Anxiously Searching for Love (Among Other Things): Attachment Orientation and Mobile

Dating App Users' Motives and Outcomes

Abstract

The present study explores how attachment orientation (i.e., people's characteristic approach to close relationships) is associated with dating app users' motives and outcomes. We collected data from 395 current dating app users. Regression analyses showed that attachment anxiety positively predicted all dating app motives, whereas attachment avoidance positively predicted travelling but negatively predicted pass time/entertainment. Logistic regression analyses showed a decreased likelihood for people with higher scores on attachment anxiety to meet up with other dating app users. In a similar vein, a decreased likelihood to meet up with other dating app users while in a committed relationship was found for both individuals with higher scores on anxious attachment and avoidant attachment. Finally, higher scores on anxious attachment and avoidant attachment were significantly related to reporting a higher number of romantic relationships and friendships with other dating app users, whereas only higher scores on anxious attachment was related to reporting a higher number of casual sexual experiences while being single and while in a committed relationship.

Keywords: Online Dating; Mobile Dating Apps; Attachment Theory; Motives; Outcomes

Introduction

Dating apps have become one of the most common methods of pursuing a romantic or sexual partner. Because of the prevalence of smartphones, adults now have access to their entire dating market from the palms of their hands. Research has shown that 15% of American adults have used dating sites or mobile applications[1], and that the most popular way for heterosexual couples meet is through online platforms[2]. Yet, it seems that certain people are more drawn to these online dating platforms than others. For instance, Tinder users tend to be more extraverted, more open to new experiences[3] and more sexually permissive[4] compared to non-users.

Attachment theory is a useful framework with which to examine differences in the partner selection process; thus, it may explain users' behavioral tendencies related to dating apps. Originally developed by Bowlby to explain the close bonds between children and their caregivers, a person's attachment orientation describes the cognitive and behavioral patterns of responding to close relationships[5]. Individual differences in attachment orientation are conceptualized along two orthogonal dimensions: anxiety and avoidance. People higher in attachment anxiety enjoy physical intimacy but have concerns about abandonment, whereas people higher in attachment avoidance tend to dislike physical and emotional intimacy in close relationships[6,7]. People low on both dimensions are considered to be securely attached and feel comfortable depending on and trusting their romantic partner.

So far, studies investigating the association between attachment orientation and online dating are both scarce and, at times, contradictory. Whereas Blackhart and colleagues (2014) did not find a significant association between insecure attachment and online dating use[8], Chin and colleagues (2019) reported that anxiously attached individuals were more likely to use dating apps and reported wanting to meet others through dating apps. The opposite was found for

people with higher scores on avoidant attachment[9]. Furthermore, attachment orientation did not predict risky online dating behavior (i.e., meeting up quickly, meeting up in a private place, and not telling anyone about the face-to-face meeting)[8]. The current study aims to further add to our knowledge on mobile dating app use by examining the association between mobile daters' attachment orientation and their mobile dating app motives as well as their reported outcomes (e.g., face-to-face meetings, romantic and casual relationships).

Just as attachment orientation may predict one's likelihood of using dating apps, it may also explain how users approach these dating apps. Previous research has identified thirteen different motives for why people use dating apps. These motives describe users who actively seek out others for social purposes (e.g., socializing, relationship seeking, sexual contact, meeting others while travelling), but also entail more passive uses of the app (e.g., getting a better estimate of one's dating market value, passively entertaining oneself, or satisfying one's curiosity)[10]. Mobile dating app users' personality traits were also found to be associated with their motives. For example, extraversion is negatively associated with using Tinder for relationship seeking, whereas conscientiousness is positively associated with using Tinder to find a romantic partner (i.e., active motive). Contrarily, conscientiousness is negatively associated with using Tinder to pass time or for entertainment purposes, whereas extraversion is positively associated with this rather passive motive.[3] Because these studies have found that dating app motives vary as a function of personality, it seems likely that similar patterns would emerge for attachment constructs.

