of life is very important for a patient with hypertension as a motivator following their long-term treatment. Strong motivation will lead to high self-efficacy to continue their treatment.

The regulation of blood pressure in the control group, in the pre- and post-test examination, showed an increase in the mean of systolic blood pressure. Meanwhile, diastolic blood pressure tended to remain. Data on the difference between pre- and post-test examinations of systolic blood pressure also showed that most of the respondents experienced an increase in systolic blood pressure with the highest increase of +20 mmHg, whereas the average diastolic pressure in most respondents remained (there was no difference). An increase in systolic blood pressure can occur as individuals grow older. Respondents with an increase of systolic blood pressure were older than those with declining systolic blood pressure, mostly over 60 years old. Harrison, Wilson and Kasper (2005) state that as a person grows older, higher blood pressure will be experienced. This is consistent with the theory that systolic blood pressure will usually increase in the elderly due to the decreasing elasticity of blood vessels. When the elasticity of arteries decreases, it will not flex, and tends to be rigid causing an increase in systolic pressure (Widyanto & Triwibowo, 2013). Potter et al. (2016) also mention that the increase in systolic pressure is more significant than diastolic pressure because of reduced arterial elasticity.

Data tabulation on the treatment group showed a decrease in the mean of systolic and diastolic blood pressure on post-test examination. The results indicated that most respondents experienced a reduction with the highest difference at -30 mmHg and the lowest at -10 mmHg. The decrease in systolic and diastolic blood pressure can occur due to an increase in respondents' level of self-efficacy. Respondents who experienced decreased systolic or diastolic blood pressure tended to have improved self-

efficacy. However, Respondent 7 experienced an increase in his self-efficacy score, but his blood pressure continued to increase with a difference of +24 on the systolic measurement during the post-test. This could be because the respondent was 62 years old (elderly); age can also have an effect on respondent's cardiovascular system. Junaidi (2010) explains that incidences of hypertension increase rapidly at age 50 and above, with prevalence at 69.7%. LeMone and Burke (2008) also mention that adults' blood pressure tends to increase with age. The elderly have increased systolic pressure due to reduced elasticity of blood vessels.

The statistical analysis has shown that there was no significant difference in respondents' blood pressure between the pre- and post-test measurements, in both systolic and diastolic pressure. On the other hand, the treatment group had shown significant differences in this. It can be concluded that logotherapy can change the regulation of blood pressure in patients with hypertension. Fatimah (2009) mentions that logotherapy is effective as an adjunctive therapy to decrease the blood pressure of patients with hypertension. Logotherapy is one form of psychotherapy through counselling to discover the meaning of life. Folkman and Lazarus (1988) explain that psychotherapy is expected to increase the coping power of patients. Coping power, which can be established and developed through education and training, can lead to lowering blood pressure. The provision of logotherapy can be used to improve coping mechanisms by providing education through the counselling process, so that patients with hypertension can discover the positive meaning of their lives, have good coping mechanisms, and perform long-term treatment to keep their blood pressure within a normal range.

Analysis, using the Mann Whitney Test, indicates a significant difference in systolic and diastolic blood pressure in post-test measurements between the two groups. The results also showed that after two weeks of logotherapy, the mean of systolic and diastolic blood pressure in the treatment group was lower than in the control group. Results indicated that systolic and diastolic blood pressure in the treatment group decrease further than in the control group.

The mean of systolic blood pressure in the control group increased in the post-test, but the difference was less compared to the pre-test score. This can be affected by the age of the respondents. Table 1 exhibited the characteristics of respondents in the control group. Most of them were 55 to 64 years old. Adult blood pressure tends to increase along with age. So, elderly people tend to experience increased

systolic pressure due to a reduction in the elasticity of blood vessels (LeMone & Burke, 2008). No significant differences in blood pressure can be seen because of the thickening and stiffening in blood pressure as part of aging process. Half of arterial stiffening incidences that happen during the aging process can be caused by the reduction of endothelium dependent relaxation, resulting in a decreasing flow of blood vessels, so blood pressure remains stable.

Other factors that influenced the difference in systolic and diastolic blood pressure between the control and treatment groups was the administration of logotherapy. The treatment group that followed logotherapy for two weeks experienced a lowering of blood pressure and an increase in their self-efficacy score. An increase in self-efficacy will enhance patients' adherence to follow their treatment programs. Resultantly, their blood pressure may decrease. The results reflect work by Warren-Dindlow and Huber (2013) who suggest that patients with hypertension, who have good self-efficacy, will significantly motivate themselves to improve adherence to treatment regimens, consume a low-salt diet, engage in physical activity, and maintain their weight so their blood pressure can be controlled.

Findings by Nadziroh (2016) explain that a person who is confident in their ability to solve problems will choose to perform useful and effective actions to do so. The theory of Folkman and Lazarus (1988) mentions that the provision of psychotherapy in the form of logotherapy can increase patients' coping power. Mulyata (2002) also mentions that the development of coping power can result in the reduction of blood pressure in patients. Meliala (2004) also states that logotherapy works by providing influences that may affect blood pressure, such as behavioral, cognitive, psychological, and physiological factors.

By looking at the research findings, the researcher believes that improving coping mechanisms will lead to better self-efficacy. A good coping mechanism will motivate a person to act to achieve their desired goal. The goal of patients with hypertension was to maintain their blood pressure within a normal range. Patients with hypertension, who were able to find their purpose of life, will have a strong confidence in facing their disease, so patients with hypertension will be more adherent in undergoing long-term treatment programs.

5 CONCLUSIONS

Most respondents with hypertension experienced an increase of self-efficacy after the logotherapy because they found the meaning in their life. The regulation of blood pressure in patients with hypertension decreased into the normal range after following logotherapy because their self-efficacy to adhere the management of hypertension had increased. Logotherapy affects patients' self-efficacy and blood pressure regulation because it can motivate them to manage their hypertension. So, their blood pressure will remain stable.

Patients with hypertension were advised to remain committed to the meaning of life that they had already chosen and remain consistent in maintaining their self-efficacy against long-term hypertension treatment. This way, the success of treatment can be achieved and blood pressure can be controlled. Nurses can use logotherapy as a new intervention to improve the adherence of patients with hypertension in following their treatment. Healthcare centers also can use logotherapy as a routine program to improve patient adherence, especially patients undergoing long-term treatment.

Further research can be conducted to evaluate the effect of logotherapy on other diseases as well as hypertension, with more attention to confounding factors (age, education, and long-suffering) and a larger sample size. In addition, the frequency of logotherapy meetings could be increased because with more meetings, respondents are expected to achieve further regarding the meaning of life.

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