

Sexual violence among college students: Advancing knowledge through longitudinal designs

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Learning Objectives

1. To understand that sexual violence is a significant health behavior problem among college students
2. To learn how sexual violence perpetration and its risk factors change during college and how certain time-varying risk factors differentiate men who follow various sexual aggression trajectories
3. To learn how longitudinal designs can be applied to this problem to enhance our ability to design interventions that target risk factors that are both malleable and related to sexual violence likelihood

Background

- Sexual violence a significant health behavior problem among college students; prevalent and results in adverse psychological, physical, social, and educational consequences
- 20–25% of women experience attempted or completed rape at some point during college (Fisher, Cullen, & Turner, 2000)
- Similarly, male college students' report high rates of perpetrating sexual assault, ranging from 14–31% (Abbey & McAuslan, 2004; White & Smith, 2004)
- Sexual violence on college campuses has received increased attention following the report from the White House Task Force to Protect Students from Sexual Assault as well as expanded requirements of Title IX pertaining to sexual harassment and violence

Background, continued

- Historically, research on sexual violence has been largely cross-sectional in nature
- This has impeded the design of prevention programs that target risk factors that not only show evidence of being causally related to sexual violence but also are potentially malleable
- Thus, knowledge is limited in regards to if sexual violence perpetration likelihood changes during college years and if these changes can be predicted

Purpose of presentation

- Discuss importance of longitudinal studies in inform prevention approaches using the case of sexual violence
- Show how taking a longitudinal, person-centered approach, can help determine:
 - how sexual violence perpetration and hypothesized correlates change during college
 - if time-varying risk factors differentiate men who follow various sexual aggression trajectories

Sample and Procedures

- IRB approval and NIH Certificate of Confidentiality obtained
- All first-year male students sent personal e-mails requesting participation in spring of their first year at college; within 1 week, 800 participants
- Came to student health center to complete confidential, self-report surveys
- Mean age = 18.56; 89% white; representative on age and race
- Surveyed at end of each of their 4 years of college in 2008-2011
- Follow-up rates: 81% at Wave 2, 75% at Wave 3, 72% at Wave 4
- Paid \$20.00 at Waves 1 and 2, and \$25 at Waves 3 and 4

Measures: Sexual Violence

- Revised Sexual Experiences Survey (Koss et al, 2007)
- 35 questions assessed unwanted sexual contact, sexual coercion, attempted and completed rape
- Scoring method accounted for both severity and frequency
- Reporting time frames: At Wave 1 - before college and during first academic year; At Waves 2-4 - summer between respective academic years and during respective academic year

Measures: Risk Variables

- **Impulsivity:** 19-item Impulsivity Questionnaire (Eysenck et al., 1985); e.g., “Before making up your mind, do you consider all the advantages and disadvantages?” ($\alpha = .79$)
- **Sexual compulsivity:** 10-item Sexual Compulsivity Scale (Kalichman & Rompa, 2001); e.g., “I have to struggle to control my sexual thoughts and behaviors;” ($\alpha = .83$)
- **Number of sexual partners:** Single item assessing number of sexual intercourse partners since age 14

Measures: Risk Variables

- **Heavy drinking:** Average of 5 standardized items assessing different aspects of high-risk drinking; e.g., How often drank to get drunk in past 30 days; ($\alpha = .92$)
- **Pornography:** Hours/week looked at sexually explicit material in magazines or on internet during past year: 0 = none, 1 \leq 1, 2 = 1 to 2, 3 = 3 to 4, 4 \geq 4
- **Hostility toward women:** 8-item adapted scale (Koss & Gaines, 1993); e.g., “Many times a woman appears to care, but really just wants to use me;” ($\alpha = .90$)
- **Rape supportive beliefs:** 21-item scale (Lonsway & Fitzgerald, 1995); e.g., “When women talk and act sexy, they are inviting rape;” ($\alpha = .90$)

