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Yoga breathing exercises improve quality of life patient with asthmatic status

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Abstract--Background Of The Study: Yoga breathing exercises (Pranayama) are the best way to improve the quality of life of patient with asthmatic status. Aim Of The Study: is to find out the influence of pranayama on the quality of life patient with asthmatic status. Methodology: This type of quasi experiments with pre-post control group design. The sampling technique used purposive sampling, the number of samples of 60 respondents, pranayama was carried out 2 x/weeks, for 6 weeks. The data analysis used is the willcoxon test. Results: This study showed the average quality of life of people with asthmatic status before following pranayama by 55.43, minimal-max values of 39-67, confidence index 95% 52.68 - 58.18. While the average quality of life after following pranayama 93.63, the quality of life bearada between 71-117, the confidence index 95 % 89.5-97.76. The average difference in quality of life of people with. Conclusion: is significantly pranayama improved the quality of life patient with Asthmatis status.

Keywords---asthma status, quality of life, yoga breathing exercises, Pranayama.

Introduction

The incidence of asthma in Indonesia is 2.4%, while in West Java it is around 3%, with the highest incidence in women, which is 2.5%. (Risksda, 2018). The recurrence of asthma in Indonesia is 57.5% (Kesmas Kemkes, 2018). Asthma recurrence in Jakarta Hospital is 64%, this is due to uncontrolled asthma

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patients, especially related to lifestyle such as coping mechanisms, exposure to factors that trigger attacks, respiratory tract pathology conditions continue to abnormalities and respiratory muscles, will result in complications and occurrence of asthma attacks. other diseases that require asthma patients to be hospitalized, decreased productivity, quality of life for asthma patients (Tasci, 2020).

Recurrence and pathological conditions of the airways in asthmatic patients can be minimized by lifestyle such as avoiding factors that trigger asthma attacks and increasing the ability to expand the chest and increase the elasticity of the respiratory muscles. According to Jayawardena et al (2020) Yoga significantly shows an effect on the cardiorespiratory function of bronchial asthma patients, besides that it also increases pulse rate, systolic blood pressure and respiratory function, and decreases asthma attacks/relapses, worsening conditions, the need for treatment and improving quality of life. asthmatic patients (QOL). In addition, the results of Sarkar's study (222) showed that giving pranayama for 12 weeks had the effect of improving the physical, psychological and quality of life of asthma patients. The purpose of this study was to determine the effect of pranayama on patients with status asthmaticus.

Method

The research design used was a quasi-experimental pre post test with control group design. The sampling technique used was random sampling. Pranayama yoga breathing exercises were performed on patients who had a history of status asthmaticus twice a week for 6 weeks. Inclusion criteria: 1) can read, write, 2) have never done yoga breathing exercises, 3) are willing, while the exclusion criteria: are not experiencing recurrence. The number of samples is 30 respondents in the treatment group, 30 respondents in the control group. Certificate of ethical pass from Poltekkes Kemenkes Bandung No: 37/KEPK/C/VIII/2021.

The instrument used for measuring the quality of life WHOQOL-BREF (WHO, 2020), consists of 26 question items, the 1st and 2nd questions contain the patient's perception of the patient's quality of life and health quality and 24 questions cover 4 domains including physical quality , psychological, social relations, and the environment. The data collection procedure is as follows 1) measuring the quality of life given Yoga breathing exercises (Pranayama); 2) giving yoga breathing exercises (pranayama) to the intervention group respondents 2 times every week for 6 weeks for 30 minutes; 3) measure the quality of life after being given yoga breathing exercises (Pranayama) that is at the 7th week. Analysis of the data used T Test.

Results

The results of this study obtained 60 respondents with the following characteristics, the average age of respondents was 59.47 years, with an age range between 50 to 76 years, SD 6.39, as in table 1.

Table 1. Average Age of Respondents

Variabel	Mean	SD	Min - Maks	N
Age	59.47	6.39	50 - 79	60

The description of the other respondents' characteristics is as follows in table 2.

