

POSTER PRESENTATION

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P02.36. Meditation or exercise for preventing acute respiratory infection: a randomized controlled trial

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Purpose

This study was designed to evaluate potential preventive effects of meditation or exercise on incidence, duration, and severity of acute respiratory infection (ARI) illness.

Methods

Community-recruited adults aged ≥ 50 years were randomized to one of three conditions: 8-week training in mindfulness meditation; matched 8-week training in moderate intensity sustained exercise; or wait-list observational control. The primary outcome was area-under-the-curve global illness severity over one cold and flu season, using the Wisconsin Upper Respiratory Symptom Survey (WURSS-24) to assess severity. Significance was set at $p=0.025$. Health care visits and days-of-missed-work were counted. Nasal wash collected during ARI illness was assayed for neutrophils, interleukin-8, and viral nucleic acid.

Results

Of 154 randomized, 149 completed the trial (82% female, 94% white, mean age $59.3 \pm SD 6.6$ years). There were 27 ARI episodes and 257 days of ARI illness in the meditation group ($n=51$), 26 episodes and 241 illness days for exercise ($n=47$), and 40 episodes and 453 days for control ($n=51$). Mean global severity was 144 for meditation, 248 for exercise, and 358 for control. Compared to control, global severity was significantly lower for meditation ($p=0.0042$). Both global severity and total days of illness (duration) trended towards being lower for exercise ($p=0.16$ and $p=0.032$, respectively), as did duration for the meditation group ($p=0.034$). Adjusting for covariates using zero-inflated multivariate regression models gave similar

results. There were 67 ARI-related days-of-missed-work in the control group, 32 in the exercise group ($p=0.041$), and 16 for meditation ($p<0.001$). Healthcare visits did not differ significantly. Viruses were identified in 54% of samples from meditation, 42% from exercise, and 54% from control. Neutrophil count and interleukin-8 levels were similar among intervention groups.

Conclusion

Training in meditation or exercise may be effective in reducing ARI illness burden.

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