Measures: Risk variables

- **Peer approval of forced sex:** 6 items about perceptions of friends' approval for engaging in coercive strategies to have sex with women (Abbey & McAuslan, 2004); e.g., "Do your friends approve of getting a woman drunk or high to have sex?" ($\alpha = .78$)
- **Peer pressure to have sex:** 3 items about perceptions of peer pressure from friends to have sex with women (Kanin, 1985); e.g., "Do your friends lack respect for guys who have never had sex?" ($\alpha = .76$)

Data Analytic Plan

- Descriptive statistics used to examine sexual violence prevalence data at each wave
- Mplus used for latent growth mixture modeling to determine if qualitatively distinct subgroups/latent classes that reflected different trajectories of change in sexual aggression behaviors across time

Data Analytic Plan

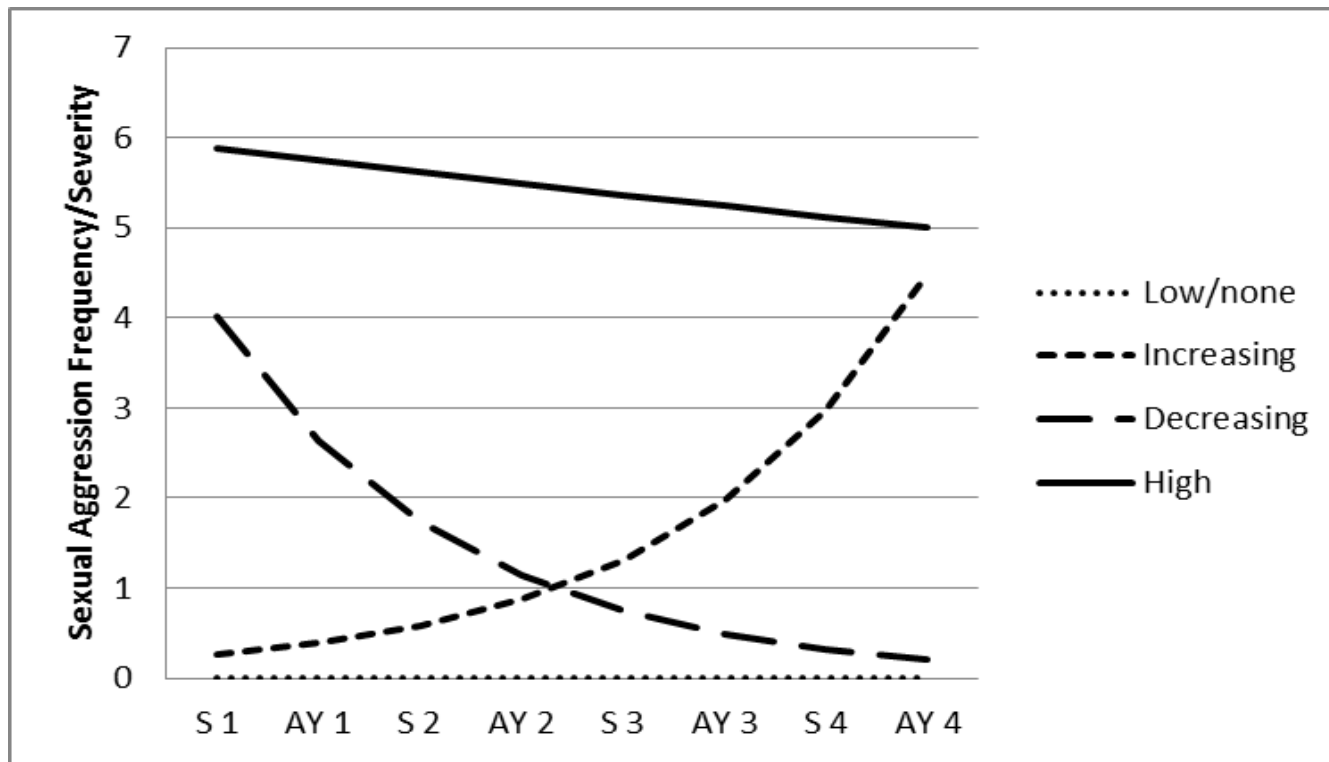
- SPSS 22 used to conduct repeated measures general linear models to determine if changes in risk factors corresponded with different SA trajectories
 - Within-subject factor: Risk factors from Waves 1 and 4
 - Between-subjects factor: Trajectory group membership (4 levels)
 - Significant interactions reflect changes over time on risk factors correspond to membership in particular trajectory groups
 - Significant interactions followed with posthoc contrast coding to compare increasing and decreasing trajectory groups to other groups

