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Individual difference predictors of starting a new romantic relationship during the COVID-19 pandemic

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ABSTRACT

Dramatic social changes brought about by the COVID-19 pandemic shifted the dating scene and the likelihood of people starting new relationships. What factors make individuals more or less likely to start a new relationship during this period? In a sample of 2285 college students ($M_{age} = 19.36$, SD = 1.44; 69.2% women; 66.7% White) collected from October 2020 to April 2021, anxiously attached and extraverted people were 10–26% more likely to start a new relationship. Avoidantly attached and conscientious people were 15–17% less likely to start a new relationship. How people pursued (or avoided) new romantic relationships closely mirrored their broader patterns of health and interpersonal behavior during the global pandemic.

The COVID-19 pandemic ushered in many changes to people's social lives. Governments and organizations recommended staying at home and avoiding contact with others to reduce the transmission of the virus. People viewed others, particularly strangers, as posing significant risks for exposure to COVID-19 (Cruwys et al., 2021). Nevertheless, people continued to socialize and form relationships (Szocska et al., 2021). Who was more likely to start a new romantic relationship in the context of a global pandemic, before the widespread availability of vaccines? Specifically, are there psychological characteristics that might predict this behavior? The current study examined individual difference predictors of initiating a monogamous romantic relationship among over 2000 participants over a seven-month period.

1. COVID-19 and changes to social life

The COVID-19 pandemic has claimed the lives of at least one million people in the United States alone and over six million people worldwide (Johns Hopkins University, 2022). At the beginning of the pandemic, state and federal officials instituted stay-at-home policies to reduce the spread of COVID-19 within their communities (Kates et al., 2020), but it is possible that there were unintended negative psychological consequences. For example, mental health problems increased over the early

stages of the pandemic (Daly et al., 2020; Robinson et al., 2022); the prevalence of depression and anxiety rates among adolescents increased by over 20% (Racine et al., 2021). At least some of these psychological consequences might be attributable to restrictions on their ability to socialize (among other reasons).

People have an essential need to belong to a group and to seek out social relationships (Baumeister & Leary, 1995). However, the pandemic and subsequent mitigation efforts constrained people's ability to socialize and form new relationships with others due to changing norms around interactions, fewer public spaces to meet people, and preventative health behavior to avoid exposure to COVID-19 (e.g., staying home, social distancing). Physical proximity and opportunities to interact are necessary to start new relationships—they are among the most significant predictors of whether two people start a romantic relationship (Finkel et al., 2012). With fewer opportunities for physical and sexual intimacy (Frederick et al., 2017), the pandemic has likely stymied many romantic relationships from ever forming. However, both anecdotal reports of new relationships and large-scale mobility patterns from cellular providers suggest that people may have been more mobile and more social than public health recommendations and guidelines anticipated (e.g., Glanz et al., 2020; Hogan, 2020; Luscombe, 2021; Szocska et al., 2021). For example, only a minority of fledgling couple members

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remained socially distanced from one another, and most relationships continued to be sexually active (Yarger et al., 2021). For many people, new romantic relationships provided a welcome reprieve from the loneliness during the pandemic, paving the way for emotional bonding and relationships to progress (Goodwin et al., 2020).

In sum, the COVID-19 pandemic presented many challenges for people and their existing relationships. However, many people continued to socialize, and some people started new romantic relationships, perhaps to buoy themselves during the more intense periods of quarantining. To date, it is unclear how common it was to start a new romantic relationship during the pandemic and, importantly, who was most likely to do so. In the current study, we examined individual difference predictors of whether or not people started a new relationship during the pandemic.

2. The role of personality in forming new romantic relationships

Individual differences in people's thoughts, feelings, and behaviors (their personalities) and how they typically approach relationships (e.g., their attachment orientations) can help explain who formed new romantic relationships during an unprecedented period of social distancing and quarantining.

The Big Five taxonomy of personality characterizes individual differences in five traits: extraversion, agreeableness, openness to experience/open-mindedness, conscientiousness, and negative emotionality/neuroticism. Additionally, attachment anxiety (i.e., a concern about the availability of close others) and avoidance (i.e., a discomfort with emotional and physical intimacy) also likely affected people's comfort with starting and maintaining relationships.

