THE WILDERNESS INSTRUCTOR

Introducing Medical Students to Wilderness Medicine

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Introduction

In 1983, the formation of the Wilderness Medical Society (WMS) and the first edition of Paul S. Auerbach's *Wilderness Medicine* recognized an increasing need for an organized approach to training health care professionals in the wilderness environment.¹ Teaching patient assessment through the use of simulated accident scenarios became a cornerstone of wilderness medicine (WM) education.^{2,3} Residency directors of family medicine and emergency medicine programs began responding to their residents' suggestions of incorporating WM education into their urban curricula.^{4–6} A number of medical schools even started offering intense elective courses in a wilderness setting, and one study found that 40% of the participants of a particular course claimed it was the best course in medical school.^{7,8} Some smaller regional organizations strive to educate medical professionals in predicaments encountered specifically in their area while others seek inclusion of WM education into medical academic curriculum.^{9–11} While accredited WM education courses enroll many medical students and residents each year, programs not affiliated with medical schools may be prohibitively expensive for medical students and conflict with academic schedules. This paper examines how the University of Kentucky's (UK) Wilderness Medicine Interest Group (WMIG) attempts to expose medical students to the field of WM by utilizing available resources and physician contacts.

Student-Focused Education

An organized approach to educating medical practitioners in WM naturally leads to a need for national standards. Currently, with the Fellowship offered by the Academy of Wilderness Medicine (FAWM), participants can track their progress in many accredited activities sponsored or supported by the WMS. This is an excellent approach to delivering WM education on a national

scale, but a medical student's full involvement may still be impeded by other academic obligations. The registration and travel costs of these courses or conferences can be prohibitive to a medical student's budget. An introduction to WM at a student's home institution may encourage him or her to rearrange busy schedules and attend these events. Learning about the practice of WM while still in medical school is an excellent way to create lifelong learners who will continue to be active WMS members as they begin their medical practice. Many medical schools' WMIGs, including the University of Kentucky's, hold monthly meetings with faculty presentations on a variety of topics pertinent to WM. The student officers at the University of Kentucky also organize semiannual educational workshops in outdoor settings to give participants their first experiences with hands-on WM.

Locally Organized Education

The first meeting of a school year hosted by the UK WMIG focuses on the 1st-year class of medical students. A faculty advisor of the group will address the students' questions regarding the field of WM and how it relates to a student's medical education. Few students who attend this first meeting understand the scope of WM and are aware of upcoming WM conferences or courses unless they occur nearby. For the majority of medical students, their school's WMIG is their first exposure to this field. By raising awareness early in a student's educational journey, these interest groups are vital in encouraging students to pursue these unique opportunities and to meet practicing physicians who share similar interests. By meeting physicians at monthly meetings, students can begin networking even before rotating through their respective departments during clerkships. At the educational workshops, medical students who may have minimal clinical experience can gain confidence before participating in certified WM courses alongside physicians and EMTs. Student interest groups also distribute information to their members about upcoming confer-

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ences, courses, and adventure races through newsletters and blogs.

One of the most prized commodities for a medical student is time. When a local WMIG organizes an educational workshop, it can be tailored to exam schedules or holidays. Since the presenters are physicians from the community, the travel time is minimal compared to certified courses. Feedback from the presenters and the participants can easily lead to changes in the curriculum the following year or changes in the design of workshop. Presenters at local workshops have the ability to discuss topics of interest that apply to the regional environment. Since even 1st or 2nd-year medical students can be seen as medical providers by the general public when accidents occur in the backcountry, these workshops are an opportunity to learn about dangers unique to the area (mountain, desert, jungle, ocean, etc.). Presenters can explain steps to avoid injuries or illnesses and teach initial treatments should they occur. To encourage more students to become members of the local WMIG, the UK WMIG charges a small fee to nonmembers for attending the workshop. Lunch and educational materials are provided, so this fee simply covers the costs for nonmembers' attendance. Students have the option of joining the UK WMIG by paying annual dues and then participating in the workshop for no charge. Travel expenses are minimized by car pooling and camping, and often workshops are concluded with white water rafting, climbing, or hiking.

The most recent educational workshop was held at the Gray's Arch trailhead at the Red River Gorge Geological Area, Kentucky. The presenters for the 4 different stations were 3 UK physicians from the Department of Emergency Medicine and 1 medical student who has attended AWLS and Wilderness First Responder courses and is a candidate for the FAWM. Sixteen medical students, mostly in their 1st and 2nd years, split up into 4 groups and rotated through the different stations spending about half of an hour at each. Topics for the workshop needed to be applicable to the local wilderness and were determined by verbal feedback from previous workshops and suggestions from the participating physicians. Students learned scene and patient assessment skills through a realistic scenario involving an "unconscious" camper. While hiking down a trail, a group of students came across a camp in disarray. They were taught steps to ensure their own safety while analyzing the severity of the situation. At another station, limb and spinal immobilizations were taught using equipment commonly found on an excursion into the backcountry. Students were asked to brainstorm ways to adapt items in a backpack into splints and litters. Water purification techniques and the dangers of untreated water were ex-

plained at the next station with a number of treatment devices for demonstration. Finally, students learned about versatile supplies that can be included in a medical kit and how to adapt a kit to a trip's specific needs. They were taught about customizing kits for different size groups and trip lengths while always considering weight as an important factor.

Student Feedback

Only 1 of the participating students had prior Wilderness First Aid training with the rest having no formal WM education. Students discussed how this workshop increased their awareness of a medical student's role in a wilderness emergency. Every student, except 1 3rd-year student, indicated that they would like to attend the next workshop that the UK WMIG organizes. Many students thought undergraduate college students and resident physicians would benefit by attending the workshop as well. The organizers received some very useful suggestions to implement into the next workshop. Many new topics for stations were suggested, such as cold or heat exposure, wildlife encounters, shelter construction, displaced joint reductions, and regional edible plants. A student suggested we alter the design of the workshop by not dividing into groups and instead have the presenters teach the whole group once. This approach would allow the presenters to hear the other topics and keep the transitions between speakers efficient. The disadvantage of this approach could be that the larger group size may make realistic scenarios less engaging.

Conclusion

Locally organized educational workshops by a medical school's WMIG that use the surrounding backcountry are great opportunities to introduce medical students to the field of WM. Students can gain confidence and practical skills while building relationships with physicians in the community. The use of realistic accident scenarios is still a crucial delivery tool of WM education and will continue to be used in future workshops. By participating in a local WMIG, students can learn about upcoming certified educational activities and see how to make WM part of their future practice. The constraints of a medical student's schedule emphasize that the important role local WMIGs can play in providing a continuity of WM education throughout one's time in medical school. The UK WMIG organizes its meetings and educational workshops around the students' schedules to maximize attendance. No written assessment of the students is performed after the UK WM educational workshops, as they are not meant to offer any certification or credits. Skills

checks are voluntarily given when the participants practice techniques under the watch of the instructors. The participants' evaluation of the workshop gave the group's officers useful ideas to implement next year. New topics will be explored and students in other health-care fields may be invited to attend. By attending these workshops, students were introduced through a hands-on approach to the field of WM and encouraged to seek out accredited training through the WMS and other organizations.

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