



# How LGBTQ+ Young Adults Navigate Personal Risk in App-Based Hookups: The Safety Spectrum Theory

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## Abstract

Research on hooking up is rife with examinations of risky sexual health practices among LGBTQ+ young adults; yet, little has been written about the personal safety practices for this population. This omission is notable because safety practices can enhance the notable positive outcomes related to hooking up. Drawing on one-on-one interviews with 50 LGBTQ+ young adults (20 ciswomen, 20 ciswomen, two transmen, and eight others) in British Columbia, California, and Connecticut, we developed the safety spectrum theory, which used a spectral measurement to assess how LGBTQ+ young adults negotiate safety practices and implement safety rules. This spectrum was then applied to a three-step sequence of application (app)-based hookup rituals: online initiation, pre-meeting preparation, and in-person meetup. Results indicated that safety strategies may be dictated by situational factors, where individuals adapt to varying circumstances to be more in control of personal safety when hooking up. We further identified that participants move across the spectrum depending upon contextual factors, such as the gender of the potential hookup partner. This work suggests that LGBTQ+ young adults are mindful of their personal safety and deserve more credit than previously attributed in queer and sexual health research. From these findings, we provide evidence-based recommendations to make dating/hookup apps and public health campaigns more effective at mitigating hookup-related risks.

**Keywords** LGBTQ young adults · Hooking up · Hookup apps · Safety strategies · Sexual orientation

## Introduction

Scholars have documented a rise in the prevalence of sexual encounters with non-committal, casual partners (Monto & Carey, 2014; Snapp et al., 2014), which is also often referred to as “hooking up.” Hooking up is an umbrella term for physical, sexual contact ranging from making out to penetrative sex between those who are not committed romantic partners (Bible et al., 2022; Epstein et al., 2009; Lewis

et al., 2011). The few hookup studies that examine physical risk-mitigation strategies among young adults mostly come from heterosexual or MSM (men who have sex with men) populations (see Bauermeister et al., 2010). However, while some aspects of heterosexual and non-heterosexual hookups may converge, hooking up for these two groups of young adults likely differs in a variety of ways, including but not limited to the frequency of hookups, the contexts in which hookups occur, sexual identity development, and the possible health outcomes and risks (Hanna-Walker et al., 2023; Snapp et al., 2024; Watson et al., 2017). This may also be true of populations that are understudied in relation to hookup research, such as pansexual populations. Moreover, the persistent interest in the MSM population in hookup studies is attributed to the group’s historical and contemporary ties to public health interventions around STI/HIV transmission and prevention. Such a trend compels the need for more inclusive LGBTQ+ research (Watson et al., 2017) directed at interrogating bisexual, pansexual, queer, and lesbian hookup experiences.

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In hookup literature, safety is often conceptualized and examined through risk factors associated with sexually transmitted infections (STIs; Fethers et al., 2000), unwanted pregnancy (Paul Poteat et al., 2017), and sexual violence (Upadhyay et al., 2021). The examination of risk factors is often confined to the negotiation and enactment of the sexual behaviors themselves, including STI/HIV disclosures or transmissions, testing practices, and contraceptive use (Lewis et al., 2011). In fact, in their review of literature on dating application (app) usage and sexual risk behaviors, Albury et al. (2019) argue that scholarship in this area predominantly focuses on assessing app users' risk of contracting STI/HIV infections. That said, we know that several other forms of risk consideration permeate app-based hookups, with physical safety being one such concern. Scanning a potential partner's social media (Jozsa et al., 2021), telling a friend, or meeting at a public place may be a few of the many strategies young adults deploy to ensure their physical safety (Byron et al., 2021; Hanson, 2020). As a means of mitigating personal harm, these non-sexual forms of risk-mitigation measures remain underexplored in hookup literature, a gap this article seeks to address.

## Hookup Apps

### App-Based Hookups

Dating apps are seldom marketed to perpetuate hookup culture; yet, they are often used to find sexual partners for hooking up (Lehmiller & Ioegeger, 2014). Notably, hookup/dating apps are increasingly used by LGBTQ+ adults. A study conducted by Anderson et al. found that 55% of participants said that they have used a dating app as a means to meet potential partners, making LGBTQ+ adults almost twice as likely to have used an app in comparison with heterosexual adults (Anderson et al., 2020). LGBTQ+ adults, especially MSM, access dating apps more frequently than their heterosexual counterparts—on average 22 times per week (Badal et al., 2017). Dating apps may be appealing to LGBTQ+ young adults, in particular, because they may allow individuals to explore their sexuality without the fear of reprisal or discrimination (Benotsch et al., 2002; Ybarra & Mitchell, 2015), or when offline experiences with their direct communities may not be available.

### Personal Safety

Some apps require both parties to match before they can initiate conversation (e.g., Tinder) and allow users to link their social media accounts to their dating profiles or provide other forms of identity verification for potential hookup partners. However, many apps do not require users to do so. Chatting capabilities may also differ depending

on location, such as the proximity and distance of users (e.g., Grindr). Both parties may choose to communicate via instant messaging or through other apps like Snapchat to assess the other person's intentions and determine if they look "safe" enough (Hanson, 2020) or engage in a general "vibe" check prior to meeting in person. When meeting online hookup partners for the first time, app users typically abide by personal safety rules and precautions, such as sharing their location with a friend. App users may also negotiate the location where they intend to meet and communicate how they will be getting to the location, such as getting a ride from a friend. These conversations allow both parties to establish boundaries and guidelines for in-person interactions (Albury & Byron, 2016).

