

# Effectiveness of Pilates Along with Tai Chi on Sleep Quality, Bone Density, and Qol in Post-Menopausal Women

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## Abstract

**Introduction:** Women who have gone through menopause are more likely than younger women to experience sleep issues. There exists a correlation between mood problems and menopausal state. Stronger signs of bone density in women at higher risk. Between 50 and 59 years old, 49.9% of women are postmenopausal. Pilates movements emphasize strengthening the core muscles improving mental awareness and flexibility. Tai chi is an internal martial technique practiced in China and a type of physical exercise. It can be referred to as a mind-body or cognitive-motor workout. It encourages mental focus, relaxation, and well-being.

**Methods:** Pilates and Tai Chi exercise intervention was given for 6 weeks to the women who achieved natural menopause and were included in the study (n=50). They were assessed for sleep, bone density and QOL before and after the intervention.

**Results:** When comparing the Bone Density Score, the t value is 5.64 at  $P < 0.001$ . The t-value for Sleep is 37.53. In QOL (Physical Domain, Psychological Domain, Social Relationship, Environment) t value shows -46.77, -39.99, -34.41 & -35.79, respectively, when P is less than 0.001. Overall, there has been improvement when comparing the post-test numbers to the pre-test.

**Conclusion:** The study concluded that Pilates and Tai Chi programs on sleep quality, bone density, and quality of life showed significant improvements in post-menopausal women.