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Social Support Positively Correlated with Dietary Adherence among Patients with Hypertension in Primary Health Center

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Abstract

Dietary adherence is one of the requirements in chronic disease management, which the success of hypertension management may correlate with the social support perceived by the patients. The study aimed to identify the relationship between social support and dietary adherence among patients with hypertension in Primary Health Centre, Tangerang. The study was a descriptive correlational, cross-sectional study, in which 120 respondents were recruited by using purposive sampling. Multidimensional Perceived of Social Support (MSPSS) and Dietary Adherence questionnaire was used based upon validity and reliability to measure social support and adherence. Pearson Product-Moment Correlation Coefficient was used to examine the relationship between social support and dietary adherence. The analysis result indicated that respondents who reported low support were 51 respondents (42.5%), and low dietary adherence was 53 respondents (44.2%). The analysis results showed there was a significant positive relationship between social support and dietary adherence among patients with hypertension, in which the power of correlation was moderate ($r = 0.49$, $p < 0.05$). Patients with hypertension who perceived higher social support more likely to adhere to the dietary of hypertension. The result suggests that health care providers need to facilitate support from friends, family, and significant others of the patients to achieve optimum dietary adherence.
Keywords: Dietary Adherence, Hypertension, Social Support

Introduction

Hypertension is a non-communicable disease (NCD) which has a significant influence on morbidity and mortality rates in the world both in developing and developed countries. Hypertension is a condition when systolic blood pressure is more than 120 mmHg, and diastolic pressure is more than 80 mmHg (Whelton et al., 2018). Hypertension that is not immediately treated quickly will have an impact on the emergence of other degenerative diseases. According to the American Heart Association, hypertension is a global disease, with 9.4 million deaths worldwide each year. Also, one in four men and one in five women diagnosed with hypertension worldwide that it becomes a global target to reduce the disease up to 25 % by 2025 (World Health Organization [WHO], 2019).

Concerning Indonesia, it is a developing country with a high incidence of hypertension. Based on the Basic Health Research (Ministry of Health Republic of Indonesia, 2018a), people diagnosed with hypertension in Indonesia showed a high prevalence of 8.4 %. Locally, Banten province showed a higher number of people with hypertension than national prevalence, as much as 8.61 % (Ministry of Health Republic of Indonesia, 2018b). Moreover, the report indicated people with hypertension do not take medicine regularly (32.3 %) and do not take medicine (13.3%). Notably, among those groups, 59.8 % of people reported not taking medicine because they felt they were healthy (Ministry of Health Republic of Indonesia, 2018a). Hence, adherence is significant issue in complying with hypertension management, leading to prevent further its adverse impact, such as complication and mortality.

Adherence is one of the important things in the management of hypertension care. This is due to the fact that hypertension is a chronic disease that requires personal commitment throughout his life in managing the illness. Adherence is an individual's behavior related to taking medication, adhering to a diet, or changing lifestyles by therapies recommended by the physician (Kozier, 2011). In nursing perspectives, adherence is a multifaceted, multidimensional concept impacted by vital components such as autonomy, self determination, self-efficacy, and interaction (Gardner, 2015).

Currently, dietary adherence could be the main thing that hypertensive clients must carry out because of an inadequate modern lifestyle in fulfilling a healthy diet. Significantly, adherence to hypertension dietary adherence more likely to reduce the risk of complication, such as stroke (Feng et al., 2018). Some factors were found to be the related factors of adherence among patients with hypertension. Previous studies have shown that the factors that influence adherence are knowledge, motivation, social support, and health workers' role (Adisa et al., 2017; Annisa & Wahiduddin, 2013). However, a study reported that family support as one of the social support domains did not correlate with adherence factors in hypertension (Osamor, 2015).

Concerning social support, it is one of critical factor that can improve adherence in hypertensive patients. Social support is one of middle-range theory that emphases on relationships and the connections within those relationships may influence to health and well-being (Leahy-Warren, 2014). Despite the vital of social support, the care provided in primary health center (PHC) rarely involving this factor into their routine program for patients with hypertension.

Social support may associate with the patients' diet adherence, leading to help them in sustaining the treatment, which could affect health outcomes, such as blood pressure control. The increasing prevalence of hypertension throughout the world, such as Indonesia, and the knowledge of gaps, including limited social support involvement as PHC daily routine program and inconsistency findings related to social support and dietary adherence; therefore, this study aimed to identify the relationship between social support and dietary adherence among patients with hypertension in a primary health center in Tangerang.

