

Love Sick: Attachment Anxiety and COVID-Era Romantic Encounters Among College Students

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Abstract

The current research explored how attachment anxiety influences attitudes and behaviors in romantic contexts among single emerging adults during COVID-19. Study 1 ($n = 242$) revealed that, despite increased risk perceptions, emerging adults high in attachment anxiety report decreased cautiousness and a greater percentage of hook-ups outside their pod/bubble. Attitudes about masking with a romantic partner mirrored those of low anxiety emerging adults. In study 2 ($n = 186$), we used a quasi-experimental design to explore whether romantic (vs. control) contexts differentially impact attitudes toward masking. High anxiety emerging adults reported somewhat increased risk perceptions across condition, but more negative attitudes toward masking and less confidence in helping a partner mask in the romantic (vs. control) condition. Low anxiety emerging adults' attitudes and confidence were unaffected by condition. Results suggest that emerging adults high in anxiety, while generally more concerned about COVID, appeared to reduce cautiousness in romantic contexts.

Keywords

attachment, Covid-19, romantic relationships, dating, connection

Navigating love relationships, along with their potential for intimacy and rejection, is a defining feature of identity exploration in emerging adulthood (Arnett, 2000). However, the COVID-19 pandemic produced unique challenges for emerging adults, many of whom found themselves balancing desires for romantic connection against the infective risk associated with dating and hooking up during a global pandemic (see Gibson, 2020; Mowen & Heitkamp, 2022). Given evidence that attachment insecurity has been increasing among emerging adults (Konrath et al., 2014; Sprecher, 2022) and the importance of the attachment system for guiding behavior in both romantic and distressing contexts (see Hazan & Shaver, 1987; Mikulincer & Shaver, 2003), attachment insecurity might impact single college students' responses to dating during COVID.

According to attachment theory (Bowlby, 1982), the quality of interactions with primary caregivers in infancy and early childhood have implications for feelings of security across the lifespan. In adulthood, attachment orientations are best conceptualized as falling along two continuous dimensions: avoidance and anxiety (Brennan et al., 1998). People who score low on both dimensions are considered securely attached and they typically report more positive love experiences (Hazan & Shaver, 1987). High scores on attachment

avoidance are associated with a distrust of others, a preference for emotional distance, and a deactivation of attachment-related concerns under stress (Mikulincer & Shaver, 2003). Conversely, people high in attachment anxiety demonstrate an intense desire for closeness coupled with fears of abandonment and a hyperactivation of attachment concerns under stress (Mikulincer & Shaver, 2003).

Recent research suggests attachment anxiety predicts COVID-related attitudes and behaviors. For example, while people higher in anxiety encourage loved ones to engage in protective behaviors (e.g., mask-wearing, social distancing), they are not more likely to engage in these behaviors themselves (Lozano & Fraley, 2022). One explanation is that people high in anxiety may be less likely to mask or socially

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distance when they fear rejection (Lozano & Fraley, 2022). Indeed, fears of rejection influence how emerging adults high in anxiety navigate romantic encounters as well: attachment anxiety is associated with less self-efficacy discussing safe sex (Feeney et al., 2000) and high anxiety college women report consenting to unwanted sexual activity out of fear partners will lose interest (Impett & Peplau, 2002). Such findings suggest attachment anxiety, while generally associated with heightened risk perceptions, may result in decreased caution in romantic contexts. The current research used correlational (study 1) and quasi-experimental (study 2) designs to explore whether attachment anxiety predicts worries about COVID-19 (studies 1 and 2), but, ironically, riskier dating and hook-up behavior (study 1) and less positive attitudes toward masking in romantic encounters (studies 1 and 2).

Study 1

Participants and Procedure

Undergraduate students who self-identified as single were recruited from two universities (rural/Northeast $n = 101$; urban/Midwest $n = 141$) from April 1 to May 7 of 2021. Sample size ($N = 242$) was determined by recruiting as many students as possible during the spring semester. Given university vaccine mandates became effective August 2021, we did not collect additional participants in the fall. Most participants identified as European American or Caucasian (63%), girl/woman (71%), and straight/heterosexual (78.5%). Participants' average age was 19.23 years ($SD = 1.71$). College students at both institutions were recruited via the psychology participant pools. Students completed online surveys measuring attachment anxiety, perceived risk, attitudes toward masking in romantic contexts, and hookup behaviors.

