Changes in College Students' Sexual Behaviors at the Start of the COVID-19 Pandemic

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Research Objectives

College students have been uniquely impacted by the COVID-19 pandemic. Young adults have encountered disruptions in multiple life domains (e.g., health, finances, interpersonal relationships, and educational pathways), which for many have culminated in high depression and anxiety symptoms (Kujawa et al., 2020). While much is already understood about psychological adjustment in the time of COVID, less is known about effects on risky behaviors, and sexual behaviors have been particularly neglected thus far. This omission is concerning as partnered sexual activity is a typical source of both personal benefits and risks during emerging adulthood (Vasilenko et al., 2012). We addressed this gap using data in a sample of sexually-initiated first-year college students, and explored predictors of rank-order change in coital activity and risk-taking behaviors between March/April (Wave 3) and May 2020 (Wave 4).

Hypotheses

1. At Wave 4, fewer participants would report any coital activity than at Wave 3, and levels of risk-taking in the last month would be lower at Wave 4 than at Wave 3.
2. Low likelihood of any coital activity and low levels of risk at Wave 4 would be attributable to testing positive for COVID, moving home, and/or reporting high levels of COVID-related difficulties.

Method

Additional demographic details, descriptive statistics, and bivariate correlations are available at https://tinyurl.com/collegesexcovid

Participants & Procedures

Data were drawn from a larger four-wave longitudinal study involving a random sample of matriculating college students ages 18-20 years (N = 775).

The analytic subsample consisted of n = 333 sexually-initiated youth who responded to surveys about their sexual behaviors in the last month at the March/April (Wave 3) and/or May (Wave 4) surveys (M_{age} = 18.60 years, SD = 0.31, range = 18 -19).

Measures

Sexual behaviors in the last month at Waves 3 and 4:

- **Any coitus:** 0 = *no*, 1 = *yes*
- **Number of partners:** open-ended item, resulting in a range of 0 – 20 partners, which we recoded to 0 (*no coital events/no partners*) to 3 (*3+ partners)*
- **Unprotected intercourse:** 0 *(no coital events/always used condoms)* to 4 *(never used condoms)*
- **Sexual Risk Composite:** 0 (*no sexual intercourse in the last month, or engaged in sexual intercourse with one partner and always used condoms*), 1 (*reported having either two or more partners or any unprotected intercourse in the past month*), and 2 (*reported having both two or more partners and any unprotected intercourse in the past month*)

COVID-related variables (Wave 4):

- **Change in residence:** 0 (*remained on/near campus*) and 1 (*moved back in with parents or family*
- **Tested positive for COVID-19:** 0 = *no*, 1 = *yes*
- **COVID-related difficulties:** Average of responses to 14 items about financial, social, academic, and other difficulties resulting from COVID-19 (e.g., "Because of the COVID-19 epidemic, I have had difficulty this semester getting groceries/supplies/food"). Response scale ranged from 1 (*not at all a problem*) to 4 (*serious problem*). Cronbach's α = .81.

Control variables (most at Wave 1):

- **Gender:** 0 = *male*, 1 = *female*
- **Race:** 0 = *White*, 1 = *not White*
- **Ethnicity:** 0 = *not Hispanic*, 1 = *Hispanic*
- **Familial SES:** single item assessing subjective social status (Goodman et al., 2001), 1 (*lowest*) to 10 (*highest*)
- **Romantic relationship status:** 0 = *not in a relationship at Wave 4*, 1 = *in a relationship at Wave 4*

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Any Coitus in the Last Month

	Model Step	
Variable/Step	1	2
Moved Home	-.16*	-.14*
Tested Positive for COVID	-.15^{+}	-.13
COVID Problems	.10	.13^{+}
Male Gender		.12^{+}
Non-White		-.19**
SES		.03
Any Coitus at Wave 3		.27***
In Relationship at Wave 4		.36***
R^2	.06	.39***

Note. All coefficients are standardized.
$^{+}$ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

- Participants were less likely to report having any coitus in the last month at Wave 4 than at Wave 3 (i.e., 37.4% v.s. 63.0%), $\chi^2(1) = 24.39$, $p < .001$, $V = .31$.
  - 30.7% reported having coitus at least once in the last month at both waves.
  - 32.3% had coitus at Wave 3 only, and 6.6% had coitus at Wave 4 only.
  - 30.4% reported no coitus in the last month at both waves.
- Accounting for Wave 3 coital activity, white youth, and participants who remained on/near campus, and/or were in relationships at Wave 4 were more likely to report any coitus in the last month at Wave 4.

