

PENGARUH SENAM OTAK TERHADAP PENURUNAN SKOR ISI PEKERJA INDUSTRI BATIK DI LENDAH KULON PROGO

Fahreza Hanifa Akbar*, Abdul Gofir, Yudiyanta****

*Residen Neurologi Fakultas Kedokteran, Kesehatan Masyarakat, dan
Keperawatan Universitas Gadjah Mada Yogyakarta/ RSUP Dr. Sardjito

**Staf Bagian Neurologi Fakultas Kedokteran, Kesehatan Masyarakat, dan
Keperawatan Universitas Gadjah Mada Yogyakarta/ RSUP Dr. Sardjito

INTISARI

Limbah batik berasal dari cairan pewarnaan batik yang mengandung logam berat seperti kromium, plumbum (Pb), nikel (Ni), tembaga (Cu), dan mangan (Mn). Keracunan plumbum pada sistem saraf dapat ditandai dengan timbulnya keluhan gangguan tidur paling sering insomnia. Terapi non farmakologi insomnia terdiri dari *sleep restriction*, *sleep hygiene*, *relaxation therapy*, dan *stimulus control therapy*. Salah satu *relaxation therapy* adalah senam otak.

Tujuan penelitian ini untuk membuktikan pengaruh senam otak terhadap penurunan skor *index severity insomnia* (ISI) pada pekerja industri batik di Lendah, Kulon Progo.

Metode yang digunakan adalah *before-and-after study design* untuk melihat skor ISI sebelum dan sesudah senam otak pada pengrajin batik terpajan logam berat.

Hasil penelitian didapatkan 59 subjek yang memenuhi kriteria inklusi dan eksklusi. Hasil analisis multivariat diketahui intervensi senam otak berpengaruh signifikan terhadap insomnia $p < 0,001$ dengan koefisien regresi -0,656 dan depresi berpengaruh signifikan terhadap insomnia $p < 0,001$ dengan koefisien regresi 1,069. Variabel lain tidak berpengaruh signifikan terhadap skor insomnia ($p > 0,05$)

Simpulan penelitian ini adalah bahwa senam otak dapat menurunkan skor ISI pada insomnia.

Kata kunci: senam otak, ISI, logam berat

Korespondensi: Fahrezahanifa@gmail.com

THE EFFECT OF BRAIN GYM ON DECREASE ISI SCORES FOR BATIK INDUSTRY WORKERS IN LENDAH, KULON PROGO

Fahreza Hanifa Akbar*, Abdul Gofir, Yudiyanta****

*Resident Department of Neurology Faculty of Medicine, Public Health, and
Nursing Universitas Gadjah Mada Yogyakarta / Sardjito Hospital

** Staff Department of Neurology, Faculty of Medicine, Public Health, and
Nursing, Universitas Gadjah Mada Yogyakarta/ Sardjito Hospital

ABSTRACT

Batik dye waste comes from batik dyeing liquid, which contains heavy metals such as chromium, lead (Pb), nickel (Ni), copper (Cu), and manganese (Mn). Lead poisoning in the nervous system can lead to sleep disturbances, most often insomnia. Non-pharmacological therapy for insomnia consists of sleep restriction, sleep hygiene, relaxation therapy, and stimulus control therapy. One relaxation therapy is brain gym.

This study aimed to prove the effect of brain gym on decreasing *insomnia severity index* (ISI) scores on batik industry workers in Lendah, Kulon Progo. Before and after study design was used to study the ISI scores before and after brain gym on batik artisans exposed to heavy metals.

This study included 59 subjects who met inclusion and exclusion criteria. The results of multivariate analysis showed that brain gym intervention had a significant effect on insomnia $p < 0.001$ with a regression coefficient of -0.656, while depression also had a significant effect on insomnia $p < 0.001$ with a regression coefficient of 1.069. Other variables, however, didn't have a significant effect on insomnia scores ($p > 0.05$). The conclusion of this study is that brain gym can reduce ISI scores on insomnia.

Keywords: brain gym, ISI, heavy metal

Correspondence: Fahrezahanifa@gmail.com