Table 2. Frequency Distribution of Respondents Characteristics

Variabel	Frequency	%	N
Education			60
SD	27	45	
Midle			
School	18	30	
High School	15	25	
Job			60
Working	42	70	
Not			
Working	18	30	
Lenght of illness			60
< 5 years	14	22.6	
>5 years	46	74.2	

Based on table 2 shows that almost half of the respondents have elementary school education, most of the respondents are working status, most have a history of asthma more than 5 years. The average quality of life of respondents before and after doing pranayama is as shown in table no. 3.

Table 3. Average Quality of Life of Respondents Before and After Pranayama

Variabels	Group		Mean	SD	N
Quality of life	Intervension	Pre	55.43	7.36	30
		Post	93	11.05	
	Control	Pre	52.73	7.7	30
		Post	52	6.62	

Table 3 shows that the mean quality of life of the group before doing pranayama in the intervention group was higher than in the control group. The mean quality of life of asthmatic patients after pranayama was higher than that of asthmatic patients who did not do pranayama. The difference in the quality of life of asthma patients after doing pranayama in both the intervention group and the control group is as shown in table 4.

Table 4. Differences in Respondents' Quality of Life After Pranayama

Variabel	Group	Mean	SD	N	P value
Quality	Intervension	93.63	11.05	30	0.000
	Control	52.7	6.6	30	

Based on table 4, it shows that there is a significant difference in the quality of life of asthma patients who do pranayama higher than asthma patients who do not do pranayama.

Discussion

This study showed that status asthmatic patients who did pranayama for 30 minutes 2 times per week for 6 weeks experienced a significant decrease in attacks or recurrences, an increase in the quality of life of patients with status asthmatic yoga breathing exercises (pranayama) was able to significantly improve the patient's quality of life score. status asthmaticus. This is in line with the research of Yuce and Tasci (2020) that pranayama controls asthma and quality of life in asthmatic people.

Quality of life is an individual's perception of his position in life and this is related to the culture and system of norms in which he lives which is related to the goals, expectations, standards, and concerns they have. Health-related quality of life can be interpreted as an emotional response from sufferers to social, emotional, work and relationships between families, a sense of pleasure or happiness, a match between expectations and existing reality, satisfaction in carrying out physical, social and emotional functions and the ability to socialize with other people (Silitonga, 2007). Lifestyle modification is very much needed by asthma patients in improving their quality of life. Lifestyle modifications of asthma patients include improving nutrition, increasing physical activity such as recommended sports such as swimming, cycling and asthma gymnastics (Faisal Yunus, 2006). In addition, the introduction of relaxation therapy such as yoga pranayama breathing exercises can be given to patients with status asthmaticus. Yoga breathing exercise (Pranayama) is a breathing exercise with slow and deep breathing techniques, using the diaphragm muscle, allowing the abdomen to be lifted slowly and the chest to be fully expanded. Yoga will provide relaxation for the body, improve blood circulation and control breathing. Nasal breathing exercises in yoga will activate the brain response in the hypothalamus, in the hypothalamus the neuro-motor response affects the brain hemisphere that regulates good emotions and motivation and has an influence on people with asthma (Akbar Nur, 2019).

The research above is also in line with Akbar's research (2019) on the effect of a combination of pranayama yoga practice with endurance exercise on increasing forced expiratory peak flow and asthma control at Airlangga Hospital and Surabaya Haji Hospital, the results of the study stated that there was an increase in forced expiratory peak flow after pranayama yoga. with endurance exercise for 6 weeks. Another related study by Hendri Budi (2008) regarding the relationship between the quality of asthma exercise and the quality of life of asthma patients

at the Gatot Subroto Army Hospital in Jakarta, the results of the study stated that there was a significant relationship between the quality of asthma exercise and the quality of life of asthma patients. Sukarno's research (2017) on the effect of yoga breathing exercises (pranayama) on dyspnea and functional abilities of COPD patients, the results showed that there was an effect of pranayama yoga practice on decreasing dyspnea and increasing functional ability to exercise.

Conclusion

1. Yoga breathing exercises (pranayama) affect the quality of life of patients with status asthmaticus in the intervention group.
2. There is a significant difference in patients with status asthmaticus in the intervention group and the control group after yoga breathing exercises (pranayama)
3. After practicing yoga breathing (pranayama) can improve the quality of life of patients with status asthmaticus.

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Hopefully this research report can be useful for all of us.

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