



Entrustable professional activities in medical students: a Systematic Review

Submission by Batch 02, 4th Year MBBS

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Background

1. The EPA criteria have given rise to the concept of Outcome-Based Education (OBE) against the traditional Time-Based Education (TBE) implied to achieve levels of entrustment. (1)
2. Many residency programs have successfully been incorporating EPA's in medical education at graduate level. (2)
3. However, not much work concerning EPA's has been done at the undergraduate medical education (UME).

Objectives

- To summarize and contrast evidence about EPAs in UME
- To identify gaps in current research about EPAs in UME
- To suggest further directions of research in the subject matter.

Methods



- 2 Databases: PubMed & Google Scholar
- Search conducted in August
- Strategy: Entrustable professional activit* AND ((student*, medical) OR (undergrad*)) and all other relevant terms
- Review conducted according to PRISMA
- Initial search results = 324
- Screening by 2 researchers
- Discrepancies solved by another researcher
- Data extracted and compiled

What are EPA's?

A set of **13 Core Activities** that describe the minimal skill requirement for a Medical/Surgical residency in America for a Graduate

A few examples:-



History Taking

Performing a Medical Exam

Diagnostics

Inclusion Criteria

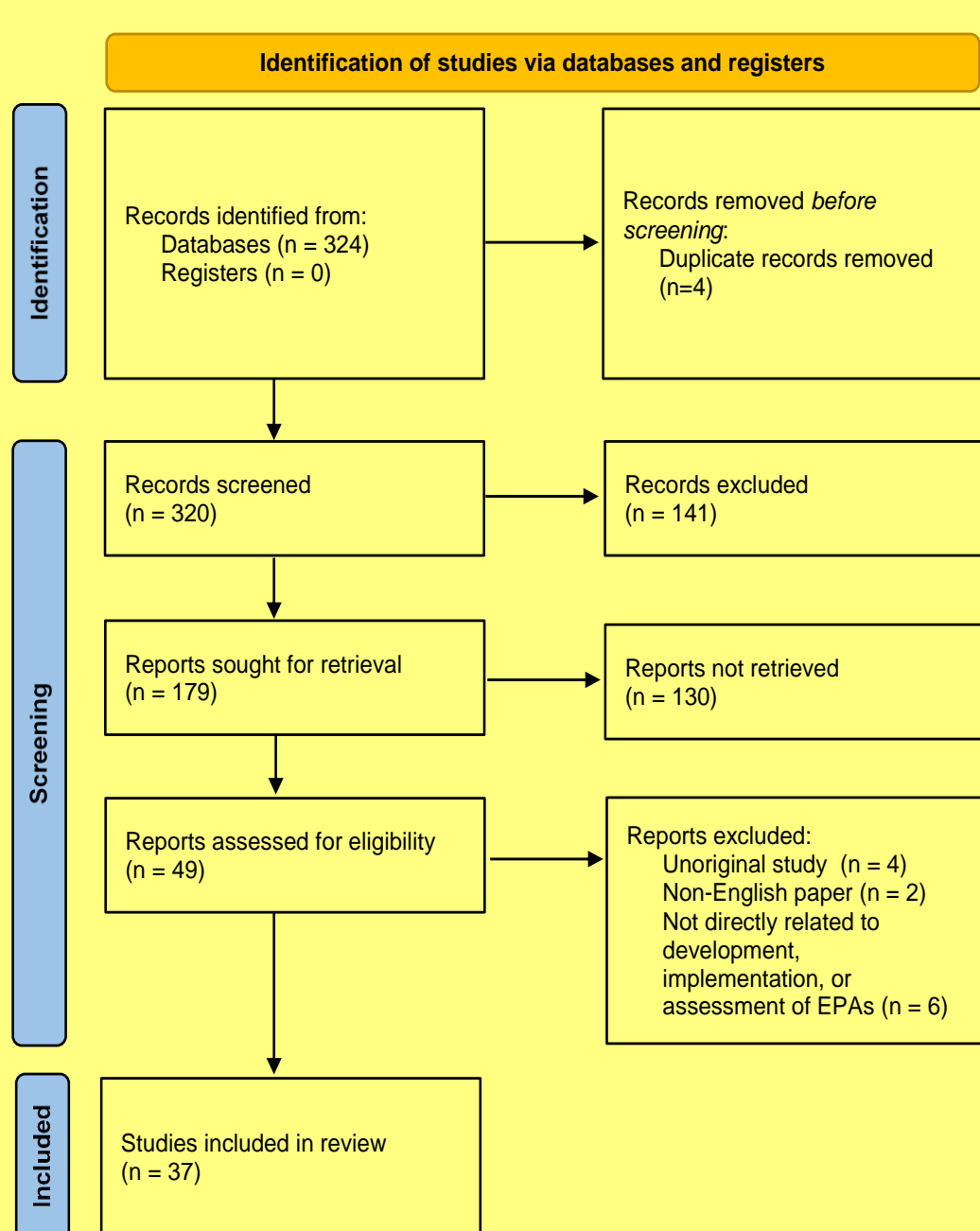
- Original Article
- English language or English translation available
- Focused on EPA development, implementation & assessment at UME level

