

Systematic review and meta-synthesis - challenges and problems during professional development of pharmacy preceptors



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Conclusion

Demands for increasing the performance of pharmacists are directly related to the role of pharmacists in the modern age, where they are expected to have a range of competencies, skills and abilities in a real work environment. **Critical thinking skills are indispensable in the daily practice of pharmacists, and not enough attention has been paid to them as part of professional development programs for pharmacists and preceptors.** This conclusion was revealed by a qualitative method, systematic review and **meta-synthesis**.

Introduction

The process of transformation of pharmacy is closely related to the professional development of pharmacists, with the aim of increasing their competencies and performance. The biggest changes in this process are related to the education of pharmacists, both through undergraduate teaching and through lifelong learning, which includes learning through practice and continuing education, which is especially important for young pharmacists.

The aim of the research was to identify the most common challenges and problems faced by pharmacists and preceptors during professional practice through a systematic review and meta-synthesis.

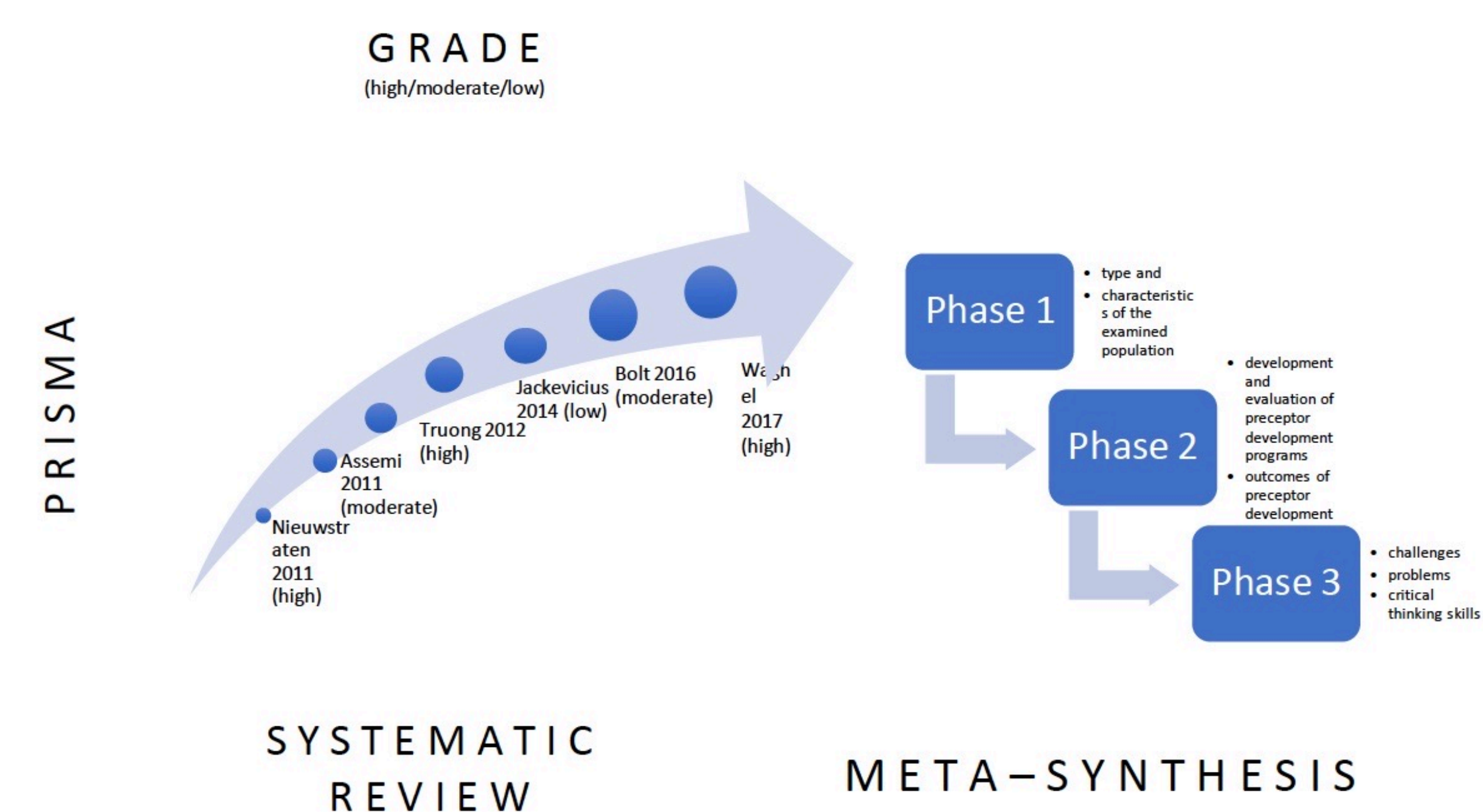


Figure 1. Systematic review and meta-synthesis of six publications from 2006 to 2020 which considered the development and evaluation of professional development programs for pharmacists and preceptors