Measures

Attachment Style. Attachment style was measured using the 36-item Experiences in Close Relationships (ECR) scale (Brennan et al., 1998), which taps anxiety (e.g., "I worry about being abandoned") and avoidance (e.g., "I prefer not to show a partner how I feel deep down"). Participants responded on a 7-point scale (1 = *disagree very much*, 7 = *agree very much*). Items were averaged together to form separate scores for anxiety ($\alpha = .89$) and avoidance ($\alpha = .90$).

Perceived Risk. Five questions assessed perceived risks associated with contracting COVID-19 (e.g., "If you were to get sick with COVID-19, how bad would it be for you?") on a 7-point scale (1 = *not at all*, 7 = *extremely*). Items were averaged to form a composite of perceived risk ($\alpha = .75$).

Caution Over Time. Participants indicated their agreement with the statement "I have gotten less cautious in dating during

COVID now than I was at the beginning of the pandemic" on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

Attitudes Toward Masking in Romantic Contexts. Participants reported their attitudes toward masking with a potential romantic partner on a series of semantic differential scales (1 = *very bad/worthless/unpleasant/foolish*, 7 = *very good/valuable/pleasant/wise*). Responses to the 4 scales were averaged such that higher scores represent more positive attitudes towards masking in romantic contexts ($\alpha = .85$).

Hookup Behavior. Participants indicated how often they had "hooked up" in the last 6 months (1 = never, 2 = once or twice total, 3 = once or twice a month, 4 = once or twice a week, 5 = nearly every day). Participants also indicated the percentage of hookups over the last 6 months that were with people outside of their bubble/pod using a slider that ranged from 0 to 100%.

Results and Discussion

Multiple regression analyses were run controlling for location of data collection, age, gender, perceived risk, and attachment avoidance (Table 1). Attachment anxiety and attachment avoidance did not interact to predict any of the dependent measures ($\beta s < .14$, $t s < |1.88|$, $p s > .06$), and the pattern of results remains the same without covariates. Analyses revealed that, while single people high in attachment anxiety perceived greater risks associated with contracting COVID-19, they did not report more positive attitudes toward masking with a potential romantic partner. Moreover, high anxiety college students were more likely to agree that they had become less cautious in their dating behavior over the course of the pandemic. Attachment anxiety was not related to hook-up frequency but was positively related to the percentage of hook ups outside of one's pod/bubble. One explanation for these findings is that people hooked-up infrequently at this stage of the pandemic, regardless of attachment style. The majority of our participants (76.5%) either never hooked-up or only did so 1–2 times. When they did hook up, however, anxious participants were more likely to choose someone outside their pod/bubble, despite the inherent risks (see also OSF for correlation table and [Supplementary Material](#)).

Study 2

Participants and Procedure

In study 2 we explored whether high attachment anxiety predicts single emerging adults' approval of protective measures (i.e., masking) in romantic contexts as compared to non-romantic social contexts. Single undergraduate students ($N = 186$) were recruited via the psychology department participant pool from October 1, 2021 to April 7, 2022. Most participants identified as Caucasian (88%), straight/heterosexual (79%), and girl/woman (83%). Participants'

Table 1. Regression results for attachment anxiety predicting outcome variables (study 1).

