

## Abstract – Original Research

Authors & Affiliations:

Romanidou Maria 1,2, Eshleman Emily 2, Sotos- Prieto Mercedes 2, Korre Maria 2, Tripsiannis Grigorios 1, Christophi Costas 2,3, Kales Stefanos 2.

- 1) Medical School, Democritus University of Thrace, Greece.
- 2) Harvard TH Chan School of Public Health, Boston, MA, USA.
- 3) Cyprus International Institute, Limassol, Cyprus

Presenting Author & Affiliation:

Romanidou Maria M.Sc, Ph.D candidate Democritus University of Thrace, Greece,  
Team member-researcher Feeding America's Bravest TH CHAN School of Public Health.

Title of Presentation:

PRELIMINARY RESULTS FOR 6 MONTH-CHANGE IN MEDITERRANEAN DIET SCORE  
AT AMERICAN WORKING POPULATION.

1. Brief description/abstract for the content of the poster presentation.

**Introduction:** Mediterranean diet protects people from the development of chronic diseases (obesity, CVD and metabolic syndrome). All of these problems are prevalent among SU firefighters There are questionnaires which evaluate adherence to the Mediterranean diet with scores, which are being used in an ongoing intervention trial in this population. **Objective:** Determine the reliability of the scoring systems and their change at 6 months due to the intervention among 147 career firefighters in the United States from the ongoing lifestyle intervention "Feeding America's Bravest" with preliminary data.

**Methodology:** We used the modified Mediterranean Diet Score (mMDS) and the PREDIMED 14-Items tool to calculate the Mediterranean Diet adherence scores for baseline and six month follow up. These questionnaires provided information about the firefighters' eating habits, lifestyle, and their daily routine. We also compared these two scoring methods and calculated a Pearson's correlation Coefficient using SPSS Statistics. We also tried to verify correlations of demographic status, age, gender, BP, BMI, etc.

**Results:** The mean mMDS score at baseline was 23.9 out of 70 and the mean PREDIMED was 5.6 out of 14. At six months, the mean mMDS score was 26.2 and the mean PREDIMED score was 6.2. There is a statistically significant ( $p < 0.01$ ) correlation between the mMDS and PREDIMED scores in the baseline survey data ( $P = 0.784$ ) and in the six month follow up survey ( $P = 0.800$ ). Higher scores mMDS 27.1, PREDIMED 6.7 were also associated with normal weight ( $18.5 \leq \text{BMI} \leq 24.9$ ) and BF% 20.4. Overweight people ( $25.0 \leq \text{BMI} \leq 29.9$ ), had lower scores: mMDS 24.1 and PREDIMED 5.9 with BF% 25.5 and 31.1%. Lower scores: 22.5 for mMDS and 5.3 for PREDIMED, had the obese class I ( $30.0 \leq \text{BMI} \leq 34.9$ ) with BF% 31.1. Higher WC and higher BP was also associated with lower scores.

**Conclusion:** Our very preliminary data suggest some effectiveness of the intervention among US firefighters in the improving adherence to Mediterranean Diet in 6 months.

2. Please give two to three key references (published by you or others) which can be used to inform future work:

1. Korre M, Tsoukas MA, Frantzeskou E, Yang J, Kales SN. Mediterranean Diet and Workplace Health Promotion. *Curr Cardiovasc Risk Rep.* 2014;8(12):1–7.
2. Yang J, Farioli A, Korre M, Kales SN. Modified Mediterranean diet score and cardiovascular risk in a North American working population. *PLoS One.* 2014;9(2).
3. Sotos-Prieto M, Cash SB, Christophi C, Folta S, Moffatt S, Muegge C, et al. Rationale and design of feeding America's bravest: Mediterranean diet-based intervention to change firefighters' eating habits and improve cardiovascular risk profiles. *Contemp Clin Trials*

[Internet]. 2017 Oct [cited 2017 Aug 10];61:101–7. Available from: <http://linkinghub.elsevier.com/retrieve/pii/S1551714417301994>

3. Please identify, where possible, up to three specific key messages that participants will take away from your poster presentation to inform their future practice.
  1. The Modified Mediterranean diet score (mMDS) and the PREDIMED diet scores are statistically significantly correlated ( $p < 0.01$ ) for career firefighter population.
  2. Adherence to the Mediterranean Diet with a higher Mediterranean score is associated with lower body weight, lower body fat, and lower waist circumference.
  3. People who just learned about Mediterranean Diet after six months' follow-up showed an increase at Mediterranean Diet Scores let alone the control group with six months' Mediterranean diet intervention.