Perpetration Rates during College

	1 st year	2 nd year	3 rd year	4 th year
Non-perpetrator	88.6%	85.8%	86.9%	88.2%
Unwanted Contact	8.4 (2.4)	9.9 (2.7)	9.3 (3.0)	7.9 (2.3)
Sexual Coercion	6.8 (3.4)	7.4 (4.8)	7.3 (5.0)	7.5 (4.1)
Attempted Rape	3.5 (1.1)	3.6 (1.7)	3.2 (1.3)	4.0 (1.4)
Rape	4.5 (4.5)	4.9 (4.9)	3.7 (3.7)	3.9 (3.9)

Note: Numbers in parentheses represent hierarchical coding

Sexual Violence Trajectories



Low/None:70.9%; Increasing: 8.1%; Decreasing: 12.4%; High: 8.6%

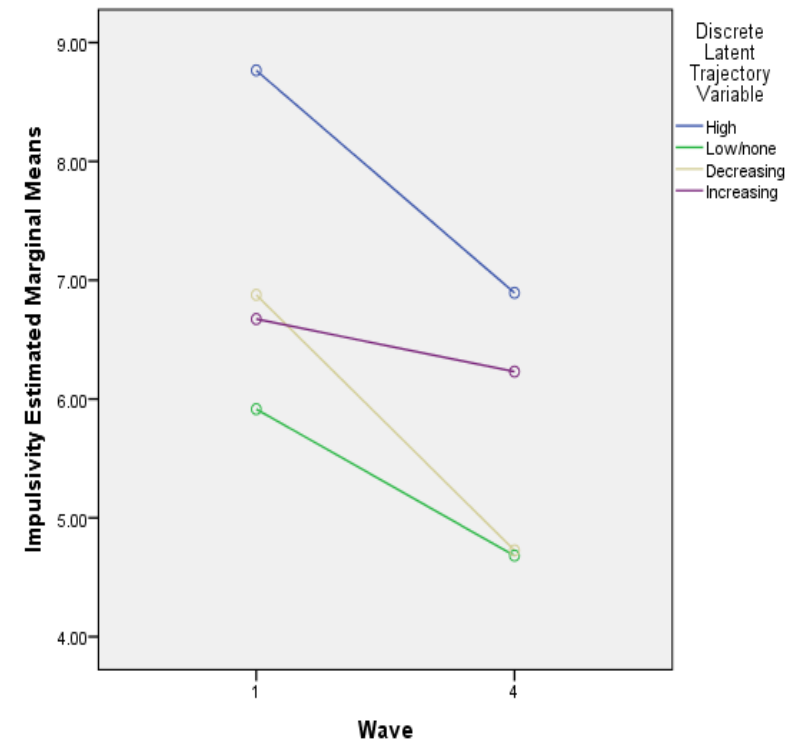
Risk factor changes over time

Decreases	Increases	No statistically significant change
Impulsivity 7.06 to 5.63	# sexual partners 2.42 to 6.54	Hostility towards women 2.80 to 2.73
Sexual compulsivity 1.52 to 1.47	Pornography use 1.40 to 1.82	Heavy drinking .27 to .24
Rape supportive beliefs 2.42 to 2.19	Peer approval forced sex 1.41 to 1.57	Peer pressure for sex 1.87 to 1.91