	Perceived Risk M = 4.53 (SD = 1.14)			Reduced Caution over Time M = 4.01 (SD = 2.01)			Attitudes toward Masking M = 3.50 (SD = .97)			Hook up Frequency M = 1.85 (SD = 1.02)			% Hook ups outside pod M = 34.76 (SD = 44.00)		
	b	SE	p	B	SE	p	b	SE	P	b	SE	p	b	SE	p
Constant	5.04	.90	.00	6.34	2.87	.03	3.02	1.28	.02	3.53	1.39	.01	-50.46	99.63	.61
Location	.13	.16	.44	.21	.30	.48	-.59	.13	.00	.49	.14	.00	14.73	9.54	.13
Age	-.01	.05	.77	-.10	.15	.52	-.02	.07	.73	-.04	.07	.56	5.44	5.32	.31
Gender	-.14	.18	.44	-.21	.33	.52	.06	.15	.67	-.36	.16	.03	11.97	11.36	.30
Perceived risk	-	-	-	-.21	.13	.11	.27	.06	.00	-.10	.06	.11	-1.34	4.01	.74
Attachment avoidance	-.04	.08	.61	-.06	.14	.67	.06	.06	.33	-.11	.07	.12	-3.63	4.30	.40
Attachment anxiety	.23	.08	.01	.29	.15	.05	-.00	.07	.97	.12	.07	.10	13.82	4.4	<.001
	$R^2 = 0.51$			$R^2 = .037$			$R^2 = .18$			$R^2 = .12$			$R^2 = .14$		
	$F(5, 196) = 2.12,$			$F(6,192) = 1.23,$			$F(6,192) = 7.03,$			$F(6,192) = 4.42,$			$F(6,82) = 2.29,$		
	$p = .06$			$p = .29$			$p < .001$			$p < .001$			$p = .04$		

Note. Gender was coded 1 = man/boy, 0 = woman/girl or gender non-conforming. Location represents the data collection site and was coded as 1 = Midwestern/urban site, 0 = Eastern/rural site.

average age was 18.84 years ($SD = .93$). Participants completed a measure of attachment style and were randomly assigned to receive a profile from either a fake dating website (romantic condition) or a student government website (control condition). Participants then reported on perceived risks, attitudes toward masking with the profile person, difficulty masking with the profile person, and confidence helping the person in the profile mask.

Measures

Attachment Style

The 36-item revised version of the ECR (ECR-R; Fraley et al., 2000) was used to assess attachment style (anxiety subscale $\alpha = .94$; avoidance subscale $\alpha = .94$).

Romantic Context Manipulation

Participants randomly assigned to the romantic condition were told that they would be evaluating the dating profile of a single college student and, if interested, would “have the opportunity to learn more about this person or connect with them following the study.” Participants in the control condition were told that they would be evaluating the profile of a student government representative and, if interested, would “have the opportunity to learn more about this person’s campaign or connect with their campaign manager following the study” (Slotter & Gardner, 2009; see also OSF link for full manipulation wording and profiles).

Perceived Risk

The same 5-item scale from study 1 was used to assess post-manipulation perceived risks associated with contracting COVID-19 ($\alpha = .75$).

Attitudes Toward Masking With Person in Profile

We adapted the scale from study 1 to assess how good, valuable, pleasant, and wise participants thought it would be to mask with the person in the profile (i.e., “If I were to meet face-to-face with the person described in the profile, using masking or facial coverings would be...”). Higher scores represent more positive attitudes towards masking ($\alpha = .88$).

Difficulty With Own Masking

Participants were asked “if you were to meet with the person in the profile during the next 24 hours, how hard would it be for you to use a mask?” (1 = *very hard*, 7 = *very easy*). Higher scores indicated less difficulty/greater ease with using a mask.

Confidence Helping Partner Mask

Participants also indicated how effectively they could help the person in the profile feel good about using a mask (1 = *very ineffectively*, 7 = *very effectively*).

Table 2. Regression results for the interaction between attachment anxiety and condition predicting outcome variables (study 2).

	Perceived Risk M = 4.37 (SD = 1.13)			Attitudes toward Masking M = 3.35 (SD = .97)			Difficulty with own Masking M = 3.99 (SD = 1.25)			Confidence Helping Partner Mask M = 3.65 (SD = 1.09)		
	b	SE	p	b	SE	p	b	SE	P	b	SE	p
Constant	2.16	1.79	.23	2.49	1.46	.09	3.25	2.04	.11	2.62	1.69	.12
Age	.12	.10	.21	.05	.08	.51	.05	.11	.66	.06	.09	.52
Gender	-.76	.25	.00	.00	.21	1.00	-.18	.29	.54	.06	.24	.82
Perceived risk	—	—	—	.34	.07	≥.001	.27	.09	≥.001	.28	.08	≥.001
Attachment avoidance	.03	.08	.71	.01	.07	.87	-.01	.09	.92	-.06	.08	.45
Attachment anxiety	.17	.09	.08	.12	.08	.13	.08	.11	.48	.13	.09	.15
Condition	.03	.17	.89	-.23	.14	.11	-.29	.19	.15	-.13	.16	.41
Anxiety x condition	.10	.13	.44	-.24	.11	.03	-.06	.15	.68	-.25	.12	.04
	$R^2 = .14$ $F(6,158) = 4.16,$ $p = .001$			$R^2 = .20$ $F(7,157) = 5.73,$ $p < .001$			$R^2 = .093$ $F(7,154) = 2.27,$ $p = .03$			$R^2 = .121$ $F(7,155) = 3.05,$ $p = .01$		

