



Medical and Health Professional Education  
Best Evidence Medical Education

## BEME Spotlight 33

### Dynamics of career choice among students in undergraduate medical courses. A BEME systematic review.

Querido SJ, Vergouw D, Wigtersma L, Batenburg RS, De Rond MEJ, Ten Cate TJ,

#### Review citation

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#### Review website

<http://bemecollaboration.org/Published+Reviews/BEME+Guide+No+33/>

#### Keywords

Medical students, Undergraduate students, Medical school, Career decision-making, Career preferences, Career choice, Systematic literature review

#### Headline conclusions

Our results support that medical career decisions are formed by a matching of perceptions of specialty characteristics with personal needs. However, the process of medical career decision-making is not yet fully understood. Besides identifying possible predictors, future research should focus on detecting interrelations between hypothesized predictors and identify the determinants and interrelations at the various stages of the medical career decision-making process.

#### Background and context

Because of the lack of a theoretically embedded overview of the recent literature on medical career decision-making, this study provides an outline of these dynamics. Since differences in educational routes to the medical degree likely affect career choice dynamics, this study focuses on medical career decision-making in educational systems with a Western European curriculum structure.

#### Review objectives

This literature synthesis was conducted to address the following research questions:

1. What factors have been studied that may be associated to medical career decision-making in undergraduate medical students?
2. How can the associated factors be embedded in a theoretical framework to explain career choice dynamics?

#### Review methodology

**Search Strategy:** A search of Embase and Medline, January 1<sup>st</sup> 2008 to November 1<sup>st</sup> 2014, was undertaken to identify studies focusing on career preferences and choices of medical students. We developed a search strategy which is shown in table 1. Search terms had to be present in title or abstract. In addition, the reference lists of all included studies were hand searched for supplementary relevant studies.

## Inclusion and Exclusion Criteria applied to potentially relevant studies to determine the suitability for data synthesis.

	Inclusion criteria	Exclusion criteria
Population	Medical students	Health professional students other than medical
	One-tier undergraduate course according to routes 1 and 2*	Medical courses with other routes*
Outcome	Study of factors associated with medical career preferences or choices	Studies that did not investigate associations with career preferences or choices (e.g., evaluation of educational programs, reasons for burn-out of medical students)
Study type	Observational study design	Review
	Scientific articles	Editorials, comments, or opinion pieces
	Articles in the Dutch, English, or German language	Articles in other languages

**Data Extraction:** A data extraction was performed by dividing the selected papers among a panel of seven assessors (SQ, DV, OtC, LW, MdR, PH and RB). Each paper was assessed by two researchers, independently synthesizing data regarding study design, study characteristics, methodological quality, and findings, using a data extraction form. Levels of methodological quality were defined according to Soethout et al. (2004); and previously used by Ariens et al. (2001).

**Data Synthesis:** The search strategy identified 1483 unique results in Medline and 76 in Embase, resulting in a total of 1559 papers. After screening titles and abstracts for relevance, 1274 articles were excluded. A total of 284 papers was obtained in full-text. After full-text evaluation 225 papers were excluded because they did not fit the inclusion criteria. The additional check of the reference lists of all identified papers yielded three supplementary papers that were not identified by searching the electronic databases. Therefore final selection included 57 papers suitable for data synthesis.

## Implications for practice

- Recent literature does not provide sufficient insight into the interrelations of hypothesized predictors of medical career preference/choice and therefore the medical career decision-making process is not yet fully understood.
- Future research on medical career decision-making should focus on: (1) detecting interrelations between hypothesized predictors, (2) the determinants of specialty preference at the various stages of the medical career decision-making process, and (3) the stability of specialty preferences of medical undergraduate students.
- Medical faculty boards and curriculum committees need to be aware of the potential impact of medical school characteristics on the medical career decision-making process of undergraduate medical students.
- Medical students should be guided in their decision-making process by stimulating them to gain (clinical) specialty experiences, to discover personal career needs, and the matching of both in order to come to an efficient and realistic career choice.

## References

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