Dating apps may be seen as a favorable way to meet potential hookup partners because they are perceived as safer than meeting strangers in bars and other public domains (Davis et al., 2016). The exchange of communication, sharing of personal information, and other factors contribute to a sense of mutual trust, and thereby, creating a sense of safety (Albury & Byron, 2016; Davis et al., 2016). Some LGBTQ+ app users have expressed that online dating platforms have also helped take the stress out of feeling obligated to follow through with meetings and hooking up, especially because they can block users when they no longer have interest (Davis et al., 2016). Some scholars argue that there may be gender and sexual identity differences regarding personal safety strategies (Hanson, 2020). For example, app users who identify as female prefer to meet in public spaces before hooking up, whereas individuals who identify as male often opt for someone's home (Albury et al., 2019). However, there is a lack of research that systematically examines how safety is assessed by app users based on gender or sexual orientation.

## Current Study

In this study, we conducted interviews with a diverse sample of 50 LGBTQ+ young adults to investigate how physical and psychological safety is negotiated in app-based hookups. Based on our data, we propose the safety spectrum theory as a systematic paradigm to categorize hookup safety strategies. The theory illustrates that LGBTQ+ young adults may organize their safety strategies around individual situations by piecing together available information and previous experiences to help them make the best possible decisions regarding personal safety. The safety spectrum theory also uses a spectral approach to categorize personal safety practices rather than relying on binary categories such as "safe" versus "risky" practices. The aim of this current study is to add to the existing literature focused on LGBTQ+ sexual health and better understand how the use of dating/hookup apps influences the personal safety choices of LGBTQ+ young adults.

## Method

### Participants

Data were drawn from a large multi-site sample of 50 LGBTQ+ young adults. Interviews were conducted in three research sites, including British Columbia (Canada;  $n = 18$ ) from 2015 to 2016, Connecticut (USA;  $n = 17$ ) from 2018–2019, and California (USA;  $n = 16$ ) from 2018 to 2020.

Participants were recruited at each site using similar methodologies: researchers utilized email listservs, posted physical fliers in public spaces in LGBTQ+ -friendly coffee shops, and advertised on social media (e.g., on Facebook groups). The physical recruitment methods were location-specific: in Connecticut, flyers were posted at University LGBTQ+ organization offices; in California, emails were sent to LGBTQ+ campus organizations, and research assistants discussed the study at local community-based organizations that served LGBTQ+ populations; in Canada, several faculty members of large psychology courses announced the study during their lectures, and flyers

were posted in public spaces at the university hospital. All recruitment material indicated that researchers were seeking LGBTQ+ participants to speak about their hookup experiences.

In terms of participant demographics, 52% reported their ethnicity/race as White, 40% identified as women, and 20% identified as having two or more sexual orientation identities (i.e., bisexual and asexual; see Table 1). Participant age range was 18–37 years old, and 86% of participants used one or more hookup apps to find potential hookup partners during the period; the interviews were conducted, with Tinder and Grindr being the most popular apps (see Table 2).

### Procedure

To better understand hooking up experiences, motivations, outcomes, and safety experiences among the LGBTQ+ community, a semi-structured interview protocol was developed. Several faculty members, research assistants, and LGBTQ+ young adults collaborated to produce a set of guiding questions about a wide variety of hookup-related experiences among LGBTQ+ individuals. Though participants were asked a number of questions related to their hookup

**Table 1** Demographics of participants

Location	California		Canada		Connecticut		Total	
	$n = 15$		$n = 18$		$n = 17$		$n = 50$	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<i>Gender</i>								
Cisgender man	2	13.33	10	55.56	8	47.06	20	40
Cisgender woman	7	46.67	7	38.89	6	35.29	20	40
Transman	0	0	0	0	2	11.76	2	4
Non-binary	1	6.67	0	0	1	5.88	2	4
Gender-queer	2	13.33	0	0	0	0	2	4
Two or more identities	3	20	1	5.56	0	0	4	8
<i>Sexual orientation</i>								
Gay	2	13.33	6	33.33	4	23.53	12	24
Lesbian	3	20	2	25	1	5.88	6	12
Bisexual	2	13.33	5	27.78	4	23.53	11	22
Pansexual	3	20	0	0	1	5.88	4	8
Asexual	1	6.67	0	0	1	5.88	2	4
Queer	2	13.33	1	5.56	1	5.88	4	8
Heteroflexible	0	0	0	0	1	5.88	1	2
Two or more identities	2	13.33	4	22.22	4	23.53	10	20
<i>Race/ethnicity</i>								
Black	1	6.67	0	0	2	11.76	3	6
Asian	2	13.33	5	27.78	3	17.65	10	20
White	8	53.33	13	72.22	5	29.41	26	52
Latina/latino/hispanic	2	13.33	0	0	4	23.53	6	12
not reported	2	13.33	0	0	3	17.65	5	10

The average age across the three locations was 21.74 years

**Table 2** Hookup app demographics

Location	All locations <i>n</i> = 50	
	<i>n</i>	%
<i>Type of app currently used</i>		
Tinder	33	66
Grindr	21	42
Bumble	6	12
Hinge	4	8
Her	5	10
Other	6	12
None	7	14
<i>Number of apps being used to hookup</i>		
Four or more	1	2
Three	6	12
Two	17	34
One	19	38
None	7	14

experiences, we focus primarily on safety experiences in this article. Here are two examples of semi-structured questions pertaining to personal safety: “If you were to use the dating application for hooking up, what do you think about in terms of safety?” and “In the event of using a dating application, are you comfortable with inviting people you are interested in hooking up with over to your place for the first time?” Questions about the usage of apps included ones like these: “Do you use any apps or social media for the intent to hook up?” and “How long after you initiate a hookup do you take to actually hook up with the person?” (for the codebook, see Appendix).