Impulsivity

Class	Wave 1	Wave 4
Low	5.92	4.68
Decreasing	6.88	4.73
Increasing	6.67	6.23
High	8.77	6.89

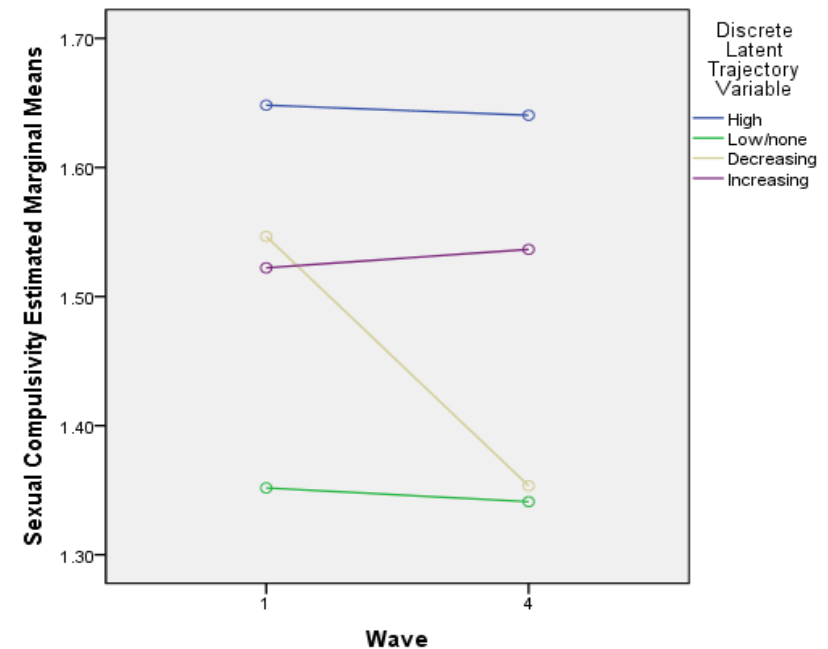
- F for main effect of trajectory class = 8.82, $p < .001$
- F for trajectory class X time = 2.91, $p < .05$
- Posthocs: Decreasing SA group showed greater reduction and increasing SA group showed smaller reduction than other groups



Sexual Compulsivity

Class	Wave 1	Wave 4
Low	1.35	1.34
Decreasing	1.55	1.35
Increasing	1.52	1.54
High	1.65	1.64

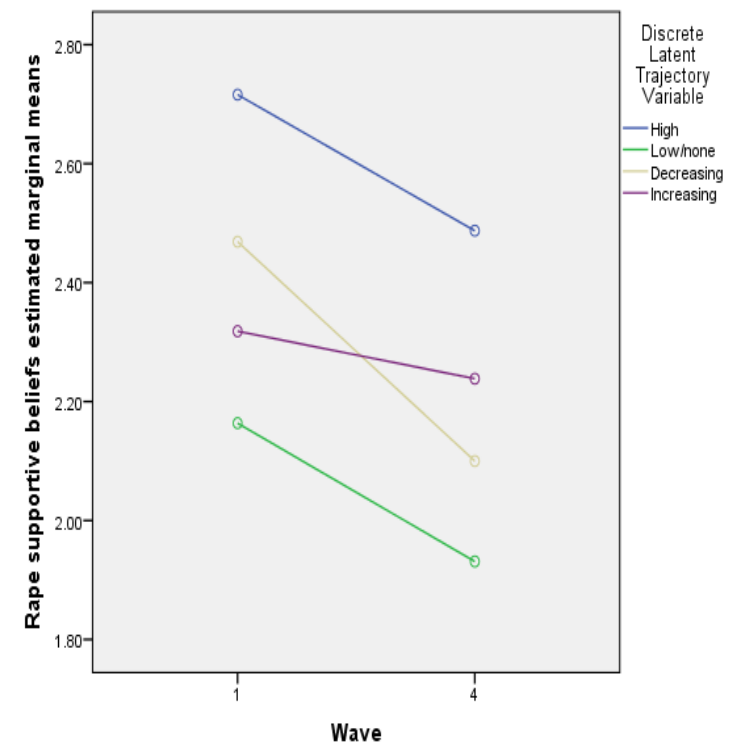
- F for main effect of trajectory class=16.45, $p < .001$
- F for trajectory class X time = 4.95, $p < .01$
- Posthocs: Decreasing SA group showed greater reductions than other groups