Individuals high in attachment anxiety tend to desire affiliation and fear rejection[11]. Mobile dating apps are designed in such a way that users are notified when they have mutual likes (i.e., a match) but remain unaware of others who rejected their profiles, thereby creating an

enjoyable environment that focuses on social approval and avoids distressing rejections. In other words, mobile dating apps can be perceived as easily-accessible tools to evaluate one's own mate value and make one feel like a desirable partner[12]. Additionally, previous research suggests that mobile daters intend to meet other users face-to-face[9], thereby valuing the socializing and connecting opportunities provided by such apps. On the other hand, the degree of intimacy that comes with close relationships often makes avoidantly-attached individuals uncomfortable. Because of this, they have been found to be less likely to enter committed relationships[13] and more likely to engage in casual sex.[14,15] Thus, we hypothesize that anxious individuals will be more likely to use dating apps for active socializing (e.g. relationship seeking, sexual experience, socializing) and social approval, whereas avoidant individuals will be more likely to use dating apps for more passive purposes (e.g., pass time/entertainment, curiosity) and sexual experience.

Additionally, given that anxiously-attached people desire connection and avoidantly-attached people are averse to closeness and intimacy[7], we hypothesize that anxiously-attached individuals will be more likely to seek face-to-face meetings with other dating app users, whereas avoidantly-attached individuals will be less likely to do so. Moreover, given that anxiously-attached individuals report rapid romantic involvement[16], we predict that people with higher scores on attachment anxiety will also report more romantic relationships derived from dating apps. Finally, as research suggests more avoidant people are more interested in alternatives to their relationship partner, have more positive attitudes toward cheating on their partner, and are less committed to their partners[17], we hypothesize that having a higher score on attachment avoidance might increase the likelihood of using a mobile dating app to meet others while in a committed relationship.

Method

Participants and Procedure

In total, 395 dating app users (55.9% male, Mage = 26.76; SD = 8.33) completed the

survey. The majority of participants (55.4%) were recruited through MTurk (n = 219; 70.3%

males; Mage = 30.62; SDage = 9.04) and received a compensation of two dollars for their

participation. The other group was recruited at a medium-sized east coast university (n = 176;

38.1% males; Mage = 21.93; SDage = 3.44) and received extra credit for their time. The majority

of dating app users reported using Tinder (89.1%).

Measures

Demographics. Participants reported their sex (0 = male, 55.9%; 1 = female), their age,

their sexual orientation (0 = heterosexual, 80.5%; 1 = other), and their relationship status (0 =

single/casually dating, 60.5%; 1 = seriously dating/cohabitating/engaged/married).

Dating app motives. An adapted version of the Tinder Motives Scale[10] was used to

measure motives for using mobile dating apps (see Table 1).

Dating app outcomes. Participants that had met another dating app user face-to-face

(74.4%) received follow-up questions related to the number of committed relationships with

other dating app users [M = 8.09; SD = 12.94; skewness = 1.76 (SD = .14); kurtosis = 1.84 (SD =

.28)], number of casual sexual relationships [M = 8.83; SD = 12.34; skewness = 1.62 (SD = .14);

kurtosis = 1.66 (SD = .28)], and number of friends [M = 9.80; SD = 12.95; skewness = 1.46 (SD

= .14); kurtosis = 1.01 (SD = .28)] derived from the app. Finally, participants also indicated

whether they met up with another mobile dating app user *while in a committed relationship with*

someone else (n = 191; 48.4% of total sample, 65% of sample that met up with other dating app

user) and with how many of those people they had casual sexual intercourse while in a

committed relationship [M = 16.08; SD = 15.42; skewness = .62 (SD = .24); kurtosis = -.92 (SD

= .47)].

Attachment orientation. Participants completed the 12-item Experiences in Close

Relationships Scale-Short Form[18] to assess attachment orientation (see Table 1). The college

sample (M = 4.05; SD = 1.07) did not significantly differ from the MTurk sample (M = 4.04; SD

= 1.29; t(392,638) = .01, p = .99) for anxious attachment. Similarly, the college sample (M =

3.33; SD = 1.03) did not significantly differ from the MTurk sample (M = 3.37; SD = 1.02;

t(393) = -.42, p = .68) for avoidant attachment.

