



## Identification of Physical and Spiritual Activities Among Patients with Hypertension in Maintaining Health Status

Sri Rahayu<sup>1\*</sup>, Shelin Putri Malvasari<sup>2</sup>, Vany Septa Viani<sup>3</sup>

<sup>1</sup> Prodi S1 Ilmu Keperawatan, Institut Kesehatan dan Teknologi PKP DKI Jakarta

<sup>2</sup> Prodi S1 Ilmu Keperawatan, Institut Kesehatan dan Teknologi PKP DKI Jakarta

<sup>3</sup> Prodi S1 Ilmu Keperawatan, Institut Kesehatan dan Teknologi PKP DKI Jakarta

### ARTICLE INFO

#### Article history:

Received 21 April 2021  
Accepted 21 August 2021  
Published 25 October 2021

#### Keyword:

Health status  
Hypertension  
Physical activity  
Spiritual activity

#### \*) corresponding author

Prodi S1 Ilmu Keperawatan, Institut Kesehatan dan Teknologi PKP DKI Jakarta  
Jl. Raya PKP Kelapa Dua Wetan, Kelurahan Kelapa Dua Wetan, Kecamatan Ciracas, Jakarta Timur, Indonesia, Kode Pos: 13730

Email: srirahayu1903@gmail.com

DOI: 10.47679/makein.202287  
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### ABSTRACT

Online activities during the pandemic have changed people's lifestyles, including patients with chronic diseases. Without realizing it, patients with hypertension are less mobile, tend to sit, rarely exercise, rarely control their health, and eventually lead to sedentary behavior. This sedentary behavior risks the emergence of other health problems. Hence, it is necessary to identify the physical and spiritual activities of patients with hypertension to maintain and improve their health status. For this reason, this study aims to identify the physical and spiritual activities of patients with hypertension in maintaining their health status. The research used a quantitative method with a cross-sectional study design. Respondents involved in this study were 84 patients with hypertension with limited inclusion and exclusion criteria. The results showed that most patients with hypertension were 37 adults (44.0%), 52 people (61.9%) were female, 56 people (66.7%) had senior high school education, 36 people (42.9%) were housewives, 45 people (53.6%) had low activity, 100% active in spiritual activities, and having health status, i.e., sometimes sick, were 40 people (47.6%). Suggestions for further research are to identify differences in physical activity and health status in other chronic diseases, such as patients with Diabetes Mellitus.

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### INTRODUCTION

The Corona Virus Disease 2019 (COVID-19) pandemic has lasted more than two years in Indonesia. Without realizing it, people are placed in a safe and comfortable zone in attending college or working from home. Various health problems began to emerge in the community, experienced by students, workers, and patients with chronic diseases. The World Health Organization (WHO) states that sedentary behavior is related to physical activity (WHO, 2020). During the pandemic, online activities make people do more static movements, which tend to sit for long periods. This habit will trigger a new problem, i.e., sedentary behaviors. The same is true for workers who work from home, including family caregivers who care for their sick family members at home or the patients themselves.

Sedentary behaviors are also defined as those that include prolonged sitting or lying down, not moving much, low activity, or activities that expend very little energy of <1.5 metabolic equivalents or MET (WHO, 2020). It can be dangerous if left alone and can cause health in the future.

Specifically, one of the health problems is the risk of cardiovascular disease (Lavie, C. J., Ozemek, C., Carbone, S., Katzmarzyk, P. T., & Blair, 2019). A study revealed that moderate and high television viewing time was associated with MET, especially in less active adults and those living in lower economic conditions (Lemes, I. R., Sui, X., Fernandes, R. A., Blair, S. N., Turi-Lynch, B. C., Codogno, J. S., & Monteiro, 2019). Sedentary behavior can also lead to weight gain during the COVID-19 pandemic. WHO has then reminded all levels of society to stay active at home, such as walking in the yard or around the house, doing gymnastics, and doing other low sports (WHO, 2020). Some available applications can also measure daily activities, including exercise.