Most of the research linking personality and attachment orientations to COVID-19-related research questions has focused on mental health and coping (Starcevic & Janca, 2022; Vowels et al., 2022). Whether individual difference characteristics might predict starting a relationship is unknown. We draw on work examining how these individual differences are associated with preventative and risky health behavior. Openness to experience (related to perceptions of risk and novelty), agreeableness (related to adherence to social norms), and conscientiousness (related to preventative health behavior and due diligence in following public health guidelines) are all associated with pandemicrelated behaviors (Götz et al., 2021). For example, open and neurotic people perceived COVID-19 as a greater threat and spent more time at home (Götz et al., 2021; Troisi et al., 2021). Likewise, disagreeable people (i.e., those low in prosociality, care for others, and normfollowing) were less likely to comply with government and public health restrictions (Zajenkowski et al., 2020). Conscientious and agreeable people were more likely to adjust their behavior to be aligned with public health recommendations (Bogg & Milad, 2020; Zettler et al., 2021). Neurotic people advocated for travel restrictions, cancelling events, and closing public life, in addition to worrying more about the pandemic, their health, the health of close others, and the risk COVID-19 posed to society. Extraverts enjoy socializing, and they are more likely to skirt stay-at-home orders (Götz et al., 2021). Altogether, we predicted that conscientious people would be less likely to and extraverted people would be more likely to start a relationship during the pandemic. Although there is some work on agreeableness, openness, neuroticism, and preventative health behavior during the pandemic, their influences might be more distal or occasionally competing (e.g., neurotic people's fear of the pandemic might lead them to not socialize with others, or their neuroticism might contain an element of social anxiety and compel them to reach out to others). Thus, we treated those tests as exploratory; however, more relationally relevant characteristics (i.e., attachment anxiety and avoidance) may be more clearly associated with who started a new relationship during this time.

Anxiously attached individuals reported more mental health problems during the early phase of the pandemic (Vowels et al., 2022). Anxious people report greater fear of COVID-19 and might engage in healthier behaviors and avoid new relationships (Troisi et al., 2021); they are more likely to behave as "sentinels" and encourage close others to engage in safe practices like handwashing and mask-wearing (Lozano & Fraley, 2021). However, there is some heterogeneity in whether attachment anxiety is associated with risky behavior during COVID-19. For example, although anxious individuals might be more likely to encourage some asocial health behaviors (e.g., handwashing), they also adhere less to social health behaviors (e.g., they violate social distancing regulations; Gruneau Brulin et al., 2022). Regardless, anxious' individuals' preoccupation with close others and their relationships would likely motivate them to find new relationships. As a result, we anticipated that anxious individuals might be more likely to start a relationship during the pandemic, given their need for constant reassurance and support from other people (Mikulincer & Shaver, 2003). Avoidant individuals, on the other hand, were less likely to encourage preventative health behavior (Gruneau Brulin et al., 2022). This might lead to the prediction that they might meet and date new people during the pandemic. However, this is uncommon for avoidant people who, historically, are less likely to form and stay in intimate relationships (Schindler et al., 2010). Ultimately, we hypothesized that during the pandemic, anxiously attached people would be more likely and avoidantly attached people would be less likely to start a new relationship.

3. The current study

In the current study, we recruited a large, cross-sectional sample of undergraduates who completed a survey at various points over a 7-month period during the pandemic (October 2020–April 2021), often prior to when vaccines were readily and widely available. Given people's fundamental need to belong (Baumeister & Leary, 1995), we hypothesized at least some people would form new romantic relationships despite public health recommendations to limit physical contact with individuals outside of one's household.

Based on previous research on Big Five personality predictors of sheltering-in-place and preventative health behaviors (Götz et al., 2021; Han, 2021), we predicted that extraverts would be more likely to start a relationship. We predicted that conscientious people would be less likely to start a new relationship because they are often risk-averse (Bogg & Roberts, 2004). Higher levels of agreeableness, negative emotionality, and open-mindedness are each associated with shifts toward preventative health behavior, suggesting that these traits might also be associated with a lower likelihood of starting a relationship, but we treated these questions as exploratory. We predicted that anxiously attached individuals would be more likely to start a relationship because of their preoccupation with relationships and proneness to loneliness (Wei et al., 2005). We predicted that avoidant individuals would be less likely to start a relationship because of their discomfort with intimacy and a lower likelihood of starting committed relationships.