The project was initially piloted in British Columbia in 2015 with LGB young adults. After the completion of the study in British Columbia, the interview guide was revised to incorporate questions that were more inclusive of queer, transgender, and gender-fluid participants for use in California and Connecticut. For example, “Did hooking up play a role in the development of your identity? If so, how/what? When was your first hookup experience in relation to coming out? Before or after?”

All participants were provided a consent form. The goals of the study were explained before the interview took place. Participants were given the opportunity to ask questions about the study and were told they could skip interview questions or end the interview at any point. Upon completion of the interview, participants were provided with resources, including psychological support and LGBTQ+ supportive organizations. Interviews lasted between 30 and 90 min and took place in settings of the participants’ choosing, such as a university office space or coffee shop. All interviews were audio-recorded and

transcribed by trained members of the research team, including postdoctoral research associates, graduate research assistants, and undergraduate research assistants.

In Canada, participants were compensated for public transportation to the interview if it took place off-campus. In Connecticut, participants were provided a \$20 gift card to Amazon.com for their participation. In California, participants could choose an item on Amazon.com for up to \$20 before the interview took place and were remunerated with the item of their choice at the time of their interview.

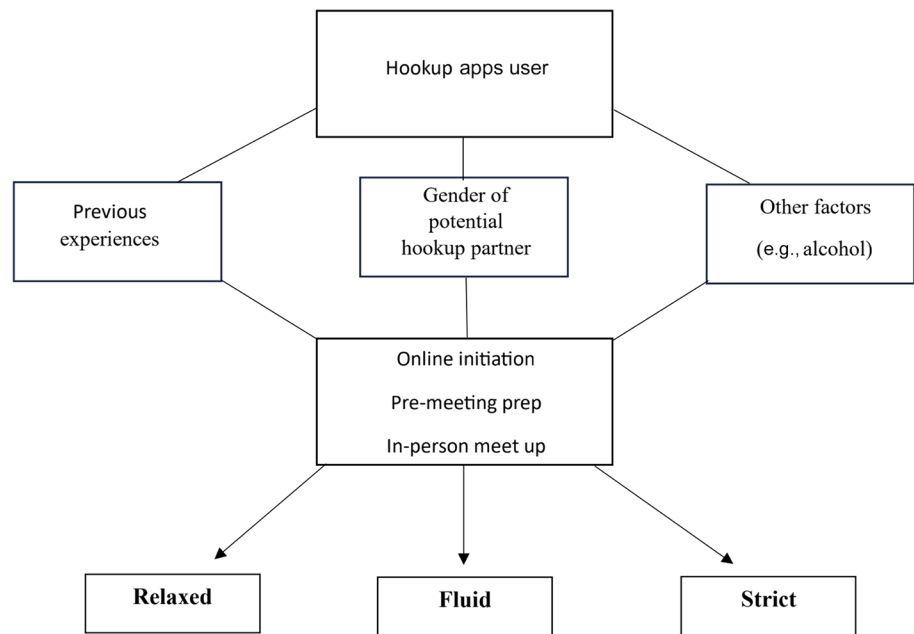
In order to be included in this study, participants must have had experience with hooking up, identify as LGBTQ+, and be between the ages of 18 and 40.

## Data Analysis

The qualitative software NVivo was used to code interviews. Members of the research team were trained in qualitative data analysis (LeCompte, 2000; Taylor-Powell & Renner, 2003), such as how to create both deductive and inductive codes. Initially, our codebook was created using deductive coding, which allowed us to examine key themes the research team expected to develop in the interviews based on the questions (e.g., hookup motives, safety precautions, and apps). Inductive coding was used if a narrative not represented by our deductive codes emerged. In these instances, we created a new code to reflect that participant’s experience and applied that code(s) to all interviews. Data from the codes were then placed into the three safety categories: (1) strict, (2) fluid, and (3) relaxed. Additionally, the timeline of the participants’ hookup process was divided into three categories that included (1) online initiation, (2) pre-meeting preparation, and (3) in-person meetup to determine when specific actions regarding safety occurred (see Fig. 1). All interviews were checked for inter-rater reliability by two research assistants who independently coded the data and compared levels of agreement versus disagreement on each interview. Before adding the Connecticut and California data, the inter-rater reliability for Canada was good ( $\alpha=0.96$ ). After adding the Connecticut and California data, the entire sample’s inter-rater reliability remained excellent ( $\alpha=0.97$ ).

## Results

From these interviews, we propose the safety spectrum theory, which asserts that individuals use risk-mitigation strategies in a strict, fluid, or relaxed manner. We analyzed and synthesized a broad array of experiences across identities and hookup behaviors to illustrate how this theory could be applied to each of the three steps of app-based hooking up: online initiation, pre-meeting preparation, and in-person meetup. The three steps of app-based hookups align with previous findings that highlight

**Fig. 1** Safety spectrum theory model

app users vetting profiles by cross-checking social media accounts, choosing public spaces for first-time interactions, driving oneself to meeting locations, sharing locations with friends, and navigating first-time face-to-face interactions.