Moreover, physical activity is essential in a person's daily life. Physical activity is said to help burn calories and control weight (Ranasinghe, P., Piger, A. S. A. D., Ishara, M. H., Jayasekara, L. M. D. T., Jayawardena, R., & Katulanda, 2015). The physical activity level in urban and rural areas was found to be different, as the study results showed that activity in the rural was heavier (56.8%) than in the urban (27%) (Pangastuti, H. S., Perdana, M., Wati, D. A., Melati, H. I. T., &

Latifah, 2019). Meanwhile, in urban, people tended to have a moderate level of physical activity (59.5%) compared to rural (40%). Contrary to the research findings, Khusun et al. (2016) explained that urban physical activity levels tended to be lower.

Several questionnaires have been utilized to measure physical activity. First, the Global Physical Activity Questionnaire (GPAQ) developed by WHO measures a person's physical activity; in which there are five questions with four answer choices: routine, often, sometimes, and never. This GPAQ questionnaire has been translated into Indonesian (Rahayu, 2017). Research results also showed that physical activity measured using the Global Physical Activity Questionnaire (GPAQ) revealed that 66 participants (55.9%) of the 120 participants involved had active physical activity, and 41.7% were inactive (Simon, M. G., & Batubara, 2020). It contrasts with the results of other studies (Pangastuti, H. S., Perdana, M., Wati, D. A., Melati, H. I. T., & Latifah, 2019). Second, the International Physical Activity Questionnaire (IPAQ) measures a person's physical activity based on the type of activity, duration, time, and frequency of physical activity (The IPAQ Group, 2021). Third, the Exercise Self-Efficacy Scale (ESES) describes a situation where a person has difficulty following routine activities. This questionnaire is already in the Indonesian edition, which has gone through the process of adaptation and psychometric test with good results (Hakim, A. R., Wang, S. T., Widiatoro, F. X., Hannan, M., Wang, C. J., & Fetzer, 2020).

From the preliminary study results conducted by the researchers in the DKI Jakarta (Special Capital Region of Jakarta) area randomly, it is known that during the COVID-19 pandemic, most people were less active, sat more, their backs often hurt from sitting positions, body felt sore, increased red eyes/minus eyes, eating often, rarely exercise, gaining weight, getting tired more easily when active, often getting sick, significantly rarely participating in social activities, let alone praying in congregation at the mosque or taking part in the recitation together. Additionally, patients with hypertension were afraid to come to health services for health control, causing their blood pressure to be poorly controlled. Patients were also afraid to come to the service for fear of contracting COVID-19. Therefore, based on this background, the researchers are interested in identifying the physical and spiritual activities of patients with hypertension in maintaining their health status.

## METHOD

This type of quantitative research used a cross-sectional study design. This study was conducted in the Depok area from May to June 2022. The population was patients with chronic diseases, i.e., patients with hypertension. Then, the sampling technique employed was purposive sampling. The inclusion criteria in this study included patients diagnosed with hypertension, Muslim, and willing to be respondents. Meanwhile, the exclusion criteria were patients with hypertension with comorbid stroke and those who could not perform physical activity.

The research instrument utilized for physical activity was the short-form International Physical Activity Questionnaire (IPAQ), consisting of seven questions about physical activity during the last seven days (The IPAQ Group, 2021). The IPAQ questions include high physical activity, moderate activity, low activity, and sitting. For each type of activity, they were asked how many days of physical activity they had and how

many hours or minutes of doing these activities in a day. Furthermore, according to the IPAQ, physical activity can be categorized into three: low, moderate, and high. The IPAQ instrument is a standard instrument that has been translated by previous researchers with psychometric results obtaining the IPAQ 7 short-form questionnaire declared valid. The Kaiser-Meyer-Olkin value was 0.910, and the Bartlett sphericity test was  $X^2 = 573.434$  ( $df=28$ ,  $p<0.000$ ) (Dharmansyah & Budiana, 2021). Then, the researchers developed the instrument for spiritual activity and health status by preparing open-ended questions.

