Selected Abstracts From the Wilderness Medical Society's 2012 Winter Scientific Conference

Employee Perception of a Mandated Helmet Policy at Vail Resorts

Background.—Helmet use among skiers and snowboarders is increasing but remains under 65%. In 2009, Vail Resorts implemented a mandatory helmet use policy for professional staff.

Objectives.—This study sought to measure support for this policy among resort employees, as well as the impact of the policy on job satisfaction and planned helmet use.

Methods.—A convenience sample of 728 lift operators, ski patrollers, and instructors participated in a paper-based survey during work orientation or training programs. Survey questions included demographics, primary snow sport activity, helmet use, agreement with the helmet mandate and job satisfaction. Odds ratios (OR) and 95% confidence limits (CI) were calculated to test for associations between age, gender and snow sport activity and 3 primary outcomes: agreement with the policy; job satisfaction; and planned helmet use.

Results.—Of those surveyed: 82.2% were male; 52.3% were over age 25; 53.4% had worked 3+ seasons in the ski industry; and 56% were primarily skiers. Most employees (66.5%; 95% CI, 63%–70%) agreed with the helmet policy. Only 18% (95% CI, 16%–21%) reported a negative effect on job satisfaction. Older employees (>25 years) were more likely to disagree with the policy (OR, 3.1; 95% CI, 2.2–4.3) and report a negative effect on job satisfaction (OR, 4.8; 95% CI, 3.0–7.6). Skiers were much more likely to report a negative effect on job satisfaction (OR, 9.8; 95% CI, 5.2–18.1). Twenty percent (95% CI, 17.4%–23.3%) of employees reported they “always” wore a helmet while skiing or snowboarding recreationally prior to the mandate, while 32.4% (95% CI, 29.1%–35.9%) reported they intend to “always wear a helmet” while skiing recreationally this year.

Conclusions.—A mandatory resort-wide helmet use policy was supported by most resort employees and appears to increase planned recreational helmet use. Only a minority (primarily older, more experienced employees) reported a decline in job satisfaction.

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Medical Wilderness Adventure Race (MedWAR): A Novel and Effective Teaching Platform for Wilderness Medicine Knowledge and Skills

Background.—Effective medical education requires both didactic instruction and practical hands-on experience. Wilderness medicine presents unique challenges including environmental concerns and limited resources. Medical Wilderness Adventure Race (MedWAR) was developed to teach and test knowledge and skills specific to wilderness medicine by incorporating simulated medical scenarios into an adventure race. This event has gained acceptance nationally in wilderness medical circles as an excellent way to appreciate the challenges of wilderness medicine; however, its effectiveness as a teaching tool has not yet been verified.

Objectives.—To determine if improvement in simulated clinical and didactic performance can be demonstrated by teams participating in a typical MedWAR event.

Methods.—We developed a complex clinical scenario and written exam to test the basic tenets that are reinforced through the MedWAR curriculum. Teams were administered the written exam and standardized scenario immediately before and after the 2011 Midwest MedWAR Race. Teams were not given feedback on their pre-race performance. Scenario performance was based on critical actions correctly performed in the appropriate time. Scenario and written exam data was analyzed using a standard paired difference *t* test.

Results.—A total of 31 teams participated in both the pre- and post-event scenarios. Pre-race scenario performance averaged 71.0% (SD = 17.0, *n* = 31) of critical actions met compared to a post-race performance of 89.7% (SD = 11.4, *n* = 31). Mean improvement was 18.7% (SD = 18.7, *n* = 31, CI, 12.1–25.3) with a significant paired two-tailed *t* test (*P* ≤ .01). A total of 95 individual subjects took the written pre- and post-tests. The written scores averaged pre-race 84.5% (SD = 12.5, *n* = 95) and post-race 88.7% (SD = 11.5, *n* = 95). Mean improvement was 4.2% (SD = 11.7, *n* = 95, CI, –7.5 to 15.9), with a significant paired two-tailed *t* test (*P* ≤ .01).

Conclusions.—MedWAR participants demonstrated significant improvement in both written exam scores and the management of a simulated complex wilderness medical scenario. This strongly suggests that MedWAR is an effective teaching platform for both wilderness medicine knowledge and skills.

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