BACKGROUND

- Polypharmacy is common in multimodal older adults.
- 20-80% of older adults take potentially inappropriate medications (PIMs).
- Polypharmacy and PIMs have been associated with reduced quality of life, increased risk of falls, hospitalizations and mortality.
- Discontinuing PIMs is associated with a decrease in risk of falls, falling and healthcare system costs, and may aid in improving overall health and quality of life.

Deprescribing is the process of withdrawal of an inappropriate medication, supervised by a healthcare professional with the goal of managing polypharmacy and improving outcomes.

New practitioners lack confidence and competence in this skill and accreditation standards for health trainees currently do not address deprescribing.

OBJECTIVE

To assess healthcare trainees performance on a clinical deprescribing case and to explore their perspectives on needs and resources necessary to successfully deprescribe in practice.

METHODS

Study Design: Observational, cross sectional study utilizing a questionnaire to assess preparedness, confidence and attitudes of health professions trainees towards deprescribing, as well as their perceptions of interprofessional roles in the process. The study was approved as an exempt study by the Virginia Commonwealth University (VCU) IRB.

Participants and Recruitment: 482 first year trainees from the Schools of Medicine, Pharmacy and Nursing enrolled in an interprofessional capstone course at VCU were emailed the survey.

Survey Development: A survey was designed to assess attitudes, preparedness and confidence towards deprescribing based on a thorough literature review. Face validity was established by expert review and usability by pilot testing with trainees.

The final version of the survey included 43 questions over 5 sections:

- Preparedness
- Confidence
- Attitudes toward deprescribing
- Interprofessional role in the deprescribing process and a clinical case in knowledge (Figure 1).

The clinical case was graded 0-20, with a maximum being worth 5 points. An incorrect answer was a 0.

A, any option could be valid since this is an opinion question.

In addition to the survey questions and the clinical case, 2 open ended questions about needs and resources for successful deprescribing were asked of students.

LIMITATIONS

- Low survey response rate (82 usable surveys from 482 class participants).
- Two questions on the clinical case were opinion-based and therefore all multiple choice answers could have been acceptable.

RESULTS

Sample

A total of 100 responses were received of which 82 were usable, yielding a response rate of 17%. 40% of participants training in medicine, 31% in pharmacy and 29% in nursing. The median (50%) age of participants was 28 (23-35) and 61% were female.

Clinical Cases

Clinical case did not differ across trainee groups nor between those who felt and who didn't feel able to identify PIMs, confident to deprescribe, and comfortable deprescribing in clinical practice (Tables 1-4).

Table 1: Clinical case median scores across healthcare trainees.

<table>
<thead>
<tr>
<th>Training</th>
<th>Medicine (n=32)</th>
<th>Pharmacy (n=20)</th>
<th>Nursing (n=27)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median (IQR)</td>
<td>20 (15-20)</td>
<td>15 (15-20)</td>
<td>20 (15-20)</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Table 2: Clinical case median scores per self-reported ability to identify PIMs – I am able to identify PIMs in clinical practice.

<table>
<thead>
<tr>
<th>Training</th>
<th>Strongly Agree/ Agree (n=27)</th>
<th>Neutral (n=27)</th>
<th>Strongly Disagree/ Disagree (n=27)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median (IQR)</td>
<td>20 (15-20)</td>
<td>20 (15-20)</td>
<td>20 (15-20)</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Table 3: Clinical case median scores per self-reported confidence to deprescribe PIMs – I am confident in my ability to deprescribe PIMs in clinical practice.

<table>
<thead>
<tr>
<th>Training</th>
<th>Strongly agree/ Agree (n=22)</th>
<th>Neutral (n=37)</th>
<th>Strongly disagree/ Disagree (n=32)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median (IQR)</td>
<td>20 (15-20)</td>
<td>20 (15-20)</td>
<td>20 (15-20)</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Table 4: Clinical case median scores per self-reported comfort to identify PIMs – I feel comfortable deprescribing PIMs in clinical practice.

<table>
<thead>
<tr>
<th>Training</th>
<th>Strongly agree/ Agree (n=22)</th>
<th>Neutral (n=37)</th>
<th>Strongly disagree/ Disagree (n=32)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median (IQR)</td>
<td>17.5 (15-20)</td>
<td>17.5 (15-20)</td>
<td>17.5 (15-20)</td>
<td>0.18</td>
</tr>
</tbody>
</table>

NEEDS FOR DEPREScribing

To enhance deprescribing, trainees need:

- Additional experiential (clinical, didactic and interprofessional training) and curricular education (case activities, discussions, lectures, interprofessional training), family knowledge about medications and designing a deprescribing plan, and enhanced communication (Tables 5).

Table 5: Students' reported needs to be able to successfully deprescribe.

<table>
<thead>
<tr>
<th>Main Themes</th>
<th>Examples</th>
<th>Median (IQR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curricular education</td>
<td>An Rx review or extra lab activities to apply specific deprescribing methods to actual patients. Providing ongoing practice sessions during the clerkship portion where we practice deprescribing problematic situations.</td>
<td>20 (15-20)</td>
</tr>
<tr>
<td>Experience education</td>
<td>Few reflected issues of barriers and harms on the lists of each day. New students take time to become familiar with the current systems and processes of the institution.</td>
<td>20 (15-20)</td>
</tr>
<tr>
<td>Resources for deprescribing</td>
<td>E.g., communicative skills and empathy. trainees in deprescribing situations. The deprescribing process is made easier by the physician based on evidence presented by patients.</td>
<td>20 (15-20)</td>
</tr>
<tr>
<td>Knowledge and skills</td>
<td>E.g., working with residents on cases designed to stimulate conversation about how to deprescribe and how to deprescribing in the practice.</td>
<td>20 (15-20)</td>
</tr>
<tr>
<td>Enhanced communication</td>
<td>We think each practice setting will allow for best practices for deprescribing. Sharing open communication among all healthcare disciplines is critical.</td>
<td>20 (15-20)</td>
</tr>
</tbody>
</table>

REFERENCES


4. New practitioners lack confidence and competence in this skill and accreditation standards for health trainees currently do not address deprescribing.

CONCLUSIONS

- Additional interprofessional deprescribing education and training should be implemented to better prepare trainees to deprescribe in practice.

- Improving trainees knowledge and implementation of deprescribing and providing resources to successfully deprescribe medications may translate into changes in clinical practice and population health as these trainees move into the workforce.

- In the future, we hope deprescribing is added as an integral piece in accreditation standards for health professional students, including pharmacy.