WELLNESS COACHING—KEEPING MILITARY MEMBERS FIT TO FIGHT

INTRODUCTION

urrent rates of overweight, obesity, type-2 diabetes, and cardiovascular disease in the military are similar to those in ◆ the civilian population (8,16). Development of these chronic conditions is heavily influenced by lifestyle choices. Behaviors that contribute to an overall decreased risk of lifestyle diseases include maintaining a healthy body mass index (BMI); decreasing overweight/obesity status; good nutrition; absence of tobacco, drug, and alcohol use; adequate physical exercise; mental health resilience; stress management; and improved sleeping habits (13). The military has traditionally placed an emphasis on physical fitness and performance levels through mandatory physical training and fitness standards; however, healthy behaviors work in harmony. A focus on one of these but neglecting the others may have little to no effect on the overall decrease of lifestyle disease development, specifically considering a military member's unique occupational demands and the associated stress placed on the body and mind. Further, by improving nutrition and sleep, and decreasing tobacco, drug, and alcohol use, in addition to physical training, service members can see greater gains in physical fitness and performance (13).

Traditional practices of educating service members on health-related behaviors include unit briefs and mandatory trainings that may fail to provide personalized information with ongoing motivation and support. The purpose of this article is to present evidence for implementing wellness coaching practices for enhanced dissemination of knowledge and improved efficacy of lasting behavior change, positively affecting the service member's fitness performance levels and decreasing risk of lifestyle disease development.

PREVALENCE OF NEGATIVE HEALTH-RELATED BEHAVIORS

The inherent stress associated with a service member's occupation not only affects the individual's health, but also influences other negative health-related habits that inhibit optimal performance levels (17). Deployments, exposure to combat situations and post-traumatic stress disorder (PTSD) are associated with elevated self-reported cigarette smoking and use of smokeless tobacco products by twofold as compared to a non-deployed service member (11). This, along with an increase in alcohol consumption, results in decreased aerobic capacity, elevated blood pressure, altered performance, and increased likelihood of lifestyle-related diseases (3).

Additional stressors of meeting weight standards, maintaining a high level of physical fitness, and achieving an elite athlete's aesthetic are thought to influence dietary supplement use and disordered eating patterns within the military population (4,14). Fueling the body properly is essential to the maintenance of the demanding physical activity levels often required for military members. Research has shown a positive effect of healthy nutritional habits, such as regular consumption of breakfast, adequate water intake, and improved performance on physical fitness tests, as compared to those practicing poor dietary habits and insufficient consumption of water (14). Yet due to a combination of convenience and misconceptions or lack of education and awareness, many service members turn to dietary supplements to compensate for lack of quality nutrition from whole-food sources, as shown in Table 1 (5,6). One source suggested that 85% of service members report consistent supplement use during some point in their careers (7).

TABLE 1. DIETARY SUPPLEMENT USE IN THE MILITARY (5,6)

MILITARY SERVICE	ANY DS	MULTIVITAMIN/ MULTIMINERAL	INDIVIDUAL VITAMIN OR MINERAL	BODYBUILDING SUPPLEMENTS	WEIGHT LOSS SUPPLEMENTS
US Army	68.0 (63.9)	48.3 (39.2)	32.7 (20.4)	24.5 (20.9)	16.8 (18.0)
US Navy	70.0 (70.7)	51.3 (48.6)	35.0 (29.6)	26.2 (19.1)	16.1 (18.8)
US Marine Corps	70.3 (74.2)	47.2 (47.6)	34.9 (28.6)	37.2 (28.4)	22.3 (21.1)
US Air Force	69.2 (68.0)	50.8 (45.4)	30.9 (23.5)	26.7 (17.8)	12.9 (15.9)
US Coast Guard	68.0 (69.9)	51.6 (47.7)	32.1 (22.3)	24.5 (ND)	10.3 (ND)
All Services	69.1 (ND)	49.5 (ND)	33.9 (ND)	27.2 (21.5)	16.2 (17.4)

Current study % (past studies %) DS = dietary supplements ND = no data

WELLNESS COACHING-KEEPING MILITARY MEMBERS FIT TO FIGHT

Additionally, the consumption of energy drinks and stimulants, substances which are known to affect sleep and overall performance capacities, is disproportionately high among military members at 75% of service members reporting regular consumption as compared to 30 – 50% of civilians (16).