Below, we provide evidence of three possible risk-mitigation strategies applied to each of the three steps of app-based hookups. We propose that safety strategies are better understood as circumstantial and exist on a spectrum rather than binary categories such as “safe” or “unsafe/risky.” Individuals may fluctuate across the three risk-mitigation strategies based on various situational factors, such as the gender of the potential hookup partner, perceived level of safety, or a string of “good” hookup experiences.

Situational risk-mitigation strategies were defined as follows:

### Strict

The strict approach follows personal rules and guidelines when app users meet with potential online hookup partners. Those who choose to abide by strict safety practices use strategies that are categorized as cautious and rigid in their safety practices and rules.

### Fluid

Individuals who choose to implement safety rules and precautions that fall within the fluid category are similar to strict

policies; however, they exhibit fewer rigid practices and may be more willing to yield to more situational compromises.

### Relaxed

Hookup app users who may choose to use relaxed safety strategies may not engage in safety protocols or abide by personal rules when interacting with potential hookup partners. Individuals who may feel more comfortable using relaxed strategies in situational hookup contexts may be flexible with safety rules and practices due to previous positive interactions with potential online hookup partners, or they may have higher levels of perceived safety.

### Risk Mitigation for Online Initiation

Online initiation is the first line of communication and includes safety rituals such as vetting profiles, negotiating meeting details, video chatting, and exchanging social media handles.

### Strict

Communication typically begins through dating app messaging tools and often serves as the initial line of defense when assessing potential hookup partners. Those who employ the strict approach habitually vet profiles, prefer to have conversations that stretch over lengthier periods of time, and advocate for their personal safety by negotiating location preferences. Consider how a 20-year-old bisexual cisgender woman discussed her typical initiation practices: “I would

chat with a person a decent amount of time through the app and then try and meet somewhere public.”

Other participants shared similar sentiments about negotiating for the initial meeting to take place in a public space: “First in a public location, so if there is something wrong, I can alert someone if they’re not who they say they are. And then afterward we would probably find a more private location” (19-year-old bisexual cisgender woman). Another 18-year-old bisexual cisgender woman shared a similar strategy: “I feel like when you’re meeting somebody off the internet it can be a little sketchy at first. So, I like to meet somewhere that’s busy and public.” Arranging the initial in-person meet-up in a public domain offers not only the security of having multiple people around but also the comfort of being able to change their minds with less pressure.

Compatibility and transparency may also be of importance to app users using strict safety methods. Individuals who follow strict policies are vigilant in vetting profiles and use other forms of communication to cross-reference the identity of potential hookup partners. A 20-year-old gay cisgender man discussed the importance of generating a dialog to build rapport and gauge his comfortability with meeting the desires of his potential partner:

I don't really like when people literally just send you a message, “Want to come over?” No... I definitely like to talk to them before and, you know, explore what they're looking for and what I'm looking for, and what I'm comfortable with.

Similarly, a 20-year-old gay cisgender man shared:

Probably I message someone or someone messages me, we chat for a bit. I usually don't ever end up meeting with anyone unless we've spoken actually for like a few times. Like every few days, sometimes for a week, sometimes a month. It's very rare that I would go and find someone random and meet that night.

A bisexual 20-year-old woman explained how she prefers prolonged conversations before meeting because it allows for a better opportunity to “gauge” others:

I would say I want to talk to someone for about 3 or 4 days before I meet them in person because then the charm, the initial novelty, kind of wears off, so you can kind of gauge them a little bit better.

Others expressed concern about the lack of details on other user’s profiles, such as the absence of face photos or limited identifying information. Photos of app users’ faces are one of the easiest ways to affirm who they are talking to. The lack of photos may be seen as a red flag or even a deal breaker: “There has to be some sort of face photo” (24-year-old gay cisgender man). Consider a similar comment by a 26-year-old, non-binary queer participant:

A big red flag on apps is when people don't have a photo of their face on their profile, and then they'll send you photos, but then it's like... you don't know where these photos came from because no one can see them, you know unless they send them to you.

Other safety tactics may include limiting their own identifying information on hookup apps. A 20-year-old participant who is still questioning their sexual orientation and gender stated, “I don't want them too close to who I really am... I just use my first initial on there. That way I don't have anything that's very identifying of myself.”

## Fluid

Fluid online initiation safety practices may include less extensive vetting of profiles and flexible communication elements in comparison with strict safety practices. A bisexual cisgender 24-year-old woman shared:

Yeah, I think I'd at least talk to a person for a day or two, or at least talk about what they do for work. I usually like to have them on Facebook or Instagram so that I can creep a little bit first.

She goes on to describe not necessarily needing lengthy communication over a period of time to assess potential hookup partners, but instead uses social media as a means to vet them.

Others who operated with fluid safety strategies may also feel comfortable with initial meetings taking place outside of public settings. An example of this was highlighted by a 25-year-old queer cisgender man:

I know some people will only meet someone in person for the first time in a public space. I don't necessarily go by that rule, but I know that is useful for some people. Generally, I try to at least make sure that they are who they are in their photos, and if I'm getting an okay vibe, then I'll go to their house.

Some LGBTQ+ hookup app users within this study, who applied fluid strategies, use their “gut feeling” or “vibes” they get from their potential hookup partner as a means of determining levels of safety. A 21-year-old gender fluid pansexual participant discussed their preferred method of assessing safety:

It wouldn't be an instant hookup ... have a coffee with someone or have lunch or dinner ... And just to see the vibe. I used to just hookup with people, and that did not end well. So now, I just trust my gut feeling.

