**New Researcher Award Winner 2016:**
**Distinguishing three unprofessional behaviour profiles of medical students using Latent Class Analysis**

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## Background & purpose

Since unprofessional behaviour of physicians is associated with previous unprofessional behaviour in medical school, identifying medical students' unprofessional behaviour is critical. Research has noted the difficulty in assessing professional behaviour.[1] Instead of recognizing *isolated* behaviours it could be more helpful to recognize *patterns* of behaviours to evaluate students' unprofessional behaviour.[2]

The authors aimed to identify patterns of the unprofessional behaviours of medical students, and to construct descriptions based on these patterns.

## Methods

This study included three subsequent steps: (1) Content analysis of research articles (found in PubMed by using the search terms "unprofessional behaviour" AND "medical student" and synonyms) was used to construct a template of unprofessional behaviours for coding presence and absence of these behaviours in student evaluation forms indicating unsatisfactory professional behaviour, collected during 2012–2014 at VUmc School of Medical Sciences Amsterdam, the Netherlands. (2) Latent Class Analysis (a statistical method to define classes in a database)[3] was used to identify classes of students with a high chance of displaying comparable patterns of unprofessional behaviour. (3) For each class, a profile description was constructed by summarizing teachers' narrative feedback provided in evaluation forms of 10 students who appeared to be prototypes of their class.

## Results

Based on 23 articles a template of 109 behaviours (93 from the literature, 16 iteratively added during coding) was used to code 232 evaluation forms of 194 students (3.9% students/year). Latent Class Analysis identified three classes of students with comparable behavioural patterns: (i) "poor reliability" (43%), (ii) "poor reliability and poor insight" (20%), (iii) "poor reliability, poor insight and poor adaptability" (37%). The distinguishing (latent) factor appeared to be: "capacity for self-reflection and adaptability." For each class a profile description was drafted, which will be presented at the conference.

## Conclusions

This study identified three unprofessional behaviour profiles of medical students that seem to indicate the students' capacity for self-reflection and adaptability.[4] Earlier research has noted a diminished capacity for self-reflection and adaptability as crucial in medical school, since it tends to continue in residency and medical practice, with undesirable consequences for future patients. Further research is needed to determine the usefulness of the identified profiles for the evaluation of professional behaviour of medical students.

**References**
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