4. Method

4.1. Participants

Participants were 2285 undergraduate students from a large Midwestern research university who participated in a survey from October 7, 2020, until April 23, 2021. During this period, at the state level, there were several restrictions on indoor social gatherings implemented (in October/December 2020 and again in May 2021 as additional variants began to emerge shortly after vaccine availability became widespread for young adults). Likewise, the university imposed its own set of restrictions to curb the spread of the virus (e.g., cancellation of social gatherings, rules against [and punishment] for attending large parties, and mask mandates). Participants were volunteers and received course credit in exchange for participating. We collected as much data as possible, and this enabled us to detect effects as small as $f^2 = 0.004$ (OR = 1.17) at 80% power at $\alpha = 0.05$.

They were on average 19.36 years old (SD=1.44; range: 18–36). The majority of the sample identified as women (69.2%). The sample was predominantly White (66.7%) followed by Asian (13.0%), Black/African American (9.4%), Multiracial (5.3%), Hispanic/Latino (3.6%), and others (2.0%). Twenty percent of the sample (N=458) started a new relationship during the pandemic (i.e., responded 'yes' to the question, "Did you start a new relationship since the COVID-19 outbreak began?").

Among those in the sample who noted using mobile dating apps (N = 350), the most common mobile dating apps were Tinder (used by 86% of the sample), Bumble (22.6%), Hinge (11.7%), and others (5.1%), with many using more than one dating app.

4.2. Measures

4.2.1. Adult attachment orientation

Attachment orientation was measured using the 9-item version of Experiences in Close Relationships, a short-form scale that has been shown to adequately predict relationship and interpersonal functioning outcomes (i.e., investment characteristics, depression; Fraley et al., 2011). The 3-item anxiety subscale reflects an individual's concern about abandonment (sample item: "I'm afraid that other people may abandon me"). The 6-item avoidance subscale reflects an individual's discomfort with emotional and physical closeness (sample item: "It helps to turn to people in times of need"; reverse-scored). Participants were asked to rate the extent to which they agree with each item on a scale ranging from 1(strongly disagree) to 7(strongly agree), and items are averaged to create subscales for anxiety ($\alpha = 0.86$) and avoidance ($\alpha = 0.81$).

4.2.2. Big Five personality traits

Personality traits were measured using the Big Five Inventory-2 short form (BFI-2-S; Soto & John, 2017). The questionnaire contains 30 items that ask individuals to rate the extent to which each statement accurately describes them (i.e., "I am someone who...") on a scale ranging from 1 (disagree strongly) to 5 (agree strongly). This short-form scale has shown adequate validity in predicting intra- and interpersonal outcomes from both self- and peer-reports at comparable levels to longer versions of the scale (Soto & John, 2017). The BFI-2-S measures extraversion (6 items; sample item: "Is outgoing, sociable;" $\alpha=0.76$), agreeableness (6 items; sample item: "Is respectful, treats others with respect;" $\alpha=0.74$), conscientiousness (6 items; sample item: "Is reliable, can always be counted on;" $\alpha=0.73$), negative emotionality (6 items; sample item: "Worries a lot;" $\alpha=0.83$), and open-mindedness (6 items; sample item: "Is original, comes up with new ideas;" $\alpha=0.78$). Responses were averaged to create composites for each dimension.

5. Results

Bivariate correlations between all study variables are presented in Supplementary Table 1. As seen in previous research (Moors et al., 2017;

Noftle & Shaver, 2006), attachment orientation and the Big Five personality traits were often intercorrelated, and their associations ranged in magnitude from r=|0.002| to r=|0.59| ($Mean_r=|0.20|$). Because age and gender were correlated with attachment orientations and Big Five personality traits, they were controlled for in all subsequent analyses.

We ran a logistic regression predicting starting a relationship during the pandemic (0= no, 1= yes) from attachment anxiety, attachment avoidance, extraversion, agreeableness, conscientiousness, negative emotionality, open-mindedness, age, and gender (-1= men, 1= women).

As seen in Table 1, people high in attachment anxiety were 9.7% more likely to have started a relationship, and people high in attachment avoidance were 15.1% less likely. Of the Big Five personality traits, extraversion was the largest predictor—extraverts were 26% more likely, and conscientious individuals were 17% less likely to start a relationship. Negative emotionality, agreeableness, open-mindedness, age, and gender were not significantly associated with starting a relationship.

