



McDoniel, S., Nelson, H. (2008) **Tailoring a nutritional message from measured RMR is efficacious for short-term weight loss.** Capella University-Harold Abel School of Psychology, Minneapolis, MN; Air University-Maxwell Air Force Base, AL. European Congress on Obesity 16th Annual Scientific Meeting, Geneva, SW.

ABSTRACT

Background: Effective health communication is a common thread for health behavior change and is equally important for weight management programs. Tailored health messages that are specific to an individual are more effective than generic messages in promoting behavior change. **Design:** This was a randomized study lasting twelve weeks. Participants in the intervention group received a tailored nutritional message based on measured RMR from a hand-held indirect calorimeter (i.e. MedGem; Microlife Medical Homes Solutions, Inc.) and the control group received a generic nutritional message based from a population-based predictive equation (American Academy of Chest Physicians: AACP). All participants were then enrolled into a four-session US Air Force behavioral weight loss program. **Subjects:** Fifty-four (N=54), thirty-six males (N=36) and eighteen (N=18) females, overweight (mean BMI: $29.8 \pm 2.4 \text{ kg/m}^2$) US Air Force personnel (mean age: 28.0 ± 7.3 years) participated in the study. **Results:** Intent to treat analysis, baseline observation carried forward, indicated a significant difference in weight loss between the intervention and control group (-3.3 ± 3.4 vs. -1.5 ± 3.0 kg; $p=.05$) following the 12-week study. Completer analysis ($n=44$) indicated 75% of the intervention participants ($n=14$) achieved a level of weight loss ($\geq 3\%$) that would generate health benefits compared to 36% ($n=9$) of the control participants ($p=.03$). **Conclusion:** These data suggest a tailored nutritional message using measured RMR along with a 4-session behavioral treatment program generates significant weight reduction that would have improved health benefits compared to using a generic nutritional message from a population-based estimation equation.

Microlife Products Used: MedGem