



THE EFFECT OF MUSIC THERAPY ON SLEEP QUALITY OF HOSPITALIZED OLDER ADULTS

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Background

Sleep deprivation is found in the hospitalized older patients since the day of admission due to unfamiliar environments and the effect of hospital atmospheres such as noise, bright lights, beds, and nursing interruptions. Although pharmacological agents are often used to induce sleep, the side effects for older adults are problematic. Music therapy has had promising results as a nonpharmacological alternative for sleep in intensive care and medical patients. However, no published studies on the effect of music therapy on the sleep quality of hospitalized older adults were located.

Purpose

This research study aimed to test the effect of music therapy on sleep quality of hospitalized older adults.

Research Question

Does music therapy improve sleeping quality for older adults hospitalized on telemetry units?

Hypotheses

Hypothesis 1: After receiving music therapy, older adults hospitalized on the telemetry units would have better sleeping quality than before receiving the music therapy.

Hypothesis 2: Older adults hospitalized on the telemetry units who received music therapy would have better sleeping quality than older adults hospitalized in the telemetry units who did not receive music therapy.

Hypothesis 3: Sleeping quality and physiologic parameters would differ among the non-music intervention group, 30-minute-music intervention group, and longer than 30-minute-music intervention group.

Methods

Ninety-five telemetry unit patients were randomly assigned into three groups; non-music (n=32), 30-minute music intervention (n= 33) and >30 minute music intervention (n=30).

Pretest and post-test measures included the 15-item VSH Sleep Quality scale and routine vital signs as the physiologic outcomes.

The VSH Sleep Quality scale had Alpha Cronbach reliability .88, and .86 for pretest and post test respectively.

Results

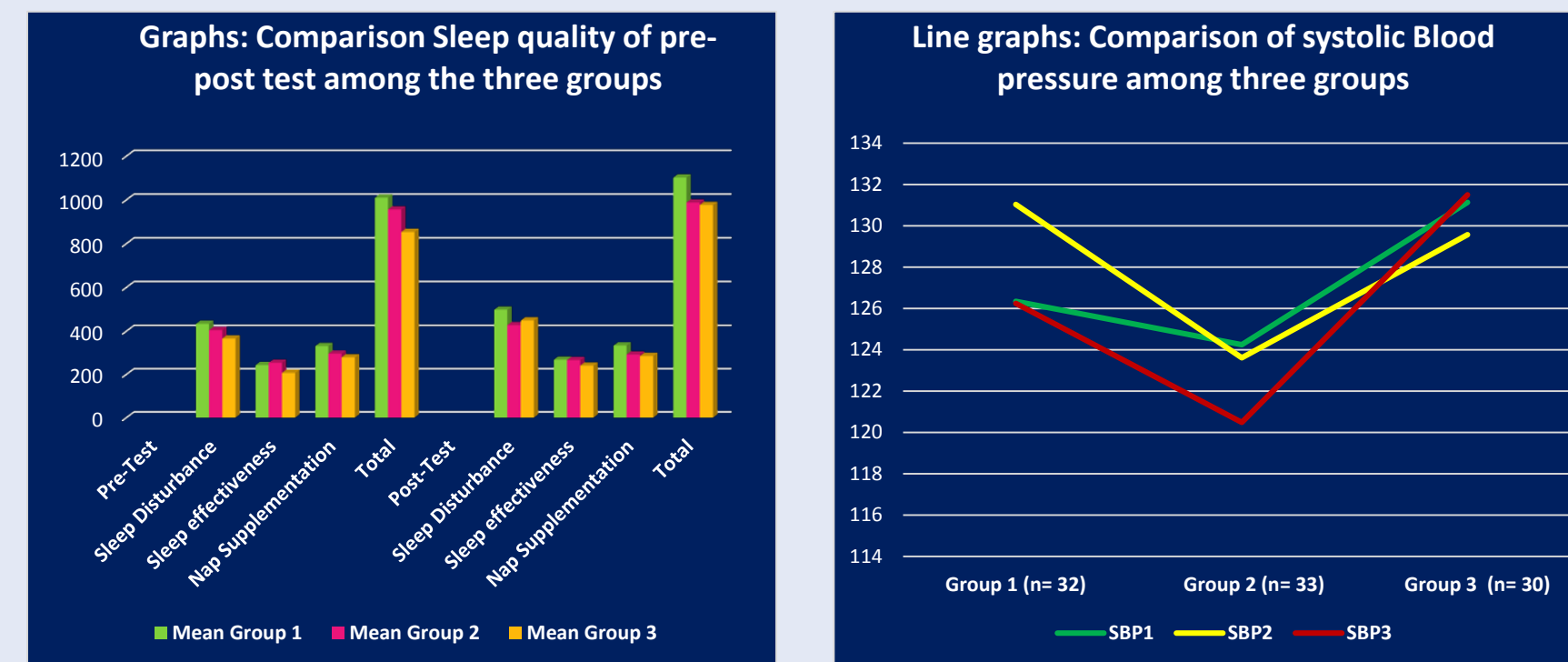


Table: Mean of Heart Rate of 30-minute music and >30 minute-music groups

Group	n	Heart Rate 1	Heart Rate 2	Heart Rate 3
30-minute music	33	78.82	74.85	73.12
>30 minute-music	30	71.60	70.63	69.90

Hypothesis 1: After listening to the music, the >30 minute music intervention group had statistically significant higher mean scores of total sleep quality compared to the pretest sleep quality mean scores ($t = 3.504, p < .05$).

Hypothesis 2: The difference in posttest mean sleep quality scores among the groups was significant ($F=3.503, p < .05$). The 30-minute and the >30 minute music intervention groups' posttest total mean sleep quality scores were significantly higher than the no-music group ($p < .05$).

Hypothesis 3: Systolic blood pressure was the only physiologic parameter that was significantly different among the groups ($F=3.694, P < .05$). The systolic blood pressure of non-music group slightly increased at midnight and slightly increased at 4:00 am. The mean systolic blood pressure of the >30-minute music intervention group was significantly lower at midnight and higher at 4:00 am ($p < .05$). The decrease in the mean systolic blood pressure of the 30-minute music intervention group was not significant.

Conclusion

In summary, >30 minutes of music therapy was the most effective method to promote sleep quality for this elderly group of patients. However, 30-minute music therapy had the greatest physiologic effect.

Research and Practice Implications.

This study should be replicated, but the results show promise for nursing clinical practice regarding the use of music therapy to promote sleep quality for older patients hospitalized in double-bed rooms on telemetry units.

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