

The development of non-clinical skills in pharmacy residency programs – a realist synthesis

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Introduction

SHPA Pharmacy foundation residency program

- The foundation residency training program has been implemented in approximately 43 Australian hospitals.
- Evidence for residency outcomes is limited as well as knowledge about underlying reasons for outcomes.

Aim

- to explore outcomes (O) achieved by residency programs in general, and the contexts (C) and mechanisms (M) that influence and contribute to these outcomes (O), answering what works, for whom, in what circumstances and why.

Methods

- A realist synthesis of peer-reviewed and grey literature was conducted to establish causal relationships for outcomes of pharmacy residency programs.
- This was supplemented by focus groups and interviews with 12 foundation residency graduates about their experience and perceptions of residency outcomes.

Findings

- Configuring contexts, mechanisms and outcomes, applying realist logic, several casual relationships promoting residents' skill development were identified, particularly for **non-clinical skills such as research, teaching and leadership**.

1. Growths in research skills

- Research – Outcomes (O):
 - designing and conducting research projects
 - participation in and completion of research project
 - Manuscript submission & publication rate

Mechanisms

2. Facilitating the residents' understanding and participation in research tasks as they may be foreign to the residents

B. Holistic experience for resident to understand and practice the teaching and leadership philosophies

Contexts

1. Mentors with research skills and experienced in publication

A. Formalised curricula and rotation in teaching and leadership during residency training

Outcomes

3. Higher research project completion and project publication rate by the residents

C. Development of teaching and leadership skills

Figure 1: Summary of CMO

➤ Contexts:

- Outcomes positively influenced by the availability of mentors with relevant research skills and experience in conducting research and publishing.

➤ Mechanisms:

- Mentors facilitate residents' understanding of research, assist in conducting and reporting projects (M).
- Graduate residents mentioned the need for support with tasks they are not familiar with.

“A lot of pharmacists do a lot of research on quality improvement but don't take the extra steps or know the extra steps to actually piece it together....”

- The support from mentorship increases residents' research completion and publication rate

2. Growths in teaching and leadership

➤ Outcomes:

- Development of teaching and leadership skills.

➤ Contexts:

- Influenced by the availability of formalised training opportunities.
- Curricula and rotations in teaching and leadership, often supported by collaboration with universities.

➤ Mechanisms

- Provide holistic experience for residents to understand the philosophies underpinning teaching and leadership, practice in real-life situations.

Graduate resident:

“yeah it's a similar thing for me that I got an opportunity to be exposed to things that I will not necessarily get a chance to be exposed to like outside of your regular clinical work and clinical learning ... without residency I wouldn't get to see that. ...”

- Formal training and practice opportunities in teaching and leadership are needed for the ongoing development these skills.

Discussion & Conclusion

- This realist synthesis explains how and why residents' development of non-clinical skills is enhanced by engaged, skilled mentors and additional formalised learning, increasing the self-efficacy and competence of residents.