STAIRWELL: INCREASING ACTIVITY AMONG NURSING STUDENTS AND FACULTY

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ABSTRACT

BACKGROUND

The ANA declared 2017 the Year of the Healthy Nurse and encouraged increased physical activity. Nurses and nursing students’ average body mass index is 27.6 (overweight), and less than 50% participate in recommended exercise quantity/time:

- 150 minutes moderate-intensity physical activity OR 75 minutes vigorous physical activity
- Aerobic exercise increases cognitive function, yet, nursing school lectures range from 2-10 hours sitting/day, staff and faculty spend 6-10 hours sitting at the computer/day.
- Stair climbing burns more calories/minute than jogging.
- Effects of stair climbing on cardiovascular system meets the American College of Sports Medicine’s minimum physical activity intensity requirement for health gains.
- Stair use could improve health and cognition among students, staff, and faculty.

OBJECTIVE

To promote increased activity measured by stair use frequency among nursing students, faculty, and staff using a prospective pre-experimental post-test design.

METHODS

- Part of the UC Healthy Campus Initiative.
- Uncontrolled before-and-after study examining usage of stairs in UCLA School of Nursing building between February 2018 and June 2018.
- Intervention: motivational point of decision signage, sanitation of stairwell, and colorful door wraps.
- Data collected using 6 directional people counter devices (PCDs) and an anonymous on-line post-intervention survey to students, staff, faculty. Baseline data collected for 2 weeks, follow-up data for 10 weeks.
- Using SPSS Statistics, sensor and survey data analyzed with descriptive statistics, ANOVA and t-tests.

RESULTS

- Data analyzed for stair use by day of week and by comparing first two weeks post-intervention to baseline.
- Mean number of people using stairs up & down increased on Wednesdays and Thursdays, (UP: 53 to 61 Wed) and 54 to 72 (Thu).
- As post-intervention progression, no difference existed compared to baseline stair use.

DISCUSSION

- FAVORITE STAIRWELL IMPROVEMENTS
  - 71.4% of respondents selected “bright colors” as one of their favorite stairwell improvements.
  - “Stairwell door wraps” was the next most selected choice (63.2%), followed by “motivational signs” (61.7%) and “painting of walls and handrails” (51.1%).

- SELECTED FREE RESPONSE SURVEY COMMENTS
  - “I really enjoy [the improvements]; motivational and reminds me to get my fitness in while I can even during busy days.”
  - “I think it’s definitely a step in the right direction in creating a built environment that promotes health, wellness, physical activity, and overall promotion of health.”
  - “It has helped me to locate the stairs.”

LIMITATIONS

- Pre- and post-intervention data were collected during different quarters, Winter and Spring, respectively. Variance in daily schedules for class and work between these two quarters was not controlled for in students, faculty, and staff.
- Survey responses may not reflect actual stairwell usage.
- Use of only 6 PCDs in two stairwells limited our ability to conduct more robust analysis.

CONCLUSION

Nursing staff and students reported increased stair use as exercise post intervention which reflects people count data, indicating interventions increased stair use, although not significant. A cleaner, more inviting stairwell promotes use and physical activity among nursing students and staff. Few faculty participated suggesting limited activity levels and room for improvement. Increased use not sustained over time. Research funded in part by Healthy Campus Initiative, UCLA.