

# Influencing Adolescent Sexual Decision-Making: A Theory-Driven Digital Intervention

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## Background

### Existing Facts

- As outlined by the *Theory of Planned Behavior*, adolescent sexual decision-making is strongly predicted by one's *subjective norms*, *attitudes*, and *perceived behavioral control* (Beadnell et al., 2007)
- Family dynamics are associated with risky sexual behavior (Kerpelman et al., 2016)
- 75% of reviewed digital intervention programs for sexual health showed behavioral or cognitive improvements (Aguilar-Quesada et al., 2025; Sewak et al., 2023; Knight et al., 2015)
- Traditional (i.e., classroom-based) sex-ed programs show limited long-term impact

### Shortcomings

- Existing digital decision-making interventions involve storylines purely based on introducing the games
- Few studies translate the Theory of Planned Behavior into digital sexual decision-making interventions

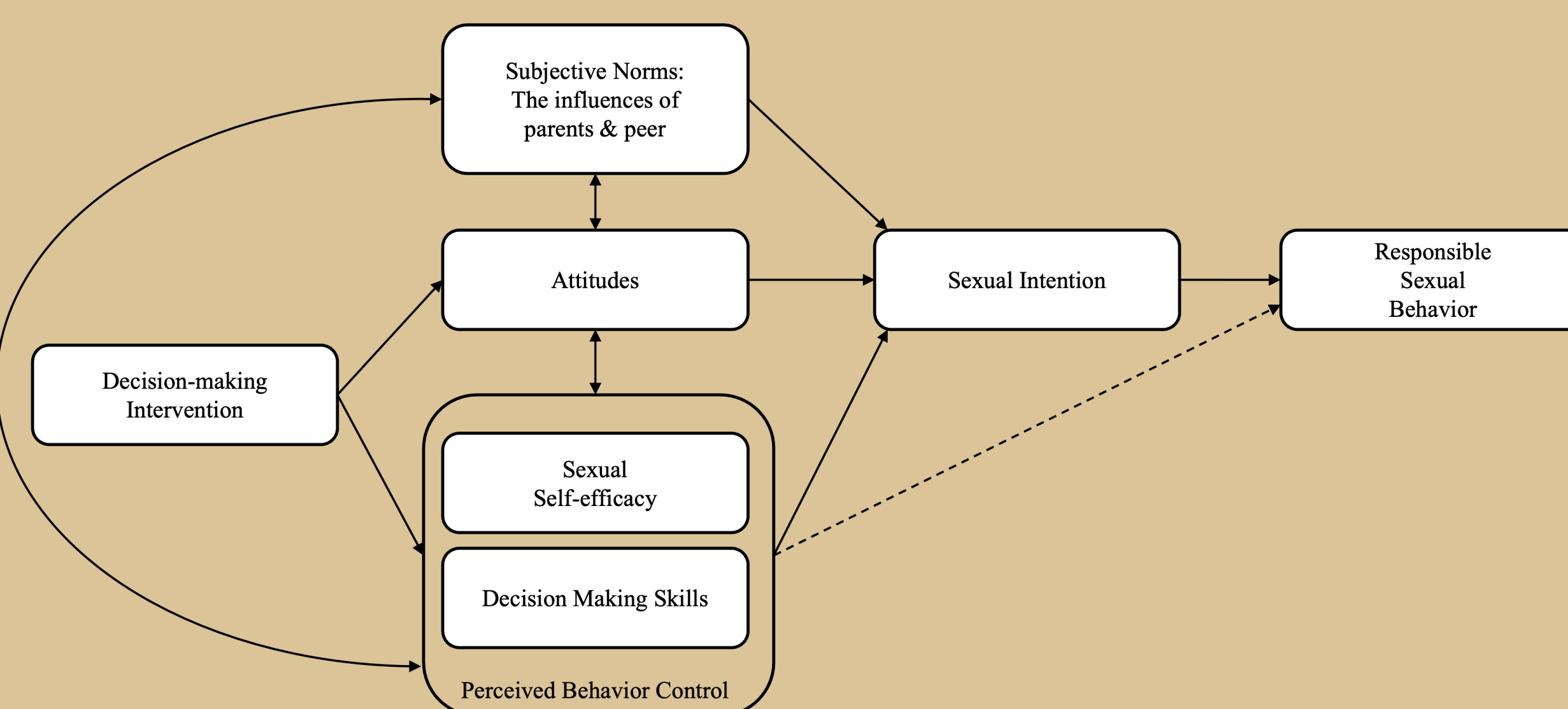
### Purpose

- To examine the feasibility of a digital decision-making intervention
- To study the key factors that determine behavior (i.e., attitudes, subjective norms, and perceived behavior control)

### Hypothesis:

Participants who complete the digital intervention will demonstrate positive changes in subjective norms, attitudes, and perceived behavior control related to sexual decision-making (effects persisting in the short to moderate term).