Similarly, another participant shared a similar means of calculating safety:



I will usually send out a message to a bunch of people on whichever app I'm using and just chit chat...at least have a conversation to some degree... And once I get the agreement of "yes," the time, the place, wherever it happens to be, I'll drive or they come to wherever I am. Then, we just kind of meet up... a little chit chat. But then after that, we kind of jump right into it (24-year-old gay cisgender man).

### Relaxed

Relaxed safety procedures are described as not taking a lengthy amount of time to get to know someone before meeting in person and having low to nonexistent preferences on where to meet. Some participants claimed that they never felt the need to establish any safety guidelines during the initiation process. For example, a 22-year-old lesbian cisgender woman declared, "I'm thoroughly unworried all the time...I don't think I've ever felt unsafe or ever even considered if I should be looking for those things." A 25-year-old non-binary queer participant stated, "Generally, I'm comfortable going to other people's houses, and I'm comfortable with having them come to my house. I've hooked up in hotels, you ... don't really have a safety issue as far as that goes."

Those who rely on relaxed safety rules and practices tend to either allow others to create and establish safety rules and precautions, or they may not feel they need to take any safety precautions to ensure personal safety. A 21-year-old gay man discussed how he prefers to let the potential hookup partner decide and negotiate comfortability guidelines, "I didn't have a lot of rules for myself. So, when I hooked up with someone, it was usually me meeting them at their rules." This participant's response may stem from his own comfort with relaxed safety rules, but he acknowledges that others may have more strict or fluid practices.

The act of vetting profiles at the relaxed end of the spectrum is considered to be brief and less thorough than those who use strict and fluid strategies. An example of this can be seen when a 23-year-old gay cisgender man stated, "Yeah, if I go on Grindr, and if I see someone I am interested in, I will usually ask them immediately 'Hey, do you want to grab a coffee and chat in real life?'" The participant did not describe asking for pictures or social media handles to ensure the validity and identity of the online hookup partner before asking to meet in person, nor did he engage in communication tactics to assess safety before initiating the meeting-up. In the case of a 24-year-old bisexual cisgender man, alcohol and the motivation to find a hook partner for the night lead to lowered criteria thresholds, "If I'm looking for one-night stand or just a one-time hookup, then just anyone. But if I'm sober or looking for more than just a hookup, then I'll look for more detail."

### Risk Mitigation for Pre-Meeting Preparation

Pre-meeting preparation occurs just before in-person contact. The most common safety practices before meeting up with a new potential hookup partner are telling friends about their plans and sharing their geographic location with friends and loved ones.

### Strict

A common strict practice among LGBTQ+ app users is telling their friends or loved ones before meeting with online hookup partners and sharing geographic locations. This safety strategy ensures that others know of their whereabouts and have some identifying information in case the in-person meeting goes awry: "I always let my friends know" (19-year-old queer cisgender man). A 22-year-old lesbian cisgender woman shared a similar strategy: "Yeah, I would let somebody know ... usually I just share my location." Making a point to tell friends or loved ones about in-person meetings was the most common strict practice among participants.

Negotiating how both parties will get to the agreed-upon meet-up location is another safety strategy that often requires pre-planning and has diverse levels of situational comfortability. The initial in-person meeting may feel vulnerable, and some hookup app users may feel more comfortable if they take charge of driving or setting parameters around the meetup and subsequent locations:

I feel more comfortable when I drive or if I pick them up or something. I don't think I've ever gone, no I've gone to someone's house and I stayed, but only when I was sure that it was safe...I always know where my keys are, I guess, just in case for self-defense (19-year-old queer cisgender man).

An 18-year-old bisexual transgender man shared: "I don't want to travel because I'm worried about safety. I don't want someone to pick me up and bring me somewhere I don't know." Traveling to unknown locations may be risky, and those who choose to use strict safety protocols during initial meeting situations may take additional precautions to ensure personal safety. Examples may include driving themselves to the location or getting a ride from a friend.

### Fluid

Participants who use fluid safety strategies do not always relay information to their friends before meeting online hookup partners. A potential reason for hesitation in sharing hookup information with friends may stem from fear of having to share that they were rejected. For example, a 21-year-old bisexual/gay cisgender woman explained, "I'll only tell them if I know they'll get with me because if I'm

going to get rejected, why would I want to make that known to other people?" Others may feel sharing their location or telling their friends is only imperative if it is their first-time meeting, "Yeah, sometimes if I don't know the person, like I don't know if the situation's safe to go to... I'll usually tell some of my closest friends" (20-year-old heterosexual/heteroflexible transgender man).

### Relaxed

There may be some situations where hookup app users do not choose to use typical safety protocols and forgo telling their friends or loved ones about meeting potential hookup partners. A gay 20-year-old cisgender man claimed that he never tells his friends about meeting with new hookup partners until after the meeting has already taken place, "I usually tell them afterward." Another participant, when initially asked if they ever tell their friends where they are going, responded with, "I don't want to tell anybody." However, when the 19-year-old asexual cisgender man was asked if they would consider telling friends in the future for safety reasons, he replied, "I might tell some friends. Just to let them know that if they can't reach me, this is where I'm at, this is why I'm not on the phone or something, just to let people know." A cisgender 22-year-old gay man reflected on past choices:

I don't even know if I gave them his phone number or his name. Now, going back, I kind of know that I should have probably texted somebody, just here's a little bit of information about where I am going and who it is that is coming over to my house or something.