Methods

The method used in this study was descriptive correlational, cross-sectional study. The study was conducted at the Cipondoh Primary Health Center in Tangerang in June - July 2018. The ethical approval has granted from the Health Research Ethics Committee of Tangerang Regency General Hospital Number: 445/091-KEP-RSUTNG.

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The population in this study was all patients with hypertension at Primary Health Center in Cipondoh Tangerang, as many as 310 patients. The sample in this study was 120 patients recruited by purposive sampling. Inclusion criteria, patients with a range of 30-59 years, diagnosed with hypertension at least six months ago, clients who were willing to become respondents by signing an informed-consent sheet, did not experience mental and physical disorders. The exclusion criteria were new diagnosed hypertensive patients in the primary health center.

The instruments used in this study were the standardized questionnaires that have granted permission from the author. Dietary adherence was measured by a questionnaire adopted from Iswanto (2014). This questionnaire consisted of 20 questions with a reliability score of 0.75. Meanwhile, the perceived social support of the client was measured using a standardized questionnaire developed by Zimet et al. (1988) the Indonesian version of the Multidimensional Scale of Perceived Social Support (MSPSS) (Winahyu et al., 2015). Moreover, the MSPSS reliability in this study is 0.87.

The analysis technique used in this study was univariate analysis, including the distribution of characteristics of the patients, social support, and dietary adherence. For the bivariate analysis, the relationship between social support and adherence among patients with hypertension was examined by Pearson-Product Moment Correlation Coefficient by achieving the assumption of a normal distribution on both variables.

Results and Discussion

a. Characteristics of the Patients

According to table 1, respondents' characteristics with hypertension indicated that most respondents were middle-aged (56.7%). The higher a person's age, the higher their blood pressure; the more mature people tend to have a high blood pressure than younger people (Black, 2014). The majority of gender was female respondents which confirmed the previous study showed hypertension is more common in women than in men as it is related to hormonal factors, where women over the age of 40 begin to enter menopause. The risks that occur in men and women are almost the same, namely between the ages of 55 to 74 years, then after the age of 74 years, women are at higher risk of developing hypertension (Black, 2014). Also, the majority of respondents showed a better-educated person who completed compulsory education. A person's education level may correlate with one's ability to adopt healthy behavior (Margolis, 2013). Moreover, longer time of treatment were more prevalence in this population study. The duration of hypertension may link with its treatment, leading to impact health function as suggested by Li et al. (2014).

Table 1. Characteristics of Patients with Hypertension in Primary Health Center Cipondoh Tangerang (N=120)

Characteristics	n	%
Age		
30-39	12	10
40-49	40	33,3
50-59	68	56,7
Gender		
Male	28	23,3
Female	92	76,7
Level of education		
No education	7	5,8
Elementary	44	36,7
Junior	29	24,2
Senior	29	24,2
Higher education	11	9,1
Medication duration		
≤1year	25	20,8
>1year	95	79,2

b. Perceived Social Support

Table 2. Distribution of Perceived Social Support among Patients with Hypertension (N=120)

Perceived Social Support	n	%
High	69	57,5
Low	51	42,5

Based on table 2, the Frequency distribution of social support obtained from family, friends, and significant others from 120 respondents, most respondents have high social support (57.5%) at the Cipondoh Health Center in Tangerang. This is in line with previous study conducted by Tumenggung (2013) of 30 respondents showing that the majority of respondents have good social support, as many as 26 respondents (86.7%). Social support is one of the factors that correlate with patients adherence with dieting. Age characteristics can cause high social support, the majority of this

study has a stage of middle age. Patients with a middle-age stage will be vulnerable to health problems, so the family is worried about the condition of the patients.

Therefore, the family supports to the patients because this support will bring confidence to deal with or manage the disease well, and the client wants to follow the advice given by the family to improve health. The effect of social support coming from the family on health is that the state of adequate social support has been shown to be associated with improved health status, cognitive function, physical health (Friedman et al., 2010)

c. Dietary Adherence

Table 3. Distribution of Dietary Adherence among Patients with Hypertension (N=120)

Dietary Adherence	n	%
Adherence	67	55,8
Non-adherence	53	44,2

Based on table 3,the distribution of dietary adherence of 120 respondents showed that the majority of respondents have good dietary adherence (55.8%). This result is in line with a study conducted by Nita (2018) showed that the majority of hypertensive patients had dietary adherence.