Results

First, we tested whether attachment orientation was positively associated with mobile

dating app motives using hierarchical regression analyses with adjusted p-values. Table 2 shows

that attachment anxiety was positively associated with all dating app motives, whereas

attachment avoidance was only positively associated with the travelling motive and negatively

associated with the entertainment motive.

Next, logistic regression analyses were used to examine whether attachment orientation

predicted having a face-to-face meeting and having a face-to-face meeting with other dating app

users while in a committed relationship (see Table 3). The overall model for having had a face-

to-face meeting was significant, χ^2(7) = 43.941, p < 0.001, Cox and Snell R^2 = .11, and

Nagelkerke R^2 = .16, and the model fit was good, Hosmer and Lemeshow test, χ^2(8) = 3.375, p =

.909. The odds ratio for having had face-to-face meetings with other dating app users decreased

for people with higher scores on attachment anxiety (odds ratio = .75). The overall model for

having met face-to-face while in a committed relationship was significant as well, χ^2(7) =

116.026, p < 0.001, Cox and Snell R^2 = .33, and Nagelkerke R^2 = .45, and the model fit was

good, Hosmer and Lemeshow test, $\chi^2(8) = 14.536$, $p = .069$. Attachment anxiety and avoidance were negatively associated with having face-to-face meetings with other dating app users while in a committed relationship, meaning that the odds ratios to meet up with other dating app users while in a committed relationship decreased for anxiously-attached individuals (odds ratio = .58) and avoidantly-attached individuals (odds ratio = .72; see Table 3).

Finally, regression analyses reported in Table 4 show that attachment anxiety and avoidance are positively associated with users' reported number of romantic relationships and friendships with other dating app users. Additionally, a higher score on attachment anxiety, but not attachment avoidance, was positively associated with engaging in casual sexual interactions, both while being single and in a committed relationship.

Discussion

This study contributed to recent research on attachment and mobile dating and confirmed that attachment theory is an effective framework for understanding dating app motives and outcomes. Consistent with previous research[9], those with higher scores on attachment anxiety are likely to seek out emotional intimacy and attempt to form relationships, and thus embody a variety of dating app motives, including relationship-seeking, sexual experience, and flirting, were relevant to them. In contrast to our hypothesis, a higher score on attachment avoidance was not significantly linked to using dating apps for casual sex, nor did they report an increased number of casual sexual partners met through dating apps. Yet, the literature demonstrating a link between attachment avoidance and casual sex seems to be conflicting, as some researchers have pointed out that avoidant individuals have lower numbers of casual and committed sexual partners[19].

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Interestingly, people with higher scores on attachment avoidance were more likely to use dating apps while travelling. This may be a driving force for more avoidant individuals because it is harder to create meaningful or long-lasting connections while travelling as the user will have to return to his or her home country at some point.

Contrary to our hypothesis, people with higher scores on attachment avoidance were less likely to use dating apps for passing time or entertainment purposes. It is possible that spending time on a dating app, and therefore increasing the likelihood of receiving matches and chat messages, is less entertaining and more stressful for someone who is averse to making emotional connections. Dating apps can offer a low-risk, convenient way to initiate relationships for people struggling with social anxieties[20]; however, individuals scoring high on attachment avoidance may not be engaged with dating apps for their convenience and ability to mitigate boredom, but instead seek out other entertainment tools that do not necessarily include social interactions such as viewing their favorite television show.

Although we predicted that those with higher scores on attachment anxiety would be more likely to meet up with others on dating apps, they exhibited a decreased likelihood of meeting up with others. Similarly, our findings show a decreased likelihood to meet up with other dating app users while in a committed relationship for those with higher scores on both avoidant and anxious attachment. Research has established that anxiously-attached people are more willing to commit and seek out romantic partners because of their desire to maintain close relationships[15]. However, it is possible that the fear of abandonment and rejection that is characteristic of anxious attachment prevents anxious users from fully pursuing romantic opportunities. Research has also found that, although insecurely-attached individuals do indeed embody some desirable qualities that attract others[21], anxiously-attached individuals may

frequently seek reassurance or appear to be hypervigilant about potential rivals[11], making it

difficult to progress the online interaction into a face-to-face meeting. It is also important to note

that previous research has shown that dating app use does not necessarily lead to face-to-face

interactions, as only slightly more than half of Tinder users in a large sample reported having

face-to-face meetings with other users[22].

