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Predictors of hookup behaviors among Asian and Asian American college students in the United States

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ABSTRACT

Objective: With the rapid growth in the population of Asian and Asian American college students in the United States, there is a need for research examining their participation in potentially risky sexual behaviors in order to expand understanding of this group's needs. This study focused on attachment orientation and hookup motives as predictors of hookup behaviors, which involve engaging in sexual behaviors without expectation of a long-term relationship.

Methods: Participants included 169 Asian or Asian American college students ranging in age from 18 to 27 years who completed an online survey.

Results: Results indicated that over half of participants reported engaging in hookup behaviors. The strongest predictors of hookup behaviors were increased age, liberal sexual attitudes, motivations to achieve excitement/sexual enhancement, and motivations to find a long-term partner. However, attachment orientations did not predict hookup behaviors. Results provide insight into a profile of Asian American college students increasingly exploring sexuality throughout young adulthood.

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Introduction

For young adults, romantic exploration and sexual experimentation are not uncommon. Large numbers of young people participate in casual sexual behaviors instead of dating, with as many as 72% of college students reporting engaging in sexual hookup behavior at least once while in college.¹ Hookups are defined as engaging in different sexual activities such as intercourse, oral sex, and kissing without the expectation of a serious or long-term committed relationship.² This behavior is often mediated by technology and social media that facilitate the search for romantic and sexual partners.²⁻⁴

Previous research focused on the resultant emotional outcomes of hookup behaviors, including both positive and negative reactions,⁵⁻⁷ as well as the motivations behind hooking up, such as fitting in with peers and coping with stress.^{5,8} Research focused on the predictors of hookup behaviors has found that factors such as insecure attachment styles, alcohol consumption, and hookup activity before college are positively related to hookup behaviors among college students.⁹⁻¹¹

The majority of the research on hookup behaviors relies on European American young adults aged 18-29, and very few studies have included Asian and Asian American participants. The population of Asian Americans has recently climbed from 3.7% in 1997 to 5.7% in 2017, which is the second fastest growing population in the United States,

followed by Latinx.¹² Asian Americans now make up 8.4% of college students in the United States.¹³ Research with Asians and Asian Americans tends to focus on other aspects of sexual behavior, such as the timeline of first sexual intercourse and the impact of acculturation,^{14,15} and there is limited research on casual sexual relationships in this population. Past research indicated that the hookup rates among Asian and Asian American college students are lower than other ethnic groups.¹⁶ Spell¹⁶ found that only 40.2% and 42.9% of Asian male and female college students, respectively, reported having ever hooked up, while the rate for other ethnic group subgroups ranges from 55.2 to 68.2%. Trinh and Kim¹⁷ argue that the fact that Asian American young people are less likely to engage in sexual behavior may lead to the perception that they are at decreased risk for sexual risk-taking and may be associated with missed opportunities for educational outreach with this population. Research on factors that influence participation in hookup behaviors amongst Asian college students can expand our understanding of this group's needs and experiences.

Hookup behaviors among young adults

Sexual relationships have changed dramatically over time in both the United States and Asia. Before the 1960s, people in the United States primarily engaged in sexual activities within the context of committed romantic relationships. Participation in casual sexual relationships has gradually

increased starting in the 1960s.¹⁸ The influence of modernization, such as technological development (eg dating apps),¹⁹ and globalization, such as the intercultural impact of liberal sexual attitudes,²⁰ cannot be overstated. Cultures around the world are also seeing increases in more liberal attitudes toward sex and higher rates of sexual behaviors outside of the context of relationships.²¹

Being influenced by the change of sexual relationships from conservative to liberal in both Western and non-Western Asian countries, plenty of researchers shed light on casual sexual behaviors, including hookup behaviors. In an effort to understand the phenomenon of hookups, investigators have examined the emotional reactions and motivations surrounding these behaviors in samples of American college students. Emotional reactions after hookups involve positive feelings such as excitement and feeling close to others, but reactions after hookups can also involve negative emotions such as depression and regret.^{5-7,22} A related point to consider is that females suffer from more negative emotional reactions after hookups compared with males.^{4,23,24} This may be influenced by the double standard on hookup behaviors and inequality across genders.²⁵

Other research on the topic of hookup behaviors analyzes the motivations behind hooking up, such as pursuing sexual pleasure, experiencing college hookup culture, fitting in with peers, coping with stress, satisfying intimacy needs,^{5,8,26} and enhancement.²³ Specifically, pursuing sexual pleasure (also called enhancement) is found to be a strong predictor of the frequency of hookup behaviors.^{23,26} Internal hookup motivations such as enhancement are found to be related to positive emotional reactions, while external hookup motives, such as the desire to reduce stress, are associated with decreases in well-being.⁶

Attending college is a time of growth for college students marked by decreased parental monitoring, adjustment to college, and expectations of becoming responsible and independent adults.²⁷ It is anticipated for college students to develop their identities²⁸ and explore social relationships (eg romantic relationships and sexual behaviors)²⁷ throughout this time. Engaging in sexual behavior is a common activity among college students, who have a higher rate of intercourse compared with high school students.²⁹ Furthermore, individuals report that they experienced the most casual sexual activities during their lifetime while they were in college.³⁰ The theoretical framework of attachment theory can help to contextualize and connect the factors motivating hookup behaviors in young adults.