Conceptual Model for the Theory of Planned Behavior



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## Methods

### Participants

- $N = 11$  undergraduate students ( $M = 19.73$  years,  $SD = 1.01$ )

Table 1

Sample Characteristics

Characteristic	N	%
<b>Sex</b>		
Male	2	18.2
Female	9	81.8
<b>Race/Ethnicity</b>		
Hispanic or Latino	2	18.2
White or Caucasian	9	81.8
<b>Education</b>		
Second-year	5	45.5
Third-year	5	45.5
Fourth-year	1	9.1
<b>Relationship Status</b>		
In a relationship	2	18.2
Not in a relationship	9	81.8
<b>Income</b>		
\$0-\$9,999	6	54.5
\$25,000 – \$49,999	1	9.1
Other	4	36.4

Note. Percentage may not total 100 due to rounding.

### Materials

- *Decision-Making Competency (DMC) Intervention*: a digital, interactive, theory-based approach based on the Theory of Planned Behavior
- Pre- and post-intervention surveys administered via Qualtrics
  - o Sexual Communication Self-Efficacy Scale (Quinn-Nilas et al., 2016)
  - o Brief Sexual Attitudes Scale (Hendrick et al., 2006)
  - o Perceived Parental Autonomy Support Scale – 24 item (P-PASS) (Mageau et al., 2015)
  - o ULS-8 (Short Form of the UCLA Loneliness Scale) (Hays & DiMatteo, 1987)
  - o Multidimensional Proactive Decision-Making Scale (Siebert & Kunz, 2016)

### Procedures

- Participants complete the pre-intervention survey via Qualtrics
- Participants receive access to and complete the DMC Intervention upon baseline survey's completion
- Participants receive access to post-intervention survey upon DMC intervention's completion

### Proposed Analysis

- Data collection and analyses are currently in preliminary stages and ongoing
- *Planned analyses include*:
  - o Descriptive statistics (means, standard deviations) for all key variables
  - o Paired-samples t-tests to compare pre- and post-intervention survey scores
  - o Calculation of effect sizes (Cohen's d) to assess the magnitude of change in attitudes, subjective norms, and perceived behavioral control

## Results

### Baseline Sexual Attitude Levels

Higher scores indicate more conservative or sexually restrictive attitudes

- **Permissiveness**: Scores on the permissiveness subscale indicated higher restrictive attitudes ( $M = 3.74$ ,  $SD = 0.84$ )
- **Birth Control**: Scores on the birth control subscale indicated lower restrictive attitudes ( $M = 2.07$ ,  $SD = 0.56$ )
- **Communion**: Scores on the communion subscale indicated lower restrictive attitudes ( $M = 2.28$ ,  $SD = 0.90$ )
- **Instrumentality**: Scores on the instrumentality subscale indicated moderately higher restrictive attitudes ( $M = 3.24$ ,  $SD = 0.48$ )

## Conclusion

### Strengths

- Our intervention utilizes the storyline itself to practice decision-making and incorporates games that target specific cognitive skills
- Grounded in the Theory of Planned Behavior – targets empirically supported factors behind decision-making
- Pre-post design – allows for clear and direct examination of key subject changes, from before the intervention to after
- Pilot study – allows for refinements before larger-scale study

### Limitations

- Relatively short post-intervention follow period – may not be sufficient to confirm long-term behavioral change
- Limited sample – Participants were selected with convenience from the same course, limiting statistical power, generalizability, as well as representation of minority groups

### Future Considerations

- Longer follow-up periods that allow for the examination of longer-term effects
- Expanding recruitment to a larger, more diverse sample
- Using data from pilot study in order to optimize subject engagement and accuracy

## References



Scan here to access literature!