COMBATING NEGATIVE HEALTH-RELATED BEHAVIORS

Educating military members on the interconnectedness of health-related behaviors and means of improving said behaviors is a primary means of influencing better choices. Education is traditionally provided to members of the military by mandatory unit briefs, typically held annually per topic. Briefs include general information on physical fitness, injury prevention, nutrition, supplement use, and substance use. Mandatory trainings may disseminate quality information; however, depth of content is limited as presentations are often recycled from year to year, providing potentially outdated information with minimal ongoing assistance after the training (10). Additionally, presenters' knowledge of the topics vary widely, ranging from assigned personnel reading PowerPoint presentations to subject-matter experts. Research has shown a lack of efficacy when health-related information is provided by an unqualified source. In a recent study, 50.3% of active-duty participants reported their nutrition education came from a peer with no formal training or education in nutrition, stating that they were unable to ask questions and gain information past the basic instruction (10). According to the Human Performance Supervisor at Marine Corps Base Camp Pendleton, the majority of military members choosing to use a supplement did so based on the influence of a higher-up, rather than a qualified expert in the field (9).

Despite adequate physical activity levels, a rise in the number of active-duty service members over the age of 20 that are considered above a healthy weight from 1.6% in 2001 to 7.8% in 2016 suggests that mandatory trainings alone may be insufficient at improving nutrition choices and health (15). This population typically reports retaining little information on the presented topic, contributing to unhealthy habits around the quantity and quality of food intake, to include poor food choices and erratic timing of meals (14). Additionally, the unbalanced emphasis often placed on exercise as compared to other health-related behaviors may skew perception of health status and contribute to poor nutritional habits and use of substances (1). The increase both in overweight service members and negative health behaviors suggests that an alternative approach to educating military members may be more effective at influencing health behaviors and improving performance.

IMPLEMENTING WELLNESS COACHING

Enhancing education and fostering investment in other healthrelated behaviors that contribute to superior physical performance levels may be more effectively achieved with one-on-one wellness coaching, as defined as a collaborative relationship in which the coach empowers and elicits behavior change with the client (2). This relationship works to foster confidence in, and adherence to, behavior change, as compared to traditional prescriptive coaching or instruction. A 2019 study researching alternate means of nutrition intervention and resulting changes in behavior found that 60% of the voluntary soldier participants preferred in-person one-on-one coaching from a health professional well-versed in nutrition (10). The authors noted improvements in both motivation and self-efficacy toward behavior change in participants (10).

Intrinsic motivation and self-efficacy are two necessary contributors to lasting health-related behavior change. Wellness coaching tactics, to include motivational interviewing skills, have been found to be effective in fostering both components (2). Specifically, interaction with a wellness coach has been linked to intrinsic motivation surrounding physical activity and improvements in physical fitness test scores, as opposed to mandated physical training sessions alone (18).

Motivational interviewing involves entering the coaching relationship as equals, with the coach eliciting the goals, barriers, challenges, and solutions from the client. Throughout this process, the individual identifies personal reasons to improve health-related behaviors, increasing the likelihood of lasting behavioral change. Additionally, determining what type of changes should be made can enhance self-efficacy surrounding the behaviors. Self-efficacy, in turn, has been identified as an essential predecessor of lasting change (2).

The format of wellness coaching meetings may also be important. The utilization of virtual meeting platforms, such as Zoom® and Google Meet®, provide the opportunity for remote coaching sessions, accommodating disruptions such as deployments, changes of duty station, and schedule disruptions. Efficacy of remote wellness coaching has been shown in deployed soldiers' improved biometric measures, self-reported physical activity, and nutrition behaviors over a control group (12).