Note. Gender was coded 1 = man/boy, 0 = woman/girl or gender non-conforming. Condition was coded as 1 = romantic condition, 0 = control condition.

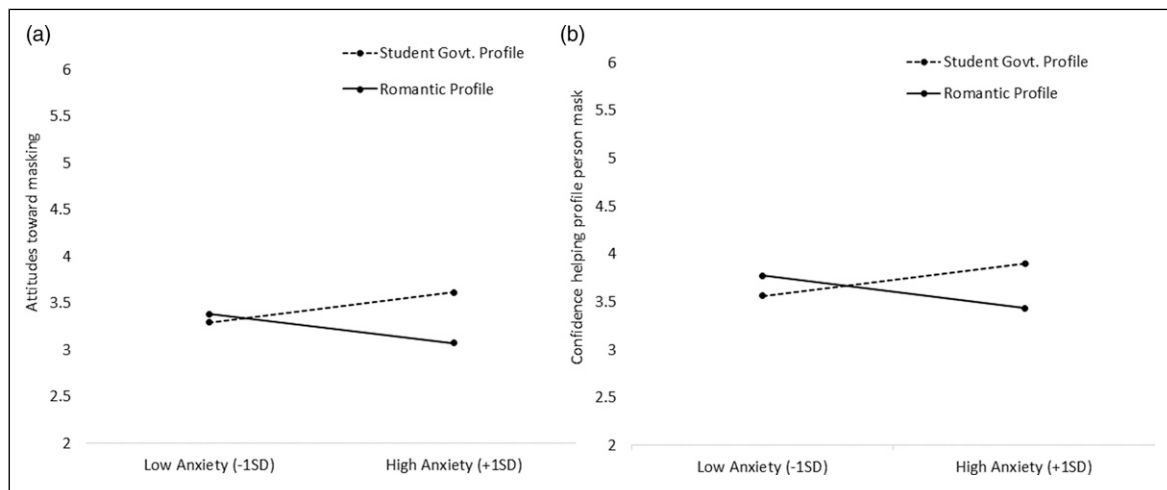


Figure 1. Interaction between attachment anxiety and condition predicting attitudes toward masking with the person in the profile (1a) and confidence helping person in the profile mask (1b).

Results and Discussion

Multiple regression analyses controlled for age, gender, perceived risk, and attachment avoidance (see Table 2). Results indicated that, regardless of condition, college students higher in attachment anxiety perceived slightly but not significantly more risk associated with COVID. Attachment anxiety did not interact with condition to predict post-manipulation reports of difficulty with own masking. However, attachment anxiety interacted with condition to predict attitudes toward masking with the profile person and confidence helping the profile person feel good about masking. We tested the simple effect of condition at high (+1SD) and low (-1SD) levels of attachment anxiety. High anxiety participants in the romantic (vs. control) condition reported more negative

attitudes toward masking with the person in the romantic profile, $b = -.54, SE = .20, 95\% CI = [-.93, -.15], t(164) = -2.70, p = .01$ (Figure 1(a)), and less confidence about helping this person feel good about masking, $b = -.47, SE = .23, 95\% CI = [-.92, -.01], t(162) = -2.02, p = .05$ (Figure 1(b)). Among low anxiety participants, condition had no effect on attitudes toward masking, $b = .20, SE = .23, 95\% CI = [-.25, .64], t(162) = .88, p = .38$, or confidence, $b = .20, SE = .23, 95\% CI = [-.25, .64], t(162) = .88, p = .38$.