### Risk Mitigation for In-Person Meetup

Finally, in-person meetup strategies involve navigating within the agreed-upon location, strategic interactional skills, and the ability to tactfully excuse themselves from unpleasant or unsafe situations.

### Strict

Strict in-person meeting strategies heavily rely on strategic interactional skills (e.g., gauging the temperament of a potential hookup partner), comfort with expressing personal safety boundaries, and the ability to remove oneself from an unpleasant situation safely. Many of the participants felt confident in their ability to read other people, and those who used strict safety practices would excuse themselves or ask others to leave if they felt their safety or comfortability was jeopardized. A gay 20-year-old cisgender man stated, "Sometimes I get certain vibes before. I'd just be like, 'I'm not comfortable with this. Go home.'" One participant described her ability

and confidence in gauging potential hookup partners by paying attention to certain personality traits:

Even if it's in a short meeting, I can usually kind of gauge them or how they react in a crowd. That's the kind of thing I look at when I'm about to hook up with someone. Like, as soon as someone's like mean to someone else, I'm like, nope, I no longer trust you in a sexual situation (20-year-old bisexual cisgender woman).

Another participant, a queer 19-year-old cisgender man, shared his strict boundary, "If I feel uncomfortable, I'll just stop and be like, okay, we're done." A gay 22-year-old cisgender man also offered his strict strategy, "If something doesn't feel right, then don't invite them to your place." Others, like this 24-year-old lesbian cisgender woman, discussed how she remains vigilant and pays attention to red flags: "If they're being super persistent about something and we're just meeting, that's another warning sign."

### Fluid

While many of the participants felt confident in their ability to gauge others and assess personal safety, some participants described certain personality traits that they regarded as a red flag but not a deal breaker. In the case of a 19-year-old bisexual cisgender woman, she stated anger was her identifying factor of potential safety risks, "If they do get angry at any point, like outwardly angry, then that's kind of like a little bit of a warning. I'll just watch out for that, and it depends on context and situation."

Upon reflection, some participants described how they would react in a situation where they felt their safety may be in question and how they would navigate those social interactions:

If I'm getting an odd vibe, I'll just say, "Hey, you know, I'm not really feeling it. Good luck and all," and I could walk away ... but ultimately some sort of sacrifices (are made) in terms of personal safety, given that you are engaging in physical behavior with people who you don't really know all that well (26-year-old non-binary pansexual participant).

Their termination practice borders along the fluid area of the safety spectrum. They are aware that they have the power to walk away if they feel unsafe, but they also mention that certain "sacrifices" are made regardless of perceived safety dangers. When a bisexual 18-year-old transgender man was asked if he would go along with any surprises where his personal safety rules were disregarded, he claimed that he would choose not to terminate the in-person meet-up out of fear for his personal safety:



I probably would just [stay] out of fear of what they would do to me ... so it's better to just do it even with whatever the surprise may be and not have to worry about being killed or taken advantage of or whatever.

## Bisexual Participants

Strict, fluid, and relaxed safety practices and rules are situational; therefore, a person can exist in different parts of the spectrum depending on the situational context. We exhibit bisexual individuals' experiences to highlight the notion that safety practices and personal rules may fluctuate based on key situational factors. For example, some of the bisexual participants in this study were found to fluctuate on the safety spectrum depending on the gender of the potential hookup partner.

In the case of a 23-year-old queer "cis-ish" woman, she describes her typical online initiation rules regarding who she typically looks for on hookup apps:

I would feel really unsafe hooking up with a guy off an app ... I'm just not interested at all. I think if my partner and I broke up, I would go back into the app scene for women or trans people, but not straight cismen ... the threat of violence, rape, or disease is just so high in my mind through hookup apps for straight guys, that it just doesn't feel like a possibility. But with women I just have a more inherent trust I think about hooking up.

She described not having the same amount of inherent trust for cisgender men as cisgender women or transgender folks and, most notably, described having higher levels of fear for her personal safety. A 21-year-old bisexual/two-spirited cisgender male shared a similar sentiment:

Yeah, I'm always leery of hooking up with really jacked dudes, like a masc for masc type thing ... I'm always a little leery because I never know how much internalized self-hatred you got going on. Shit happens and people get raped ... When I would go on Grindr hookups, [when] I was 19, and I would bring a corkscrew with me.

For this participant, it is implied that their safety rules for cisgender men would be considered strict, and without any further information, we can infer that they both may have fluid, or even relaxed, safety rules and protocols for other genders.

Telling friends or loved ones about meeting online hookup partners is often a precaution app users take to ensure that others know their whereabouts. Some app users may also share other detailed information for safety purposes as well. When a bisexual 18-year-old cisgender woman was asked if she ever tells her friends or loved ones about the location or other details prior to an online hookup, she stated, "If it's

with a girl, no, but if it's with a guy, I probably would." A 19-year-old bisexual cisgender woman shared that she typically tells her brother:

Yeah, usually my brother will know to go to this person's place ... "be careful my girl"... Yeah and I mean, he cares more with the guys, but when it's a girl he's just like, "alright, whatever." I guess in his mind, men are more harmful than women.

Both participants described having stricter rules with telling of friends or loved ones when the hookup partner was a man and felt less of a need to share their location or information if the gender of the potential hookup partner was a woman.

Initiation protocols may vary depending on the gender of the potential hookup partner as well. A 23-year-old bisexual cisgender woman explained how she typically navigates initiation rituals with potential hookup partners:

Well, this is where I think there is a gendered difference. For men, it's within a day or two. It's like "Hey do you want to meet up?" We go for a drink and maybe something happens. And then with girls, I find they want to talk a little more. Get to know you first, over texting on Tinder or phone, and then it's like okay let's go for a drink. And yeah, it goes from there.

