Dicipher: Assessing Drug Information Skills Through Gaming

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BACKGROUND
- Team-based learning (TBL) pedagogy has been utilized for teaching drug information with positive feedback.
- AACP has encouraged serious educational games in pharmacy education to develop and strengthen skills relevant to real world scenarios.
- An escape room game was implemented by Eukel et al. to teach diabetes.

METHODS
- The students were split into groups of 5 to 6 from June to August 2017.
- A series of puzzles and clues were provided to retrieve the DI questions pertaining to a topic not taught in pharmacotherapy.
- Patient simulation rooms were used to observe students and communicate with preceptor if assistance with clues were needed.

RESULTS
A total of 15 APPE students participated in the challenge and 14 students filled out the survey.
- All P4 pharmacy students took a drug information course prior to enrollment into the APPE rotation.
- Practice with DI questions were provided during the month in the Drug Information Center.

DISCUSSION
- One group out of three answered all of the DI questions correctly and retrieved the antidote.
- The other groups answered three out of five questions correctly.
- The students’ positive feedback found the challenge assessed their DI knowledge in a fun and novel setting.
- Changes for future implementation included:
  - A pre-test that featured similar DI questions
  - A safe with a combination code instead of lock box

FUTURE DIRECTIONS
- Dicipher was implemented in Drug Information course in Spring 2018 with third year students.
- Also, utilized to teach high school students at summer camp.
- Expansion to other health care related areas (medical, nursing, etc.)
- Evaluation of DI skills of pharmacists compared to students.
- Assess efficiency, accuracy, problem solving skills and teamwork.

TABLE 1. Perspective of Challenge

<table>
<thead>
<tr>
<th>Item</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The challenge promoted active learning while assessing my knowledge of DI resources</td>
<td>7.14</td>
<td>7.14</td>
<td>85.6</td>
</tr>
<tr>
<td>I worked well with my group members to solve the clues and research the DI questions</td>
<td>14.2</td>
<td>7.14</td>
<td>78.5</td>
</tr>
<tr>
<td>The challenge allowed for appropriate delegation of tasks within a small group and facilitated teamwork</td>
<td>14.29</td>
<td>14.29</td>
<td>71.4</td>
</tr>
<tr>
<td>The challenge identified certain DI resources that I need additional practice using</td>
<td>0</td>
<td>28.6</td>
<td>71.3</td>
</tr>
</tbody>
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REFERENCES