## Study of Autoverification Criteria and Parameters for Numerical Laboratory Reporting

## 中文摘要

研究目的:本研究主要探討日間嗜睡是否為整體生活品質之預測因子及比較不同 失眠型態心臟衰竭病患日間嗜睡、自覺睡眠品質及整體生活品質之差異。研究方 法:本研究採橫斷性研究設計,收集 56 位心臟衰竭個案。個案首先佩帶活動式 睡眠手錶並記錄一週睡眠日誌收集一週睡眠情形,之後填寫「台灣簡明版世界衛 生組織生活品質問卷」、「中文版匹茲堡睡眠品質問卷」及「中文版愛渥斯嗜睡量 表」。以睡眠手錶所測得之入睡潛伏時間大於30分、睡眠中斷醒來時間大於30 分將其區分為入睡困難型、睡眠中斷型、混合型及無失眠型態者。 結果:控制了年齡後,日間嗜睡可解釋 10%生活品質之環境範疇變異量,為整體 生活品質之環境範疇的獨立預測因子,日間嗜睡得分越高其整體生活品質之環境 範疇得分越低(F = 6.73, p = .012)日間嗜睡與睡眠品質得分皆是整體生活品質 總分的獨立預測因子,兩者可解釋 22%的生活品質總分的差異量(F=8.39, p =.001)。心臟衰竭病人之整體生活品質生理範疇分數,顯著較同年齡層台灣人常 模分數差(p=.003),而心臟衰竭病人之整體生活品質環境範疇分數較同年齡層 台灣人常模分數佳(p=.001)。混合兩種失眠型態、一種失眠型態及無失眠型態 三組患者在整體生活品質、睡眠品質與日間嗜睡無統計學之顯著差異(p=.64, p =.32, p = .22)。經由睡眠手錶測量之睡眠中斷醒來時間顯著大於睡眠日誌所測量 之睡眠中斷醒來時間(p<.001),而由睡眠手錶測得之睡眠總時數平均值顯著低 於睡眠日誌所測的之睡眠總時數平均值(p<.001)。

結論:本研究發現日間嗜睡為整體生活品質之預測因子,有混合失眠型態的心臟 衰竭病人並無較差的睡眠品質、日間嗜睡或生活品質。

## 英文摘要

Title of Thesis: Daytime Sleepiness, Sleep Quality, and Quality of Life in Patients With Heart Failure

Institution: Graduate Institute of Nursing, Taipei Medical University

Author: Hsiang-Lien Hung

Thesis directed by: Pei-Shan Tsai, Ph. D., Associate Professor

Purposes: The purposes of this study were to: (1) determine whether daytime sleepiness is a predictor of the overall quality of life in patients with heart failure (HF) and (2) compare the differences in daytime sleepiness, sleep quality, and overall quality of life among HF patients with different types of insomnia.

Methods: This study used a correlational design and the sample consisted of 56

patients with HF. All participants wore a wrist actigraph and recorded the sleep log for a 7-day period. They also filled out the World Health Organization Quality of Life-BREF (WHOQOL-BREF) -Taiwan Version, the Chinese version of the Pittsburgh Sleep Quality Index (CPSQI), and the Chinese version of the Epworth Sleepiness Scale (CESS). The wrist actigraph was used to evaluate the insomnia type. A sleep onset latency of greater than 30 min and a wake time after sleep onset of greater than 30 min were used to define difficulty initiating sleep, and difficulty maintaining sleep.

Results: Daytime sleepiness predicted 10% of the variances in environmental domain of the quality of life (F = 6.73, p = .012) with a higher CESS score resulting in a lower WHOQOL-BREF score after controlling for age. CESS and CPSQI predicted 22% of the variances in the quality of life (F = 8.39, p = .001). In comparison with the age-specific norm, patients with HF had significantly lower scores in the physical domain of the quality of life (p = .003), but had significantly higher scores in the environmental domain of the quality of life (p = .001). Patients with different types of insomnia did not significantly differ in the overall quality of life, sleep quality and daytime sleepiness. Wake time after sleep onset assessed by the wrist actigraph was significantly longer than that measured by the sleep diary (p < .001), but the total sleep time assessed by the wrist actigraph was significantly shorter than that recorded by the sleep log (p < .001).

Conclusion: Daytime sleepiness predicted the overall quality of life. Heart Failure patients with more than one type of insomnia did not have worse sleep quality, higher daytime sleepiness, or lower quality of life as compared to those with one or none insomnia type.