Does medical education predispose to risk behaviour during travel?

Dear editor,

with great interest, we read the paper “Health risks, travel preparation, and illness among public health professionals during international travel” by Balaban et al. [1] recently published in this journal. We’d like to take this opportunity to point out the differences in the compliance with advised health and safety recommendations between medical lay persons and medical professionals such as medical students, nurses and doctors.

Between 2004 and 2007 we included 546 participants in a prospective cohort study aiming to analyse the compliance with given advices and the resulting risk of travel-associated infections. Among the study group 10.6% (58) were medical professionals. Data were acquired in the outpatient department for infectious diseases at the Friedrich-Schiller-University of Jena. All travellers asking for medical advice before travelling to tropical and subtropical countries received a questionnaire, which they were asked to complete upon their return. The questionnaire contained questions concerning demographic aspects, travel details, risk behaviour, compliance with anti-malarials and the presence of symptoms or diagnosed diseases during and after the journey.

Travellers with medical education were generally younger (mean age 26.9 years vs. 41.8 years) and travelled for longer periods of time (mean duration 50.5 days vs. 31 days).

Regarding the typical hygiene recommendations (“boil it, peel it or forget it”) we found that medical professionals were significantly more likely to drink tap water (48.3% vs. 15.2%, p < 0.05) and unpasteurized milk (15.5% vs. 4.9%, p < 0.05) than the remainder of the cohort. Persons with medical education more frequently swam in possibly schistosoma-infested fresh-water lakes (48.3% vs. 41.8%, non significant), more frequently ate raw salad (86.2% vs. 76.6%, non significant) and raw meat/fish (15.5% vs. 9.4%, non significant) and reported more frequently unsafe sex with a new partner (3.4% vs.1.4%, non significant) in comparison to travellers without medical education (Fisher’s exact test).

In the study of Balaban, 45% of persons strictly followed the health and safety recommendations for the duration of their trips. Specifics of these guidelines were not reported. A recent study among Australian medical students revealed a surprising high percentage of individuals who did not take any food or water precautions (43%); again, risk factor specifics were not detailed [2].

Given the comparatively small and heterogeneous sample, it is hard to judge whether our study simply captured a random local phenomenon or if persons with a professional medical background are more casual with regards to travel health recommendations in general, as suggested by our data.

Notably, medical professionals in our study were younger (27 vs. 42 years) and young age has been previously been described as a risk factor for travellers regarding diarrhea [3,4]. We are not aware of any further studies in German speaking countries regarding the compliance of medical professionals with health and safety recommendations for travellers to the tropics. Future studies should include larger numbers of young doctors and older medical students to properly address or eliminate the influence of age, respectively.

53 (91.4%) of 58 medical professionals and 425 (87.1%) of 488 medical laypersons visited areas with endemic malaria infections. Medical professionals were more likely to use malaria prophylaxis (56.6% vs. 41.8%, non significant) and to carry a standby-medicine (43.4% vs. 32.7%, non significant). We found no differences between the compliance regarding malaria prophylaxis (96.7% vs. 97.7%) or the utilization of bednets/repellents (75.5% vs. 74.3%) between both groups. Goldsmid et al. (2003) obtained similar results in a group of medical students in respect on compliance with anti-malarials.

These and our data suggest that persons with medical education take the malaria risk seriously but disregard other healthrisks. Hence, we recommend to put special emphasis on these aspects during pre-travel consultation of medical students, nurses and doctors to reduce this conduct.

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