## RESULTS AND DISCUSSION

Research carried out on participants with hypertension has yielded several results as follows:

### Characteristics of Patients with Hypertension

Table 1 shows that most patients with hypertension were 37 adults (44.0%), 52 people (61.9%) were female, 56 people (66.7%) had senior high school education and 36 people (42.9%) as housewives.

**Table 1. Characteristics of Patients with Hypertension (n=84)**

Characteristics	Frequency	Percentage (%)
<b>Age</b>		
Adolescent	11	13.1
Adult	37	44.0
Middle Age Adult	30	35.7
Elderly	6	7.1
<b>Gender</b>		
Male	32	38.1
Female	52	61.9
<b>Education</b>		
Elementary school	2	2.4
Junior high school	8	9.5
Senior high school	56	66.7
College	18	21.4
<b>Occupation</b>		
Student	11	13.1
Employee	30	35.7
Housewife	36	42.9
Pension	7	8.3

### Physical Activity of Patients with Hypertension

**Table 2. Physical Activity of Patients with Hypertension (n = 84)**

Physical Activity	Frequency	Percentage (%)
Low	45	53.6
Moderate	33	39.3
High	6	7.1
<b>Total</b>	<b>84</b>	<b>100</b>

Table 2 presents that all patients with hypertension who had active spiritual activity were 84 people (100%).

## Health Status of Patients with Hypertension

**Table 3.**  
**Health Status of Patients with Hypertension (n = 84)**

Health Status	Frequency	Percentage (%)
Healthy	38	45.2
Sometimes sick	40	47.6
Sick often	6	7.1
<b>Total</b>	<b>84</b>	<b>100</b>

In Table 3, patients with hypertension who had health status in the healthy category were 38 people (45.2%), sometimes sick were 40 people (47.6%), and often sick were six people (7.1%).

### Discussion

The study demonstrated that for patients with hypertension, 45 patients (53.6%) had low activity, 33 patients (39.3%) had moderate activity, and six patients (7.1%) had low activity. Referring to these results, it can be seen that most patients with hypertension had low activity. Possibly, it is related to the patient's age, where most patients were adults and middle age adults. As is known, with increasing age, activity will decrease. It is associated with body functions, which also begin to decline. In old age, there is a decrease in muscle mass, changes in the distribution of blood to muscles, a decrease in pH in muscle cells, muscles becoming stiffer, and a decrease in muscle strength. Even more, the person has a chronic disease, as in the study participants with hypertension. Thus, naturally, in this study, patients with hypertension mostly had low activity.

The results also showed a relationship between the level of physical activity and the incidence of hypertension. Physical activity significantly affects the stability of blood pressure. People who are not physically active tend to have a higher heart rate. It causes the heart muscle to work harder with each contraction. The harder the heart muscle pumps blood, the greater the pressure placed on the artery walls, thereby increasing peripheral resistance, which causes an increase in blood pressure. Physical activity in the form of exercise can reduce the risk of developing hypertension. It is because, during exercise, heart rate and breathing increase, and the body will produce beta-endorphin compounds that lead to a sense of calm so that blood pressure can also be controlled. Conversely, a lack of physical activity can also increase the risk of being overweight, which will cause the risk of hypertension (Hasanudin, Ardiyani, & Perwiraningtyas, 2018).

The inconsistent results of previous studies are that of Sari, R. M., Fitriani, D., Oktarina, M., & Yulisa (2021), which stated that most patients with hypertension had a moderate activity with stage 1 hypertension. The study stated that patients with hypertension worked as teachers and office workers and owned trading businesses. Thus, the patient still had a moderate level of routine activity. In contrast to this study, it was revealed that patients with hypertension had low activities because most were housewives. As is known, housewives carry out routine daily activities, especially if the patient has hypertension. Hence, high activities will undoubtedly be assisted by their partner or family.

