Air Transportation and Flight Attendant Health

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INTRODUCTION

- A flight attendant’s job requires working at 35,000 ft altitude, ergonomic challenges while moving passengers, baggage and carts in confined spaces, circadian rhythm disruption, exposure to infectious diseases, ozone, cosmic radiation, low cabin pressures, jet fuel by-products, pesticides, and flame retardants.
- Current U.S. flight attendants have been in their jobs longer than previous generations, given rule changes since the 1970’s.
- Few studies have evaluated the health effects of these continuous exposures aboard the aircraft.

RESEARCH QUESTIONS

- What are the most prevalent health conditions in U.S. flight attendants?
- What is the relationship between health status and time on the job using tenure and work hours and adjusting for covariates?
- How does flight attendant health compare to the general population using a national sample?

METHODS

- Mailed survey targeting union flight attendants at 2 major airlines in 5 large U.S. city airports supplemented by convenience sample on location.
- Described survey data; employee and job characteristics, frequent symptoms, medical care-seeking, medical diagnosis, work injury.
- Tested associations between job and personal factors and health status using a learning deletion substitution algorithm ([DSA] procedure in R statistical package to select factors to evaluate in multivariate models.

RESULTS

- Flight attendant sample (n=4011); 80% female, mean age 47, 41% had ≥20 year job experience.
- 47% of flight attendants had work-related injury this year.
- Most frequent health symptoms (experienced 6-7 days of past week); sleep problems [35%], all types of musculoskeletal pain[23-28%], sinus [28%], fatigue [26%], anxiety/stress [20%], bloating [20%].
- Respiratory symptoms were the most common reason for medical visits in the past year followed by fatigue.

- Respiratory symptoms were associated with more tenure and recent work hours, adjusting for covariates.
- Flight attendants have a higher prevalence of chronic respiratory problems, reproductive cancer, heart disease (CHD), sleep disorders, depressed mood & fatigue than a comparative national survey sample (Table 1).

CONCLUSIONS

- The most prevalent conditions in flight attendants include respiratory and musculoskeletal conditions, sleep disruption, fatigue, and anxiety/depression.
- Prevalence of conditions are associated with greater exposures: more work hours; recent work hours and tenure, after adjustment for other factors.
- The prevalence of several health conditions were greater in flight attendants compared to the general U.S. population (based on NHANES).
- This result is striking because the flight attendant sample is likely to be biased by “healthy worker effects” (i.e. sick workers leave the sample).

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