JURNAL KAHYANGAN
Jurnal Pengabdian Masyarakat
Jl. Pariwisata No. 24/26 Mataram – NTB Kode Pos 83121

THERAPY TO REDUCE MUSCULOSKELETAL DISORDERS IN WOMEN

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Abstract

Background*: One possible cause of Musculoskeletal Disorders (MSDs)and eventual impairment is carrying heavy loads, a common practice in many parts of the developing world where roads are poor or non-existent, automotive transportation is scarce or unaffordable, and household necessities, such as water, food, and firewood, must be carried manually to distant places.* ***Objective****: Based on the background description above, the author is interested in providing therapy to reduce musculoskeletal disorders in women in Karang Kerakas Hamlet, Segara Katon Village, North Lombok Regency.* ***Methods****: Fill out the consent form by the respondent then give the Nordic Body Map (NBM) questionnaire to determine the level of complaints/pain in the pelvic porter's body before doing the exercise (pretest), and this is done 3 times a week for 2 weeks with 20 minutes per treatment, the last stage is the respondent filling out a questionnaire after doing exercise (posttest). The number of respondents in this community service was 17 women who worked daily selling fish around and had complaints of musculoskeletal disorders, aged 40-64 years.* ***Results****: Ergonomic exercise is effective in reducing Musculoskeletal Disorders in women.* ***Conclusion****: Stretching in ergonomic exercise is a practical and effective method for maintaining body health. Ergonomic exercises involve muscle relaxation phases or physical exercises that target groups of muscles and tendons to increase muscle flexibility and strength, as well as improve muscle elasticity and body comfort.*

Keywords**:** *Musculoskeletal Disorders; Therapy; Women.*

INTRODUCTION

Musculoskeletal Disorders (MSDs) refer to disorders felt by a person ranging from mild complaints to excruciating pain in the musculoskeletal area which includes the joints, nerves, muscles and spine which are generally caused by work that requires unnatural body movements and can cause physical disorders (Tjahayuningtyas 2019).

The latest analysis of Global Burden of Disease (GBD) data shows that around 1.71 billion people worldwide have musculoskeletal problems. This disorder is also the leading cause of disability globally, with approximately 149 million people with disabilities, representing 17% of total disabilities worldwide (Cieza et al., 2020). MSDs data in Indonesia shows that workers often experience muscle injuries in various parts of the body, one of which is hip porters, complaints include the lower neck (80%), shoulders (20%), back (40%), midsection. to the back (40%), hips to

the back (20%), posterior (20%), thighs (40%), knees (60%), and calves (80%) ILO, 2018 (Sumarni and Siwi 2022).

Based on data from Riskesdas (2012), musculoskeletal prevalence in Indonesia is 11.9% and if referring to determination, the figure is 24.7%. The prevalence of MSDs in Indonesia based on doctor's diagnosis reaches 7.3% (Ayudea et al. 2022). MSD's complaints are often found in various countries including developed countries which are the countries with the most prevalence reaching 441 million, then countries in the West Pacific region are ranked next with a total prevalence of 427 million and followed by countries in Southeast Asia which show the prevalence figure is 369 million (Ayudea et al. 2022).

West Nusa Tenggara (NTB) is one of the provinces in Indonesia which has a percentage of MSDs diagnosed by doctors of 5.30% due to work such as fishing and due to porter activities which have the highest percentage, namely 7.46%, Self-Employed 5.06%, and Others 4.74% (Riskesdas, 2018). Based on data on the prevalence of MSDs disorders globally, nationally and specifically in the NTB region, which is quite high, and has a broad impact on workers, treatment and prevention is needed so that it does not interfere with worker productivity (Putu et al. 2023).

Karang Kerakas Hamlet is one of the hamlets under the government of Segara Katon Village which is located on the coast, has population is quite dense, with the number of family cards registered at the Segara Katon Village office currently being 250 with 592 people, the majority of the population of Karang Kerakas Hamlet are fishermen and most of the women sell fish around.

One possible cause of MSDs and eventual impairment is carrying heavy loads, a common practice in many parts of the developing world where roads are poor or non-existent, automotive transportation is scarce or unaffordable, and household necessities, such as water, food, and firewood, must be carried manually to distant places.

Based on the background description above, the author is interested in providing therapy to reduce musculoskeletal disorders in women in Karang Kerakas Hamlet, Segara Katon Village, North Lombok Regency.[1]

MATERIALS AND METHODS

MATERIALS

The materials used measure the level of musculoskeletal disorders using the Nordic Body Map (NBM) questionnaire before and after exercise.

TOOLS

The tools used in carrying out therapy are ergonomic exercises, among others speakers and cellphones to play songs.

METHODS

Fill out the consent form by the respondent then give the Nordic Body Map (NBM) questionnaire to determine the level of complaints/pain in the pelvic porter's body before doing the exercise (pretest), and this is done 3 times a week for 2 weeks with 20 minutes per treatment, the last stage is the respondent filling out a questionnaire after doing exercise (posttest).[3]

RESULTS AND DISCUSSION

The number of respondents in this community service was 17 women who worked daily selling fish around and had complaints of musculoskeletal disorders, aged 40-64 years. The activities carried out can be seen in figures 1 and 2, and the results can be seen in table 1.

