



# Results of the ROTC and Nutrition/ Kinesiology (RANK) Needs Assessment

## TACTICAL FITNESS AND NUTRITION

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## BACKGROUND

- Military Health:**
  - Based on military health behavior surveys, in 2014 and 2015:<sup>1</sup>
    - Only 11.3% and 13.9% of military personnel met fruit and vegetable recommendations
    - 51% consumed energy drinks on a regular basis
  - Thus, military health behavior surveillance indicates:
    - Military personnel may not be consuming healthy diets
    - There is a need for more nutrition education to encourage healthy behavior change
- Sources of Nutrition Information Used by Military Personnel:<sup>2</sup>**
  - Officers report their sources of nutrition information most often being popular media like magazines, books, family members, and television
    - Least often being doctors or dietitians
- Nutrition Education in Military Training:<sup>3</sup>**
  - 60% of officers state the military places too little emphasis on nutrition and that there needs to be more of a focus on changing young Soldiers' nutrition
    - Suggest more nutrition training as part of basic and unit training
- The University ROTC Opportunity:**
  - Collaborations between university nutrition departments and ROTC programs present as an ideal opportunity

## PURPOSE

- To determine the interest in, perceived importance of, desired components of, and foreseen challenges to a nutrition and physical training education program for university ROTC programs by cadets (students) and cadre (instructors).

## METHODS

- Study Design:**
  - Cross-sectional
- Focus Group:**
  - Where – 2 Zoom sessions
  - Who – 1 session with Oklahoma State University (OSU) Air Force and Army ROTC cadets, 1 session with OSU ROTC programs' cadre
    - Inclusion criteria:
      - Current cadet or cadre of OSU Air Force or Army ROTC
  - When – November 2020
  - Questions asked – see Table 1
  - Demographic data collected:
    - For cadets – ROTC program, class year, prior or current military service, sex, whether on ROTC scholarship
    - For cadre – ROTC program, military affiliation, years of military service, sex
    - Demographic data was summarized using descriptive statistics, including counts and proportions.
- Qualitative Data Analysis:**
  - During the sessions, both researchers (CC, JJ) took detailed notes on participant responses
  - The sessions were recorded using Zoom
  - One of the researchers (CC) immersed self in the data – listened to recordings numerous times, took additional detailed notes, reviewed notes
  - One of the researchers (CC) determined themes in responses for each question based on data immersion