Attachment theory and hookup behavior

According to attachment theory, humans are prewired to form attachments to others, and those attachments have long-term consequences for well-being.³¹ Attachment styles built at early ages influence individuals' future internal working models, which reflect an inner knowledge about the self and how he or she expects relationships to function in adulthood. High-quality attachment bonding with caregivers during childhood promotes a safe mindset across the

lifespan. Those with insecure or unhealthy attachment, in contrast, are vulnerable to feelings of loneliness and frustration, which may result from parents' inconsistent or neglectful availability and supportiveness. This theory contends that individuals with secure attachment orientations are more likely than those with insecure orientations to have long-term and stable relationships across the lifespan.

A number of researchers have also considered the effects of adult relationship attachment orientation, which involves stable patterns of ways individuals think, feel, and behave in romantic relationships. Brennan and Shaver³² proposed seven attachment orientations: (1) frustration with partners: individuals' level of feeling that their romantic partners do not love them; (2) proximity-seeking: the degree of eagerness to get close to their partners; (3) self-reliance: the belief that individuals should lean on themselves rather than others; (4) ambivalence: being unsure about the feelings of one's romantic partners; (5) trust/confidence in others: how easily individuals feel safe and believe in others; (6) jealous/fear of abandonment: unsafe feeling about one's romantic partners and the worry that one's partners would leave their relationship; and (7) anxious-clinging to partners: the feeling that individuals constantly need attention or affection to make them feel safe in a relationship.

These seven attachment orientations cannot be categorized directly into avoidant, anxious, and secure attachment styles, but there is some overlap with these categories of attachment.¹¹ According to this perspective, individuals with avoidant attachment styles would score lower on proximity-seeking and higher in self-reliance, while individuals with anxious attachment styles would score higher in jealousy/fear of abandonment and anxious clinging to partners. Individuals with avoidant and anxious attachment styles simultaneously would score higher in frustration with partners and ambivalence, as well as lower in trust/confidence in others.

The link between attachment style and sexual behavior has mainly been examined in the Western context and has found that people with insecure attachment styles have more liberal sexual attitudes, engage in more casual sex, have more sexual partners, and have their first sexual encounter at an earlier age compared to those with secure attachment styles.^{10,33} Individuals with insecure attachment styles may need to seek casual sex as a way to satisfy their sexual needs since they may feel unsafe to build long-term relationship with others. Recent researchers have explored this topic more deeply by looking into the nuances of insecure attachment styles, specifically avoidant and anxious hookups. Avoidant, but not anxious attachment styles are positively related to more hookup behaviors in both females and males.^{10,11} This may be because the lack of commitment in hookups would satisfy those with avoidant attachment styles' needs, such as avoiding building intimacy with others. However, hookups fail to meet the needs of those with anxious attachment styles, who need to form close relationships with others.²² Furthermore, Sprecher³⁴ and Garneau et al³⁵ found that individuals with avoidant attachment had more hookup partners and that this association was stronger in males than in females.

One line of research has examined the ways in which attachment style is related to young adults' motivations for engaging in hookups. Snapp et al²² proposed five hookup motives: intimacy (hooking up in order to feel connected with others), enhancement (hooking up in order to gain pleasure), self-affirmation (hook up in order to gain confidence), coping (hooking up in order to deal with stress or anxiety), and peer pressure (hooking up to imitate peers and friends). Their results indicated that individuals who had avoidant attachment styles were less likely to be motivated by intimacy, while those with anxious attachment styles were more likely to be motivated by intimacy and self-affirmation. Sex differences for hookup motives also exist. Blayney et al²³ found that males are more likely to have enhancement and peer pressure hookup motives compared with females.

Gender differences in hookup behaviors

Double standards for sexual behavior exist, as female college students in the United States have been shown to be judged more negatively than males if they participate in casual sex.³⁶ Gender-based expectations for individuals' sexual behaviors are also prevalent in families in the United States. American parents communicate more about the negative outcomes of unsafe sex with their daughters, while they may talk more about the positive aspects of sex with their sons.³⁷

With respect to hookups, Shukusky and Wade³⁸ indicated that there is no difference in the number of college students who engage in hookup behaviors across gender, but males were more likely to initiate hookup invitations. Both females and males reported negative well-being when they hookup with a new person or when hookups happened because of alcohol intoxication.⁴ Townsend and Wasserman³⁹ found that both men and women who have casual sexual thoughts were more likely to have multiple sexual partners at one time. However, women have reported more negative emotions after hooking up as opposed to men.²³ Carmack and Rodriguez³ found that males are more likely to be motivated by engaging in sexual activities without building relationships, while females are motivated by seeking long-term relationships. This makes females vulnerable for negative well-being after hookups due to hookups' feature of having sex without commitment.

