

# From the Birds and the Bees to UCSD Degrees: Association Between One's Upbringings and Sexual Health Literacy Among Undergraduates

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## Background



- 1995 - 2019, sexual health education (SHE) in the U.S. **decreased by 20%**<sup>1</sup>
- No federal policy that requires mandatory SHE in public schools, only 39 states & D.C. provide it<sup>2</sup>
- In 2021, college students contributed to a significant portion of the **2.5 million** reported cases of sexually transmitted infections (STIs)<sup>3</sup>
  - Organ damage → infertility + chronic pelvic pain<sup>4</sup>
- Gap in literature: Actual Sexual Health Literacy (SHL) was centered on **pre-health fields**, such as med/nursing students rather than general students<sup>5</sup>
- Lack of intervention to address high STI and teen pregnancy rates
  - Obstacle: politically/religiously controversial



## Objective



To examine the association between **sexual health literacy** and **upbringing factors** (sociodemographics, education, interpersonal relationships, cultural values, and political affiliations) among **UCSD undergraduates**



## Methods



**Type of study:** Cross-sectional Study  
**Target population:** Undergraduates at UCSD (N=250)  
**Exposure:** Upbringing factors  
**Outcome:** SHL scores

- Categorized into three levels: 0-3 = low, 4-6 = fair, 7-9 = high

**Recruitment:** Qualtrics survey (40 questions)

- Anonymous
- **Variables:** socio-demographics (4 items), upbringing factors (22 items), SHL quiz (10 items), SHL perception scale (1 item)
- Distributed from April - May 2025
- Direct outreach to professors from various departments, use of social media (i.e. Discord and Instagram), and word-of-mouth

**SPSS v29** used for data statistical analyses

- Chi Square and Paired T-Test

**Table 1:** Sociodemographics (N = 250)

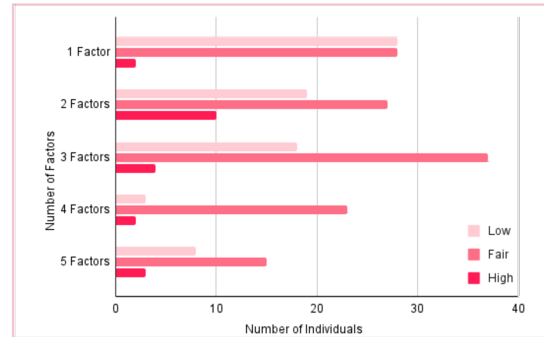
Age (years)	$\bar{x}$ (s)
Age	20.5 (1.4)
Race/Ethnicity	n (%)
Asian	117 (46.8%)
White	56 (22.4%)
Hispanic/Latino	33 (13.2%)
Black	2 (0.8%)
Multiracial	42 (16.8%)
Gender Identity	
Cisgender Female	152 (60.8%)
Cisgender Male	88 (35.2%)
Non-Binary	8 (3.2%)
Transgender Male	1 (0.4%)
Transgender Female	1 (0.4%)
Sexuality	
Straight	178 (71.2%)
Bisexual	39 (15.6%)
Lesbian	12 (4.8%)
Gay	8 (3.2%)
Asexual	6 (2.4%)
Other*	7 (2.8%)
Major	
Pre-Health	77 (30.8%)
Humanities	41 (16.4%)
Engineering	38 (15.2%)
Natural/Health Sciences	31 (12.4%)
Math/Computer/Data Sciences	26 (10.4%)
Business/Economics	16 (6.4%)
Other Majors**	21 (8.4%)

\*Sexuality: "Other" included participants who identified as queer, pansexual, or a mix of two or more sexualities.

\*\*Major: "Other" included participants who are majoring in Environmental Policy and Visual Arts. "Natural/Health Sciences" include Chemistry, Biology, and Public Health.

## Results

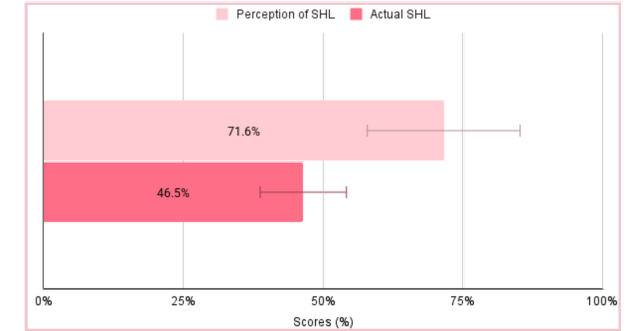
**Figure 1:** Association between Quantity of SHE Resources and SHL Scores



\* (N=228) = those who had prior sexual health knowledge. **Factors** = sexual health resources: School, Parents, Friends, Books, and Internet. Chi-Square was conducted to determine association between number of factors and SHL scores, along with which specific resource showed significance.

Statistically significant relationship between the number of ways undergraduates learned about SHL and their SHL scores; ( $p < 0.05$ )

**Figure 2:** Association between Perceived SHL and Actual SHL Scores



A paired t-test was conducted to determine an association between students' perception of their sexual health literacy and their sexual health literacy quiz results ( $t(248) = 18.001$ ).

Statistically significant relationship between undergraduates' perceived SHL ( $\bar{x} = 71.6\%$ ) and their SHL scores ( $\bar{x} = 46.5\%$ ); ( $p < 0.001$ )

**Table 2:** Associations between Additional Upbringing Factors and SHL Scores

Upbringing Factors	Personal Politics	Interpersonal Relationships*	Age	Personal Religion	Gender & Sexuality	Pre-Health v. Non-Pre-Health	Race/Ethnicity
Statistical Significance? (Chi-Square)	X	X	X	✓	X	X	X
P-value	$p = 0.571$	Politics: $p = 0.488$ Religion: $p = 0.703$	$p = 0.239$	$p = 0.012$	Gender: $p = 0.137$ Sexuality: $p = 0.472$	$p = 0.315$	$p = 0.061$

\*Interpersonal Relationships: "Politics" imply the association between one's interpersonal relationships with their family/inner circle (meaning if they share political values) and their SHL quiz results. "Religion" imply the association between one's interpersonal relationships with their family/inner circle (meaning if they share religious values).



## Conclusions



- Undergraduates **perceived SHL less than actual SHL** based on quiz scores
  - From 2015 - 2019, only 50% of adolescents received SHE that met the minimum standard that was articulated under Health People 2030<sup>1</sup>
- Statistical significance between **religion** and the **number of resources with low SHL**
  - 80% young adults received more church-based education on abstinence<sup>6</sup>
- **Limitations:**
  - Response Bias: filling out surveys for completion
  - Students at UCSD reside in a liberal leaning and progressive state



## Policy Implications



- Make comprehensive & medically accurate SHE a required GE course in university curriculum
  - **97%** of undergraduates want some form of SHE at UCSD
- Encourage **cultural & religious clubs** to host sexual health workshops, guest speakers, and peer mentorship tailored to their communities
- Implement mandatory **SHL assessment** during orientation to inform about knowledge gaps

## References/ Additional Info



Additional Findings can be found in QR code