Figure 1. Filling out the questionnaire

Figure 2. Implementation of therapy

Table 1. The effectiveness of ergonomic exercises in reducing skeletal muscle disorders

		N	Mean Ranks	Sum of Ranks	P value
Pre-Post	Negative Rang	17[a]	9,00	152,00	0,000
	Positive Rank	0[b]	0,00	0,00	
	Ties	0[c]			
	Total	17			

Bivariate analysis using the non-parametric Wilcoxon statistical test, it can be seen that in the negative rank table it is known that 17 respondents experienced a decrease in musculoskeletal disorder complaints before being given ergonomic exercises from the average and total rank, namely an average increase of 9.00 and a total increase of 153.00. Furthermore, in the positive rank table it can be seen that there were no respondents with increased complaints after the intervention, and in the Ties table or exactly the same value, there were no, because 17 respondents experienced a decrease in complaints. In the table it can also be seen that the P value is 0.000 (< 0.05), which indicates that H0 is rejected and Ha is accepted, namely that ergonomic exercise is effective in reducing Musculoskeletal Disorders in Hip Coolies in Karang Kerakas Hamlet, Segara Katon Village, North Lombok Regency.

Ergonomic exercise is exercise that originates from prayer movements which is very useful for preventing and recovering from various diseases. When performing prayer movements, it will maximize the supply of pure oxygen to the eyes, face and nose. Maximum oxygen opens the fine blood vessels and nervous system, activates the body's sweat system, relaxes bone segments, blood sugar, uric acid, burning cholesterol (Priatna 2018).

Ergonomic exercise is a practical and effective method for maintaining body health. Ergonomic exercise is exercise that can directly open, clean and activate all body systems such as the cardiovascular, urinary and reproductive systems (Priatna 2018).

Ergonomic exercises are physical exercises that aim to restore body posture and flexibility of the nervous system, as well as improve blood circulation. This exercise is a practical and effective method for maintaining body health. According to Pranyana (2015), efficient, effective and logical movements are part of a series of movements in ergonomic exercise. Apart from that, ergonomic exercises can be used for the muscle relaxation phase and to maintain body flexibility, especially in the spine, joints between the vertebrae, spine and collarbone. This exercise also helps maintain the structural strength of the functional anatomy of the muscles, ligaments and spine after a long day of work.

CONCLUSION

Stretching in ergonomic exercise is a practical and effective method for maintaining body health. Ergonomic exercises involve muscle relaxation phases or physical exercises that target groups of muscles and tendons to increase muscle flexibility and strength, as well as improve muscle elasticity and body comfort.

ACKNOWLEDGEMENT

We would like to express our thanks to the head of the Karang Krakas hamlet, and do not forget to express our deepest gratitude to the participants who are willing to take part in this community activity.

REFERENCES

Ayudea, Anggi et al. (2022). Jurnal KESMAS, Vol. 11, No. 4 September 2022 44 Postur Kerja Dan Keluhan Muskuloskeletal Pada Nelayan Di Desa Borgo Satu Kecamatan Belang.‖ 11(4): 44–51.

Cieza, A. et al. 2020 Global estimates of the need for rehabilitation based on the Global Burden of Disease study 2019: a systematic analysis for the Global Burden of Disease Study 2019', The Lancet. The Author(s). Published by Elsevier Ltd. This is an Open Access article published under the CC BY-NC-ND 3.0, 396(10267), pp. 2006–2017. doi: 10.1016/S0140-6736(20)32340-0.

Pranyana, Candra Agung.2015. Pengaruh Senam Ergonomik terhadap Keluhan Nyeri pada Lansia yang Mengalami Nyeri Reumatik di Panti Wreda Dharma Bhakti Surakarta. Jurnal Keperawatan UMS

Priatna. (2018). Pengaruh Senam Ergonomik Terhadap Tekanan Darah Penderita Hipertensi di Rumkital Dr Mintoharjo Jakarta.‖ Fakultas Fisioterapi (November).

Putu, Ni et al. (2019). Senam Ergonomik Menurunkan Keluhan Muskuloskletal dan Tekanan Darah pada Lansia Penderita Hipertensi di Panti Sosial Tresna Werdha Jara Marapati Buleleng.‖ Pendidikan Biologi Undiksha 6(3): 103–11.

Riset Kesehatan Dasar (Riskesdas) (2018). Badan Penelitian dan Pengembangan Kesehatan Kementerian RI tahun 2018. http://www.depkes.go.id/resources/download/infoterkini/materi_rakorpop_2018/Hasil%20Riskesdas%202018.pdf – Diakses Agustus 2018.

Sumarni, Tri, and Adiratna Sekar Siwi. (2022). Senam Ergonomi Untuk Mencegah Keluhan Musculoskeletal Disorders.‖ Jurnal Pengabdian Masyarakat - PIMAS 1(2): 73–81.

Tjahayuningtyas, Aulia. 2019. Faktor yang Mempengaruhi Keluhan Musculoskeletal Disorders (MSDs) pada Pekerja Informal Factors Affecting Musculoskeletal Disorders (MSDs). ‖ (August 2017): 1–10.