RMACSM 2020 Conference Abstract Guidelines

The upcoming Annual Meeting of the Rocky Mountain Chapter of the American College of Sports Medicine will be held April 10-11, 2020 at the YMCA of the Rockies in Estes Park, CO. Poster presentations will be scheduled for Friday evening, April 10. At least one author must be present and register for the conference. Abstracts for poster presentations should be submitted electronically through the RMACSM website.

Abstract submission: The deadline for submission is 11:59 PM MST on MARCH 13th, 2020. When submitting the abstract, please be sure to indicate if the first author is an undergraduate or graduate student, faculty member or other (i.e., business rep/vendor, etc.)

Abstract type: There are two separate categories that can be chosen to classify the abstract. Original research and Project Proposals. Original research encompasses research projects that are complete or near completion and contain original data. Project Proposals are abstracts that outline a research idea or area of future research. The project proposal selection is geared towards first year Master's or Doctoral students that are in the process of planning their project but may not have collected data at this point. The purpose is for these students to gain experience with poster presentations while gaining valuable feedback on their study design. **Project proposal abstracts are not eligible for the President's Cup poster competition.**

Abstract Acceptance: The student and faculty sponsor must be RMACSM members.
All posters will be peer reviewed following the submission deadline. An official acceptance will be sent to the first author within two weeks. After your abstract submission, please do not delay in registering for the conference!

ABSTRACT PREPARATION

Title: Limited to 15 words.

Authors: Include the first and last names of all authors. Do not include degrees.

Affiliations: Provide the name and location of the institution for all authors. Do not include departments.

Text (Original Research): Abstracts are limited to 2,000 characters (not including spaces, title, or author information) and should be structured with headings for **PURPOSE**, **METHODS**, **RESULTS**, and **CONCLUSION**. If including table, chart, or graph, the limit is 1,500 characters. Please include Grant Funding Information if applicable.

Text (Project Proposal): Abstracts are limited to 2,000 characters (not including spaces, title, or author information) and should be structured with headings for **BACKGROUND**, **SPECIFIC AIMS**, **SIGNIFCANCE**, **METHODS**, **EXPECTED RESULTS**. Expected results can include preliminary data if available. If including table, chart, or graph, the limit is 1,500 characters. Please include Grant Funding Information if applicable.

ORIGINAL RESEARCH Abstract Format Example

Title: BMI and Body Fat are Related to Changes in Food Water Intake during Water Restriction

Authors: Carson L. Keeter[1], Evan C. Johnson[1], Hillary Yoder[1,2], Alberto Dolci[3], Erica T. Perrier[3]

Affiliations:

1 – University of Wyoming, Division of Kinesiology and Health, Laramie, WY, U.S.A.
2 – University of Alabama, Department of Kinesiology, Tuscaloosa, AL
3 - Danone Research, Hydration & Health Department, Palaiseau, France

Abstract:
BMI and body fat percentage (BF%) are negatively associated with relative total body water (i.e., % of body mass). Thus, the stress imposed by fluid water restriction may impact people with different BMI and body fat % differently. Lower BMI and BF% individuals may respond to fluid water restriction by increasing food water intake in compensation. **Purpose**: To determine if variables related to body composition influence changes in food water consumption during fluid water restriction. **Methods:** Participants (n=114 [59 male, 55 female, height: 173.03 ± 10.08 cm, weight: 74.55 ± 17.76 kg, age: 31.30 ± 8.55 yr, BMI: 24.72 ± 4.43, BF%: 27.83 ± 9.56]) were instructed to drink and eat ad libitum for one week and record their dietary intake of food and water. In the second week, participants were restricted to 1 L of plain water in addition to their ad libitum food intake and continued to record their dietary intake. Participants were grouped based on body mass index (BMI) into normal, overweight, and obese; and separately by gender specific BF% categories into excellent, good, poor, and very poor. Food water intake change (FWIC) between baseline and restriction was calculated. **Results:** A one-way ANOVA found significant difference between both BMI ($F = 3.737$, $p < 0.01$) and BF ($F = 4.661$, $p < 0.001$) groups to FWIC. Post-hoc Tukey Honestly Significant Difference analysis showed significant difference in FWIC within BMI between normal (n = 63) and obese (n = 10) groups (194.95 ± 818.32 mL, $p = 0.04$), and for BF% a significant difference between excellent BF% (n = 21) and good BF% (n = 16) (195.99 ± 563.78 mL, $p = 0.03$), between excellent BF% and poor BF% (n = 21) (169.94 ± 558.61 mL, $p = 0.05$) and between excellent BF% and very poor BF% (n = 55) (193.11 ± 624.59 mL, $p < 0.01$). **Conclusion:** Individuals with lower BMI and BF% increased the volume of water in foods more than individuals with elevated body composition measurements during programed fluid water restriction. These food choices may have been made because the water restriction altered fluid homeostasis to a greater degree for individuals with lower body fat due to the proportional water content of lean body mass versus fat mass.

Grant Funding Info: Funding for data collection provided by Danone Research, Palaiseau, France

Word count: 373
Character count (w/o spaces): 1840/2000

PROJECT PROPOSAL Abstract Format Example

Title: Feasibility of Heat Acclimatization in Wildland Firefighters

Authors: Miranda Zamora[1], Evan C. Johnson[1], Tucker Readdy[1]

Affiliations:

1 – University of Wyoming, Division of Kinesiology and Health, Laramie, WY, U.S.A.

Background: Wildland firefighters are at a high risk for heat stroke, heat exhaustion, and other forms of exertional heat illness due to strenuous work in high temperatures, compounded by wearing heavy protective clothing. Heat acclimation classically results in physiological adaptations (e.g., decreases in resting body temperature, increased sweating rate and sensitivity, and decreased perception of effort while exercising in the heat). **Specific Aims:** To determine the feasibility of implementing pre-season heat acclimatization (HA) for wildland firefighters (WFF) to reduce risk of heat illness and associated health and monetary costs. The study will assess 1) physiological and psycho-physiological adaptations and 2) self-efficacy of WFF who undergo HA. **Methods:** A mixed methods non-randomized controlled trial strategy will be used. Recruitment has begun in conjunction with U.S. Forest Service following IRB approval. Up to 20 personnel will be recruited (50% intervention, 50% control). Planned measurements include rectal and skin temperature, heart rate, sweat rate, sweat electrolyte content, thermal comfort, perceived exertion, blood plasma volume, heat shock protein (HSP72), hypoxia inducible factor (HIF1), hemoglobin and hematocrit. All variables will be measured before and after two Heat Tolerance Tests (HTT) separated by 10 days. The intervention group will undergo an 8-day HA between HTTs, while the control group will complete only normal job training between HTTs. Psychological data will be collected via interviews to assess changes in self-efficacy regarding completion of future HA protocols. **Expected Results:** A qualitative pilot study has determined that heat illness is a major safety concern of WFF and while overall knowledge of HA is low, there is interest among WFF to use HA to lower risk of heat illness. Pilot data also demonstrated WFF logistical concerns about planning of HA, supporting the need for the current study. Researchers anticipate that the intervention group will demonstrate improved thermoregulation and psychological metrics during HTT2 compared to the control group. We envision that the qualitative responses will indicate favorable opinions towards HA and increased self-efficacy.

Funding provided by MAP-ERC Pilot Grant & HICAHS Pilot Grant.

Word Count: 322
Character count (w/o spaces): 1923/2000