6. Discussion

Anxiously attached and extraverted individuals were likely to start a relationship during the COVID-19 pandemic. Avoidantly attached and conscientious individuals were less likely to start a relationship. The results are consistent with both these individuals' social tendencies more generally and their behavior in other domains during the COVID-19 pandemic. Knowing which individual difference characteristics were associated with new relationships offers insight into how people navigated shelter-at-home and social distancing orders while trying to maintain a sense of relational belonging during the pandemic.

6.1. Starting a new relationship during a pandemic

Individuals go through many steps to become closer to another person and establish a relationship (Eastwick et al., 2018). Many of those steps involve spending time together to allow interdependence processes to play out (Kelley & Thibaut, 1978). Mitigation measures ostensibly restricted people's ability to form new relationships. Despite these restrictions, people have a fundamental need to belong, and they likely sought out relationships—whether friendships or romantic relationships—to maintain their well-being. We found that, indeed, the pandemic did not entirely stymie young adults' relationship formation—20% of people in our sample started a relationship during the pandemic, before vaccines were widely available, with many in the sample using mobile dating applications (e.g., Tinder).

Although the average rate of new relationships during non-pandemic times is unclear, the current results suggest that starting a new relationship even during periods of pandemic restrictions is at least somewhat common. This 20% (who successfully started a new relationship) may be an underestimate of efforts to start a new relationship because it

Table 1Logistic regression predicting starting a new relationship during the COVID-19 pandemic.

	b	SE	Wald	p	Exp(b)	95% confidence int $(Exp(b))$	
						LB	UB
Attachment anxiety	0.09	0.04	4.64	0.031	1.097	1.008	1.193
Attachment avoidance	-0.16	0.05	9.02	0.003	0.849	0.763	0.945
Extraversion	0.23	0.08	8.46	0.004	1.263	1.079	1.478
Agreeableness	-0.14	0.09	2.38	0.123	0.870	0.729	1.039
Conscientiousness	-0.19	0.08	5.32	0.021	0.829	0.706	0.972
Negative emotionality	0.02	0.08	0.07	0.786	1.023	0.870	1.202
Open-mindedness	-0.08	0.08	1.04	0.308	0.926	0.799	1.073
Age	0.01	0.04	0.08	0.784	1.010	0.838	1.088
Gender	0.09	0.07	1.97	0.161	1.095	0.965	1.244

Note. χ^2 (9) = 35.12, p < .001. *Nagelkerke* $R^2 = 0.024$. Gender: -1 = men, 1 = women.

does not speak to how many people *tried* to form a new relationship but ultimately were unable to. The behavior of those who attempt to start a relationship likely looks similar to those who found a relationship—meeting strangers in person for dates, possibly going to social events in indoor or crowded establishments, and/or engaging in sexual activity. More generally, however, that approximately one in five people in our study started a new relationship during the pandemic gives a preliminary indication (if not a lower bound) of how common this practice is.

6.2. Individual differences in relationship initiating during the COVID-19 pandemic

Psychological characteristics, such as personality, guide our thoughts, feelings, and behaviors across situations. This is also true during the COVID-19 pandemic (e.g., Götz et al., 2021; Lozano & Fraley, 2021; Vowels et al., 2022; Zajenkowski et al., 2020; Zettler et al., 2021). For example, conscientious and agreeable people were likely to comply with pandemic mitigation efforts, such as staying home and social distancing. Extraverts were more likely to violate stay-at-home orders to fulfill their desires for socializing. People high in attachment anxiety often adhered less to more social forms of health behaviors, like meeting up with others and not social distancing. We found that many of these same patterns emerged with respect to who was more likely to start a new relationship during the pandemic, when contracting COVID-19 was highest and before the widespread availability of vaccines.

