

**The study of the relationship between sleep pattern, attention performance, and heart rate variability among night workers.**

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**Background:** Circadian rhythm sleep disorder is often seen in shift-time workers. The study aims to identify the association between sleep pattern and heart rate variability among night workers. The effectiveness of interventions with ramelteon agonist for their sleep quality, fatigue, anxiety/depression will be evaluated.

**Methods:** We will provide melatonin agonist ramelteon for 61 subjects those who agree to participate and meet the DSM-5 diagnostic criteria of this Circadian Rhythm Sleep Wake Disorders. They will receive the assessments including questionnaires Pittsburgh Sleep Quality Index, Beck's Depression Inventory, and heart rate variability before and after supplement with ramelteon 8mg for 2 weeks to investigate the effectiveness and safety.

**Anticipated outcome:** The study will help the understanding the association of sleep pattern and their autonomous nervous activity among shift-time workers. The effectiveness of either supplement with ramelteon agonist will be evaluated. The findings of our study might be implicated in the plans of intervention for better performance for shift-time workers.