

FATIGUE, SLEEP, ACTIVITY PATTERNS, AND MOOD IN PATIENTS WITH ATRIAL FIBRILLATION: A PILOT STUDY

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Introduction: Atrial fibrillation (AF), the most common cardiac arrhythmia, is associated with multiple symptoms, including fatigue, alterations in activity, and decreased quality of life. The purposes of this pilot study were to assess the feasibility of a study designed to examine fatigue, sleep, activity, and mood in AF patients, to assess patient burden and participation, and to determine completeness of data collected.

Methods: The sample consisted of nine participants between the ages of 30-80 years with a history of permanent AF recruited via posters from an anticoagulation clinic. Participants wore a wrist actigraph for 96 hours to measure activity/rest patterns. During this time, participants were also asked to rate their level of fatigue upon awakening, at midday, late afternoon, and bedtime on a 0-10 numeric rating scale. At the end of the actigraphy monitoring period, data were collected regarding fatigue (Checklist of Individual Strength-CIS; range 20-140; high score=greater fatigue), daytime sleepiness (Epworth Sleepiness Scale-ESS; range 0 to 24; high scores=greater daytime sleepiness), sleep quality (Pittsburgh Sleep Quality Index-PSQI; range 0-21; high score=greater sleep disturbance), and mood (Profile of Mood States, short form-POMS; range 0-120; high score=greater mood disturbance). Descriptive statistics were computed.

Results: Subjects were 70 ± 14 years of age, 56% male, 56% married, and had AF for 9.7 ± 8.8 years. Mean (± SD) scores were: 68.4 ± 21.8 for the CIS, 7.9 ± 2.8 for the ESS, 8.6 ± 2.6 for the PSQI, and 14.0 ± 14.1 for the POMS. Both nocturnal total sleep time (mean 384.9 ± 71 minutes) and sleep efficiency (mean 89.1 ± 6.8%) were reduced in comparison to normative data. The mean score of fatigue upon awakening was 4.1 ± 2.3, 4.7 ± 2.6 at midday, 4.8 ± 2.2 in late afternoon, and 4.7 ± 2.4 at bedtime; these measures did not vary over time. Daytime activity level (mean 114.0 ± 100.7 counts per 1-minute epoch) was decreased and nighttime activity level (19.3 ± 18.2) was greater than normative data. No complaints were noted regarding the study instruments or wrist actigraphy. Subjects indicated that time required for participation was acceptable. Missing data was a problem for the fatigue rating scales; only 33% had complete data for these scales.

Conclusions: Subject burden of the study instruments was acceptable. Subject participation was acceptable, and few problems with wrist actigraphy were reported; however, further recruitment approaches and recruitment sites need to be investigated for a larger study. The amount of missing data for the fatigue numeric rating scales is a concern and will require additional strategies to improve completion. This pilot study will inform the development of a larger study to examine the relationships among fatigue, sleep, activity, and mood in persons with atrial fibrillation.