Results

Six publications were selected (by the PRISMA method) and analyzed (Table 1). Assessed quality of three studies was high, two were assessed as moderate, and one study had low quality. The publications were studied through three phases as a part of meta-synthesis. Phase 1 showed the difference in the type and characteristics of the examined population. In Phase 2, two descriptive topics of importance were identified: (a) development and evaluation of preceptor development programs and (b) outcomes of preceptor development programs. The results of Phase 3 provided three major analytical topics for the preceptor development programs in the future that pharmacists and preceptors face: (a) challenges, (b) problems, and (c) critical thinking skills.

References

Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Int J Surg*. 2010;8(5):336–41.

Dijkers M. Introducing GRADE: a systematic approach to rating evidence in systematic reviews and to guideline development. *KT Update*. 2013;1(5):1–9.

Thomas J, Harden A. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC medical research methodology*. 2008;8(1):1–10.

Nieuwstraten C, Huh A, Liu G, Davis K, Dolovich L. Developing, implementing, and evaluating a formal pharmacist mentorship Program. *The Canadian journal of hospital pharmacy*. 2011;64(2):124.

There is no conflict of interest.

Methods

The research included a systematic review (PRISMA method) and meta-synthesis of selected publications (6 of the initial 133) for the period from 2006 to 2020 (Figure 1). The included publications were considering the development and evaluation of professional development programs for pharmacists and preceptors; challenges and problems faced by pharmacists in these programs. The quality ranking of 6 selected publications was performed according to the GRADE methodology. **Further systematic search of data from selected publications was performed by meta-synthesis, which included the extraction of important determinants, and afterwards the thematic analysis in identifying the characteristics of the study, descriptive and analytical topics, which provided the basis for meta-synthesis of de novo topics.**

Table 1. Characteristics of selected publications for systematic review and phases of meta-synthesis

Reference	Phase 1		Phase 2		Phase 3	
	Type of study	Characteristics of pharmacists	Development and evaluation of preceptor development programs	Outcomes	Challenges	Problems
Nieuwstraten 2011	Descriptive, pilot Canada	Preceptors and interns	Development, implementation and evaluation	Higher self-confidence, job satisfaction and professional development	Communication Confidence Incentives Team work	Time Documentation
Assemi 2011	Cross-sectional USA	Preceptors and students	Evaluation and identification of pharmacists' needs	Higher self-confidence, self-evaluation skills, critical thinking and problem solving skills. Positive influence of students.	Need for practice learning Communication Motivation	Documentation Critical thinking skills
Jackevicius 2014	Descriptive USA	Senior and junior teachers	Development, implementation and evaluation	Better connection between mentor and mentee Interest in learning Better research, planning for CPD and projects	Initiative Selfmotivation Experience	Lack of senior academic mentors
Bolt 2016	Prospective Canada	Preceptors	Development and evaluation	Identified different practices Higher interest and competencies in pharmaceutical care and management.	National online development programs and implementation	Lack of standardisation in preceptors competencies.
Truong 2012	Prospective Canada	Preceptors	Identification of pharmacists' needs	CPD Effective preceptor Intern influence in daily practice	Knowledge sharing Update in profession Integration of interns Reflection Networking Experience	Workload Problematic interns
Waghel 2017	Prospective USA	Preceptors and students	Development and evaluation	Interest for precepting Good relationship Enjoyment of live seminars		Time Scheduling Communication

Assemi M, Corelli RL, Ambrose PJ. Development needs of volunteer pharmacy practice preceptors. *American journal of pharmaceutical education*. 2011;75(1).

Truong C, Wyllie A, Bailie T, Austin Z. A needs assessment study of hospital pharmacy residency preceptors. *The Canadian journal of hospital pharmacy*. 2012;65(3):202.

Jackevicius CA, Le J, Nazer L, Hess K, Wang J, Law A V. A formal mentorship program for faculty development. *American Journal of Pharmaceutical Education*. 2014;78(5).

Bolt J, Baranski B, Bell A, Semchuk WM. Assessment of preceptor development strategies across Canadian pharmacy residency programs. *The Canadian journal of hospital pharmacy*. 2016;69(2):144.

Waghel RC, Wilson JA, Battise DM, Frye J. Reflections on a year-long student and pharmacist paired mentorship program. *Currents in Pharmacy Teaching and Learning*. 2017;9(4):713–8.