



TRANSFORMING TOXICOLOGY LANDSCAPE FOR SAFER AND SUSTAINABLE TOMORROW

## POSTER PRESENTATIONS

### [ID-P#011] Engaging Healthcare Providers in Clinical Toxicology: Innovative Approaches Using Gamification

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**Introduction and Aim:** The use of gamification has gained popularity as an effective method for teaching various subjects, including clinical toxicology. Healthcare professionals often struggle with the extensive and intricate information in clinical toxicology. In response, Stellenbosch University developed three educational games to make learning in this field relevant and enjoyable. These included a card game, a digital game, and a board game. The aim of these games is to foster collaboration and communication among players, nurturing essential skills like teamwork and critical thinking.

**Methods:** The first game, Paracelsus, used cards to teach about poisoning and treatments. It had two decks: one for poison exposures and another for treatments. Participants enjoyed the game because it was fun and competitive, unlike traditional lectures. They suggested creating a digital version to reach more people and increase interactivity. During the COVID-19 pandemic, when in-person meetings were not possible, Toxicolitaire™ was developed. This online game aimed to be as engaging and competitive as traditional toxicology games. It helps healthcare professionals learn, test their knowledge, and prepare for assessments. Players suggested increasing the game's difficulty to simulate real emergencies, leading to the development of Toxi Trails, a board game designed to challenge players with tough, time-sensitive clinical toxicology decisions.

**Results:** Players found the games amusing and noted they stimulated critical thinking. The games also aided independent learning and helped identify gaps in toxicology knowledge. Interestingly, participants preferred the physical games over the digital version. Overall, they praised the games as excellent tools for medical professionals and expressed a strong inclination to recommend them to colleagues.

**Discussion and Conclusion:** Integrating gamification into clinical toxicology education offers innovative strategies to engage healthcare providers effectively, promoting engagement, critical thinking, and knowledge retention. This approach holds promise for advancing healthcare practices and improving patient outcomes.