Asians and Asian Americans' hookup behaviors

Previous studies showed that there are different rates of hooking up among different ethnic groups. According to Owen et al,⁴⁰ the highest hookup rates were for college students who self-identifying as White (60.2%), multiracial (48%), and Latino (42.4%), followed by African American (35.4%) and Asian American (30.9%). One common limitation of studies examining predictors of hookup behaviors is that most research fails to consider the role of culture or cultural backgrounds. Attachment theory has been examined in various cultural contexts, and such research has helped to establish the cross-cultural validity of this theory with regard to patterns of close relationships in young adults. For

example, cross-cultural research has found evidence that the distribution of adult attachment style patterns are similar in college samples in China and the US, and that categories such as secure, dismissing, fearful, and preoccupied can be found in both cultures.⁴¹ Furthermore, a meta-analysis of studies examining gender differences in attachment among Chinese adults found that females tend to be higher in anxiety and avoidance, which is consistent with gender differences found in other cultures.⁴² Nevertheless, the connection between attachment orientation and sexual behaviors across cultures is less well-established.

Asian American college students are heterogenous with regard to nativity, cultural background, and acculturation level. Some Asian or Asian American college students were born in the United States or came to the US with their parents, while others may be international students, residing in the US in order to attend college. Of the one million foreign students attending US colleges and universities in 2020–2021, 35% come from China, with an additional 8% coming from South Korea, Taiwan, and Vietnam.⁴³ Given that Asian college students are understudied population with regard to sexual behavior, it is important to examine the motivating factors behind sexual hookups in this population. Adult attachment patterns are applicable to Asian populations, but the relationships between attachment style and other behavior patterns related to sexual relationships may vary between cultures and be dependent upon socialization experiences.⁴¹ Just as individuals' attitudes toward relationships are impacted by their early attachment relationships with their parents, the cultural values and expectations passed to them by their family members are also important to consider when examining sexual behaviors.

As stated earlier, the existing research on Asian Americans' sexual behaviors focuses more on the timeline of first sexual behaviors, whether these youths have sex before marriage, or how mainstream American culture influences sexual practices.^{12,13,44} Some studies have found evidence for gender differences in the messages that Asian American college students receive regarding sexuality, with females receiving more restrictive messages from parents than males and males receiving messages from both parents and peers that are more favorable toward casual sex.^{17,45} Only a few studies compare Asian Americans' hookup behaviors to those of other ethnic groups in the literature.^{5,6,9,16} These studies have indicated that Asian Americans are less likely to engage in hookups compared to other ethnic groups.^{16,40} Research on Asians and Asian American young adults' predictors of hookup behaviors including attachment orientation, sexual attitudes, and other socioeconomic status, such as gender using neutral and unbiased perspectives is limited.

This study

Given the limitation of the previous research on hookup behaviors among Asians and Asian Americans, this study will fill gaps in research by shedding light on the minority Asian population. The purpose of the present research was to analyze the relationship between attachment orientations and hookup behaviors

among Asian Americans. The overarching research questions for this study were involve whether gender, attachment orientation, and hookup motives are predictors of hookup behaviors among Asians and Asian Americans?

This study recruited undergraduate college students to complete an online survey, the data from which was used to analyze their hookup behaviors, attachment orientations, hookup motives, sexual attitudes, as well as some demographic information such as gender and age. This study hypothesized that males are expected to engage in more hookups and to have more liberal sexual attitudes than females. We also investigate gender differences in attachment orientation and hookup motives. Although we do not expect any gender differences in attachment orientation, we do expect that male college students will have more enhancement and peer pressure hookup motives compared with females²³. It was also predicted that individuals who adhered more to liberal sexual attitudes would be more likely to participate in hookups. However, we also wish to investigate the extent to which attachment orientation and hookup motives are predictive of hookup behavior after controlling for gender, age, liberal sexual attitudes. We expect that individuals with insecure attachment orientations would be more likely to engage in hookup behaviors compared to those with secure and anxious attachment styles. We also hypothesize that motives such as sexual enhancement, social relationship seeking, and conformity will be related to increased hookup behaviors.

Research questions and hypotheses

Research Question #1: Are there gender differences in hookup behaviors, sexual attitudes, attachment orientations, or hookup motives among Asian and Asian American college students?

- H_1 = Male college students will have a) increased hookup behaviors in the past four years, b) more liberal sexual attitudes, and report c) more sexual enhancement and conformity hookup motives than female college students.

Research Question #2: What is the relationship between sexual attitudes and hookup behaviors among Asian and Asian American college students?

- H_2 = Increases in liberal sexual attitudes will be related to increased hookup behaviors.

