Healthcare learner perspectives on virtual simulation games as an educational approach to address vaccine hesitancy: a qualitative inquiry

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Background

- Healthcare providers (HCPs) report feeling uncomfortable initiating vaccine discussions due to the erosion of trust in the healthcare system [1-3].
- We conducted a scoping review identifying HCP interventions gaps such as limited accessibility and interventions mainly medical learner targeted [4].
- Our multidisciplinary team developed three open-access virtual simulation games (VSGs) applicable to all HCP disciplines with a focus on developing and maintaining resiliency and avoiding moral distress.
- The VSGs introduce presumptive statements [5] and the **PrOTCT Framework** [6] as tools for vaccine communication.

➤ **PrOTCT: Pr**esume patient will vaccinate, **O**ffer to share knowledge, **T**ailor recommendations to address specific **C**oncerns, **T**alk through a plan.

Objectives

1. Explore HCP learners' personal experiences with vaccine education and vaccine discussions.
2. Conduct a qualitative evaluation of an online learning module composed of VSGs which utilize the PrOTCT Framework for HCP vaccine communication.

Methods

- 22 healthcare learners were recruited from a larger study evaluating the effectiveness of the VSGs following completion of the modules.
- Participants attended one of three discipline-specific focus groups (December 2022-January 2023).
- Focus group discussions were recorded, transcribed using Rev.com, and reviewed for accuracy.
- Iterative thematic analysis [7] was used to organize responses into themes and subthemes.

Learner Demographics
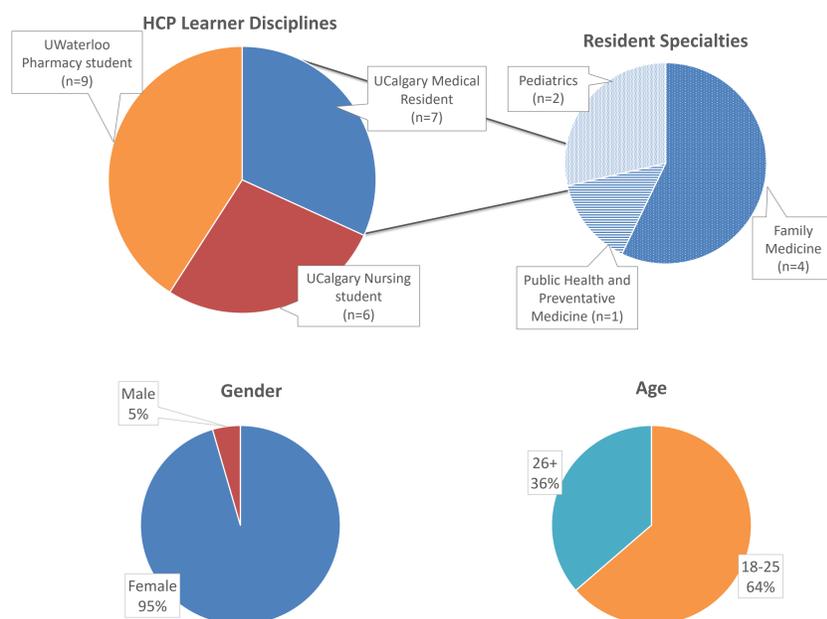
Themes

Theme 1: HCP learners' prior education lacked practical training on having difficult conversations with patients, resulting in uncomfortable personal experiences discussing vaccines.

Theme 2: The VSGs increased confidence in holding vaccine conversations by providing novel tools and transferrable skills.

Theme 3: Participants provided feedback to improve the VSGs which was incorporated prior to dissemination to all HCP professions.

Learner Perspectives

1a: Prior education was didactic lacking training on communication skills and presumptive statements.
1b: Felt uncomfortable and unprepared to have challenging vaccine conversations with patients, fearing it would hinder the therapeutic relationship.
1c: Were motivated to complete the VSGs due to the importance of vaccine communication skills in their daily practice.

2a: The VSG content is multidisciplinary and applicable to many different patient scenarios (various vaccines, medications).
2b: The emphasis on HCP resilience and coping strategies brought a unique and often overlooked approach for HCP's dealing with challenging conversations.
2c: Participants felt presumptive statements and the PrOTCT Framework were novel and useful tools for engaging with patients.

3a: The VSGs were enjoyable, interactive, patient-oriented, and engaging through real-life scenarios and first-person perspectives.
3b: The VSGs were knowledge agnostic and complemented existing theoretical knowledge.
3c: Suggested modifications to games and topics for future games.

Discussion

- HCPs are still the most trusted source of vaccine information.
- Learners in this study reported receiving little training on how to engage in challenging vaccine conversations.
- The PrOTCT Framework and presumptive statements act as novel strategies for HCP to initiate vaccine conversations.
- Participants appreciated the emphasis on coping strategies and resilience.
- HCPs must be provided both opportunities (such as with the VSGs) to practice managing these conversations, and the tools and skills to succeed at an early point in their careers to prepare them for future roles in vaccine advocacy, delivery, and promotion.

Learner Quotes

"...the whole vaccine program that we did in school just felt more theoretical. It was mainly based on knowledge of vaccines ... we had other courses which touched upon patient communication and how to use active listening, like those soft skills, but there's really no course that combines the two."
- 3rd year Pharmacy student

"...working in a community pharmacy, I came across many vaccine hesitant patients, and I didn't know exactly how to deal with them, so I wanted to better my own skills and be more confident in that area."
- 4th year Pharmacy student

"If you open up the record and see like, they have had no vaccines. Then all of a sudden, I'm like kind of a bit nervous (laughs) and thinking like, "Oh, gosh. How do I even have this conversation?"
- 2nd year Family Medicine resident

"...for [VSG #3] ... it didn't have a happy ending of the patient ending up with a vaccine ... if that happened in real life, I would blame myself. I would say, "If it were someone else who were better at this than me, the patient would've ended up with the vaccine." ...that made me realize like this is a professional handling it ... maybe it's not my fault that this is happening, maybe the patient just was not ready for it today."
- 4th year Pharmacy student

"I would say that the presumptive language that the module introduced was something that was also quite surprising to me, because it's definitely not an approach that I had thought about before."
- 2nd year Pediatrics Resident

"I'll take away the self-compassion piece and the piece about, you can push these conversations, but don't push your patient away. And knowing when to kind of take that step back to preserve the therapeutic relationship."
- 1st year Public Health resident

"These conversations are really balancing like the art and science of medicine. I think these modules are really good at giving an approach for developing those communication skills for having these difficult conversations with families."
-1st year Pediatrics resident

"...When we are taught therapeutic communication, you can read an entire textbook about it, but until you actually have that opportunity to do it, like in a case study, or even in real-life experiences... that's when you really start to understand the types of comebacks people might give to you, which makes it a lot more challenging."
- 4th year Nursing student

Future VSG ideas:
1. "Selective hesitancy", patients who prefer a certain vaccine brand over another.
2. "Diverse patient populations" (eg. pediatrics, pregnancy, seniors).
3. "How to answer questions about vaccine ingredients" (Pharmacy specific).
4. Vaccine specific games eg. (HPV, flu, shingles) (Resident specific).

View the VSGs online here:

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