Finally, whereas those with higher scores on attachment anxiety were less inclined to

meet up with others, our results show that when they did meet up with others, they were more

likely to report an increased number of romantic relationships, casual sexual encounters, and

friendships, and an increased number of casual sexual encounters while in a committed

relationship themselves. These findings imply that even though attachment anxiety is not

significantly associated with meeting face-to-face with other dating app users, once mobile

daters with higher scores on attachment anxiety decide to meet up with other dating app users,

the face-to-face meeting is likely to develop into some form of meaningful romantic, friendly, or

sexual connection rather than remaining a futile encounter. Additionally, a recent study

examining attachment orientation and casual sex showed that both men and women who score

high on anxious attachment report more casual sex.[23] These findings are also consistent with

previous studies examining social media as a platform for anxiously-attached individuals to

engage in infidelity behaviors. For instance, researchers found a significant relationship between

anxious attachment and Facebook solicitant behaviors (i.e., adding romantic interests on

Facebook while being in a committed relationship), explaining that these insecure individuals

might be lining up alternative romantic partners in case their relationship fails because they

constantly fear this might be the case.[24] Applied to the current study, those with higher scores on

attachment anxiety might be looking for backburners on dating apps in the event that they need

to search for a new relationship.

Conclusion

According to our findings, anxious attachment is a strong predictor for many mobile

dating motives and outcomes, suggesting that despite their decreased likelihood of meeting face-

to-face with other dating app users, individuals with higher scores on attachment anxiety are

interested in pursuing any form of intimacy. In contrast, our findings suggest that individuals

with higher scores on attachment avoidance do not necessarily follow a specific pattern. Some

who exhibit attachment avoidance are fearful of intimacy, and some want to avoid intimacy at

great lengths. Perhaps the non-significant findings reflect this variability. Future research could

build on these findings and further explore how avoidantly-attached individuals could use mobile

dating apps differently.

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Table 1. *N items, Cronbach's alpha's, Means, and Standard Deviations for TMS factors and Attachment Orientation*.

TMS Factor	*N items*	*α*	*M*	*SD*
Curiosity	**3**	.66	5.16	1.11
Pass Time/Entertainment	**7**	.88	5.13	1.13
Socializing	**4**	.81	4.87	1.29
Social Approval	**6**	.91	4.45	1.49
Flirting/Social skills	**6**	.87	4.34	1.42
Relationship seeking	**5**	.91	4.25	1.61
Sexual Experience	**6**	.92	4.12	1.64
Travelling	**5**	.90	4.01	1.62
Ex	**3**	.94	3.98	1.92
Attachment Orientation		*α*	*M*	*SD*
Anxious	**6**	.75	4.04	1.20
Avoidant	**6**	.66	3.35	1.02

Note. **All items are rated on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).**

Table 2. *Regression Analyses with Adapted TMS Factors as Dependent Variables and Sex, Age, Sample, Sexual Orientation, Relationship Status (Block 1), and Anxious and Avoidant Attachment (Block 2) as Independent Variables.*

	Relationship Seeking	Sexual Experience	Social Approval	Flirting/ Social Skills	Forget Ex	Travelling	Socializing	Pass time/ Entertainment	Curiosity
	β	β	β	β	β	β	β	β	β
Block 1									
Sex	-.13	-.38**	-.08	-.14*	.02	-.10	-.03	-.02	.05
Age	.07	-.03	-.05	-.02	.03	-.02	.07	.00	.08
Sample	.24**	.26**	.15	.27**	.03	.08	.21**	.05	-.03
Sexual Orientation	.01	.03	.09	.04	-.00	.04	.09	.12	.04
Relationship status	.07	.06	.09	.09	.08	.16**	-.01	.00	-.01
Block 2									
Anxious	.40**	.19**	.42**	.42**	.53**	.35**	.35**	.37**	.36**
Avoidant	-.06	.11	-.02	.08	.08	.16**	-.04	-.19**	-.12
Adjusted R^2	.26	.33	.23	.34	.32	.26	.19	.15	.11
F for change in R^2	35.90**	16.94**	40.70**	54.62**	81.25**	31.23**	26.51**	28.75**	23.95**

