The Impact of Technology-Based Interventions on Immunization Rates Among Generation Z College Students

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METHODS
Subjects
Students between the ages of 18 and 24 years old, spoke English, and did not have any contraindications to the immunization
Setting
At a large metropolitan Florida university
Intervention
The QI project was implemented in partnership with SHS and the local DOH:
• The current HPV educational information was merged with educational material on hepatitis A on the SHS website
• An online appointment form and link was created on the SHS website
• An infographic was created and disseminated via the University’s student organization Facebook pages, outreach events, and the SHS university email

RESULTS
Event A, B, and C observed count (n = 99) was lower than the expected count (132). Similarly, during the post event, only 44 students (24.75%) were expected to be vaccinated: this was lower than the observed count of (n = 77). The Chi-squared test indicated the relationship between the current event and past events to be significant, \( \chi^2(1) = 56.8, P = .05 \) indicating technology to play a role in vaccine uptake

DOH Event-Post Evaluation Form Demographics and Likert Scale

<table>
<thead>
<tr>
<th>Age</th>
<th>Ethnicity</th>
<th>Gender</th>
<th>Appointment Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 years</td>
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<tr>
<td>19 years</td>
<td>Asian</td>
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<td>Phone</td>
</tr>
<tr>
<td>20 years</td>
<td>Other</td>
<td>Male</td>
<td>Online</td>
</tr>
<tr>
<td>21 years</td>
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<td>Female</td>
<td>Phone</td>
</tr>
<tr>
<td>22 years</td>
<td>Female</td>
<td>Male</td>
<td>Online</td>
</tr>
<tr>
<td>23 years</td>
<td>Female</td>
<td>Female</td>
<td>Phone</td>
</tr>
<tr>
<td>24 years</td>
<td>Female</td>
<td>Female</td>
<td>Online</td>
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</tbody>
</table>

Creating an appointment with the SHS was an easy process
• Message conveyance through social media impacted me to get vaccinated
• The educational booth influenced me to get vaccinated
• The infographic handed out during the educational booth and/or online was helpful

Participation increased with age. Surprisingly, most of the students who participated were Asian, despite the fact, 51% of the college is represented by Whites and only 6% by Asians

Online scheduling was slightly lower than traditional methods of walk-in and over the phone scheduling

DISCUSSION
This project demonstrates how a multi-prong approach provides a method of obtaining both quantitative and qualitative data
Student recommendations still insisted more utilization of social media via (1) Facebook and (2) Instagram for message conveyance
Educational booths present the ability for the project coordinator to gain insight of the target population behavior, attitudes, and experiences which would otherwise be lost through online platforms

The students who participated at the DOH vaccination event were either unvaccinated or undervaccinated. For this reason, it is highly unlikely that any vaccination event had a positive influence on the SHS vaccine numbers post the DOH event

IMPLICATIONS FOR ADVANCED PRACTICE NURSING
• The project makes important contributions to the literature regarding HPV and hepatitis A uptake among minorities and international students
• Interventions are needed to educate unvaccinated students and international students regarding the availability of vaccines and the resources provided by the SHS
• Culturally targeted messaging may modify vaccine related beliefs and promote future event participation

SUSTAINABILITY
Findings suggest that disseminating material through social media and online scheduling appears to be a promising approach to increasing vaccine uptake. Further research is needed to assess the relationship between technology and vaccine uptake at the SHS. The findings from this project can be used to refine more effective measurements for college-based e-tools

REFERENCES