



Mid Atlantic Regional Chapter of the American College of Sports Medicine

46th Annual Scientific Meeting, November 3rd - 4th, 2023
Conference Proceedings

International Journal of Exercise Science, Issue 9, Volume 12



Adherence to a 12-week Summer Exercise Protocol Among ROTC and VWIL Cadets: A Pilot Study

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PURPOSE: This study examines adherence to a 12-week exercise protocol for Virginia Women's Institute for Leadership (VWIL) and Reserve Officers' Training Corps (ROTC) cadets. **METHODS:** Twelve healthy VWIL/ROTC cadets provided informed consent to participate in 12-weeks of structured exercise during summer semester (M=1, F=10, NB=1; 20±1 years; 39.2±9.3cm; 165±9.3 kg; mean±SD). Each weekly exercise protocol dictated 2 days of resistance training (RT), 3 days of cardiorespiratory training (CT), and 2 days of rest. Email reminders prompting participants to engage in, document, and upload weekly exercise logs were sent to each participant twice weekly. Each day, participants reported engaging in some volume of RT, CT, or rest, counting towards a percentage of their weekly prescribed total. Additionally, overall adherence to the weekly exercise protocol was assessed by combining RT and CT results. **RESULTS:** Of the 12 participants ~ 5, ~ 3, and ~ 2 reported engaging in prescribed exercise during month 1, 2, and 3 respectively. Month 1 RT adherence was reported as 91±11; % (mean ±SE), CT as 54±7%, rest as 118 ±10%, and overall, as 65±6%. Month 2 RT was reported as 68±10%, CT as 82±7%, rest as 127 ±12%, and overall, as 75±5%. Month 3 RT was reported as 57±13%, CT as 76±10%, rest as 157 ±13%, and overall, as 69±7%. **CONCLUSION:** The study team was surprised by the overall low response and high attrition rates among VWIL/ROTC cadets, which ultimately limited our ability to run inferential statistical analyses. However, these limitations also provided the opportunity to explore data trends more globally among cadets' reported exercise adherence. These results indicate overall poor engagement in our prescribed plan as less than 50% of our participants reported some level of compliance during the first month, falling to ~16% by the end of the study period. However, this limitation could also be due to our chosen method of reporting. The decreased reporting when paired with the increased over-adherence to prescribed rest may also indicate protocol fatigue. Despite limited reporting, the relatively higher adherence to CT over RT with overall exercise levels remaining relatively stable throughout testing seems to indicate a preference among cadets for CT. Future studies should explore additional protocols and reporting methodologies with the aim to improve reporting and exercise adherence. **SIGNIFICANCE/NOVELTY:** Understanding exercise preferences among military personnel is critical as physical fitness, and thus physical training, are essential requirements for service. However, there is limited exercise research among ROTC or military collegiate cohorts, especially among female cadets. Improving exercise engagement among these groups will help to ensure their readiness for future service.