Identifying gaps in intern pharmacist
Continuing Professional Development reflections

BRINDHA KSHIRSAGAR, Tina Brock, Kirstie Galbraith, Michelle Vienet

Experiential Development and Graduate Education (EDGE), Faculty of Pharmacy and Pharmaceutical Sciences, Monash University

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Lifelong Learning in Pharmacy
Background

Pathway to becoming a pharmacist in Australia

1. Pharmacy degree (four years)
2. Intern pharmacist through accredited program (one year)
3. Registered Pharmacist
Background

Why do intern pharmacists write reflections?

The Pharmacy Board of Australia

• Requires pharmacists and intern pharmacists to complete continuing professional development (CPD) to maintain competence in practice. (1)

• Pharmacists develop a CPD plan “through self-reflection against the National Competency Standards Framework for Pharmacists in Australia and identification of knowledge gaps to be addressed through CPD.”(1)

• The Board views “self-reflection…. [as] essential to developing and refining skills” for intern pharmacists. (2)
Background

The Monash University Pharmacy Intern Training Program (ITP) requires intern pharmacists to:

Complete a written reflection following completion of each CPD activity.

Interns use a template for writing reflections, addressing four criteria:

• Describe important learning points
• Apply new knowledge to practice
• Identify gaps in knowledge
• Identify specific goals for addressing knowledge gaps

Anecdotal experience shows scope for improvement in written reflections by interns particularly in writing goals to address knowledge gaps
Background

At present, intern pharmacists receive variable and unstructured feedback on CPD reflections in the tutors own personal style.

Importance of feedback

- Feedback is an essential component of learning and development. (1-7)
- Effective feedback depends on timing, the way it is given and whether students engage with feedback. (1,6)
- Formative feedback improves learning by influencing behaviour. (1,7)
- Structured feedback framework leads to higher quality, constructive feedback. (8)

Background
Research project

Step 1: Identify gaps in intern pharmacist CPD reflections

Step 2: FEEDBACK - Implement structured feedback set to occur through online platform at set time points throughout the year

Step 3: Compare this to current system of feedback delivery (paper-based/ tutors own style). Include a comparator group (online/ tutors own style)

Step 4: Measure feasibility and degree of improvement in CPD reflections over the course of the year. Measure degree of difference between groups.
Objective & Methods

Objective
To identify gaps in intern pharmacist continuing professional development (CPD) reflections, and to propose strategies for improvement.

Methods
• Ethics approval
• Recruitment of intern pharmacists
• Audit of intern pharmacist CPD reflections against an assessment rubric by two pharmacists
Method

Recruitment: 67 interns were initially recruited.

- **One**: Did not complete reflection in time
- **Two**: Prior to completing reflection.
Method & Results

- Two markers
- Each intern received a mark out of twelve against assessment rubric
- Four criteria in rubric (mapped to criteria interns are asked to address in reflection)
  - Describe important learning points
  - Apply new knowledge to practice
  - Identify gaps in knowledge
  - Identify specific goals for addressing knowledge gaps
- Each criteria out of three

Marker 1: *Mean mark* = 6.42

Marker 2: *Mean mark* = 5.98
Results
For a clear idea of the spread of marks, they were standardised using z-score (Mean = 0).
Results breakdown

While results have shown that there is an overall need for improvement in intern pharmacist CPD reflections, the breakdown of marks is shown below.
Strategies for improvement

• Implement structured feedback for the interns using a framework similar to that used with Monash University Pharmacy Undergraduates (KEEP/START/STOP).

• Deliver feedback through various methods (current system versus feedback framework).

• Intervention & comparator group interns to engage with feedback and write action plan.

• Intervention group tutors trained to encourage intern pharmacists to write SMART (specific, measurable, achievable, relevant, timely) goals.

• Assess reflective abilities of different groups at baseline, and track progress over the course of the year and on completion of CPD.

• Measure feasibility and the difference in intern pharmacist reflective abilities between groups receiving variable types of feedback, and if present, measure the size of the difference.
## Progress

Identifying gaps in intern pharmacist CPD reflections

<table>
<thead>
<tr>
<th>Group</th>
<th>Study population (N= number/set)</th>
<th>How feedback will be given</th>
<th>Interns Respond to feedback? (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Cn) x 2 sets</td>
<td>Intern (N=10-11)</td>
<td>Mode</td>
<td>Feedback type</td>
</tr>
<tr>
<td></td>
<td>Tutor (N=1)</td>
<td>Paper</td>
<td>Unstructured</td>
</tr>
<tr>
<td>Intervention (I) x 2 sets</td>
<td>Intern (N=10-11)</td>
<td>Moodle</td>
<td>Structured</td>
</tr>
<tr>
<td></td>
<td>Tutor (N=1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparator (C) x 2 sets</td>
<td>Intern (N=10-11)</td>
<td>Moodle</td>
<td>Unstructured</td>
</tr>
<tr>
<td></td>
<td>Tutor (N=1)</td>
<td></td>
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</tr>
</tbody>
</table>
Conclusion

Identifying gaps in intern pharmacist CPD reflections

• Intern pharmacists are required to complete a written reflection for each CPD activity they complete.

• Anecdotal experience reveals that there is a gap in intern reflective abilities that needs to be addressed.

• Now data also shows us that there is scope for improvement in intern pharmacist CPD reflections.

• The next step was implementing a means for improving intern pharmacist CPD reflections—will report on these results on completion of data collection.
Questions?