**Funding:** OSU Wentz Scholarship  
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## RESULTS

**Table 1:** Summary of response themes based on the comments given by OSU cadre and cadets.

Question	Response Themes
How interested are you in nutrition classes being offered to cadets by OSU Tactical Fitness and Nutrition? (out of 5, 1 being not at all interested, 5 being highest interest)	Cadre (mean=5/5) and cadets (mean=4.8/5) indicated that there was a definite interest to offer nutrition education classes for ROTC cadets.
How interested are you in physical training classes being offered to cadets by OSU Tactical Fitness and Nutrition? (out of 5, 1 being not at all interested, 5 being highest interest)	Cadre (mean=5/5) and cadets (mean=5/5) indicated that there was a definite interest to offer physical training classes for ROTC cadets.
How important do you feel nutrition classes are for cadets and their future as a military officer? (out of 5, 1 being not at all important, 5 being highest importance)	Cadre (mean=5/5) and cadets (mean=4.2/5) indicated that offering nutrition education classes for ROTC cadets was highly important.
How important do you feel physical training classes are for cadets and their future as a military officer? (out of 5, 1 being not at all important, 5 being highest importance)	Cadre (mean=5/5) and cadets (mean=5/5) indicated that offering physical training classes for ROTC cadets was highly important.
If classes were to be offered, would you prefer they be all in-person, all online, or a hybrid format during Covid?	Both groups reported that a hybrid format (in person + livestream available) would be beneficial and that lectures should also be recorded for those who cannot attend class live.
If classes were to be offered, would you prefer they be all in-person, all online, or a hybrid format during non-Covid conditions?	Both groups reported that a hybrid format (in person + livestream available) would be beneficial and that lectures should also be recorded for those who cannot attend class live.
Do you have any suggestions related to the method of delivery for nutrition classes (i.e., PowerPoints, games, worksheets, food demos, snacks to try, physical training sessions, etc.)?	Both groups wanted fundamental information to be presented in a PowerPoint presentation, for referring back to later, but also stressed that there should be equal amounts of activities incorporated in classes, not just slides.
Do you have any suggestions related to the method of delivery for physical training classes (i.e., PowerPoints, games, worksheets, physical training sessions, etc.)?	Both groups wanted fundamental information to be presented in a PowerPoint presentation, for referring back to later, but also stressed that there should be equal amounts of activities incorporated in classes, not just slides. A video library was also suggested related to training movements and proper form.
Cadre only: If the delivery method costs money, would ROTC be willing/ able to cover those costs? If so, to what extent?	OSU Cadre indicated that there may be funds available to deliver nutrition education classes and physical training classes.
Do you have any suggestions related to the timing of classes to maximize attendance and participation (i.e., day of the week, time of day, spring/ fall/ both, etc.)?	Both groups indicated that Monday was an acceptable day, but cadre recommended Friday as the most open for all cadets. Both groups desired the classes to be offered year-round. Cadre explained, if year-round was not possible, fall would be more desired over spring. Cadre also recommended classes in the morning, while cadets preferred classes in the early evening.
What are your thoughts regarding the use of incentives to encourage attendance? If supportive, are there any limits or boundaries to the incentives provided and do you have any suggestions for incentives?	Cadre specified that cadets are going to be leaders and should learn to have motivation without incentives. Cadets explained that competition may not be in the ROTC's best interest; they suggested that instead incentives can help those who are not motivated. Cadets also indicated their most preferred incentive would be food (i.e., snacks, food demos, etc.).
How long do you recommend the programs by in weeks? How long do you recommend each class session be?	Both groups insisted that the classes should start immediately in the beginning of the semester, and it should end before finals week (~15 weeks of classes). If a class were to go through finals week, both groups thought it should be a lighter class topic and ideally offer study tips regarding physical training and nutrition.
Do you have any suggested topics to be covered? (a list of previous ROTC nutrition education class topics were provided with the opportunity to edit, remove, or add topics as desired)	Cadre suggested these topics: healthy weight gain tactics, ACFT prep and recovery concerning nutrition, and hydration. Cadets suggested cooking basics and reading food labels.
How would you rate your desire for a health challenge aspect in addition to classes?	Both groups believed it was a good idea to create a health challenge aspect (e.g., 3 daily health SMART goals geared towards achieving long-term goal, each worth 1 point for 3 daily points max, points determine place on the weekly-updated health challenge leaderboard).
How would you rate your desire for a nutrition clinic offering individual counseling?	Both groups believed that individual nutrition counseling would be worthwhile.
What impact do you foresee the suggested programs discussed today having on the Army once these leaders enter the force?	Both groups listed <i>numerous</i> benefits but overall believed that it would put them ahead of other entering officers, give them credibility, and ultimately build habits early to prevent injury later on.

**Table 2:** Summary of participant demographic characteristics grouped by cadets (students) and cadre (instructors)

Cadets (n = 5)			Cadre (n = 5)				
Demographic Characteristic	Count	Proportion of Total Sample (%)	Demographic Characteristic	Count	Proportion of Total Sample (%)		
ROTC Program	Army	3	60%	ROTC Program	4	80%	
	Air Force	2	40%	Air Force	1	20%	
Class Year	Freshman	0	0	Military Affiliation	Civilian Contractor	1	20%
	Sophomore	0	0		Active Duty	3	60%
	Junior	3	60%		National Guard	1	20%
	Senior	1	20%		Reserves	0	
	Graduate	1	20%		0-5	2	40%
Prior/ Current Military Service	3	60%	Years of Military Service	6-10	1	20%	
Sex	Male	0		0	11-15	1	20%
	Female	5		100%	16-20	1	20%
On ROTC Scholarship	1	20%	Sex	Male	5	100%	
			Female	0	0		

## CONCLUSIONS

- Based on cadet and cadre feedback, nutrition and physical training education and counseling services provided by other university departments is of high interest and importance with numerous significant life and career implications.
- University nutrition and kinesiology departments would also benefit greatly from offering such services, as they provide hands-on training opportunities for students and supervised practice hours for interns.

## REFERENCES

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