She describes a clear difference in the amount of time she talks to online app users before initiating a plan to meet in person. Though it is unclear what exact parameters she typically follows, it can be assumed that she may use strict or fluid strategies with cisgender female app users and either fluid or relaxed strategies with cisgender male app users.

## Other Factors

Experiences of app-based hookups may contribute to where an individual may fall on the spectrum. For example, numerous positive experiences may contribute to more fluid or relaxed safety practices because there may be a higher sense of perceived safety due to the numerous positive experiences, whereas negative experiences may contribute to adapting more strict safety practices. For some online hookup app users, learning how to feel confident and comfortable with enforcing strict safety rules took time and experience:

The first couple of times, I didn't know what to do, and I ended up just going with it because I felt like I had to because I said I would be there, and then I would be doing this with this person, and like you know what am I going to do? Then eventually, I was like fuck you, I'm leaving. I don't have any obligation to be here (18-year-old pansexual queer participant).

This tactic may stem from negative personal experiences or anecdotal stories where in-person meetings were not as safe as initially perceived. An example of this is showcased by a queer 18-year-old pansexual participant:

I would tell my friends where I was going, or people that I trusted or knew, what I was doing, where I was going, when I was going, who I was going to be with ... There have been times when I haven't, and it did not end well. Since then, I try to tell at least one person where I am and who I'm with.

However, for some hookup app users, perceived safety may be higher, and they may have experienced more positive outcomes. A lesbian 22-year-old cisgender woman declared, "I'm thoroughly unworried all the time ... I don't think I've ever felt unsafe or ever even considered if I should be looking for those things."

Alcohol may also play a critical role in deciding what type of safety strategy to use. An individual may fluctuate on the safety spectrum given the amount of alcohol they have consumed and their motivation for hooking up. An example of this was highlighted by a 24-year-old bisexual cisgender man, where alcohol and the motivation to find a hook partner for the night lead to lowered criteria thresholds: "If I'm looking for a one-night stand or just a one-time hookup, then just anyone. But if I'm sober or looking for more than just a hookup, then I'll look for more detail."

## Discussion

This study explores how physical and psychological safety is negotiated in app-based hookups from a diverse sample of 50 LGBTQ+ young adults. Results indicate that when assessing personal safety rules, three distinct strategies emerged from our data: strict, fluid, and relaxed. To our knowledge, this is the first study to investigate how the three strategies could be applied to each of the three steps of app-based hooking up: online initiation, pre-meeting preparation, and in-person meetup. While prior studies have noted that risky hookup behaviors are associated with LGBTQ+ young adults, our findings challenge those commonly held beliefs.

Our results suggest that safety protocols may not be statically linked to an individual's sexual identity or practices but rather should be viewed as circumstantial. We primarily see evidence of this with bisexual participants, who may adjust their safety strategies based on the gender of their potential hookup partner. For example, the gender of a potential hookup partner may influence the level of risk mitigation. Furthermore, an individual's personality traits and past hookup experiences may contribute to cognitive and behavioral mechanisms that may shape their use of risk-mitigating

strategies. If a hookup app user has had positive experiences, they may be more willing to engage in fluid or relaxed safety practices compared to an individual who has had experiences that contribute to more strict safety practices.

Another notable finding was that the use of strict and fluid safety strategies could be attributed to the more commonplace practice of including more extensive screening of potential partners and communication with friends or family members about meeting times and places when it comes to hooking up (Baker & Carreño, 2015), which can effectively reduce the risk of harm. Additionally, future work should explore how other aspects of an individual's identity, such as race/ethnicity or disabilities, may contribute to how hookup app users choose what safety practices they choose to engage in.

Individuals may choose to take a more flexible (fluid) approach, employing a combination of relaxed and strict safety measures, depending on the situation. This fluid approach to safety may be more practical for individuals who want to balance the risks and rewards of hookup app use. However, there were participants in the study who did not use pre-meeting safety strategies. This may be possibly due to fear of outing themselves, fear of judgment, or a lack of awareness of potential safety concerns when meeting online hookup partners. These findings are consistent with those of Byron et al. (2021), who found that LGBTQ+ young people elucidated safety in various ways, including variations of how individuals tell their friends about their future hookups and convey meet-up details to form a safety plan.

While our data did not find any relaxed in-person meet-up strategies, we hypothesize that this category may exist and should still be considered in future research. Previous findings have found potential support for this claim. For example, research has shown that app users who weekly engage in seven or more hours of hookup partner seeking may be more likely to engage in relaxed practices and have been found to engage in riskier behavior (see Rogge et al., 2019). Alcohol use may also play a role in inhibiting cognitive and behavioral orientations that may impact strict and fluid safety practices (Garcia et al., 2019), and less-researched moderating factors such as the attractiveness of potential hookup partners (Garcia et al., 2019) may also contribute to more relaxed safety practices. Further research is needed to determine what contextual factors may contribute to relaxed in-person meet-up strategies.

