Are Belgian military students in medical sciences better educated in disaster medicine than their civilian colleagues?

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Background:

Medical students have been deployed in victim care of several disasters throughout history. They are corner stones in first line care in recent pandemic planning. Furthermore, every physician and senior medical student are expected to assist in case of disaster situations, but are they ever educated to do so? A previous evaluation amongst senior medical students in Belgium revealed worrisome results. We tried to evaluate the impact of military training on disaster education in medical science students. Our hypothesis is that through their military background they are better educated than their civilian colleagues.

Patients and methods:

Military students in all years of medical sciences were invited to complete an online survey on disaster medicine, demographics, training and knowledge. This reported knowledge was tested by a mixed set of 10 theoretical and practical questions. The results were compared with a similar study amongst their senior civilian colleagues.

Table: relevant scores, compared with senior civilian medical students.
Significant differences are marked with a *

	military	civilian
mean test score	5,52/10	4,34/10*
knowledge nuclear	3,97/10	1,81/10*
knowledge chemical	4,05/10	2,19/10*
knowledge biological	3,75/10	2,09/10*
knowledge influenza pandemic	4,55/10	4,61/10 ns
knowledge ebola outbreak	4,1/10	2,79/10*
willing to work nuclear	7,1/10	7,11/10 ns
willing to work chemical	7,25/10	7,48/10 ns
willing to work biological	7,0/10	7,36/10 ns
willing to work influenza	7,15/10	7,7/10 ns
willing to work ebola	7,1/10	7,03/10 ns

Results:

Response rate was 77%; mean age was 23 years with a M/F ratio of 59/41. 54% studied in bachelor level and 27% as senior master students. 95% has had some CBRN training and 22% other disaster management training. 44% of the participants found it absolutely necessary that disaster management should be incorporated in the regular curriculum.
Scores on self estimated knowledge, willingness to work and final score on the theoretical/practical test are presented in the table. There is a good correlation between self estimated knowledge and capability. Test scores improved with educational level.
If we compare these figures with the data from a survey amongst civilian senior master students we find that although only 27% are senior master students the military have significant higher scores on knowledge and capability, except for similar figures in case of influenza pandemic. Data on willingness to work are comparable in both groups. Results of the question/case set are clearly better in the military group.

Conclusion:

In conclusion we can state that the military background of these students makes them better educated for disaster situations than their civilian colleagues.