Research Question #3: What is the relationship between attachment orientation and hookup behaviors among Asian and Asian American college students?

- H_3 = Increases in insecure attachment orientations (avoidance, proximity-seeking, fear of abandonment, and clinging to others) will be related to increased hookup behaviors.

Research Question #4: What is the relationship between hookup motives and hookup behaviors among Asian American college students?

- H_4 = Increases in motivation such as sexual enhancement, social relationship seeking, and conformity will be related to increased hookup behaviors.

Method

Participants and recruitment

Participants included 169 Asian or Asian American undergraduate students (107 females and 62 males). The average age was 22 years old, and ranged from 18 to 27 years old ($SD=2.68$). Regarding place of birth, 107 (63.3%) self-indicated that they were born in China, 28 (16.6%) were born in the United States, 22 (13%) were born in other countries, and 12 (7.1%) declined to state their birthplace. With regard to the number of sexual partners in the past 4 years, 30.9% indicated that they have no sexual partners, 31.5% reported having one sexual partner, 10.3% reported having two partners, 13.3% reported having 3 partners, and 13.9% reported having four or more partners in the past four years.

Procedure

Participants were recruited online *via* email messages to students in university courses and social media posts on Facebook and the Soul app. All recruitment materials and emails stated that the criteria for participation are that you must be between the ages of 18 and 30 years old and attending college in the United States. For participants recruited *via* the university, the researchers posted the link to the survey on the psychology department's subject pool website describing it as an opportunity to participate in a study on dating behaviors. These participants were given class credit or extra credit as compensation. For those recruited *via* social media, snowball sampling was used. Researchers posted a link to the survey inviting their Facebook friends to participate and also to forward the link to others. Researchers also emailed personal contacts (ie friends and family), chairs, faculty, and graduate students asking them to forward the email with a link to the survey to others. Participants who were recruited *via* Facebook and Soul were not compensated for participation. Although the larger dataset included participants from various ethnic groups, only participants who reported that their ethnicity was "Asian or Asian American" were included in the sample of this study. This anonymous survey was approved as exempt from review by the Institutional Review Board at the authors' institution (IRB#1614542-1) and data collection took place over a two-month period in 2020.

Measures

The survey collected data on demographics (eg ethnicity and gender), attachment orientation, sexual attitudes, hookup behaviors, and hookup motives.

Attachment orientation

Participants were asked to describe their attachment orientation *via* items from the attachment orientation scale by Brennan and Shaver³². This scale is a precursor to the Experiences in Close Relationships (ECR) scale,⁴⁶ which has been used extensively with Asian and Asian American populations (eg^{47,48}). Participants rated their agreement with each statement on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Given that not all of the 25 items used in this study were from the ECR, we opted to conduct a factor analysis with the current sample in order to derive the factors used for analyses. The factors included: Avoidant/Lack of Trust (7 items, $\alpha = 0.77$, “It’s risky to open up to another person”), Proximity Seeking (5 items, $\alpha = 0.74$, “After even a brief separation, I eagerly look forward to seeing my partner”), Anxious/Fear of Abandonment (4 items, $\alpha = 0.74$, “I often worry that my partner might leave me for someone else”), Anxious/Clinging to Others (3 items, $\alpha = 0.69$, “I have to keep track of my partner if I want him or her to be around when needed”), Secure (4 items, $\alpha = 0.57$, “I find it relatively easy to get close to others”).

Sexual attitudes

Sexual attitudes were measured by the Attitudes toward Sex Measure.⁴⁹ This scale has 9 items rated on a scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Items include statements, such as “Sexual activity is a critical part of a good relationship,” and “People should not have a sexual relationship if they are not married” (reverse scored), with higher scores indicating more positive and liberal attitudes toward sex.

Hookup behavior

Hookup behaviors⁵⁰ were measured by asking participants to indicate the number of partners (1=*no partners* to 7=*nine or more partners*) with whom they had engaged in 4 different situations in the last 4 years (had sex only once, had oral sex only once, had sex without getting involved in a long-term relationship, had oral sex without getting involved in a long-term relationship). The alpha reliability for these 4 items was 0.88. We opted to use this 4-item scale because college students may have varying definitions of hookups⁵¹ and while some students may be initially reluctant to label their encounters as “hookups,” but by asking them to report on these specific situations, we hope to get a more accurate estimate of how often they have engaged in behaviors that can be considered hookups.

Hookup motivation

The Hookup Motives Questionnaire⁵² was used to measure participants’ motivations for engaging in hookup behaviors. This is an 18-item scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Since this scale has not been widely used with Asian or Asian American samples, we opted to conduct a factor analysis of these items using the current sample. The factors included: Sexual and Enhancement-Seeking Motives (9 items, $\alpha = 0.96$, “Hooking up provides me with

sexual benefits without a committed relationship”), Social Relationship-Seeking Motives (3 items, $\alpha = 0.91$, “I hook up because hooking up is a way to find a relationship”), and Conformity Motives (3 items, $\alpha = 0.85$, “I hook up because I feel pressure from my friends”). These 3 factors were similar to the 5 factors described in the original scale, but combined the Enhancement and Sexual motives into one factor and the Coping and Social Relationships-Seeking factors into another factor (which we just called “Social Relationship Seeking”).

