Gender Variation in Learning Preferences’ Profile of First Year Medical Students

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INTRODUCTION
Recent research articles in medical education supported the notion that undergraduate students have specific learning preferences profiles. A better understanding of learning profiles can assist college educators in improving the classroom learning environment for newly admitted medical students. Our literature search resulted in conflicting reports concerning gender differences in learning preferences profiles. The main objective of our study was to investigate gender differences in learning preferences profiles using the Fleming’s Visual, Auditory, Reading/Writing, Kinesthetic (VARK) instrument.

METHODS AND MATERIALS
- We administered the Fleming’s online VARK instrument, version 7.1, to first year female, male medical students of Alfaisal University, Riyadh, KSA
- Students were instructed to check more than one if a single answer does not match their perception.
- The total number of participants was tallied as follow:
  - single mode (V, A, R, or K)
  - quadmodal (VARK)
  - trimodal (VAR, VAK, etc.)
  - bimodal (VA, VR, etc.)
  - multimodal (quadmodal, or trimodal, or bimodal)
- We used descriptive statistics and Chi-square in the analysis of the study results.

RESULTS
- A total of 88 out of 183 (48%) first year medical students responded to our invitation and participated in the study
- 37 participants (42%) were females
- 22% of female and 18% of male students (p=0.06) preferred single modes of information presentation
- However, the numbers and types of modality combinations of females and males varied significantly:
  - quadmodal (43% vs. 66%, p=0.03)
  - trimodal or bimodal (35% vs. 16%, p=0.04).

CONCLUSION
After conducting our research which is the VARK instrument testing, on both female and male first year students, significant gender differences were found in learning preferences profiles of first year medical students, unlike all other studies that were conducted based on this instrument. Female student learning preferences profiles were more heterogeneous. More studies to support our preliminary findings are warranted.

FUTURE PLANS
Our next step would be to further extend our study to determine if the Gender Variation in Learning Preference Profile results could be implemented in Saudi Universities.

Our study population will now include randomly selected first year medical students from King Saud University, King Abdulaziz university as well as continuing a case study with the Al Faisal University subjects as they progress.

This study will provide a better insight for medical educators in improving the way in which information is transmitted.

REFERENCES
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