Antimicrobial Stewardship Game

Developing a Board and Online Game to Educate on Antimicrobial Resistance and Stewardship

Introduction

Few existing studies highlight that AMS games can be an innovative way of spreading awareness on AMR.

Effective training and capacity building are vital to the success of stewardship programmes, particularly when staff are new to the concept. The AMS game is intended to make stewardship training engaging and inclusive, generating fun and enthusiasm with a serious purpose and clear outcomes.

Independent evaluations of these games demonstrate that they can improve knowledge and encourage beneficial changes in thinking and behaviour [14].

Development Approach and assessing user feedback

The game was developed by the Commonwealth Partnerships for Antimicrobial Stewardship Programme (CwPAMS), led by the Commonwealth Pharmacists Association (CPA) and Tropical Health and Education Trust (THET) in partnership with Focus Games Ltd. The CPA was the overall technical lead for developing the antimicrobial stewardship concepts (questions and answers) used in the game. Focus Games Ltd. was responsible for programming the AMS concepts into a playable game. THET's coordination expertise was leveraged in bringing together relevant partners to support the development of the game.
The game was co-created between partners in the UK and eight African countries that were part of the CwPAMS programme to ensure that the game is relevant, effective, and was designed to be used in either a high-income or low- to middle-income setting. The four broad areas addressed in the game are introduction to antimicrobial resistance and stewardship, appropriate use of antimicrobial agents, infection prevention and control, and stewardship and surveillance.

Twenty-seven stakeholders ranging from national to frontline health professionals, including pharmacists, doctors, and nurses across nine countries (Ghana, Kenya, Malawi, Nigeria, Sierra Leone, Tanzania, Uganda, United Kingdom, and Zambia), were consulted on the style of game, the questions, and case studies to include in the AMS game.

The AMS game was launched in August 2021, and then played again during the World Antimicrobial Awareness Week in November 2021 as part of a global tournament

The game was hosted on Zoom. Players were allocated to different breakout rooms with facilitators. 120 players from 13 countries participated.

Feedback from Players of the Game

We collected feedback from individuals who played the AMS game on 24 November 2021. The feedback was collected using an online questionnaire with quantitative and open/free response text-based options hosted on Survey Monkey.
User feedback: www.mdpi.com/2079-6382/11/5/611/htm

Knowledge and confidence gain after playing the game.

	Number of Respondents	Percentage (%)
Know more about AMS after playing the game	n = 74	
Strongly disagree	6	8.1
Disagree	3	4.1
Neither disagree nor agree	9	12.2
Agree	35	47.3
Strongly agree	21	28.4
More confident about AMS	n = 73	
Strongly disagree	4	5.5
Disagree	3	4.1
Neither disagree nor agree	8	11
Agree	41	56.2
Strongly agree	17	23.3

Results /Assessing impact

Board game for face-to-face learning.

Traditional tabletop game for groups working face-to-face.
Encourages collaborative team discussions.
Generates fun and enthusiasm with a serious purpose and clear outcomes.

Online for socially distanced learning.

Digital board game replicates the intensity of face-to-face on Zoom, Skype & Teams.
Can be used for remote learning or socially distanced face-to-face sessions. Just share your screen with the group, wherever they are.

Conclusions

We provide a documentation of the process of developing a board and online game on antimicrobial resistance and stewardship; and its potential to educate diverse health care teams in high or low-to-middle- income countries.

The game was co-created with a diverse group of stakeholders including national and frontline health professionals from high- and low-income countries. The feedback from the initial players (health professionals) of the game highlighted that the game is enjoyable. Also, that it provides an innovative and engaging opportunity for the players to discuss topics in AMR and AMS; whilst improving and strengthening their knowledge of key topics.

Further studies will be useful in evaluating the impact of the AMS game as an educational tool for antimicrobial resistance and stewardship.

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www.amsgame.com

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