Assessing the impact of using video application as a learning method for the Top 250 Drugs

William Zehnder, PharmD Candidate
Noyon Shoudho, PharmD Candidate
Stephanie Hunziker, PharmD, BCMTMS

Introduction
- Learning about the top 250 drugs is a common segment in many pharmacy school’s curriculum
- Memorization of the top 250 drugs is important for Advanced Pharmacy Practice Experiences and beyond
- Common ways of studying include Quizlet, flashcards, and repeatedly writing the information
- Many students struggle finding the best way to study and feel inadequately prepared for the drug quizzes
- Studies show immersive simulations have had an overwhelming amount of positive feedback from students

Objective
- Assess student confidence and knowledge with the top 250 drugs before and after the use of video application
- Assess how students feel about utilizing an online healthcare simulation compared to traditional study tools

Methods

Study Design
- 5 interactive videos were developed and made available during to third year pharmacy students
- Pre- and post-survey were administered to students to assess drug knowledge, study methods, and usefulness of the review videos.
- Anonymous student responses to questions about time spent, confidence, and knowledge of the Top 250 Drugs.
- Anonymous student responses to questions about the utilization and impact of using video application as a learning method for the top 250 Drugs.

Study population
- Third year students enrolled in the Southern Illinois University of Edwardsville School of Pharmacy program

Study distribution
- Anonymous responses collected using SIUE Qualtrics survey platform
- Pre-survey was made available to students for ~7 months
- Post-survey was made available to students for ~1 month

This study underwent and received SIUE IRB approval under protocol #1749

Results
- Data for the pre-survey was collected from 54% of the third-year pharmacy students at SIUE, with 48% responding to the post-survey.
- 28.57% of students felt they had good or very good knowledge on the pre-survey, 74.19% felt they had good or very good knowledge on the post-survey.
- 14.29% of students reported feeling confident or very confident after using a video application on the pre-survey, 70.97% felt confident or very confident after video on the post-survey.
- 70.97% of students spent less than four hours studying for the cumulative drug exam, 29.03% spent four to ten hours studying.
- 22.8% of students said the video application increased their study time, 74.19% said it did not increase or neutrally affected their study time.
- 74.19% of students reported feeling satisfied with the videos, 25.81% felt neutral, with no students reporting dissatisfaction with the videos.

Table 1: would students recommend these videos to others/Should school use similar videos in the future?

<table>
<thead>
<tr>
<th>Survey question</th>
<th>Yes</th>
<th>No</th>
<th>Neutral/Not Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you recommend these videos to other students?</td>
<td>80%</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td>Should the school use similar videos in the future?</td>
<td>97%</td>
<td>0%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Figure 1: Student Confidence on Taking Cumulative Drug Exam (Post-Video Application)

- 21% Very Confident
- 35% Confident
- 43% Neutral/Not Always
- 1% Very Unconfident

Figure 2: Time Students Spent Studying for Drug Exam

- 71% > 10 Hours
- 35% 4-10 Hours
- 3% <4 Hours

Conclusion
- Using video application as a learning method for the top 250 drugs increases student confidence and knowledge
- Video application does not increase time spent studying for the exams, but does increase student perception of preparedness, this suggest it may be a more time efficient way for students to prepare for their top 250 drug quizzes and exam
- Student satisfaction level with the video application was high
- Many students would recommend the videos to their peers and are in favor of the school continuing the use of interactive videos in the future
- Future research will benefit from an expanded population size to further assess the impact of using video application as a learning tool for the top 250 drugs

Table 2: Student Preparedness Level for Cumulative Top 250 Drug Quiz

<table>
<thead>
<tr>
<th>Level of Preparedness</th>
<th>Pre-Survey</th>
<th>Post-Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>11.43%</td>
<td>2.23%</td>
</tr>
<tr>
<td>2-4</td>
<td>37.14%</td>
<td>9%</td>
</tr>
<tr>
<td>4-6</td>
<td>42.86%</td>
<td>19.33%</td>
</tr>
<tr>
<td>6-8</td>
<td>8.57%</td>
<td>38.11%</td>
</tr>
<tr>
<td>&gt;8</td>
<td>3%</td>
<td>38.11%</td>
</tr>
</tbody>
</table>

References