

# **Find-Understand-Evaluate-Communicate-Decide: Examining College Students' Sexual and Reproductive Health Literacy Skills**

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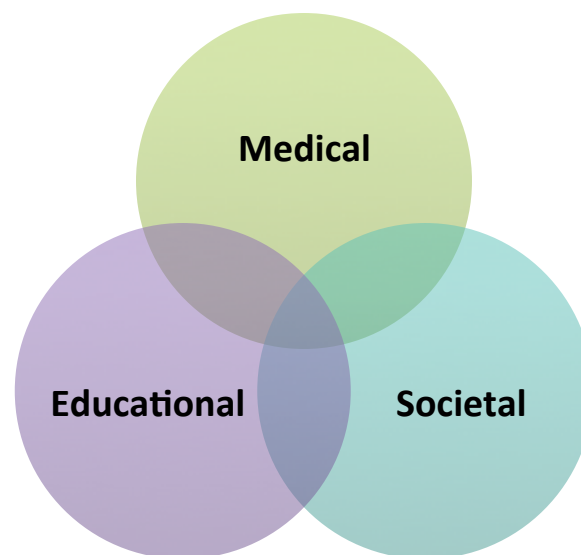
# Outline

- Background
- Purpose
- Methods
- Results
- Discussion



# Background

- Adolescents and young adults have highest rates of **STIs** and **unintended pregnancies**
  - Those age 18-24 years have the highest rates of chlamydia and gonorrhea
  - Most pregnancies among women ages 18-24 are unintended
- Sexual and reproductive health is of **public health significance** due to its association with a range of outcomes:



# Background

- College years are a critical period in the **lifecourse**
  - Becoming autonomous
  - Shaping health behaviors with varying consequences
- College students are an **at-risk population**:
  - Multiple sexual partners
  - Inconsistent condom use
  - High rates of unintended pregnancies and STIs
  - Low rates of HPV vaccination
- College students **lack knowledge and skills** needed to engage in healthy sexual decision-making

# Health Literacy

“...people’s knowledge, motivation and competencies to **access, understand, appraise,** and **apply** health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course.”

(Sorensen et al, 2012)

# Purpose

- The purpose of this study was to examine differences in sexual and reproductive health literacy skills by student characteristics.