Note. Sex (0 = male and 1 = female); Sample (0 = university sample and 1 = MTurk sample); Sexual orientation (0 = heterosexual and 1 = non-heterosexual (lesbian, gay, and bisexual)), Relationship status (0 = single and 1 = in committed relationship)

* $p < .05/9 = 0.0056$ *(Bonferroni correction)*; ** $p < .001$

Table 3. *Logistic Regression Analyses for Variables Predicting Having had Face-to-Face meetings and Having had Face-to-Face Meetings while in a Committed Relationships*

Predictor	Having had face-to-face meetings with other dating apps users				Having had face-to-face meetings with other dating app users while in a committed relationship with someone else			
	B	SE *B*	Exp(*B*)	EXP(*B*) 95% CI	*B*	SE *B*	Exp(*B*)	EXP(*B*) 95% CI
Sex	-.57*	.26	.57	[.34, .94]	-.47	.34	.62	[.32, 1.21]
Age	-.06*	.03	.95	[.90, 1.00]	-.02	.02	.99	[.94, 1.03]
Sample	.52	.33	1.68	[.88, 3.20]	2.25***	.44	9.52	[4.04, 22.46]
Sexual Orientation	.85*	.38	2.33	[1.10, 4.92]	.71	.38	2.02	[.96, 4.28]
Relationship status	-.14	.26	.87	[.52, 1.45]	.94**	.33	2.56	[1.35, 4.87]
Anxious	-.28*	.11	.75	[.61, .94]	-.55***	.15	.58	[.43, .78]
Avoidant	.01	.12	1.01	[.79, 1.28]	-.33	.17	.72	[.52, 1.00]
Constant	.87*	1.13	2.38		3.08*	1.27	21.83	

Note. Sex (0 = male and 1 = female); Sample (0 = university sample and 1 = MTurk sample); Sexual orientation (0 = heterosexual and 1 = non-heterosexual (lesbian, gay, and bisexual)), Relationship status (0 = single and 1 = in committed relationship)
*p < .05; **p < .01; *** p < .001.

Table 4. *Regression Analyses with Outcomes as Dependent Variables and Sex, Age, Sample, Sexual Orientation, Relationship Status (Block 1), Dating App Motives (Block 2) and Anxious and Avoidant Attachment (Block 3) as Independent Variables.*

	Number of romantic relationships	Number of casual sexual relationships	Number of friends	Number of casual sexual interactions while in a committed relationship
	β	β	β	β
Block 1				
Sex	-.12	-.09	-.17**	-.01
Age	-.02	-.04	-.04	.01
Sample	.28**	.13	.26**	.15
Sexual Orientation	.05	.10	.06	.09
Relationship status	.13*	.13*	.24**	.02
Block 2				
Relationship seeking motive	.21**	/	/	/
Sexual experience motive	/	.34**	/	.26*
Socializing motive	/	/	.17*	/
Block 3				
Anxious	.25**	.21**	.24**	.28*
Avoidant	.19**	.10	.15*	.05
Adjusted R^2	.41	.36	.40	.26
F for change in R^2	26.33**	12.91**	20.06**	5.11*

Note. Sex (0 = male and 1 = female); Sample (0 = university sample and 1 = MTurk sample); Sexual orientation (0 = heterosexual and 1 = non-heterosexual (lesbian, gay, and bisexual)), Relationship status (0 = single and 1 = in committed relationship)

* *$p < .05/4 = 0.0125$ (Bonferroni correction); ** $p < .001$*

Acknowledgements

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