

January 2015

## Women's Use Of and Decision-Making Regarding Geo-Social Networking Applications to Arrange Sexual Experiences

Shireen Mary Noble

University of South Florida, shireen.noble@gmail.com

Follow this and additional works at: <https://digitalcommons.usf.edu/etd>



Part of the [Public Health Commons](#)

---

### Scholar Commons Citation

Noble, Shireen Mary, "Women's Use Of and Decision-Making Regarding Geo-Social Networking Applications to Arrange Sexual Experiences" (2015). *USF Tampa Graduate Theses and Dissertations*. <https://digitalcommons.usf.edu/etd/5752>

This Thesis is brought to you for free and open access by the USF Graduate Theses and Dissertations at Digital Commons @ University of South Florida. It has been accepted for inclusion in USF Tampa Graduate Theses and Dissertations by an authorized administrator of Digital Commons @ University of South Florida. For more information, please contact [digitalcommons@usf.edu](mailto:digitalcommons@usf.edu).

Women's Use Of and Decision-Making Regarding Geo-Social Networking  
Applications to Arrange Sexual Experiences

by

Shireen M. Noble

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Science in Public Health  
with a concentration in Public Health Education  
Department of Community and Family Health  
College of Public Health  
University of South Florida

Major Professor: Ellen Daley, Ph.D.  
Eric Buhi, Ph.D.  
Ambar Basu, Ph.D.

Date of Approval:  
July 9, 2015

Keywords: Apps, qualitative, communication, public health

Copyright © 2015, Shireen M. Noble

## **Acknowledgments**

First and foremost, I would like to thank my parents, Doug and Hutoxi Noble who have been there to support me every step of the way. With every panicked phone call I made, every draft I read to you, every media mention of dating apps that you brought to my attention, every time I needed to unwind, you were there for me without hesitation. I can't even begin to tell you how much your love and support mean to me. I could not have done this and so many other things without you.

To my wonderful committee- Dr. Ellen Daley, Dr. Eric Buhi, and Dr. Ambar Basu- thank you for sticking with me throughout the process! I cannot even begin to tell you how much your knowledge, guidance, and expertise have meant to me throughout this process. Thank you for all the time and energy you have put into this thesis. I would also like to add a special thank you to Dr. Daley for all of the meetings, the support, the chocolate, and the assistance when things did not go as expected.

To my friends who have supported me throughout my entire degree- thank you! I could not have done it without your encouragement and belief in me, especially when I did not always believe in myself. Whether it was keeping me on track with my work, getting me away from it when I needed a break, or making me laugh when I had had enough of it, I cannot thank you enough.

And finally I would like to thank Allie for literally being by my side throughout this entire process. Thank you for letting me do my work when it was needed, for getting me out of the house when I needed a break, and making me smile every single day.

## Table of Contents

List of Tables .....	iii
Abstract.....	iv
Chapter I: Introduction.....	1
Chapter II: There’s an App for That: Online and Sexual Safety in Relationship and Sex Seeking Apps for Heterosexually Identified Men and Women .....	3
Abstract.....	3
Introduction.....	4
Apps and sexual safety.....	5
The Internet and sexual safety .....	6
Methods.....	7
Results.....	8
Discussion.....	12
References.....	14
Chapter III: Dating Apps: A preliminary Study of the Use of Dating Apps Used by College-Aged Women .....	16
Abstract.....	16
Background.....	17
Methods.....	22
Participants.....	22
Procedures.....	22
Analysis.....	23
Results.....	23
Pilot testing .....	23
Screener surveys .....	24
Interviews.....	25
Discussion.....	29
Pilot testing .....	30
Screener surveys .....	30
Interviews.....	31
Limitations and strengths.....	33
Future research.....	34
Implications.....	34
References.....	35

Chapter IV: Conclusions.....	39
Strengths .....	39
Limitations .....	39
Implications.....	40
Appendices.....	41
Appendix A- Sites Used for App Comparisons.....	42
Appendix B- Screener Survey .....	43
Appendix C- Interview Guide.....	44
Appendix D- IRB Protocol .....	47
Appendix E- IRB Forms .....	53
Appendix F- IRB Approval .....	57

## **List of Tables**

Table 1.1:	Breakdown of Features by Category.....	9
Table 1.2:	Online Safety Features.....	9
Table 1.3:	Online Safety and Sexual Safety Features.....	11
Table 1.4:	Sexual Safety Features.....	11
Table 2.1:	Screeener Survey Results.....	24

## **Abstract**

The purpose of this thesis was to learn more about geo-social networking applications and how they are used by women to meet sexual partners. Currently, there are no known studies that have looked at heterosexually-oriented geo-social networking applications or at the way women have used these apps for heterosexual sexual encounters. This thesis attempts to begin to bridge this gap in the literature.

For the first study, apps were selected based on their appearance in popular media articles about dating applications. Results generally related to online safety concerns, while occasional features were related to sexual safety concerns. Communication options were limited, and apps shared information with users about how far away they were from one another, from half a mile away to 5 miles away, depending on the app. Findings suggest that this is an area in need of more study, as how these apps are used by app users is currently unknown.

The second recruited four women aged 18-24 who reported willingly having had sex with a male partner they met over an app. The study found that participants were sharing personally identifying information over apps (full names, phone numbers, etc.), and occasionally meeting partners in private residences for the first time. All participants reported using condoms the first time they had sex with a partner they met over an app. Findings suggest there is much more research required on how individuals meet partners over geo-social networking applications and how to safely navigate these apps.