A successful wellness coaching relationship is built upon trust and virtual coaching allows a private, one-on-one platform to continue services with a trusted coach regardless of location. Further, in situations that do not allow one-on-one coaching, health and fitness professionals working with military members can contribute to combat readiness and optimal performance by familiarizing themselves with strategies toward behavior change and adopting wellness coaching practices to influence health-related behaviors. Evaluation of traditional practices suggests a gap in education and behavior change. Alternative interventions, such as wellness coaching, may influence lifestyle choices, such as improved nutrition and decreased substance abuse, ultimately improving physical performance.

REFERENCES

- 1. Clark, HL, Heileson, J, DeMay, J, and Cole, RE. Misperceptions of weight status in military men and women. *Military Medicine* 182(5/6): 1792-1798, 2017.
- 2. Gavin, J, and McBrearty, M. *Lifestyle Wellness Coaching*. Human Kinetics; Champaign, IL; 2018.
- 3. Hruby, A, Lieberman, HR, and Smith, TJ. Behavioral correlates of self-reported health status in US active duty military. *Preventative Medicine* 131(2020): 1-8, 2019.
- 4. Jayne, JM, Ayala, R, Karl, P, Deschamps, BA, McGraw, SM, O'Connor, K, et al. Body weight status, perceived stress, and emotional eating among US Army soldiers: A mediator model. *Eating Behaviors* 36(2020): 1-6, 2020.
- 5. Knapik, JJ, Steelman, RA, Hoedebecke, SS, Farina, EK, Austin, KG, and Lieberman, HR. A systematic review and meta-analysis on the prevalence of dietary supplement use by military personnel. *BMC Complementary and Alternative Medicine* 14(143): 1-34, 2014.
- 6. Knapik, JJ, Trone, DW, Austin, KG, Steelman, RA, Farina, EK, and Lieberman, HR. Prevalence, adverse effects, and factors associated with dietary supplement and nutritional supplement use by US Navy and Marine Corps personnel. *Journal of the Academy of Nutrition and Dietetics* 116(9): 1423-1442, 2016.
- 7. Knapik, JJ, Austin, KG, Farina, EK, and Lieberman, HR. Dietary supplement use in a large, representative sample of the US armed forces. *Journal of the Academy of Nutrition and Dietetics* 118(8): 1370-1388, 2018.
- 8. Krukowski, RA, Hare, ME, Talcott, GW, Johnson, KC, Richey, PA, Kocak, J, et al. Dissemination of the look AHEAD incentive lifestyle intervention in the United States Air Force: Study rationale, design, and methods. *Contemporary Clinical Trials* 40(2015): 232-239, 2014.
- 9. Kruse, DJ. *Kruse 950 Teaching Artifact*. 2020, September 21. YouTube.com. Retrieved 2021 from https://youtu.be/lgxKR7UrHho.
- 10. Kullen, C, Prvan, T, and O'Connor, H. Barriers and enablers influencing dietary practices in Australian army personnel. *Military Medicine* 184(1/2): 213-221, 2019.
- 11. Lin, J, Zhu, K, Solivan-Ortiz, AM, Larsen, SL, Schneid, TR, Shriver, CD, and Lee, S. Deployment and smokeless tobacco use among active duty service members in the U.S. military. *Military Medicine* 184(3/4): e183-e190, 2019.
- 12. McCarthy, MS. A prospective cluster-randomized trial of telehealth coaching to promote bone health and nutrition in deployed soldiers. *Healthcare* 2014(2): 505-515, 2014.
- 13. Novak, A, Hornyak, B, Razso, Z, Szalanczi, S, Soter, A, Juhasz, Z, and Nyakas, C. The introduction of health behavior profiles in the Hungarian defense forces: A cluster analysis of lifestyle factors according to the health screening tests performed in 2011-2015. *International Journal of Occupational medicine and Environment Health* 32(1): 99-114, 2019.