Furthermore, the spiritual activity of patients with hypertension mentioned that all were active (100%). Possibly, it is caused by the patient's desire and awareness to

get closer to God. Patients with hypertension want to spend the rest of their lives more on spiritual and religious activities, such as praying on time, praying sunnah, reading the Qur'an, and others. The study results are supported by Qur'anic Healing therapy, which can lower blood pressure (Nurhakim, A. I., Dewi, I. P., & Rohmah, 2018). In the study, it was also stated that the patients had high spiritual health. It is due to the fact that the elderly lived in Panti Wredha and received religious facilities and activities from the caretaker of the nursing home, such as praying, reading the Qur'an, and religious lectures. No less critical therapy is Dhikr Therapy, which is also very beneficial for patients with hypertension (Prameswari, R., Uyun, Q., & Sulistyarini, 2017). Praying and dhikr are medicine for patients, aside from medicine in a medical sense. By mentioning Allah SWT, Dhikr can give birth to strength in the soul of someone who loves Allah SWT deeply and always remembers Allah SWT. A person can overcome various obstacles and trials that are befalling him calmly and confidently. Other studies also mention the benefits of ablation in patients with hypertension (Selvi, M., Siti, B., & Fitriani, 2021). In addition, ablation provides excellent benefits to the body as it can increase the number of red blood cells, activate exchange (circulation) in the body, increase oxygen levels, and increase the CO<sub>2</sub> (carbon dioxide) coming out. Thus, washing the exposed parts with ablation benefits the body by stimulating the skin and joint muscles. Stimulation by performing ablation is also incredibly beneficial to the human body, especially in patients with hypertension, who can maintain their health status.

In this study, the health status of patients with hypertension was known to be unstable, which sometimes caused the patient to get sick (47.6%). It is reasonable since, in addition to regularity in taking medication, patients also need to pay attention to making lifestyle changes, such as reducing the consumption of salty or high-sodium foods, the need for routine to maintain physical activity, exercising regularly, quitting smoking, and others. Physical activity is also one factor in keeping the health status of patients with hypertension stable. In addition, body movement will keep the circulation system smooth and the heart working normally, and it is hoped that blood pressure will also be normal.

### STUDY LIMITATION

This study has limitations, including only focusing on one chronic disease population, i.e., patients with hypertension. Meanwhile, the government's attention in the chronic disease management program (*Program Pengelolaan Penyakit Kronis/ (PROLANIS)*) is not only for patients with hypertension but also for patients with Diabetes Mellitus. Hence, further research needs to identify the physical activity of the two populations.

### CONCLUSION AND RECOMMENDATION

The results of this study indicate that most hypertension patients were 37 adults (44.0%), females gender were 52 people (61.9%), those having senior high school education were 56 people (66.7%), housewives were 36 people (42.9%), having physical activity with low category were 45 people (53.6%), active in spiritual activity were 84 people (100%), and having health status, i.e., sometimes sick, were 40 people (47.6%). Then, further research is recommended to identify

differences in physical activity and health status in other chronic diseases, namely patients with Diabetes Mellitus.

### Statement of Conflict Interest/ Competing Interest

This research has no significant conflict. All the authors listed in this article have no involvement with outside parties. All authors approve the research results for publication, and all sources of writing have been included in the references.

### Funding

This research received funding from the Institute for Research and Community Service (*Lembaga Penelitian dan Pengabdian Kepada Masyarakat* (LPPM)) Institut Kesehatan dan Teknologi PKP DKI Jakarta.

### Acknowledgement

We, as authors, would like to thank the internal research grant from LPPM, Institut Kesehatan dan Teknologi PKP DKI Jakarta, in 2021/2022. We would also like to thank patients with hypertension in the Depok area, West Java, who were willing to participate in this study. Hopefully, this article is helpful for the readers.

### Authors Contributions

The first author is responsible for making research proposals, identifying the questionnaires used, making research explanations and approval sheets, analyzing data, making final research reports, searching for journals for publication, and making publication manuscripts. The second and third authors are tasked with collecting data and coding in excel from the data collection results.

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