Though not originally hypothesized, it seemed possible that high anxiety participants reported more negative attitudes toward masking in the romantic (vs. control) condition because, in this condition, they were less confident in their ability to help the profile person mask. Therefore, we used PROCESS version 4.1 model 8 (Hayes, 2022) to test the indirect effect of romantic

condition (X) on attitudes toward masking (Y) through confidence (M) at different levels of attachment anxiety (W). The index of moderated mediation was significant, $-.07$, $SE = .04$, $CI = [-.16, -.01]$. The indirect effect of condition on attitudes toward masking through confidence was significant at high levels of attachment anxiety, $b = -.14$, $SE = .08$, $95\% CI = [-.33, -.01]$, but not significant at low, $b = .04$, $SE = .06$, $95\% CI = [-.07, .17]$, or moderate levels, $b = -.05$, $SE = .05$, $95\% CI = [-.16, .04]$. Results remain the same when models are run without covariates.

General Discussion

In study 1, emerging adults high in attachment anxiety perceived more risks associated with COVID than their low anxiety counterparts. Nevertheless, emerging adults high and low in anxiety had similarly negative attitudes toward masking with a romantic partner. High anxiety participants also reported reducing caution in their dating over the course of the pandemic and a greater percentage of hookups outside their pod/bubble. Study 2 was conducted when students had returned to face-to-face classes and were required to be vaccinated, which may have calmed perceptions of risk; however, risk perceptions were still slightly higher among our anxious participants. Despite these perceptions, study 2 further revealed that anxious singles doubted their ability to help the person in the dating profile feel good about masking, which diminished the value of masking as a protective behavior in that condition. Consistent with the adult attachment literature, our results suggest anxious singles may appear riskier in romantic contexts, which hyperactivate the attachment system and fears of rejection. For example, high anxiety college students consent to unwanted sex (Impett & Peplau, 2002) and may fail to use condoms (Strachman & Impett, 2009) when discussing safe sex could limit intimacy or elicit rejection. Finally, similar to other studies reporting that deactivating strategies and preferences for emotional distance typically produce either no relationship or no consistent relationship between avoidance and sexual behavior and attitudes (e.g., Strachman & Impett, 2009; Feeney et al., 2000), attachment avoidance was unrelated to dependent measures across studies 1 and 2.

The current studies are not without limitations. Both studies lack diversity in terms of sexual preference and race, thus reducing the generalizability of our results. Additionally, our participants were undergraduate students. It is unclear whether single emerging adults in other locations or communities would behave similarly. Finally, we did not assess participants' interest in dating. Future research should explore whether the effects are stronger in situations where anxiously attached singles are explicitly interested in romantic connection. Despite these limitations, this work provides evidence that attachment anxiety influences the way single emerging adults navigate risk and romantic connection. As COVID-19 enters an endemic stage, our findings highlight the usefulness of an attachment theory framework for understanding emerging adults' responses to other challenging romantic situations that require balancing goals for intimacy with the

potential for rejection, such as conversations around consent, sexual intimacy, and cohabitation. Indeed, given the importance of love and dating for identity exploration (Arnett, 2000), researchers should consider how attachment orientations help explain individual differences in dating and intimacy-related goals in emerging adulthood.

Declaration of Conflicting Interests

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Open Practice

The materials used in this manuscript are openly available (https://osf.io/qast4/?view_only=cce85db621a549f88621b0fb4a78f50a) The de-identified data and analysis code is not openly available but is available upon request to the corresponding author. The data collection and analysis were not pre-registered.

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Danielle L. Kellogg is a Graduate Student in the Department of Psychology at Loyola University Chicago. Her research focuses on close relationships and discrimination, specifically exploring how women perceive, experience, and respond to hostile and benevolent sexism from their current romantic relationship partner.

Mia Morgan is an Undergraduate Research Assistant Majoring in Psychology. She a Member of the Self and Close Relationships Lab, which explore concepts relating to self-esteem, attachment, and belonging. Her research has mainly focused on the impact of COVID 19 on dating and sexual behavior.