Exclusion Criteria

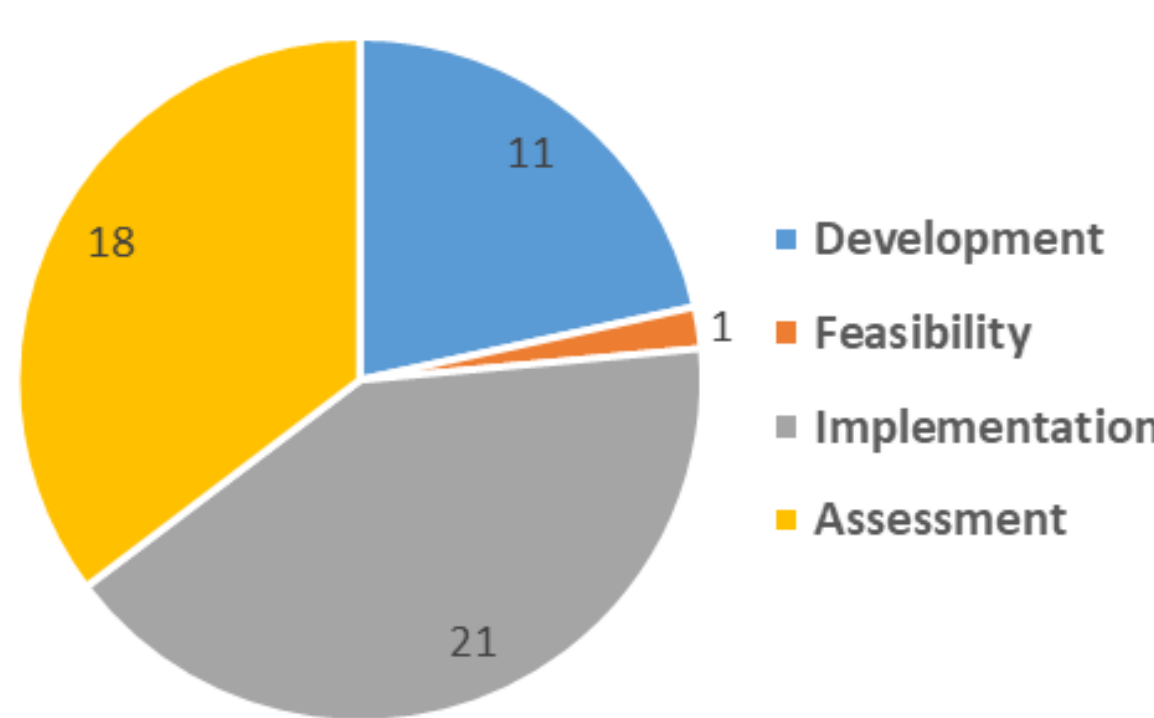
- Unoriginal Articles
- Focused only on Development
- Based on other professions
- Conclusion unrelated to aim of our study
- Based on medical graduates