Data analysis

The data were analyzed using SPSS software for both descriptive and inferential analyses. A series of *t*-tests were used to examine the first research question regarding gender differences. Hierarchical linear regression analyses were conducted to examine Research Questions 2–4 with hookup behaviors as the dependent variable for each. In the first step of each model, age, place of birth, and gender were entered as control variables. The first regression model examined both Hypotheses 2 and 3. For that analysis, control variables were entered in Step 1, and then sexual attitudes were entered in Step 2 (testing Hypothesis 2) and the attachment orientation factors were entered in Step 2 (testing Hypothesis 3). Research Question 4 focused on the relationship between hookup motives and hookup behaviors. This analysis was limited to only those who reported engaging in at least one hookup behavior. For this analysis, control variables were entered in the first step, and sexual attitudes were entered in the second step. Finally, the hookup motivation factors were entered in the third step in order to test Hypothesis 3.

Results

Descriptive results: frequency of hookup behaviors

Descriptive results regarding the report of hookup behaviors are shown in Table 1. The majority of participants reported no partners for each of the four questions examining hookup behaviors.

Research question 1: gender differences in study variables

To test whether there are statistically significant differences in hookup behaviors, hookup motives, attachment orientations, and sexual attitudes by gender, independent samples

Table 1. Frequency of hookup behaviors.

	No partners (%)	1 Partner (%)	2 Partners (%)	3 Or more partners (%)
Sex only once	59.6	19.9	7.8	12.7
Oral sex only once	65.6	21.2	4.8	8.5
Sex without getting involved in a long-term relationship	63.0	15.2	4.8	17.0
Oral sex without getting involved in a long-term relationship	66.7	14.5	4.2	14.5

t-test analyses were performed (see Table 2). Results suggested that males have more liberal sexual attitudes, more sexual and enhancement-seeking motives, and more conformity hookup motives than females. Females reported more proximity-seeking attachment orientation. No significant differences between genders were found for other variables. These results do not support the hypothesis that Asian and Asian American male college students will report more hookup behaviors. However, these results do support the hypothesis that Asian and Asian American male college students will have more liberal sexual attitudes and report more motivations for sexual enhancement and conformity than female college students.

Research questions 2 and 3: sexual attitudes and insecure attachment orientations as predictors of hookup behaviors

Hierarchical linear regression was conducted to test the hypothesis that sexual attitudes would predict hookup behaviors (Hypothesis 2) and that insecure attachment orientations (Hypothesis 3) would predict hookup behaviors (see Table 3). In Step 1, the control variables did not significantly predict hookup behaviors, $F(3, 121)=2.103$, $R^2 = .037$, $p=.029$. When sexual attitudes were entered in Step 2, the prediction of hookup behaviors increased significantly, $\Delta R^2 (1, 120)=.062$, $p=.029$, and the overall model was significant $F(5, 116)=2.845$, $R^2 = .087$, $p=.027$. As predicted by Hypothesis 2, increased sexual attitudes were significantly related to increased hookup behaviors ($\beta = .202$, $p=.029$). Additionally, the control variable age ($\beta = .181$, $p=.050$) was a significant predictor of hookup behaviors in this step. When attachment orientations were entered in Step 3, the prediction of hookup behaviors did not increase significantly, $\Delta R^2 (7, 113)=.099$, $p=.067$, thus the Hypothesis 3 was not supported.

Research question 4: hookup motives as predictors of hookup behaviors

Hierarchical linear regression was conducted to examine Research Question 4 regarding hookup motives as predictors

Table 2. Means by gender.

	Women (<i>n</i> =107)		Men (<i>n</i> =62)		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Hookup behaviors	2.09	1.65	2.33	1.98	.86	.39
Sexual attitudes	4.65	.94	5.13	.75	3.42	.001**
AO: Avoidant/lack of trust	4.41	1.02	4.40	1.00	-.09	.93
AO: Proximity seeking	5.33	.99	5.00	.96	-2.11	.04*
AO: Anxious/fear of abandon	3.65	1.16	3.70	.98	.23	.82
AO: Anxious/clinging to others	4.24	1.21	4.21	1.28	-.17	.86
AO: Secure	3.96	1.16	4.11	.91	.92	.36
HM: Sexual and enhancement-seeking	1.41	.78	1.84	1.10	2.65	.01*
HM: Social relationship-seeking	1.22	.55	1.34	.75	1.12	.25
HM: Conformity	1.05	.27	1.20	.48	2.24	.03*

Note. * $p < .05$. ** $p < .01$.