Rape supportive beliefs

Class	Wave 1	Wave 4
Low	2.16	1.93
Decreasing	2.47	2.10
Increasing	2.32	2.24
High	2.72	2.49

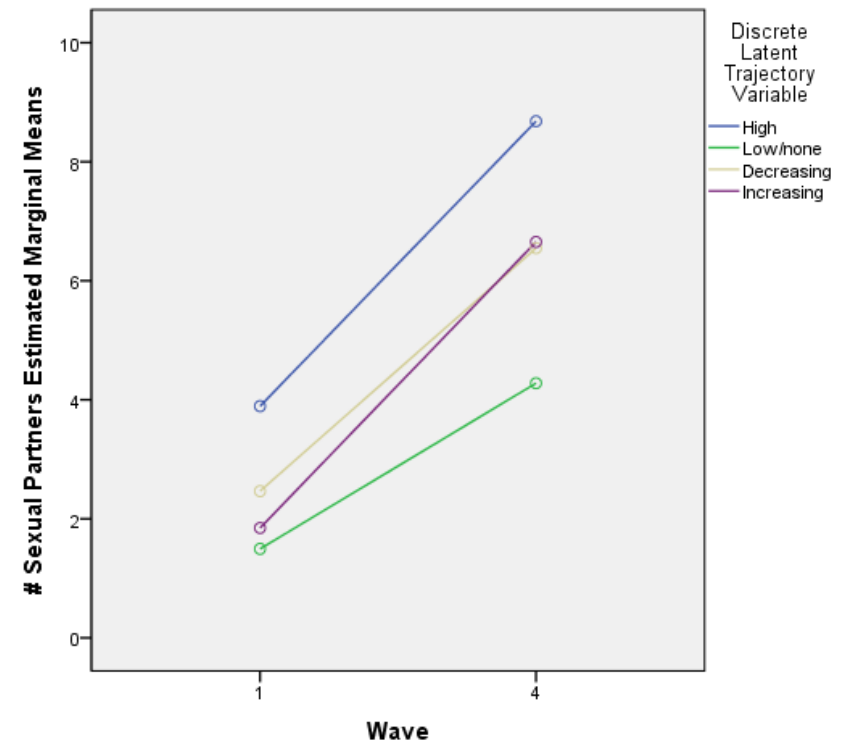
- F for main effect of trajectory class=19.53, $p < .001$
- F for trajectory class X time = 2.70, $p < .05$
- Posthocs: Increasing and decreasing groups differ from other groups



Number of Sexual Partners

Class	Wave 1	Wave 4
Low	1.49	4.28
Decreasing	2.47	6.55
Increasing	1.85	6.65
High	3.89	8.68