# Methods

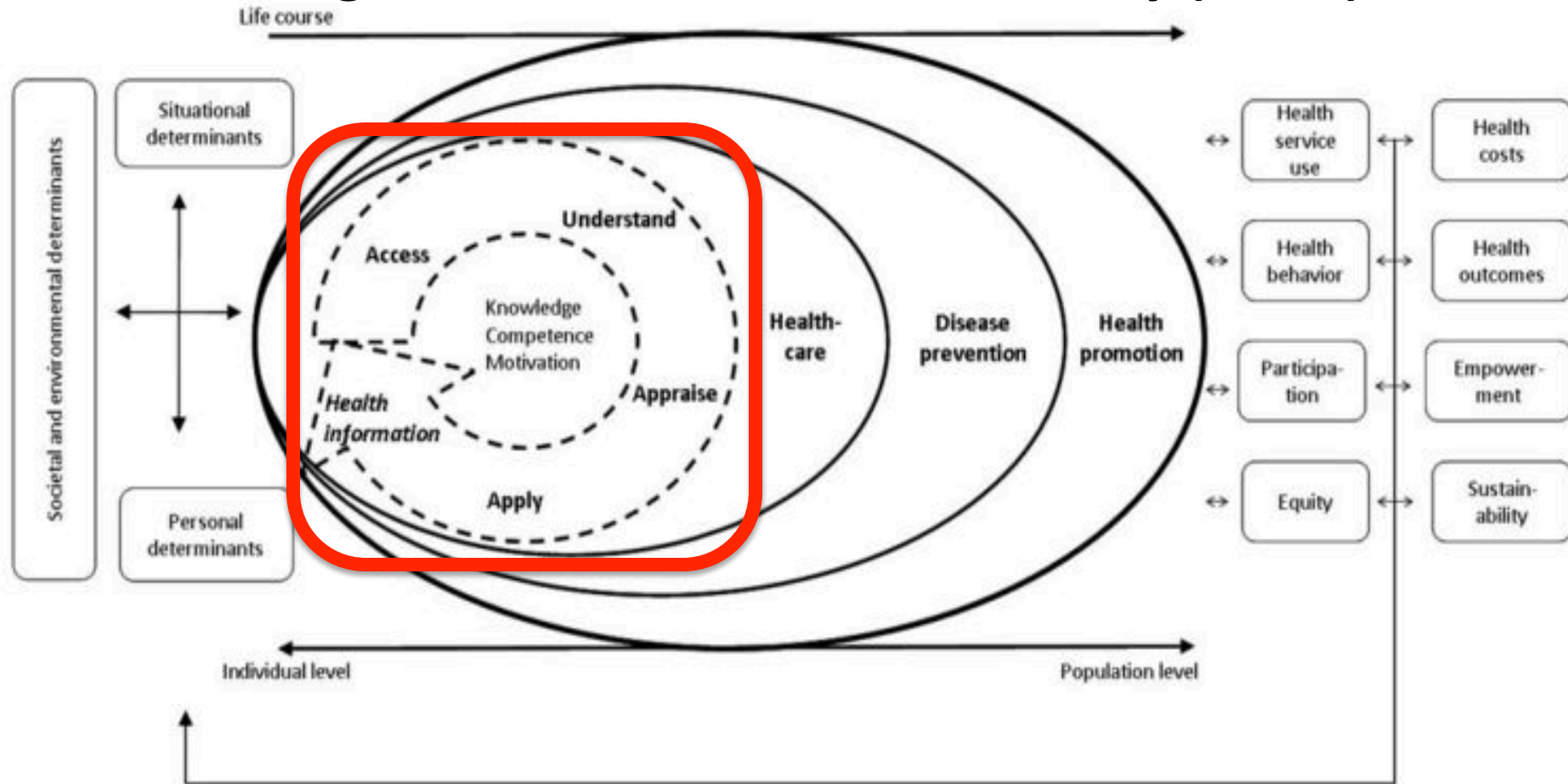
## Setting & Participant Recruitment

- Large public university in the southeast
- Recruitment – Listservs, campus events, student organizations, courses
- Inclusion Criteria
  - Currently enrolled at the university
  - Over 18 years old
- Online survey via Qualtrics
  - \$10 gift card and raffle for one of four iPads



# Methods

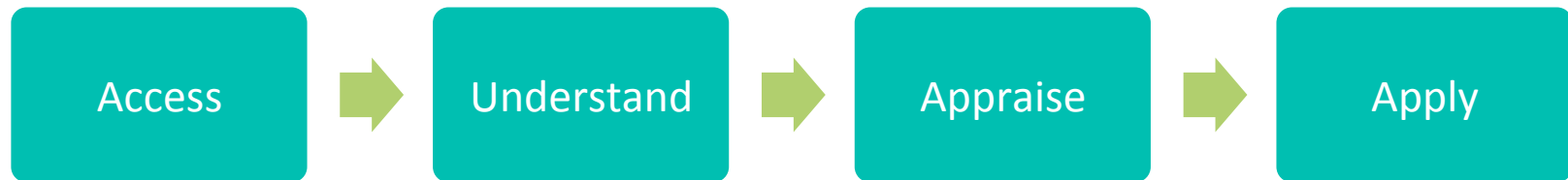
## Theoretical Framework: Integrated Model of Health Literacy (IMHL)