AO: attachment orientation; HM: hookup motives

of hookup behaviors (see Table 4). This analysis was limited to only those who reported engaging in at least one of the 4 items for hookup behaviors ($n=86$, 56% of the sample). In Step 1, the control variables did not significantly predict hookup behaviors, $F(3, 67)=0.451$, $R^2 = .020$, $p=.718$. When sexual attitudes were entered in Step 2, the prediction of hookup behaviors did not increase significantly, $\Delta R^2 (1, 66)=.005$, $p=.566$. When hookup motives were entered in Step 3, however, the prediction of hookup behaviors increased significantly, $\Delta R^2 (3, 63)=.335$, $p=.0001$, and the overall model was significant $F(7, 63)=6.062$, $R^2 = .360$, $p<.001$. The results supported the hypothesis that sexual and enhancement motivation ($\beta = .465$, $p<.001$) and social relationship-seeking motivation ($\beta = .248$, $p=.030$) would be significant predictors of hookup behaviors. Contrary to the hypothesis, conformity motivation was not a significant predictor of hookup behaviors ($\beta = -0.018$, $p=.874$).

Discussion

The purpose of this study was to examine the frequency and predictors of hookup behaviors among Asian American college students. The rate of hookup behaviors in our sample was lower than what has been reported in samples of students from other ethnic backgrounds, which has been found to be up to 80%.^{4,53} Of the four questions measuring hookup behaviors, 56% reported engaging in at least one of these behaviors, and the highest rate of 40.4% was for the item involving having sex with at least one partner only once. Interestingly, age was a significant predictor of hookup behaviors, which is consistent with other research indicating that Asian and Asian American young people may not begin sexual activity until they are well into their 20s. Although the first sexual behaviors begin at an average age of 15 years

Table 3. Hierarchical regression for predictors of hookup behaviors: attachment orientation.

	β	<i>SE</i>	<i>t</i>	<i>p</i>
Step 1: $R^2 (3, 121)=.05$, $p=.103$				
Gender	.008	.349	.090	.928
Place of birth	-.004	.412	-.039	.969
Age	.225	.060	2.470	.015*
Step 2: $R^2 (4, 120)=.087$, $p=.029^*$ $\Delta R^2 (1, 120) = .037$, $p=.029^*$				
Gender	.033	.346	.363	.718
Place of birth	-.022	.407	-.240	.810
Age	.181	.061	1.969	.050*
Sexual attitudes	.202	.185	2.207	.029*
Step 3: $R^2 (11, 113)=.186$, $p=.012^*$ $\Delta R^2 (7, 113) = .099$, $p=.067$				
Gender	.091	.350	.986	.326
Place of birth	-.050	.413	-.546	.586
Age	.167	.060	1.835	.069
Sexual attitudes	.236	.188	2.535	.013*
AO: Frustration	.230	.173	2.011	.047*
AO: Proximity seeking	.061	.195	.547	.585
AO: Self-reliance	.134	.166	1.370	.173
AO: Ambivalence	.149	.197	1.291	.199
AO: Trust and Confidence in others	.212	.198	1.835	.069
AO: Jealous/Fear of Abandonment	.039	.159	.348	.728
AO: Anxious Clinging to Partners	.007	.164	.060	.952

Note. For Step 1, Adjusted $R^2 = .026$, for Step 2 Adjusted $R^2 = .056$, for Step 3 Adjusted $R^2 = .106$. * $p < .05$. ** $p < .01$.

AO: attachment orientations

Table 4. Hierarchical regression for predictors of hookup behaviors: hookup motivations.

	β	SE	t	p
Step 1: $R^2(3, 67) = .020, p = .718$				
Gender	.099	.520	.783	.437
Place of birth	.012	.691	.092	.927
Age	.116	.104	.891	.376
Step 2: $R^2(4, 66) = .025, p = .795$				
Gender	.107	.526	.834	.397
Place of birth	.010	.695	.071	.566
Age	.112	.105	.853	.944
Sexual attitudes	.071	.295	.577	.566
Step 3: $R^2(7, 63) = .360, p < .001^{**}$				
Gender	.196	.446	1.80	.077
Place of birth	.072	.584	.637	.527
Age	.099	.088	.899	.372
Sexual attitudes	-.042	.252	-.401	.690
HM: Sexual and enhancement-seeking	.465	.224	3.867	.001**
HM: Social relationship-seeking	.248	.299	2.217	.030*
HM: Conformity	-.018	.872	-.0159	.874

Note. For Step 1, Adjusted $R^2 = -0.024$, for Step 2 Adjusted $R^2 = -0.034$, for Step 3 Adjusted $R^2 = .289$. * $p < .05$. ** $p < .01$.
HM: hookup motives

for African Americans and 16 years for Caucasian Americans,⁵⁴ the age of onset of sexual behaviors is much later amongst Asian and Asian Americans. Li et al.⁴⁷ found that the Chinese youth reported a mean age of 19 years old for their first sexual experience. Asian parents discourage dating and social activities among adolescents and young adults, who are instead expected to focus more on educational pursuits as a pathway to a more promising future career and successful adult life.^{47,55} In our sample of predominantly Chinese college students whose ages ranged from 18 to 27, these results may indicate that hookup behaviors become increasingly likely throughout this age period. Although we do not know whether the students were living with parents at the time of the study, it is possible that many of them may be studying abroad and/or living away from parents. The increased freedom that comes with adult life, whether living away from parents or not, likely contributes to increased opportunities to engage in sexual behaviors such as hookups.