Results

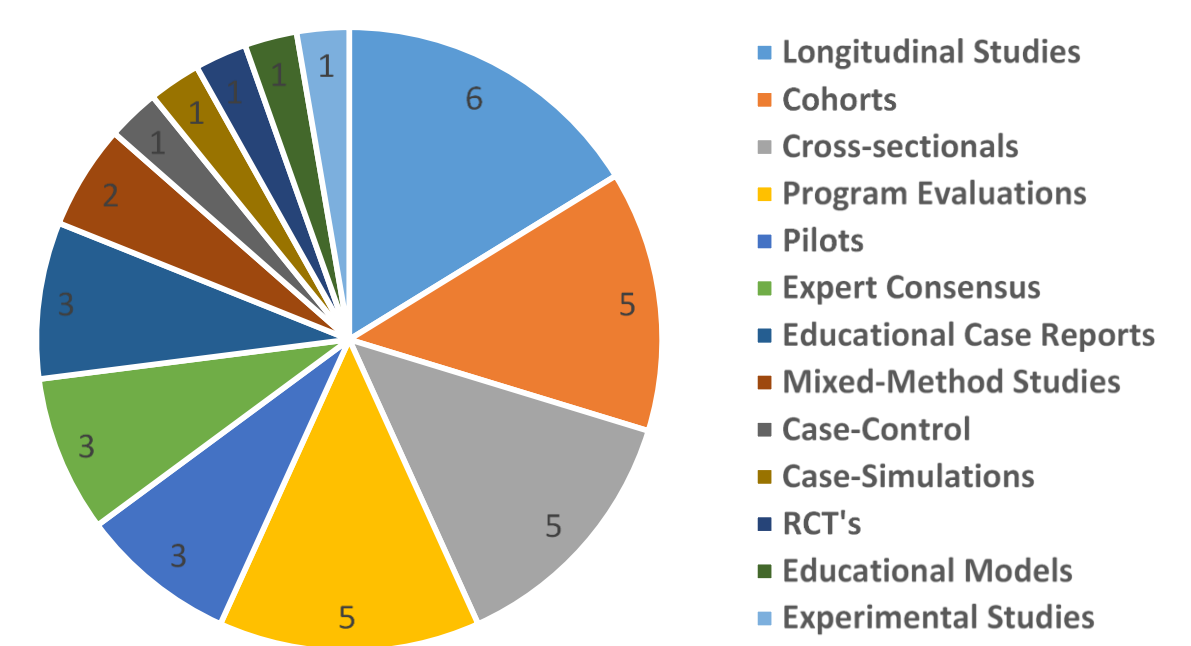
- Out of the initial 324 search results, 37 were included in the final review.
- Various study characteristics were categorized as depicted.