Perceived of dietary adherence can be caused by the characteristics patients who had long duration of treatment. In this study, the majority of respondents had a length of duration of medication > 1 year. Respondents who have medical treatment> 1 year will have more extensive information and knowledge so they can have the desire/motivation to adhere to the dietary recomendation.

d. Bivariat Analysis

Table 4. The Relationship between Social Support and Dietary Adherence among Patients with Hypertension in Primary Health Center in Tangerang (N=120)

	Dietary Adherence	Pvalue
	r	
Perceived Social Support	0,49	0,00

Note: $p < 0,05$

From the analysis table 4, it shows that the p-value <α (0.05) shows that there is a significant relationship between social support and dietary adherence at the Cipondoh Health Center in Tangerang. And the results of the correlation coefficient or the value of r = 0.49. It shows a positive relationship between social support and diet adherence with the strength of moderate relationships. According to Zimet et al. (1988), stated that social support as the received of support provided by the people closest to the individual includes family support, friendship support, and support from people who are meaningful around the individual. Moreover, social support is one of the factors that influence adherence, social support in question is family. Health professionals who can convince the patient's family to support the improvement of patient health can be reduced non-adherence (Niven, 2012).

Furthermore, adherence is an individual's behavior, for example, taking medication, adhering to a diet, or making lifestyle changes in accordance with recommended therapy and health given. The level of adherence can start from following the plan's recommendations Kozier (2011). The results of present study are consistent with the study of Tumenggung (2013) revealed that there is a relationship between family social support and dietary adherence of hypertensive patients. According to Padhy et al. (2016) and Nita (2018) indicated that significant relationship existed between social support and adherence in patients with hypertension.

Tumenggung (2013) stated that the results of the study reinforce the opinion that family social support is one of the factors that has a very close relationship with patient adherence in implementing a diet program. The study accentuated family social support is critical in improving and encouraging patients if hypertension becomes severe (Tumenggung, 2013). Similarly, a review by Magrin et al. (2014) reported that functional support significant and positively correlated with adherence overall.

In the current study, the relationship between social support and dietary adherence could be described by client characteristics, namely gender and patients' length of treatment. The majority of female patients indicated that women are usually more concerned about their health than men in terms of maintaining health. This behavior is due

to women's properties who pay more attention to their health and discipline in medicine. Moreover, most clients have treatment duration > 1 year so that the client has more extensive information and knowledge and has the desire/motivation to adhere to the recommended diet.

Moreover, patients with hypertension required complex management tasks to fulfill, such as complying with the complicated dietary for hypertension and getting better support to help them achieve better adherence than those without support. The link between perceived social support and adherence is needed for more recognition in the routine program in primary care because social support is one factor that has a significant contribution and is a driving factor that correlates with adherence performed by patients with hypertension.

Conclusion

Regarding this study's results, most patients with hypertension reported low social support (42.5%) and low dietary adherence (44.2%). Meanwhile, the correlation analysis results indicated a positive relationship with moderate strength between social support and dietary adherence of patients with hypertension. However, the relationship and its strength did not establish a causal relationship between the variables could be the main limitation of this study.

This study emphasizes the importance of social support provided by family, friends, and significant others to adhere to the patients' diet or therapy; thus, they will manage hypertension adequately. The moderate strength and significant relationship between social support and dietary adherence can be baseline data for further research, such as investigating predicting dietary adherence factors among patients with hypertension.

References

Adisa, R., Olajide, O. O., & Fakeye, T. O. (2017). Social Support, Treatment Adherence and Outcome among Hypertensive and Type 2 Diabetes Patients in Ambulatory Care Settings in southwestern Nigeria. *Ghana medical journal*, *51*(2), 64-77. https://pubmed.ncbi.nlm.nih.gov/28955102

Annisa, A. F. N., & Wahiduddin, A. J. (2013). Faktor yang berhubungan dengan kepatuhan berobat hipertensi pada lansia di puskesmas pattingalloang kota makassar. *Universitas Hassanudin*.

Black, J. M. (2014). *Keperawatan Medikal Bedah manajemen klinis untuk hasil yang diharapkan Jilid 1*. Elsevier Singapura. http://opac.nhm.ac.id//index.php?p=show_detail&id=3090

Feng, Q., Fan, S., Wu, Y., Zhou, D., Zhao, R., Liu, M., & Song, Y. (2018). Adherence to the dietary approaches to stop hypertension diet and risk of stroke: A meta-analysis of prospective studies. *Medicine*, *97*(38), e12450. https://doi.org/10.1097/md.0000000000012450

Friedman, M. M., Vicky, R., Bowden, E., & Jones, G. (2010). *Keperawatan Keluarga: teori dan praktik* (5 ed.). EGC.