Another important finding was that bisexual participants within this study were found to fluctuate on the safety spectrum depending on the gender of the potential hookup partner. More specifically, bisexual app users were more willing to engage in fluid or relaxed safety strategies with women but chose to use stricter practices with men. Interestingly, this was true of bisexual men, women, and other gender identities. Thus, arguing that an individual's gender may not be as critical of a determining factor of how

individuals negotiate and navigate personal safety rules, but rather the gender or sexual identity of the potential hookup partner may hold the most weight in determining safety precautions. There has been little discussion in studies on how bisexual individuals use their safety strategies and navigate personal safety rules. Further studies are needed to examine bisexual individuals' experiences and risk-mitigation practices while using hookup apps.

### Strengths and Limitations

To our knowledge, few studies on LGBTQ+ young adult hookups involve such sampling diversity and range in sexualities and gender identities. Though there are other gender and sexual identities that should be investigated, such as transgender women, this study expands outside of typical LGBTQ+ research populations (gay, lesbian, and bisexual). Another strength of this study was the participants' racial/ethnic demographics, which include 38% of individuals who identified as Black, Asian, Latino/ Latina/ Hispanic, and others.

Although many studies on dating apps and sexual hookups have focused primarily on communicable diseases (e.g., HIV), this study offers insight into how individuals who identify with different gender and sexual identities navigate their personal safety when meeting with online potential hookup partners. This topic is important because it will help stakeholders and healthcare professionals understand how LGBTQ+ young people utilize safety measures and negotiate these safety measures through hookup apps.

It is plausible that a number of limitations could have influenced the results obtained. Our study included a diverse sample of sexualities and genders among LGBTQ+ young adults; however, our racial demographics were predominantly white, which hinders the generalizability of our research to a more racially diverse sample. Another possible limitation is the method used to measure participants' responses. The questions used in this study may have had too large of scope when investigating LGBTQ+ hookup behaviors. Future researchers should revise the interview questions to gather specific data regarding personal safety strategies; for example, "Have you always used the same safety strategies when using hookup apps?" and "Can you tell me about a time when you felt unsafe when meeting with a potential hookup partner?" To better understand the personal safety risks and how hookup applications influence safety choices, future studies should examine other sexualities and genders that were not included in this study (i.e., agender and demisexual).

### Conclusion

Our goal in this study was to better understand how safety measures are negotiated and enacted through app-based hookups in the LGBTQ+ young adult community. We hope our findings aid in providing evidence-based suggestions to help make dating/hookup apps and public health campaigns more effective at targeting hookup-related risks. It is important to acknowledge that many of our participants were not only thoughtful about their personal safety strategies but intentional in using strict or fluid approaches to navigating their hookups. Scholars and practitioners should give LGBTQ+ young people more credit than what has historically been documented in queer research and sexual health. Additionally, it is possible that these safety strategies may also apply to other areas of sexual health that are commonly studied in hookup research, such as STI prevention.

With further sampling, stakeholders may be interested in including personal safety strategies in public health campaigns, social media advertising, and safety features in hookup apps. Geographic data and location information are built into the hookup/dating app algorithms, where location and proximity are typically how user profiles are matched with other app users. A safety feature using geographic location check-ins, like Facebook, would allow for dating/hookup app users to utilize quick and easy sharing of information with friends as a personal safety measure. Creating added safety tools within hookup apps may be helpful in mitigating risk and creating more awareness of personal safety for app users.

We sought to add to the existing literature focused on LGBTQ+ sexual health and personal safety risks to better understand how dating/hookup apps influence the personal safety choices of LGBTQ+ young adults. We found that app users may use varying degrees of safety precautions and procedures depending on situational factors. This inspired the creation of the safety spectrum theory. The safety spectrum theory allows for a more inclusive and comprehensive approach to understanding how LGBTQ+ app users negotiate and navigate personal safety strategies while using hookup apps. We hope that future research will utilize the safety spectrum when examining *all* young adults' sexual health practices instead of overgeneralizing young people's hookups as risky.

### Appendix: Personal Safety-Specific Interview Protocols

To begin, can you tell me a little about yourself?

1. What apps do you use for the intent of hooking up?  
*Probe:* identify what app  
*Probe:* what are your thoughts and opinions of the said app?

**Can you walk me through the steps of what happens in a hookup from the beginning? As in, what usually happens step by step?**

probe: Beginning Steps

1. *Any usual locations? Or online? Walk me through the steps online (feel free to look at the app if it will help)*
2. *State of mind: horny? bored? planning for later?*
3. *Challenges? Any challenges to finding a suitable partner for hooking up?*
4. *Alcohol or other factors?*

**Probe alternate method: If they focus on apps, ask about locations. If they focus on location, ask about apps.**

probe: Middle Steps

1. *How long after you initiate does the hookup start? Location-based vs online?*
2. *How long does it last? spend the night or not?*
3. *Have you experienced any surprises? Doesn't look like picture or being asked to do something you didn't think you would?*
4. *How do you or would you handle surprises?*

**Do you have personal guidelines or rules you follow for hooking up?**

1. *Rules for managing your safety and/or sexual health? Condom, location?*
2. *Any warning signs you look for?*
3. *Any turn offs?*
4. *Do you tell friends that you're going to a hookup?*

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**Availability of Data and Material** Available upon request.

**Code Availability** Not applicable.

## Declarations

**Conflict of interest** There is no conflict of interest.

**Ethical Approval** Three separate ethics boards approved the collection of data used in this project: University of Connecticut, University of British Columbia, and California State University Monterey Bay.

**Human Subjects and Informed Consent** All participants were provided with a consent form, which explained the study's goals before the interviews. Participants were given the opportunity to ask questions about the study, informed they could skip any questions they did not want to answer, and told they could end the interview at any point. All participants across all three research sites provided written consent to participate in the study.

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