Specifically, people higher in attachment anxiety and extraversion were more likely and people high in attachment avoidance and conscientiousness were less likely to start a new relationship during the pandemic. Anxious individuals can be preoccupied when it comes to relationships, such that relationships often dominate their thoughts and feelings, perhaps more so in threatening situations like a pandemic (Mikulincer & Shaver, 2003). As a result, highly anxious individuals desire to be in committed relationships; indeed, we found that anxiously attached individuals had a higher likelihood of starting a romantic relationship. Extraverts were also more likely to start a relationship, although the mechanisms may be more indirect. For example, extraverts enjoy being social (Breil et al., 2019). Because they interacted with more people during the pandemic than introverts (Götz et al., 2021), they may have had more opportunities to form new relationships. Thus, although attachment anxiety and extraversion were associated with starting a relationship, both constructs may have been associated with starting a new relationship for different reasons—anxious people's desire for a relationship and extraverts' increased opportunities to meet new people.

The same can be said for attachment avoidance and conscientiousness. Avoidant people are unlikely to seek out and maintain long-term relationships even outside a pandemic (Schindler et al., 2010). Given the additional barriers to dating and, perhaps, exacerbated mental health problems, avoidant people may have been particularly unlikely to start a relationship. Conscientious people enact healthier behaviors, often resulting in better physical health and longevity (Shanahan et al., 2014). These health behaviors also include avoiding risky situations (Bogg & Milad, 2020; Bogg & Roberts, 2004). Spending time with people outside a person's household is probably a risk conscientious people were unlikely to take, given their high adherence to COVID-19 protocols and safety behaviors (Bogg & Milad, 2020). Agreeableness, neuroticism, and openness to experience were not significantly associated with a new relationship. Altogether, the patterns we found for starting a romantic relationship during the pandemic were consistent with the broader behavioral tendencies of these individual difference constructs.

It is worth acknowledging that, even outside the context of the pandemic, some of these characteristics might be associated with starting romantic relationships. For example, extraverted and anxiously attached people's draw toward people might lead them into relationships even when there isn't a major public health threat (and likewise avoidant individuals' distance from others reducing the likelihood of a

new relationship). However, research on this topic has revealed heterogeneous findings (see Asselmann & Specht, 2020; Bleidorn, Hopwood, & Lucas, 2018). Sometimes, extraversion (consistent with the current study) and conscientiousness (inconsistent with the current study) are associated with a *higher* likelihood of starting a relationship; other times, personality is *unrelated* to the likelihood of starting a relationship. Conscientiousness, a trait less ostensibly related to social interaction, may be the special case in this context in that it normally might predict starting a romantic relationship but reduced the likelihood of doing so during the COVID-19 pandemic.

6.3. Limitations and future directions

It is worth acknowledging the limitations of our study.

First, our study relied heavily on young adults who were college students (who may have been more likely to start a new romantic relationship), people from the Midwestern United States, and the study did not span the entire length of the (continuing) pandemic. Young adults may have been more active daters during this period, so the rate of new relationships might significantly differ by age. It is possible that people in more collectivistic cultures or even other regions of the United States might have behaved differently. The link between collectivism and COVID-19-related behavior and positive COVID-19 cases is a little obscure and might depend on additional contextual information as well, as it predicts greater compliance and preventative health behavior in some contexts but more positive cases in others (see Lu et al., 2021; Webster et al., 2021). Severity of the pandemic and how stringent (and the type) of restrictions and how they changed over time are also important factors to consider. Future research should examine individual difference predictors of relationship formation across a broader variety of contexts.

Second, we were agnostic as to whether these relationships might ultimately last and are satisfying, given that they started during the pandemic. Longitudinal data among those who started new relationships would be needed to answer these questions. Worth noting, relationship satisfaction was relatively stable over the early stages of the pandemic (Williamson, 2020), and these individual difference characteristics that predicted starting a relationship might not predict whether the relationships last/are satisfying. Future research can examine the outcomes of relationships that were started during the COVID-19 pandemic.

6.4. Conclusion

Starting a new romantic relationship during the COVID-19 pandemic represents a unique set of behaviors—navigating pandemic restrictions and the stress they entail to continuously meeting a new person and dating them. Extraverts and anxiously attached people were slightly more likely to start a relationship; conscientious and avoidant individuals were slightly less likely to start a relationship. These patterns contribute to a more holistic understanding of individual differences in health- and relationship-related behavior during the COVID-19 pandemic.

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CRediT authorship contribution statement

WJC conceptualized the idea, analyzed the data, and interpreted the results; SW also conceptualized the idea. WJC, DL, MS, AS, MA, KS, and HY drafted the manuscript; JO, MFP, ACM, SW, and WJC provided critical feedback.

Data availability

Data are available on request.

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