Gardner, C. L. (2015). Adherence: a concept analysis. *International journal of nursing knowledge*, *26*(2), 96-101.

Iswanto, E. (2014). *Hubungan Dukungan Keluarga dengan Kepatuhan Diet pada Lansia Penderita Hipertensi.* [Undergraduate Thesis, Sekolah Tinggi Ilmu Kesehatan Insan Cendekia Medika].

Kozier, B. (2011). *Buku ajar fundamental keperawatan konsep proses dan praktik Ed.7 Vol.1* (7 ed., Vol. 1). EGC.

Leahy-Warren, P. (2014). Social support theory. In *Theories guiding nursing research and practice: Making nursing knowledge development explicit.* (pp. 85-101). Springer Publishing Company.

Li, T., Bai, Y., Xiang, J., Wang, R., Bai, J., Tuo, X., & Zhao, Z. (2014). Duration of hypertension is associated with cognitive function: a cross-sectional study in Chinese adults. *Chin Med J (Engl)*, *127*(11), 2105-2110.

Magrin, M. E., D'Addario, M., Greco, A., Miglioretti, M., Sarini, M., Scrignaro, M., Steca, P., Vecchio, L., & Crocetti, E. (2014). Social Support and Adherence to Treatment in Hypertensive Patients: A Meta-Analysis. *Annals of Behavioral Medicine*, *49*(3), 307-318. https://doi.org/10.1007/s12160-014-9663-2

Margolis, R. (2013). Educational differences in healthy behavior changes and adherence among middle-aged Americans. *Journal of*

health and social behavior, 54(3), 353-368. https://doi.org/10.1177/0022146513489312

Ministry of Health Republic of Indonesia. (2018a). *Basic Health Research 2018*. https://kesmas.kemkes.go.id/assets/upload/dir_519d41d8cd98f00/files/Hasil-riskesdas-2018_1274.pdf

Ministry of Health Republic of Indonesia. (2018b). *Report of Banten Province: Basic Health Research 2018*. https://drive.google.com/drive/folders/1XYHFQuKucZIwmCADX5ff1aDhfJgqzI-l

Nita, Y. (2018). Hubungan dukungan keluarga dengan kepatuhan diet pasien hipertensi di Puskesmas Payung Sekaki Pekanbaru Tahun 2017. *Jurnal Ilmu Kesehatan, 6*(1), 90-97.

Niven, N. (2012). Psikologi Kesehatan: Pengantar untuk perawat dan tenaga kesehatan profesional lain. *Jakarta: EGC*.

Osamor, P. E. (2015, 2015 Jan-Feb). Social support and management of hypertension in South-west Nigeria. *Cardiovascular journal of Africa, 26*(1), 29-33. https://doi.org/10.5830/cvja-2014-066

Padhy, M., Lalnuntluangi, R., Chelli, K., & Padiri, R. A. (2016). Social Support and Adherence among hypertensive patients. *Amity Journal of Healthcare Management AJHM ADMAA Amity Journal of Healthcare Management, 1*(11), 33-40.

Tumenggung, I. (2013). Hubungan dukungan sosial keluarga dengan kepatuhan diet pasien hipertensi di RSUD Toto Kabila Kabupaten Bone Bolango. *Jurnal Health and Sport, 7*(01).

Whelton, P. K., Carey, R. M., Aronow, W. S., Casey, D. E., Collins, K. J., Dennison Himmelfarb, C., DePalma, S. M., Gidding, S., Jamerson, K. A., & Jones, D. W. (2018). 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA guideline for the prevention, detection, evaluation, and management of high blood pressure in adults: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Journal of the American College of Cardiology, 71*(19), e127-e248.

Winahyu, K. M., Hemchayat, M., & Charoensuk, S. (2015). Factors affecting quality of life among family caregivers of patients with schizophrenia in Indonesia. *Journal of Health Research, 29*, S77-82. https://doi.org/10.14456/jhr.2015.52.

World Health Organization [WHO]. (2019). Hypertension: Key Facts. https://www.who.int/news-room/fact-sheets/detail/hypertension

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52*(1), 30-41. https://doi.org/10.1207/s15327752jpa5201_2