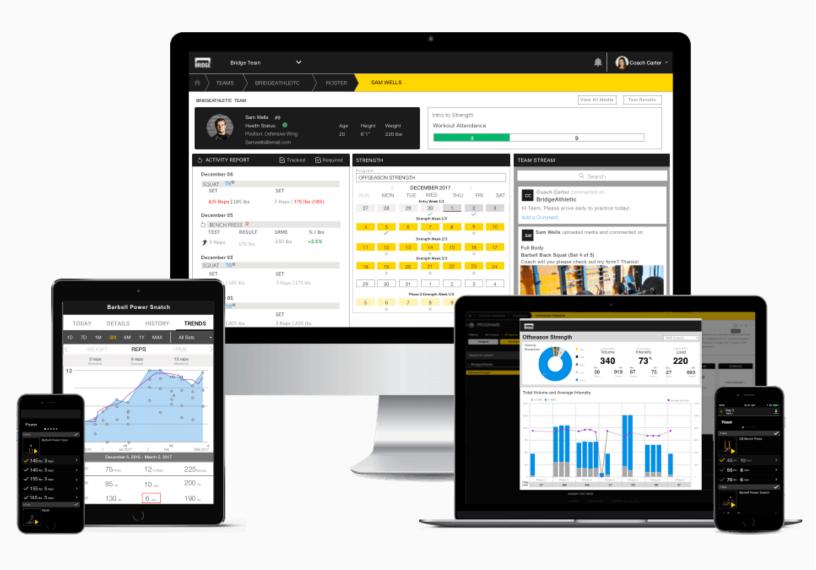
- 14. Purvis, DL, Lentino, CV, Jackson, TK, Murphy, KJ, and Deuster, PA. Nutrition as a component of the performance triad: How healthy eating behaviors contribute to solider performance and military readiness. *U.S. Army Medical Department Journal* 66-78, 2013.
- 15. Riordan, JK, Alexander, S, and Montgomery, IS. Use of technology to increase physical activity in female veterans and soldiers ages 19-64 years. *Journal of the American Association of Nurse Practitioners* 31(2019): 575-582, 2019.
- 16. Toblin, RL, Adrian, AL, Hoge, CW, and Adler, AB. Energy drink use in U.S. service members after deployment: Associations with mental health problems, aggression, and fatigue. *Military Members* 183(11-12): e364-e370, 2018.
- 17. Walker, LE, Poltaviskiy, E, Janak, JC, Beyer, CA, Stewart, IJ, and Howard, JT. US military service and racial/ethnic differences in cardiovascular disease: An analysis of the 2011-2016 behavioral risk factor surveillance system. *Ethnicity and Disease* 29(3): 451-462, 2019.
- 18. Wilson, JN, Markey, CN, and Markey, PM. Fitness correlates of obligatory versus health motives for exercise: An examination of men in the military. *Psychology of Sport and Exercise* 13(2012): 371-377, 2012.

ABOUT THE AUTHOR

Darci Kruse holds a Master of Science degree in Nutrition from the University of Bridgeport and a Doctorate of Health Science from California University of Pennsylvania. Kruse holds the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialist® (CSCS®) and Tactical Strength and Conditioning Facilitator® (TSAC-F®) certifications, along with the American Council on Exercise (ACE) Certified Personal Trainer (ACE-CPT), ACE Certified Group Fitness Instructor (ACE-GFI), ACE Medical Exercise Specialist (ACE-MES), ACE Certified Health Coach (ACE-CHC), and National Academy of Sports Medicine Certified Exercise Specialist (NASM-CES). Kruse is the Director of Education for the National Exercise Trainers Association (NETA).



Join the thousands of professionals who use BridgeAthletic to design, deliver, and track training across the world.



BridgeAthletic Features

Remote Training and Data Tracking
Exercise Library with 2,500+ EXOS Videos
50+ Template Programs for At-Home Training
Best-in-Class Program Builder

START YOUR FREE TRIAL TODAY

1st Month - Free, 2nd Month - 50% Off Use Code **NSCA50**

