Number of Partners in the Last Month

	Model Step	
Variable/Step	1	2
Moved Home	-.06	-.05
Tested Positive for COVID	-.01	.01
COVID Problems	.13*	.10^{+}
Male Gender		.01
Non-White		-.11^{+}
SES		-.04
Number of Partners at Wave 3		.27***
In Relationship at Wave 4		.27***
R^2	.02	.20***

Note. All coefficients are standardized.
$^{+}p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

- Participants reported fewer partners at Wave 4 (M = 0.50, SD = 0.83) than at Wave 3 (M = 0.97, SD = 0.94), $F(1, 241) = 47.63$, $p < .001$, $\eta^2 = .17$.
- High problems as a result of COVID predicted high number of partners at Wave 4, though this effect was weakened with the addition of control variables.
- High numbers of partners at Wave 4 were associated with high numbers of partners at Wave 3 and with being in a romantic relationship at Wave 4.

Unprotected Sex in the Last Month

	Model Step	
Variable/Step	1	2
Moved Home	-.03	-.03
Tested Positive for COVID	-.05	-.01
COVID Problems	.08	.01
Male Gender		.01
Non-White		-.09^{+}
SES		-.12*
Unprotected Sex at Wave 3		.50***
In Relationship at Wave 4		.18***
R^2	.01	.35***

Note. All coefficients are standardized.
$^{+}$ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

- Participants endorsed lower levels of unprotected intercourse at Wave 4 ($M = 0.68$, $SD = 1.32$) than at Wave 3 ($M = 0.93$, $SD = 1.44$), $F(1, 256) = 9.49$, $p = .002$, $\eta^2 = .04$.
- Unprotected sex at Wave 4 was not associated with any of the COVID-related variables.
- High levels of unprotected sex at Wave 4 were associated with low SES, high levels of unprotected sex at Wave 3, and being in a romantic relationship at Wave 4.

Composite Risk in the Last Month

	Model Step	
Variable/Step	1	2
Moved Home	-.03	-.02
Tested Positive for COVID	-.03	-.01
COVID Problems	.10^{+}	.04
Male Gender		-.04
Non-White		-.12*
SES		-.10^{+}
Composite Risk at Wave 3		.33***
In Relationship at Wave 4		.21***
R^2	.01	.20***

Note. All coefficients are standardized.
$^{+}$ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

- Participants reported lower average levels of sexual risk-taking at Wave 4 ($M = 0.34$, $SD = 0.59$) than at Wave 3 ($M = 0.56$, $SD = 0.68$), $F(1, 256) = 24.09$, $p < .001$, $\eta^2 = .09$.
- Composite risk at Wave 4 was not associated with any of the COVID-related variables.
- High composite risk levels at Wave 4 were associated with white race, high composite risk at Wave 3, and being in a romantic relationship at Wave 4.

Limitations and Future Directions

- The timing of the pandemic relative to the study's longitudinal assessment schedule was suboptimal. Although we were able to capitalize upon a prospective study that was already underway when COVID emerged, the study unfortunately ended shortly thereafter, which limits our ability to explore ongoing changes in sexual behaviors.
- Although a logical constraint under the circumstances, it was not possible to assess COVID-related covariates prior to the study's final wave. In May 2020, there were no validated measures available for research purposes, and potential covariates had not yet been identified (e.g., adherence to social distancing practices, COVID-related stress).
- The findings may not generalize to other college campuses or to non-college youth; the latter group tends to report higher levels of sexual risk than the former, and the two groups may have entirely distinct experiences and/or disruptions during Spring 2020.

Conclusions and Implications

The present investigation provided novel insights into how COVID-19 impacted emerging adults' involvement in sexual behaviors and risk-taking in Spring 2020. These findings confirms those of cross-sectional studies with adults, indicating that college students were less likely to engage in coitus in May relative to March/April 2020, largely due to changes in residential contexts when this university suspended on-campus operations due to COVID-19. While a portion of youth continued having sex post-transition, most of these individuals either maintained or slightly reduced their risk-taking during this period. These rank-order changes are largely attributable to prior sexual involvement and romantic relationship patterns, rather than personal experiences with or the impacts of COVID.

Although many young adults had low involvement in coitus in Spring 2020, practitioners should not assume that sexual risk is by default mitigated in the event of lockdowns because young adults will be motivated to avoid COVID transmission. Given the opportunity and the motivation, young adults will continue to engage in partnered sexual behaviors, and intervention efforts will be undermined if practitioners fail to acknowledge these realities. Instead, healthcare providers and sexual health educators should emphasize the value in being prepared in the event of future lockdowns or personal quarantines, especially if these will result in limited access to free or low-cost forms of contraception through university clinics (i.e., a likely outcome for many study respondents who returned to homes in rural, medically-underserved areas during Spring 2020). Reflecting these circumstances, there is value in continuing to improve access to affordable sexual and reproductive healthcare efforts in order to help youth avoid mistimed pregnancies and STIs.