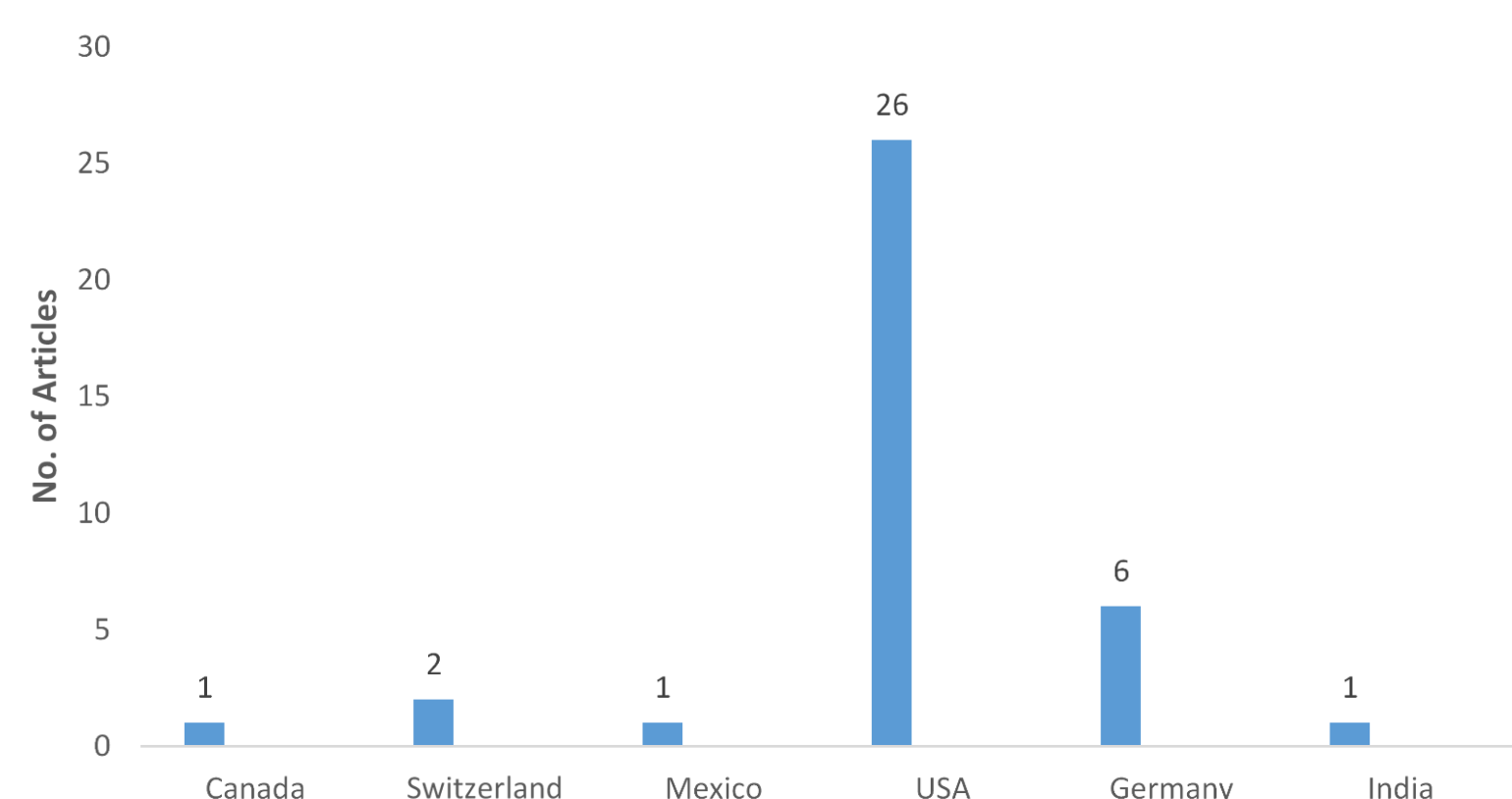
Aspects discussed in articles



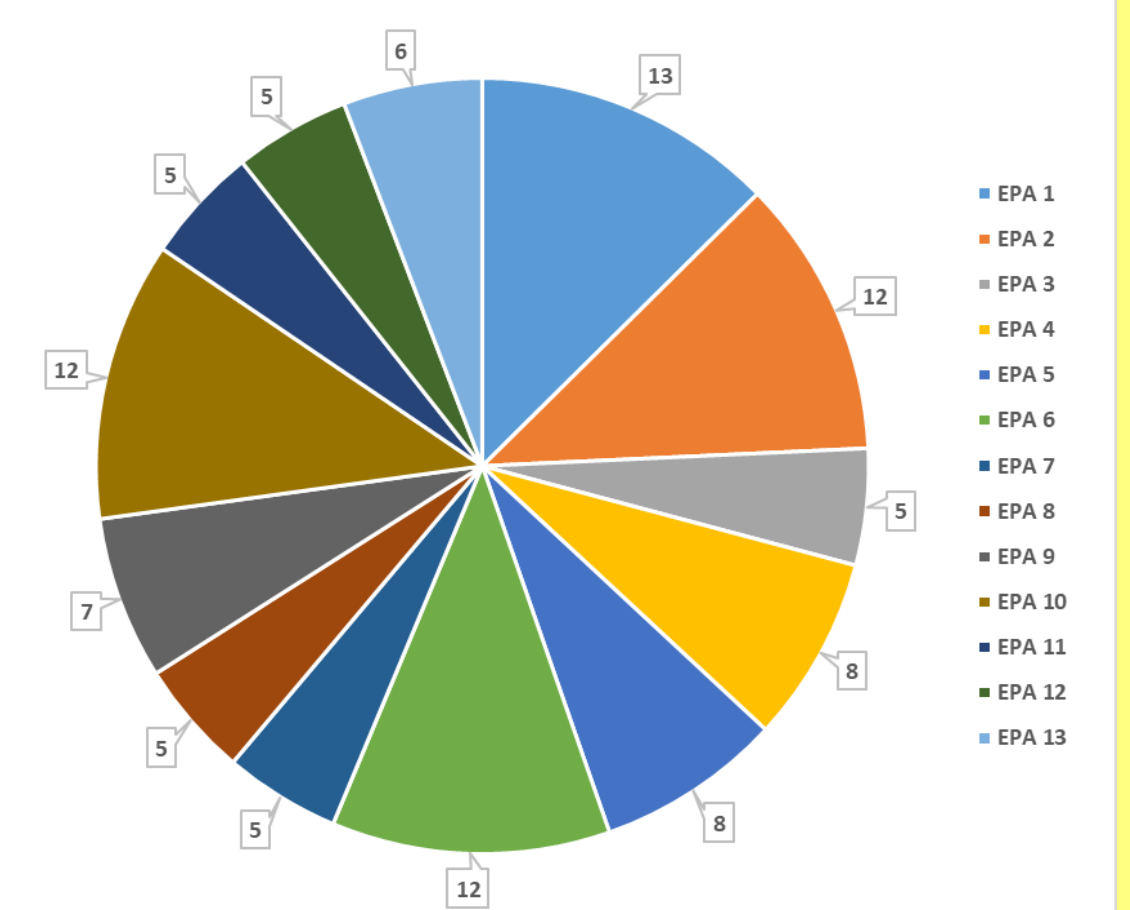
Study Designs



Distribution among Countries



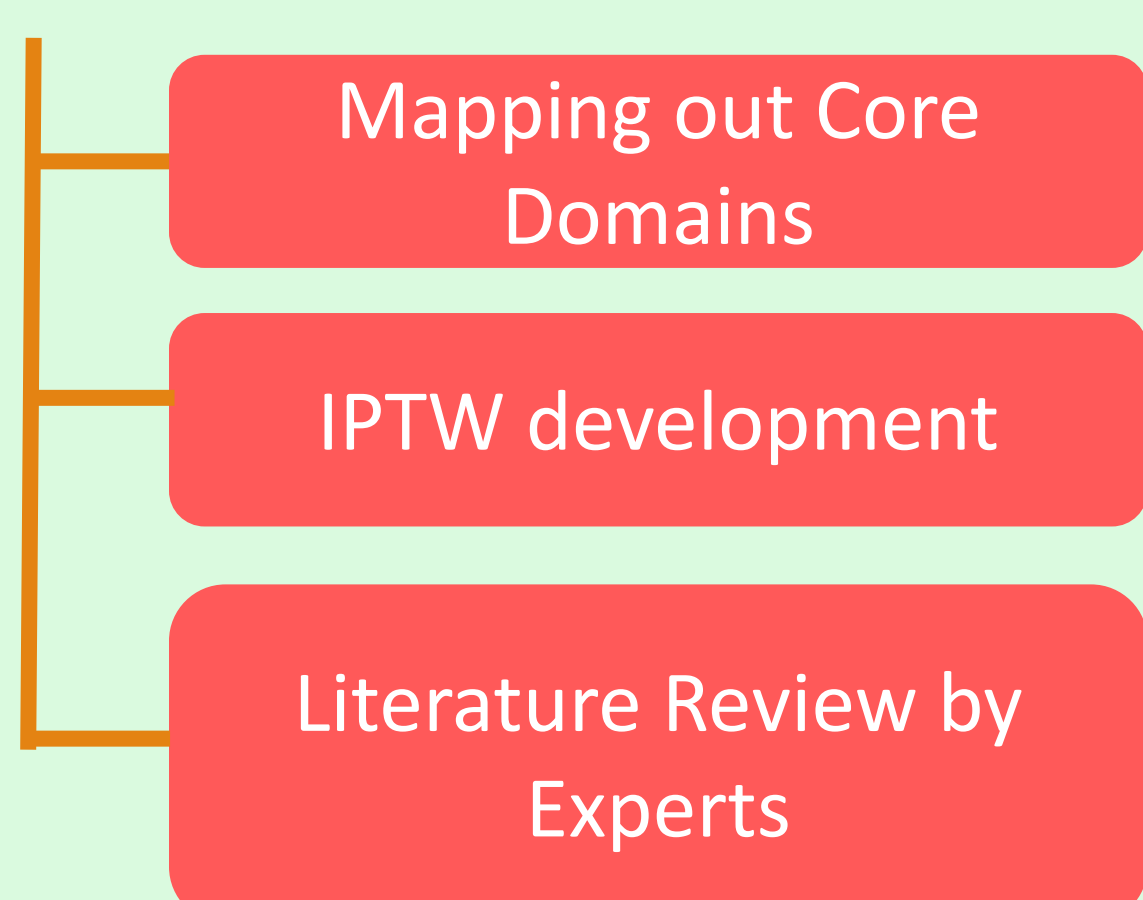
Articles discussing Core EPA's



Development

Discussed in 11 Articles

