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A PREEMINENT RESEARCH UNIVERSITY

## How can technology facilitate sexual and reproductive health literacy among students within the college clinic setting?

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## Presentation Objectives

1. Describe **sexual and reproductive health (SRH) needs** identified by college students
2. Describe how technology can be used to help college students in **accessing, understanding, appraising, and applying** SRH information and services
3. Discuss **implications for future research and practice** that capitalizes on technology to facilitate SRH literacy

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## Let's Start at the End!

### Key Findings

- An eHealth app has the potential to address college students' SRH needs
- Technology can:
  1. Streamline access to services
  2. Centralize SRH information
  3. Facilitate patient-centered communication during visits



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**Background:**  
**Sexual and Reproductive Health & College Students**

- College students are at increased risk for sexually transmitted infections (STIs) and unintended pregnancy
- Low SRH literacy and high risk-taking behaviors contribute to risk
  - Unique developmental time within the life course (e.g., exploration)
  - Lack of knowledge about sexual health, including misconceptions and misinformation
  - Unprotected sexual activity (e.g., lack of condom and contraception use)

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**Background:**  
**Technology / eHealth and Health Literacy**

- Technology is a promising approach for improving health literacy among college students
  - Widespread access and use (93% own personal computer, 82% own a phone)
  - Majority use internet for health information; SRH information is most widely searched health topic
- Technology can improve patient activation, patient engagement, patient-provider communication and quality of care

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**Parent Study Objectives**

Aim 1.

Explore the integration, functionality and intervention characteristics/preferences for a potential technology-based intervention to address SRH needs among college students

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Aim 2.

Design and pre-test a technology-based prototype to evaluate its acceptability and feasibility to address the SRH needs among college students

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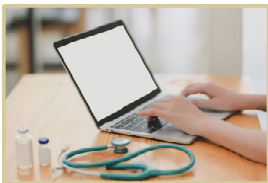
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## Purpose

To explore how student health services on a college campus could use technology to facilitate SRH literacy

*Note: This analysis used health literacy data collected from both Aim1 and Aim 2.*



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## Methods

- Quantitative Data: Brief online survey
  - Socio-demographics, including sexual health behavior
  - Technology Acceptance Model
- Qualitative Data: In-depth interviews
  - Integrated Model of Health Literacy
  - Audio-recorded and transcribed
  - A priori and emergent themes
  - Intercoder agreement
- Data represent 55 students who participated in interviews in both Aims



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## Methods

**Setting**


- College students at a large metropolitan university

**Recruitment**

- Study flyers, email announcements, campus-wide social media postings
- Inclusion: 1) currently enrolled student at main campus; 2) ≥ 18 years old; 3) read/speak English

**Sampling**

- Students who participated in brief survey and who expressed interest in participating in subsequent interviews were contacted



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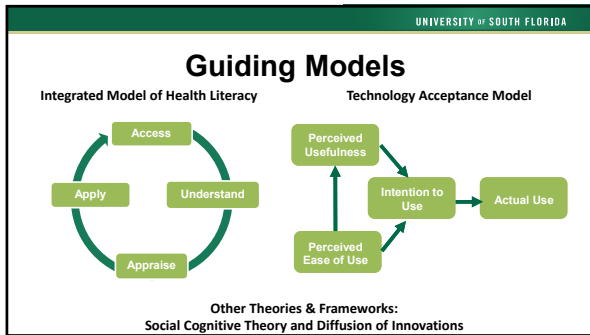
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The slide, titled "Data Collection: The 'Prompt'", is from the University of South Florida and outlines two aims: "Aim 1: Visioning (Vignette & Follow-Up Questions)" and "Aim 2: Share & Ask". It features four smartphone screens displaying different prompts. The first screen asks, "Welcome! What can we help you with today?". The second screen, titled "Click to learn more:", lists "How Birth Control Works" and "What to expect during your visit" with a "View more" link. The third screen, titled "I want to know more about STIs", explains that STIs are infections passed between people and lists symptoms, prevention, and treatment. The fourth screen, titled "I want to start, switch, or stop birth control", discusses the availability of birth control methods and offers assistance. Each screen includes a "Click to learn more" link and a list of categories: "Columbia", "Gynecology", "Birth Control", "STI", and "Sexual Health".

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The slide, titled "Key Findings", is from the University of South Florida and is currently blank, intended for the presentation of research results.