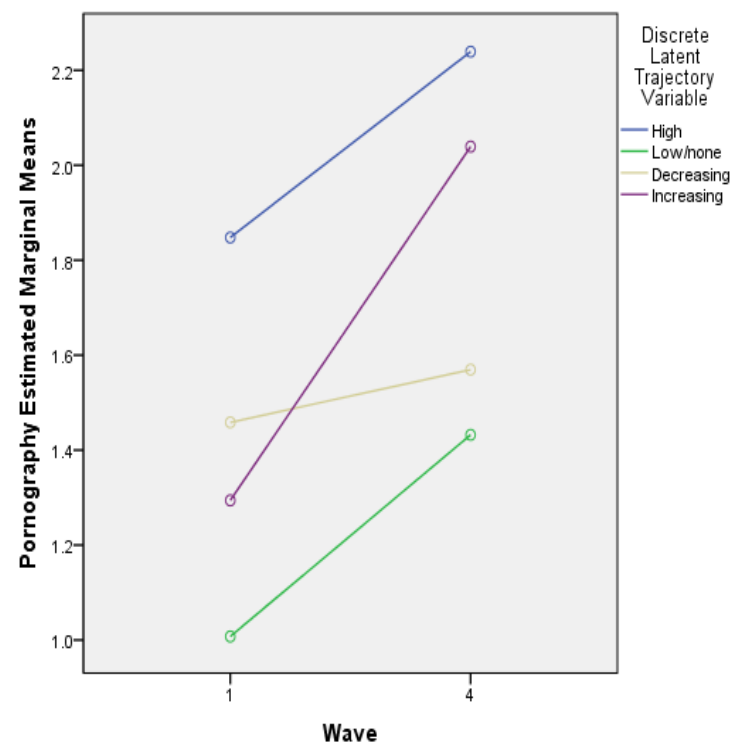
- F for main effect of trajectory class=8.28, $p < .001$
- F for trajectory class X time = 2.69, $p < .05$
- Posthocs: Neither increasing or decreasing SA groups differed significantly from other groups



Pornography

Class	Wave 1	Wave 4
Low	1.01	1.43
Decreasing	1.46	1.58
Increasing	1.29	2.04
High	1.85	2.24

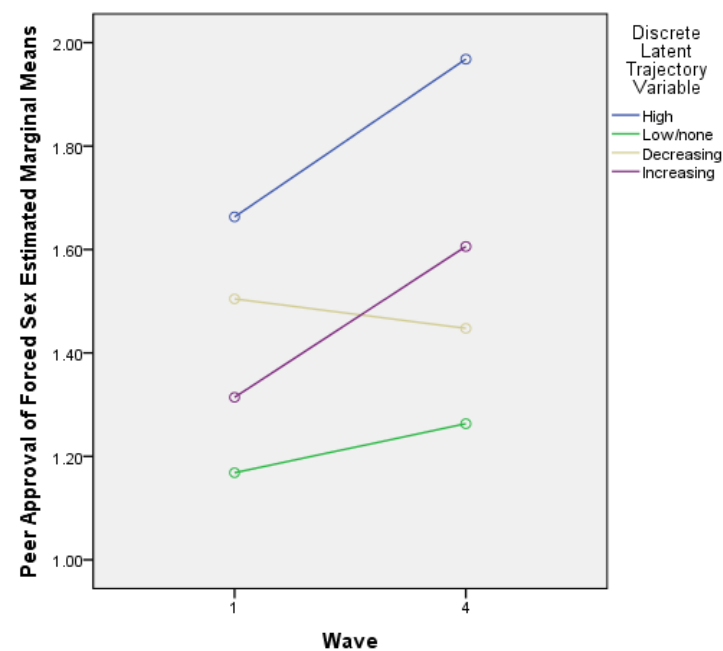
- F for main effect of trajectory class=12.98, $p < .001$
- F for trajectory class X time = 2.55, $p < .05$
- Posthocs: Decreasing SA group showed smaller increases and increasing SA group showed larger increases compared to other groups



Peer Approval of Forced Sex

Class	Wave 1	Wave 4
Low	1.17	1.27
Decreasing	1.50	1.45
Increasing	1.31	1.61
High	1.66	1.97