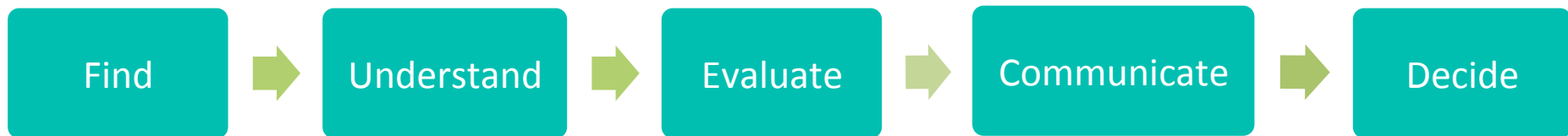
# Methods

## Operationalizing Health Literacy Domains

### IMHL Theoretical Constructs



### HLS-EU-Q Survey Domains



# Methods

## Instrument

- Part of larger college health online survey
- Items for present study guided by the European Health Literacy Survey Questionnaire (HLS-EU-Q)



# Methods

## Data Analysis

- Composite scores of sexual and reproductive health literacy skills across five domains
- Mean differences
  - ANOVA, t-tests and post-hoc tests
  - Bonferroni adjustment
- Compared health literacy by student characteristics
  - Gender
  - Race/Ethnicity
  - Relationship status
  - Student status
  - Sexual orientation
  - Sexual activity
  - Condom use
  - Source of healthcare
  - HPV vaccination status



# Results: Demographics

- Total sample n=608
- Mean age 21.4 (SD=3.7)
- Majority of participants were:
  - Women (74.2%)
  - White (59.9%)
  - Non-Hispanic (79.1%)
  - Heterosexual (80.2%)
  - In a committed relationship (40.4%)
  - Domestic students (93.2%)

# Results: Sexual Behaviors

	N (%)
Ever had vaginal sex (yes)	444 (75.6)
Ever had oral sex (yes)	481 (82.1)
Ever had anal sex (yes)	176 (30.6)
Vaginal sex past 12 months (yes)	405 (82.7)
Oral sex past 12 months (yes)	445 (90.3)
Anal sex past 12 months (yes)	106 (22.5)
Condom use at last vaginal sex (yes)	218 (48.2)
Condom use at last oral sex (yes)	38 (8.5)
Condom use at last anal sex (yes)	69 (16.6)
<b>HPV Vaccination</b>	
Yes	293 (60.7)
No	136 (22.4)
Don't know	54 (11.2)
<b>Receipt of SRH care in the past 12 months</b>	
Yes, at Student Health	116 (20.8)
Yes, Off-campus	214 (38.3)
No	229 (41.0)

# Results: Health Literacy Domain



Find

Understand

Evaluate

Communicate

Decide

- **Relationship Status**
  - Students in **committed relationship** higher scores vs. single not dating ( $p=0.009$ ) and those single/dating ( $p=0.039$ )
- **Student Status**
  - **Domestic students** higher scores vs. international students ( $p=0.000$ )
- **HPV Vaccination**
  - **Vaccinated students** higher scores vs. not vaccinated/don't know ( $p=0.028$ )
- **Source of Healthcare**
  - Students who went **off-campus for healthcare** higher scores vs. those who went to Student Health Services (SHS) ( $p=0.025$ )

No differences found by gender, race, ethnicity, sexual orientation, sexual activity, condom use.

Find

Understand

Evaluate

Communicate

Decide

- **Relationship status**
  - Students in **committed relationship** higher scores vs. single not dating ( $p=0.049$ ) and single/dating ( $p=0.003$ )
- **Student Status**
  - **Domestic students** higher scores vs. international students ( $p=0.000$ )
- **Ever had oral sex**
  - Students who had **oral sex** higher scores vs. not have oral sex  $p=0.049$ )
- **Vaginal sex past 12 months**
  - Students who had **vaginal sex** higher scores vs. not have vaginal sex ( $p=0.035$ )
- **HPV Vaccination**
  - **Vaccinated students** higher scores vs. not vaccinated/don't know ( $p=0.001$ )
- **Source of Healthcare**
  - Students who went **off campus for healthcare** higher scores vs. who received care at SHS ( $p=0.009$ )

No differences found by gender, race, ethnicity, student status, sexual orientation, and condom use.