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### Participant Demographics (n=55)

- Female (71%)
- White (56%); African American (27%)
- Hispanic (19%)
- Heterosexual (73%); Sexual minority (27%)
- Single/uncommitted (42%)

\*Note: n=59 (55 unique participants; 4 participants included in both phases)

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### TAM Findings

- College students find eHealth acceptable and useful
- **Highest TAM item:** "Overall eHealth will be useful in managing my health care" (M = 4.10, SD = 0.60)
- **Lowest TAM item:** "I will find it easy to get eHealth to do what I want it to do" (M = 3.56, SD = 0.79)

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### Health Literacy Findings

**Access to Information or Services**

- eHealth app could be a reliable, private way to learn more about SRH
- Integrate the app within college clinic system:
  - Scheduling appointments
  - Completing medical history forms
  - Receiving health education and counseling

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If [the service] was something on campus you could... have an appointment creator on the app. But if it wasn't through campus that would be a little harder to do...if there was both options, you could have the appointment thing for [the university] and then just...look up what your insurance covers and... find that.

*Participant 5, Female*

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### Health Literacy Findings

**Understand** Information

- Provide infographics, videos, and images to supplement facts and statistics



LEFT UNTREATED STDs CAN CAUSE:

PREVENT THE SPREAD OF STDs WITH THREE SIMPLE STEPS: TALK TEST TREAT

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I'd say, if possible, give it a mix of video, because I feel like a visual learning ... At least for me, visual learning is very helpful when trying to learn about something new, or just trying to retain information. I would feel like start with the video, and then give ... I wouldn't say the same text, because nobody just wants to read captions, but maybe some kinda supplemental text along with the video.

*Participant 20, Male*

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### Health Literacy Findings

**Appraise Information**

- Learn about peers' SRH experiences (e.g., contraception, STI testing) through discussion boards and forums



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People could just make question threads and have other people comment. The freedom to ask whatever question they have about sex and not feel stupid. Because there's anonymity...But as long as they have somewhat of an open space to talk, ask questions like, "Hey, never dealt with this before. I'm having this, this, this and this."

*Participant 1, Female*

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### Health Literacy Findings

**Apply Information**

- Improve communication with health care providers through direct contact
- Facilitate more informed conversations during clinical visits



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If they have a piece about what to ask your doctor when you have questions... Like having an empowerment piece that can empower you to ask your own questions, or give sample ... questions, things you can ask your doctor, so you don't feel like you walked out without really finding out what's wrong with you.

*Participant 1, Female*

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### Discussion

- Findings served as critical formative research to inform development of an evidence- and theory-based SRH eHealth app prototype among college students
  - Skills related to Access; Understand; Appraise; Apply
- Next Steps
  - Elicit acceptability of an eHealth app from clinic staff and providers
  - Engage in iterative process of developing and testing theory- and evidence-based app



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### Discussion

Limitations	Strengths
<ul style="list-style-type: none"><li>• Small sample</li><li>• Limited racial and sexual diversity</li><li>• One setting (generalizability)</li></ul>	<ul style="list-style-type: none"><li>• Theoretically driven</li><li>• User-centered<ul style="list-style-type: none"><li>– Student leadership on project team (GAs)</li><li>– Elicited college students needs</li><li>– Capitalizes on widely accepted technology platform</li></ul></li></ul>

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### Conclusion

- An e-Health app has the potential to address college students' SHR needs
- Technology can:
  1. Streamline access to services
  2. Centralize SRH information
  3. Facilitate patient-centered communication during visits

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### Conclusion

This work contributes to the ultimate goals of:

- Improving patient, provider, and clinic system outcomes (e.g., satisfaction; efficiency)
- Decreasing adverse SRH outcomes among college students

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## Thank You! Questions?

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**USF Health**  
College of Public Health



**Chiles Center**  
Women, Children & Families

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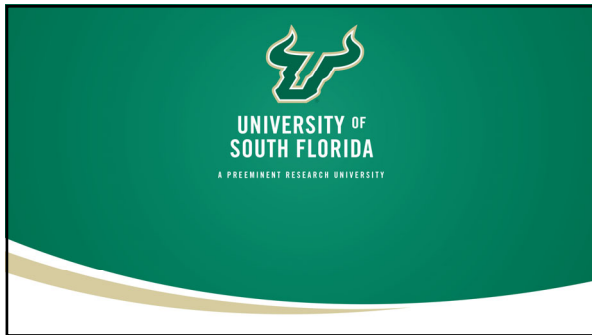
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