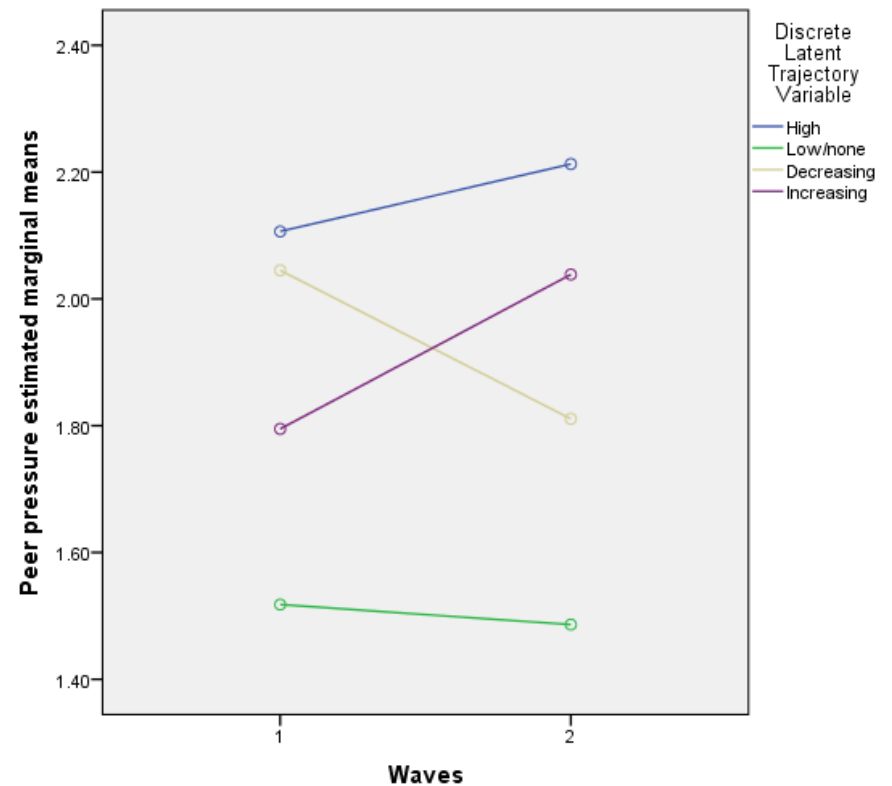
- F for main effect of trajectory class=56.45, $p < .001$
- F for trajectory class X time = 9.17, $p < .001$
- Posthocs: Decreasing SA group showed smaller reductions that other groups and increasing SA group showed grater increases than other groups



Peer Pressure for Sex

Class	Wave 1	Wave 4
Low	1.52	1.52
Decreasing	2.05	1.89
Increasing	1.80	1.99
High	2.11	2.23

- F for main effect of trajectory class=34.41, $p < .001$
- F for trajectory class X time = 3.61, $p < .01$
- Posthocs: Increasing and decreasing groups differ from other groups



Conclusions and Implications

- Heterogeneity among sexual violence perpetrators
- Likelihood of engaging in sexually violent behaviors can change during emerging adulthood
- Changes over time in risk behaviors corresponded with sexual violence perpetration risk
- Findings illuminate that risk factors are not static and hence are likely malleable targets for intervention
- Thus, changes in them may lead to changes in sexual violence risk

Conclusions and Implications

- By using a longitudinal design, able to determine key constructs that underlie sexual aggression initiation, desistance, and persistence among college men
- A one-size-fits-all strategy may not adequately target each subgroup
- Primary prevention efforts should focus on risk factors associated with increasing trajectory group since results indicate that as these risk factors increase over time, some males without a history of sexual violence prior to college generally increased their perpetration likelihood.
- Different intervention approaches needed for males who already have engaged in sexually aggressive behaviors. Interventions designed to decrease sexual compulsivity, impulsivity, rape supportive beliefs, perceptions of peer approval of forced sex can lead to a decreased risk for sexual violence among this group.

Learning Objectives Revisited

1. Showed how sexual violence is a significant health behavior problem among college students
2. Showed that sexual violence perpetration risk changed during college and changes in certain risk factors corresponded with changes in sexual aggression risk
3. Demonstrated how longitudinal designs can be applied to this problem to enhance design of interventions that target risk factors that are both malleable and related to sexual violence likelihood