- Developing new EPA's



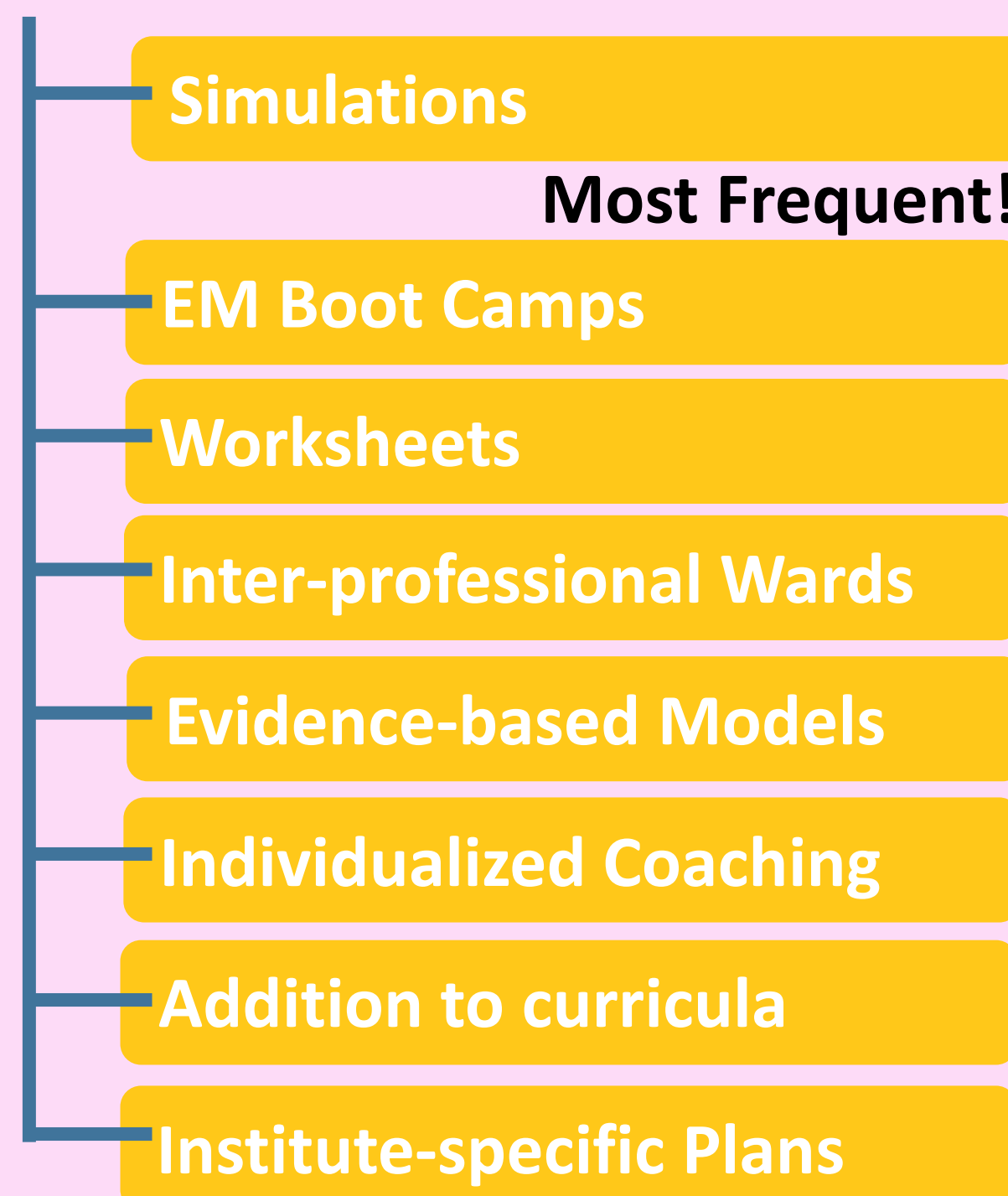
- Developing EPA-based Curricula



Implementation

Discussed in 21 Articles

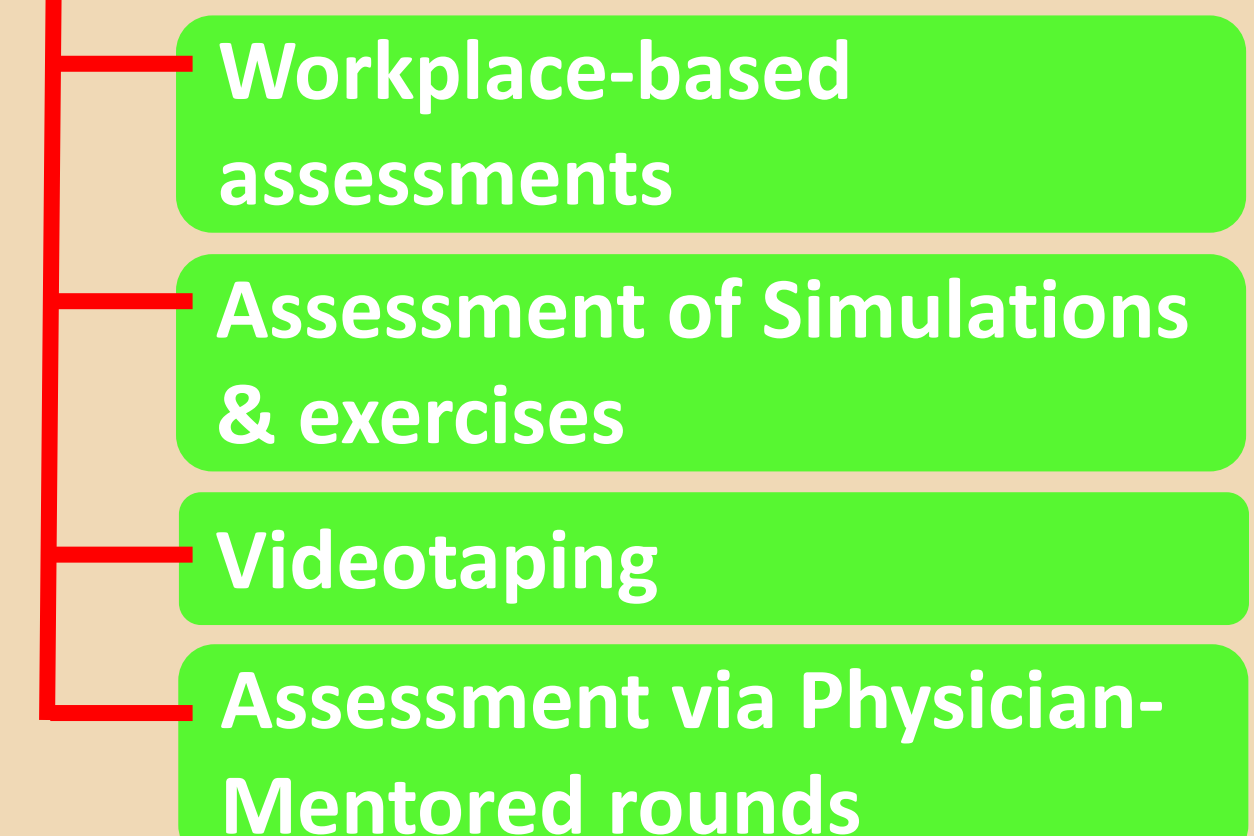
- Various Methods Implied



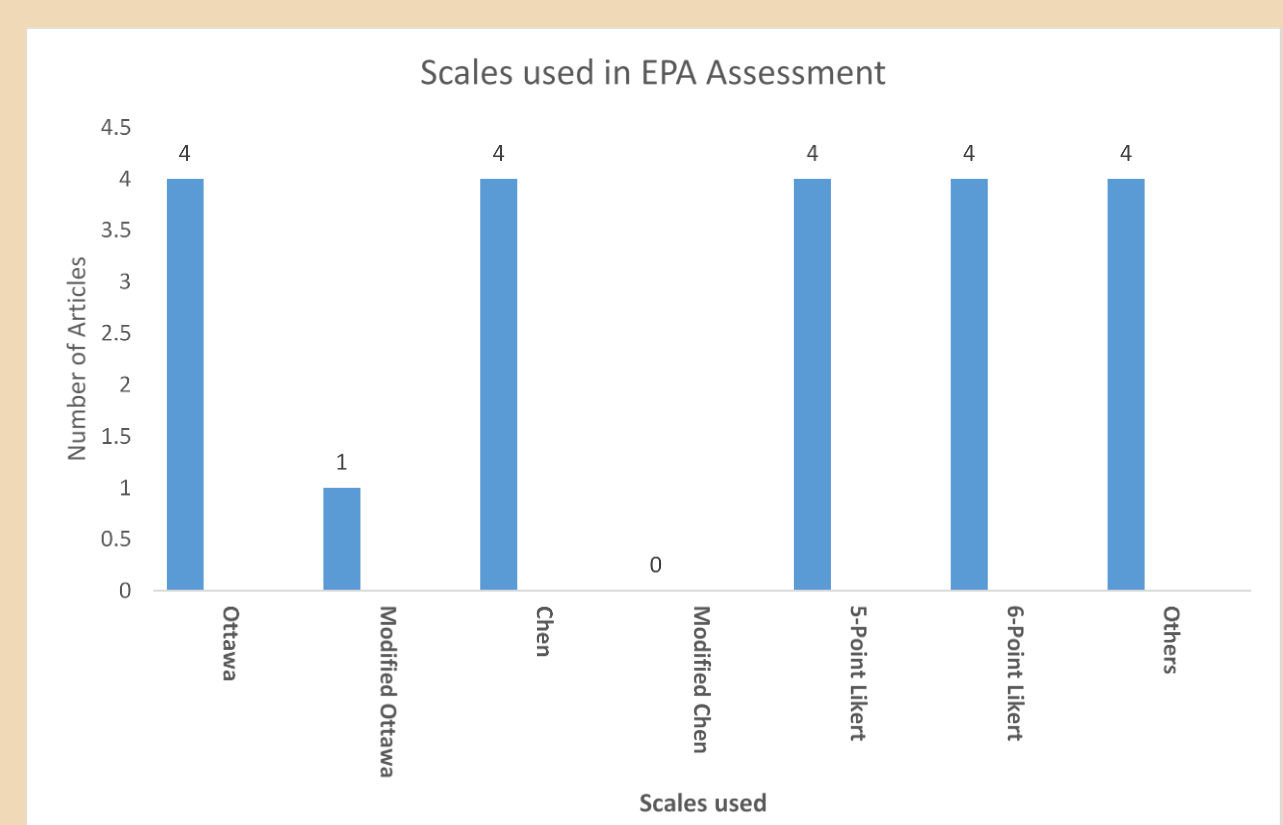
Assessment

Discussed in 18 Articles

- Important modes of assessment enlisted below.



- 4 Assessment scales used



Conclusions

- Positively significant results indicate that EPA's can serve as a very useful tool for the betterment of UME.
- The various methods of EPA Development, their Implementation in UME and assessment of entrustment levels should prove to be very helpful.

Limitations

- Disparity in Study designs
- High country-specificity
- Lack of standardized results
- Lack of EPA-focused work
- Lack of Controlled Trials
- Language barriers

References

1. Tanaka A et al. Development of entrustable professional activities for residents rotating nephrology department in a Japanese university hospital: a Delphi study. *BMJ Open*. 2021 Aug; 11(8):1-7.
2. Liu L et al. An update on current EPAs in graduate medical education: A scoping review. *Med Educ Online*. 2021 Dec;26(1):1-10.