

Safety Perceptions and Behaviors of Young Adults who use Dating Apps

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1 Introduction

Online dating has become increasingly prevalent, yet safety remains a persistent concern, particularly for young adults. Prior work has shown that a majority of undergraduates who use dating apps have experienced sexual violence [4, 7]. Despite the scale of this issue, platforms continue to lack sufficient checks and safeguards to protect their users [6], relying on users to protect themselves. Young adults are particularly vulnerable due to their lack of knowledge about potential dangers, general inexperience, and high degree of trust in technology [2]. More work is needed to understand young adult experiences on dating apps to inform new educational methods and materials [11], as well as to inform better app design.

Rivera et al. established a taxonomy of protective behaviors that online daters use prior to meeting (Screening, Obfuscation, Vetting, and Self-disclosure), during a meeting (Environmental precautions, Covering, Surveillance/documentation, and Emergency alerts), and after a meeting (Reporting and Blocking), validating it via a survey [10]. Other prior work that has explored dating app safety has similarly relied on interview and survey data that captures information at a single moment in time [3, 8, 12]. As interactions progress, the behaviors users engage in change, and work is needed to understand how users choose which behaviors to use.

To better capture this dynamic process, we conducted a diary study of young adults over 6 weeks. We were particularly interested in the minutiae of how established protective behaviors are utilized by a younger demographic. The diary study

is well-established in safety literature, with past work asking users to reflect every day on a wide range of topics including social media safety [9], safety perceptions of wearables [1], and smartphone access control [5]. Our findings contribute insight into the dynamic nature of risk mitigation in online dating contexts and carry implications for the design of safer platforms and targeted safety education for young adults.

2 Methods

We designed a 6 week diary study that consisted of an initial survey, 4 recurring surveys (every 1.5 weeks), and a final survey to be completed at the end of the 6 weeks. Participants ages 18-25, all residing in the US, were recruited on Prolific to complete the study. Our initial pilot consisted of 60 participants, which helped us understand how long each survey period should be, how long the study should be, and whether we would get a diverse set of participants (from all ages in the range, various educational backgrounds, etc).

The initial survey collected data from 150 participants, 75 ages 18-22 and 75 ages 23-25. The pilot demonstrated that Prolific users skewed older, so data was collected from the age groups separately to ensure we would get a diverse set of participants. As each recurring survey was released, participants would have a week to complete it. 83 participants completed the study on time.

Survey questions focused on understanding user perceptions, estimating the number of people interacted with in the survey period, protective behaviors used, and gathering qualitative data to provide context. Analysis is still ongoing, and it will inform our focus in the interviews we plan to conduct with the participants in this study.

2.1 Ethics

This study was approved by the Tufts University Social, Behavioral, and Educational Research IRB. Participants signed informed consent forms prior to participation that detailed how their data would be stored, for how long, and that they

could withdraw from the study at any time. Every survey that asked participants about unsafe experiences included a list of mental health and counseling resources assembled with the help of the Tufts Center for Awareness, Resources and Education.

3 Initial Findings

3.1 Perceptions of safety

A Friedman test comparing safety perceptions in each survey period (measured by a 1-5 Likert scale) for online interactions versus in-person interactions did not show significance ($\chi^2(1) = 0.44, p = .692$). Similarly, a Friedman test comparing general safety perceptions for those who recorded an unsafe experience in a survey period versus those who did not also did not show significance ($\chi^2(1) = 0.89, p = .692$). We hypothesized that periodic observations would show an effect on safety perceptions based on singular experiences, but this was not the case. It may be due to the need for a larger sample size, but further work is also required to explore whether safety perceptions "stick" and rely on longer-term factors such as environment, family, etc.

Ordinal regression analysis ($N = 332$) revealed that several protective behaviors were significantly associated with perceptions of safety. Screening behaviors were the strongest predictor ($OR = 1.66, p = .015$), followed by environmental precautions ($OR = 0.60, p = .025$), and obfuscation behaviors ($OR = 0.50, p = .019$). These are a mix of behaviors taken both prior to meeting and during meeting someone in-person, and require both prior planning and preparation. This finding may demonstrate that safety perceptions are directly connected to how much action young adults view themselves taking when it comes to mitigating risk. They may feel safer on dating apps because they feel they can use protective behaviors to have better control over harmful things happening. We hope to continue exploring these ideas via interviews: understanding what influenced their initial safety perceptions on dating apps, how they learned to use these behaviors, and what may in fact change their perceptions.

3.2 Safety behaviors

As expected, due to the many different types of interactions our users engaged in across the survey, no trends were observed in frequency of behavior usage across the survey periods (see Figure 1). However, we did find that Screening was consistently the most frequently used protective behavior, used by almost a third of participants in every survey. Notably, Screening was also correlated with messaging fewer people online, suggesting that those who engage in the practice may be more selective about who they choose to interact with ($b = 0.152, z = 2.655, p = .008$). This selectivity may help explain why Screening was found to be a significant positive predictor

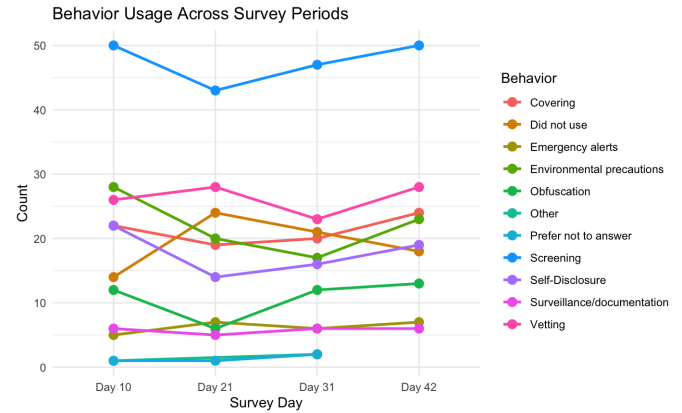


Figure 1: Frequency of behavior usage across the four survey periods

of perceived safety. By narrowing their pool of contacts, those who screen may feel greater confidence in the safety of their online interactions, suggesting a potential mechanism worth further exploration: that screening fosters a sense of control over one's online environment, which in turn contributes to feeling safer.

These results have several implications for our ongoing work. The prevalence of screening relative to other protective behaviors may have made it easier to detect significant associations using statistical methods, while lower usage rates of other behaviors may have limited statistical power for those measures. Interviews should therefore probe more deeply into participants' usage of other protective behaviors to better understand the conditions under which different safety strategies are adopted and maintained.

3.3 Study completion

Completion was not associated with perceptions of safety, suggesting that attrition was not systematically driven by participants' experiences of feeling safe or unsafe online. However, those seeking casual sex and those currently in school were more likely to drop out of the study. This is worth noting as both groups may have distinct online dating experiences and safety concerns that were not fully captured here. Despite this, the data remains broadly relevant to the wider young adult online dating population. That said, future work would benefit from targeted studies on people seeking casual sex specifically, as well as comparisons between young adults in college settings versus those outside of college, where social context and access to potential partners may differ considerably.

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