The first research question examined gender differences in the study variables. Based on other research suggesting that Asian males receive more socialization messages that are permissive toward sex,^{17,45} we expected that males in this sample would have more hookup partners in addition to more liberal or positive attitudes toward sex. Our results found no evidence of gender differences in hookup behaviors, and although this shows a different pattern from general research on sex behaviors among Asian males,⁵⁶ this accords with other research on hookup behaviors in college samples.^{4,36} We did find support for the hypothesis that Asian males would have liberal sexual attitudes. One possible reason for these somewhat contradictory results is that even when Asian American males have more liberal sexual attitudes, it may be difficult for them to find hookup partners. Past research has found that Asian American males are among the least sought-after romantic partners in hookup culture and the dating market.^{16,57} This may result in a lack of gender difference in the number of partners, despite the greater willingness of males to engage in hookups.

Interestingly, males scored higher on the hookup motives to seek enhancement and conformity. This was consistent with our hypothesis and has also been found in other studies.²³ The motivation to engage in hookups in order to conform or impress others is particularly interesting given that Asian males in the United States encounter more racial discrimination than females⁵⁸ and face more difficulties in adjusting to the Western culture.⁵⁹ Engaging in hookups may be viewed by young men as a way to better fit in with their peers. Asian males also suffer from the pressure of showing masculinity, which causes great stress in their daily lives.⁶⁰ Their greater reporting of sexual and enhancement-seeking motives may indicate that hookups can be a means of coping with stress for males, as a way of enhancing their self-esteem and engaging in an activity that is considered enjoyable.

The remaining research questions and analyses presented in this article focused on predictors of hookup behaviors. As hypothesized, more liberal sexual attitudes were significantly related to increased engagement in hookups. As Gao et al.⁵⁶ have found, increased modernization across Asian cultures has led to increases in more permissive attitudes toward sex include greater acceptance of sexuality outside of marriage. Such changes in attitudes have also come with increases in sexual behaviors such as earlier engagement in sexual activity and increases in rates of casual sex. Future research could consider the impact of other attitudes, beliefs, and orientations on decisions to engage in sexual behaviors, particularly as these are also accompanied by changes in acculturation.

The third research question focused on the role of attachment orientations as predictors of hookup behavior, with the hypothesis that insecure attachment orientation would predict more hookup behaviors. This hypothesis was not supported, as none of the attachment orientations were related to hookup behaviors among Asian American college students. This finding is contrary to previous studies linking insecure attachment styles to more casual sex and hookup behaviors.^{10,33} Our results may indicate cultural differences in adult attachment. According to Rothbaum et al.⁶¹ some components of attachment theory may work differently in

different cultural contexts. For example, attachment security may be related to greater exploration in Western contexts, but exploration may be less evident in highly interdependent contexts. Although insecure attachment may be related to greater tendencies to seek short-term sexual relationships, such as hookups among American college students from other ethnic backgrounds, for Asian American college students who are less likely to engage in sexual behaviors in general, attachment insecurity is not enough to motivate this.

Instead, it was the motives for engaging in sexual hookups that were most strongly related to hookup behaviors among Asian and Asian American college students. Specifically, enhancement motives, which focus on engaging in hookups in order to gain sexual pleasure, as well as social relationship-seeking motives were positively related to hookups. These results help to provide insight into the factors that most strongly impel Asian American young people to engage in these sexual behaviors and the fact that they are independently related may indicate that different individuals may have been motivated by different factors.²² Future research could examine which types of individuals are most motivated by each factor.

Limitations and future research

Neither time lived in the US nor general acculturation levels were considered in this study. Acculturation measures the degree to which an individual is assimilated into the dominant culture.⁶² Acculturation scales typically include questions about immigrants' language use, social ties, and media use. The majority (76.3%) of the participants in this study were born outside of the United States and the extent to which they have adopted American culture or prefer to maintain their heritage cultural practices may greatly impact their engagement in hookups. Analyzing acculturation can help future researchers to understand how mainstream Western culture influences Asian American young adults' sexual behaviors. Past research on acculturation and risky sexual behaviors has found that the more first and second-generation East Asian American college students embraced American dominant culture, the more likely they were to engage in liberal behaviors (eg casual sex).⁶² These findings imply that Asian culture can be a protective factor against young Asian American's sexual behaviors. Comparisons of Asian American and Asian students' hookup experiences and motive should also be investigated in future studies.