Find

Understand

Evaluate

Communicate

Decide

- **Relationship status**
  - Students in **committed relationship** higher scores vs. single not dating ( $p=0.027$ )
- **Student Status**
  - **Domestic students** higher scores vs. international students ( $p=0.012$ )
- **Ever vaginal sex**
  - Students had **vaginal sex** higher scores vs. not had vaginal sex ( $p=0.040$ )
- **Ever oral sex**
  - Students who had **oral sex** higher scores vs. not had oral sex ( $p=0.028$ )
- **Condom use last vaginal sex**
  - Students who **used condoms** at last vaginal sex higher scores vs. did not use condoms ( $p=0.032$ )
- **HPV vaccination**
  - **Vaccinated students** higher scores vs. not vaccinated/don't know ( $p=0.008$ )
- **Source of healthcare**
  - Students who went **off campus for healthcare** had higher scores vs. those who went to SHS ( $p=0.032$ ) and who didn't receive care ( $p=0.012$ )

No differences found by gender, race, ethnicity, student status, sexual orientation, and condom use.

- **Relationship status**
  - Students in **committed relationship** higher scores vs. single not dating (p=0.007)
- **Ever vaginal sex**
  - Students who had **vaginal sex** higher scores vs. not have vaginal sex (p=0.001)
- **Ever oral sex**
  - Students who had **oral sex** higher scores vs. not have oral sex (p=0.022)
- **Vaginal sex past 12 months**
  - Students who had **vaginal sex** higher scores vs. not have vaginal sex in past 12 months (p=0.000)
- **HPV vaccination**
  - **Vaccinated students** higher scores vs. not vaccinated/don't know (p=0.013)
- **Source of Healthcare**
  - Students who went **off campus for healthcare** higher scores vs. those who did not receive care (p=0.001)

No differences found by gender, race, ethnicity, student status, sexual orientation, and condom use.

Find

Understand

Evaluate

Communicate

Decide

- **Race**
  - **Whites** higher scores vs. Asian ( $p=0.021$ ) and other/multi-race ( $p=0.002$ )
- **Student Status**
  - **Domestic students** higher scores vs. international students ( $p=0.000$ )
- **Ever anal sex**
  - Students who had **anal sex** higher scores vs. not had anal sex ( $p=0.041$ )
- **Condom use last anal sex**
  - Students who **used condoms** higher scores vs. those who did not use condoms ( $p=0.040$ )
- **HPV vaccination**
  - **Vaccinated students** higher scores vs. not vaccinated/don't know ( $p=0.000$ )
- **Source of Healthcare**
  - Students who went **off campus for healthcare** higher scores vs. those who went to SHS ( $p=0.024$ )

No differences found by gender, race, ethnicity, student status, sexual orientation, and condom use.

# Discussion

- Health literacy domains were influenced by student characteristics in the sample, particularly **relationship status**, **student status**, **HPV vaccination**, and **sources of sexual/reproductive health care**
- Other factors, including **gender**, **race**, **sexual activity**, and **condom use** were significant, however these results were not consistent across domains

# Discussion

## Limitations

- Convenience sample
- Response bias
- Cross-sectional
- Measurement – skills vs. topic

## Future Research

- Additional settings & populations
- Qualitative research to explore experiences across HL domains, and how varies across contexts
  - Topic
  - Setting
  - Prevention vs. treatment

# Conclusions

- A “**universal precautions**” approach is gold standard
- However, sub-populations of college students may need **additional** and **tailored** efforts to:
  - Increase health literacy
  - Assist in decision-making
  - Promote positive sexual and reproductive health behaviors and care-seeking practices



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# Questions?



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