Psychosomatic Effects of Stretching in the Wilderness Setting

Background.—Much research has been done on the effects of static and dynamic stretching on muscle strength and flexibility. Others have looked at the psychosomatic effects (ie, fatigue, soreness) in various populations. It is less clear what the psychosomatic effects of stretching may have after endurance exercise activities, such as hiking.

Objective.—To assess the psychosomatic effects of stretching on endurance exercise in the context of hiking.

Methods.—Twenty-one medical students were given a questionnaire immediately before and after a 4-mile moderately difficult hike. They were asked about prior hiking experience, general level of fitness, and relative levels of perceived fatigue and soreness. Ten subjects were assigned to the no-stretch control group, and 11 subjects were allowed to participate in an approximately 10 minute stretching session. Analysis of *P* values was done using the 2-sample *t* test.

Results.—There was a 67% higher level of perceived soreness ($P = .02$) immediately on finishing the hike in the control group as compared with the stretch group. The average level of perceived fatigue (on a scale of 1 to 5) in the control group increased from 2.7 to 3.7 ($P = .049$) whereas the level of reported fatigue in the stretch group increased to a lesser extent from 2.36 to 3; this increase was not statistically significant ($P = .216$).

Conclusions.—Perceived soreness immediately after hiking can potentially be lessened by stretching. A larger study examining the different types of stretching (dynamic vs static) could be useful to further examine the psychosomatic effects of stretching on hiking.

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Search and Rescue in the Intermountain West

Background.—The search and rescue (SAR) teams of the intermountain west states (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming) are some of the most active in the United States. Minimal data exist regarding the membership, medical training, and SAR missions of these teams.

Objective.—The purpose of this study is to describe these SAR organizations including medical care provided, call volume, and training. Additionally, the involvement of physician medical direction and authorized expanded scopes of practice will be analyzed.

Methods.—Electronic surveys were sent to local SAR officials in each county (281) within the intermountain west states. Results were descriptively analyzed.

Results.—Fifteen percent of jurisdictions responded to the survey. (All data presented represent only the first week of response data; data collection is ongoing and the authors expected completion by January 2013.) The median annual call volume was 37 (5–152) missions. Teams were composed of a median of 35 (5–132) volunteers and 0 (0–26) paid

members; 83.3% of teams provide medical training to their membership. Multiple levels of medical training are represented on teams, including First Aid/CPR, EMR, EMT, AEMT, Paramedic, RN, APRN, PA, and MD/DO. Of these medical professionals, 23.2% have formal wilderness training, ranging from 0% to 100% on a team level. Of the medical care on SAR missions, 61.3% is performed by local EMS rather than by the SAR team. Of the SAR teams, 48.4% have formal medical direction, and 77.8% of that direction comes from physicians; 85.7% of those physicians are emergency medicine trained. Owing to the remote nature of SAR medical care, 23.3% of medical directors have protocols allowing for an expanded scope of practice.

Conclusions.—Intermountain west SAR teams vary in their composition, training, and level of medical direction. Medical directors can participate in a range of activities, including creation of medical protocols, training activities, missions, online medical consultation, and making provisions for prescription medications. There is a national push to increase medical direction of prehospital services, and this study confirms that vast opportunities exist for physician integration with SAR teams.

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The Effectiveness of Teaching Emergency Procedural Skills in an Outdoor Environment Using Low-Fidelity Simulation

Background.—Teaching emergency procedural skills in a wilderness setting can be logistically challenging owing to the austerity of the learning environment and lack of appropriate simulation models.

Objective.—To effectively teach these skills as part of a wilderness medicine elective for medical students, we designed an outdoor simulation session with low-fidelity models to examine whether this is an effective teaching tool.

Methods.—This is a retrospective study involving 13 fourth-year medical students who completed an outdoor simulation laboratory session as part of a month-long elective in wilderness medicine. The session involved 6 stations in which procedural skills were taught using homemade low-fidelity simulators. At each station, they encountered a “victim,” who was acting as the