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Since 2005, Austrian medical universities are legally entitled to restrict the number of their study places and, hence, to select their students. While until 2012, the Medical Universities Vienna and Innsbruck employed the Swiss medical admission test (EMS, Eignungstest für Medizinische Studien), the Medical University Graz developed an own admission test consisting mainly of a knowledge test in basis scientific disciplines (biology, chemistry, mathematics and physics), a text comprehension test and a situational judgement test. The validity of this procedure in terms of enhanced study progress [1] and reduced rate of premature study dropout [2] has been published.

Meanwhile the three universities have decided to apply, and to develop further, a common admission procedure. As a basis, a Delphi process was initiated attempting at defining personal abilities and strengths of potential medical students which are deemed important by a broad selection of medical professionals and teachers at medical universities.

In order to guarantee the development of an internationally competitive high-quality admission procedure, an International Board of Advisors was established.

The first round of the common admission procedure was realized in 2013: the procedure consisted in a combination of a basic science knowledge test and a text comprehension test, both according to the model employed already previously at the Medical University of Graz. In addition, a new cognitive test part was added consisting of four sub-tests: figure assembly, number series, memory and retentiveness, and mathematical reasoning. The weighting of the test constituents was 40% for basic scientific knowledge, 10% for text comprehension, and 50% for the cognitive test parts.

All test parts were presented in Multiple-Choice format (1 out of 4) and realized as paper-pencil tests on a single day common for all three participating universities. Each test item contributed a score of either 1 (correct) or 0 (false). For each of the three test parts (knowledge test, text comprehension test and cognitive test) the test scores were added and normalized according to the maximum possible scores of the respective test part. The resulting numbers were then added using the respective weighting factors (40%, 10% and 50%). Thus, in each of the three test parts the maximum normalized scores possible were 100%, and the final test score was weighted correctly according to the pre-defined weighting scheme.

Besides the ranking of the applicants, the evaluation of the test results included extensive testing of different aspects of psychometric quality and test fairness (reliability, ranking fairness and group fairness) using classical test theory as well as descriptive and exploratory models of item response theory. Moreover, using confirmatory factor analyses, also the dimensional structure of the test procedure was investigated.
The final report on the 2013 admission procedure was approved by the participating Medical Universities and was also made available to the International Board of Advisors.

In 2014, the cognitive test part will be slightly modified, now consisting of six sub-tests: figure assembly, number series [3], memory and retentiveness, verbal fluency [4], and two tests of critical thinking. The knowledge test and the text comprehension test parts will be employed in the same way as in 2013.

**References:**