When recruiting participants through social media, there was no screening question to make sure all responders were in fact college students and residents of the United States. One limitation for this study would be the possibility that some of the participants recruited in this study live elsewhere or are not attending college.

Another avenue for future research is to examine the impact of peers on Asian American young adults' sexual behaviors. Attachment orientation and culture, which is typically imparted by parents,⁶³ may have less influence on young adults' risky behaviors than the attitudes and views of their peers. Past research has found that adolescents and young adults' risky behaviors, such as binge drinking and

drug abuse, are significantly influenced by their peers.⁶⁴ These findings suggest that because young adults live in dorms with their classmates, they are more easily influenced by their roommates' behaviors which illustrate what is acceptable or risky.⁶⁴ However, not all students live in dorms, and as such, their likelihood of engaging in certain behaviors may be different. For example, students who live with family members may have fewer opportunities for (and comfort with) casual sex compared to students who live alone or with roommates. Compared to those who live with roommates, students who live at home may receive less perceived pressure to engage in hooking up. In future investigations, it would be advisable to conduct and analyze the impact of peers and living situations on Asian and Asian American college students' hookup behaviors.

Also of importance to discussions of sexuality and sexual behavior is sexual orientation. Past research investigating frequency and likelihood of engaging in certain kinds forms of casual sex suggests that while sexual minority students may have greater openness to hooking up, they are not necessarily more likely to engage in hookups compared to their heterosexual counterparts.⁶⁵ Other research has focused more on the impact of hooking up on sexual identity. Hanna-Walker et al⁶⁶ found that for some sexual minority students, particularly those who identify as bisexual, hooking up enabled them to understand their sexual attitudes and preferences, while other students reported that hooking up reinforced what they already felt and thought (eg same-sex attraction) and helped to further develop their sexual identities. Unfortunately, most studies on this topic have recruited few, if any, Asian or Asian American participants, which limits the extent to which these findings can be generalized to those populations. Although this study did not include sexual orientation, this is a variable that should be addressed in future work, as the act of engaging in hookup behaviors may have different emotional and cognitive outcomes depending on whether an individual is "out" and has the potential to confirm or challenge what one perceives to be their sexual orientation.

The sample of this study was limited to young adults, largely from China, who were attending college in the United States and recruited from one university and from social media. Future research must seek to obtain larger, more diverse samples of Asian and Asian American participants in order to better understand within group heterogeneity. More research should more carefully examine the validity of measures of sexual behavior and attachment orientations within this population. It is possible that there are cultural variations in these constructs that are not been measured effectively or comprehensively. Qualitative or mixed-method studies should be conducted, which can further explore the factors that influence Asian Americans' hookup behaviors beyond the factors investigated in this study.

Conclusion

This study analyzed the predictors of hookup behaviors among Asian American college students considering attachment orientations, sexual attitudes, and other demographic information

such as gender and age. The strongest factors that were related to hookup behaviors included age, liberal sexual attitudes, and hookup motives of sexual enhancement and social relationship-seeking. These results provide insight into a profile of Asian American college students engaging in hookups as they advance into their twenties with more open attitudes toward sexuality, viewing hookups as a way to achieve excitement or even an avenue toward finding a partner. Over half of the Asian Americans in this study reported engaging in some type of hookup behavior, which although lower than other college student populations, may still be concerning. Asian Americans have also been found to seldom communicate about sexuality with their parents⁴⁵ and this population may be more vulnerable to sexually transmitted diseases and sexual abuse since the sex education they received focuses predominantly on abstinence rather than safe sex practices.⁶⁷

Our results suggest that, for Asian and Asian American men, hooking up is viewed as means of coping with stress and improving self-esteem, both of which may be tied to their views of their own desirability and masculinity. For both men and women, the desire to find relationships was also a powerful motivator for hooking up. While care must be taken not to stigmatize hooking up and other forms of casual sex, it is important to create programs addressing the underlying motivations for hooking up in order to educate young Asian and Asian Americans about sex and protect them (and their prospective partners) from the negative outcomes of hookups and other risky sexual behaviors.

Asian Americans begin to date and explore sexuality at a later age under Asian parents' monitoring. It is vital to teach Asian parents and young Asian Americans how to practice healthy romantic and sexual relationships. By the time many non-Asian Americans have completed the sex exploration period and are stepping into serious relationships, Asian Americans young adults may just be beginning to date or hookup without sufficient information about safe sexual practices and healthy relationships. More programs promoting sexual health should be created targeting this population.

Ethics approval

This protocol was approved by the California State University, Los Angeles Institutional Review Board (IRB # 1614542-1 Family Structure and Dating Behaviors) and complied with APA ethical standards in the treatment of participants.

Conflict of interest disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article met the ethical guidelines, including adherence to the legal requirements, of the United States and received approval from the Institutional Review Board of California State University, Los Angeles.

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