European students planning to practice internal medicine are more likely to have condition-focused, rather than behaviour-focused approach to HIV testing - data from the English Division Faculty, Medical University of Warsaw

1 Introduction

Despite great efforts to optimise HIV testing, there is still a considerable amount of undiagnosed symptomatic patients in Europe.

- This can reflect inappropriate knowledge of testing indications by physicians.
- The way students reason about HIV infection and how to handle it has not yet been sufficiently investigated.

2 Material and methods

- Data source: fifth year students from the Second Faculty and English Division of the Medical University of Warsaw were asked to fill in a pre-course questionnaire before entering HIV lessons.
- Questionnaire design and evaluation: students were asked the following questions:
  - A: Difference between HIV and AIDS.
  - B: Can HIV be asymptomatic?
  - C: AIDS defining conditions.
  - D: Which bodily fluids are contagious?
  - E: Risk of mother-to-child (MTC) transmission.
  - F: Risk of sexual transmission.
  - G: Indications for HIV testing.
- Questionnaire was evaluated according to predefined scoring system.
- Study end-point: Participants were divided in two groups according to their answer to the question about testing: Group 1 included students who answered correctly. Group 2 included the rest.
- Statistical analyses: Parametric and non-parametric tests were used for group comparison as appropriate. Logistic regression was used to identify factors associated with a correct answer to the question on HIV testing.

3 Results

- 224 students completed the questionnaire (see Table 1):
  - 144 (64.3%) from Europe.
  - 55 (24.5%) from Asia.
  - 14 (6.3%) from North Africa.
  - 11 (4.9%) from North America.
  - 163 (72.8%) from high-income countries.
  - Mean age was 24.1 (SD = 2.1).
- Median score for the questionnaire was 14 points (IQR: 12-15) out of a maximum of 18.
- Only 91 (41%) correctly listed indications for HIV testing (STD or unprotected sexual contact and pregnancy in addition to immunodeficiency related conditions), and thus formed group 1.
  - 121 (54%) listed only medical conditions.
  - Eleven students (5%) provided no valid answer.
  - Only 27 students (12%) listed pregnancy and 87 (39%) STD or unprotected sexual contact as indication for testing.
- Risk was mainly overestimated by students (25% of students did so for MTC risk, 54% for men who have sex with men (MSM) sexual contact and 45% for heterosexual contact).
- After multivariate logistic regression analysis (see Figure 2), factors that modified the odds of testing indications were:
  - Increasing odds of wrong testing indication: a 5% increase in estimation of MTC transmission risk [OR=1.06 (95%CI:1.07-1.25)]<p>0.001. Being from Europe 2.36 (9.97-5.76)<p>0.001. There was a trend of increasing odds for students who were planning on practicing internal medicine (3.33 (1.09-10.2)<p>=0.18.
  - Decreasing odds of testing indication: a correct answer to question about HIV being an asymptomatic infection (0.07 (0.01-0.69)<p>0.001) and a 5% increase in estimation of MSM transmission risk (0.99 (0.84-0.96)<p>0.001).

4 Conclusions

- Students generally recommend testing only from a condition-focused approach, mainly ignoring the importance of behaviour related indications for testing (especially for those who come from Europe and plan to practice internal medicine). This calls for a change in the way we transmit knowledge about HIV infection.
- Students focus on HIV-related medical conditions even though they know about the asymptomatic nature of HIV infection.
- Students tend to overestimate the risk of HIV transmission in all situations.

Table 1. Baseline characteristics.

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Figure 2. Odds ratios for wrong answer about HIV testing.

Figure 3. Crude percentage of scoring in all questions.