## **Chapter 1: Introduction**

Geo-social networking applications (“apps”) are phone applications that can be used to meet prospective sexual partners. Although there has been some limited research on the use of relationship/sex seeking apps among men who have sex with men (MSM) (e.g. Beymer et al., 2014, Burrell et al., 2012; Gudelunas, 2012; Landovitz et al, 2012), to date there are no known studies of the use of such apps among heterosexuals. Without knowledge of how these apps are being used, it is impossible to evaluate the public health significance they pose and how to best address the health challenges that arise. The purpose of this thesis is to better understand how these apps work and to examine the communication that occurs between sexual partners

This thesis is intended to present two manuscripts on the topic of sexual experiences arranged through apps. The first manuscript is an introduction to these apps, providing comparisons across the features of the most popular relationship/sex-seeking apps for public health professionals. The second manuscript is about the experience of pilot testing an interview guide, the analysis of screener survey data, and a qualitative analysis of interviews with women who have used dating apps to meet sexual partners. Understanding how these apps work and how women use these apps is essential to public health professionals in understanding and addressing the health and safety risks that these apps may present.

This manuscript-style thesis will present two manuscripts rather than the traditional 5-chapter thesis in order to facilitate the preparation and dissemination of the research findings. This first chapter serves as an introduction to the proposed thesis and the manuscripts to be prepared. Chapter 2 of this thesis will present a stand-alone “primer” manuscript on relationship

and sex seeking apps. The manuscript will include a brief history, an explanation of how the technology works, and a comparison chart of the most popular apps that are available through the Apple or Google Play stores. The purpose of this manuscript is to acquaint readers with how apps work. This manuscript will be prepared in a style consistent with the journal *Health Education and Behavior*.

Chapter 3 of this thesis will present a second stand-alone manuscript on the experiences of women who have met a sexual partner through these relationship/sex-seeking apps. The information for this manuscript will be collected by conducting one-on-one interviews with women who have had sex with a partner they have met through one of these apps. The interviews will then analyze what occurs between partners when they meet over the app, when they meet in person, and when they first have sex. Data will be analyzed using Qualitative Content Analysis (QCA). The specific research questions of interest are:

- 1) What occurred during the pilot testing of the interview guide?
- 2) What were the results from the screener surveys?
- 3) What did participants report happened when meeting partners over dating apps?

This manuscript will be prepared in a style consistent with the *Journal of Sex Research*.

Chapter 4 of this thesis will be a conclusion, including the strengths, limitations, and implications of this research.

## **Chapter II: There's an App for That: Online and Sexual Safety in Relationship and Sex Seeking Apps for Heterosexually Identified Men and Women**

### **Abstract**

There are multiple relationship/sex seeking apps on the market that are available to heterosexually identified individuals. However, despite the existing research focusing on men who have sex with men (MSM) and their use of these apps, there has been no research looking at the use of these apps by heterosexually identified individuals. The purpose of this study was to identify the most popular apps that are used in this population and examine how they relate to online and sexual safety.

Apps that were endorsed by at least two non-academic articles were selected for this study for a total of 18 apps selected. 9 of these apps were found to be ineligible for the study based on issues such as the apps did not work, or they were not actually available as apps, resulting in a final sample size of 9. Apps were evaluated based on geo-social information sharing, communication options, "looking for" option, and reporting options.

In terms of online safety, most apps provided reporting options for issues such as the user is a scam/spamming other users, or the content of their pictures is inappropriate, but there was absolutely no option to report based on real life experiences with that user. Most apps used geo-social location information to provide information on which users were closest to each other (physical proximity), with some apps actually reporting information such as being within 0.5 miles of one another or sharing a mutually close location where two users could meet. With regards to sexual safety, there was only one app that would even allow for users to say that they

were looking for casual sex. The rest that provided “looking for” options did not provide options for those looking for sexual relationships, though only 4 of the apps even had such options.

By better understanding the functions available on these popular apps, it may be possible for interventions to be designed to promote safer sex with partners met over these apps. Other apps have been designed to increase safer sex practices, but they are only available in clinical settings. More research is needed to better understand how these apps are being used, but this research provides the first examination of how the apps work and how they relate to online and sexual safety.

## **Introduction**

There are multiple relationship/sex-seeking applications for smartphones that are available on the market for heterosexually identified individuals. In fact, 61% of all cell phone users in the United States are smartphone users (Smith, 2013), which has led to an increasing reliance on phones as a primary means of accessing the Internet. For instance, 34% of American adults report that they use their phone to access the Internet the most, more than a laptop or desktop computer (Smith, 2013). One of the more popular features of these smartphones is their global positioning service (GPS), with 74% of phone users report using (Zickuhr, 2013). GPS services may include information such as directions based on where the phone is currently located or finding restaurants in the proximity of the phone. GPS information may also be used socially, with 30% of social network users attaching GPS information to their posts; for instance a person’s tweets would contain information about the city where a user is located when they posted the tweet (Zickuhr, 2013).

Phone apps can be used to find sexual/romantic partners, and these apps generally tap into the GPS capabilities. These apps, known as geo-social networking apps, have a simple

premise: an individual downloads an app, installs it, and signs up for an account. Signing up for an account may be as simple as filling out a short demographic form or it may include completing a more time-consuming personality assessment. Once the sign-up is complete, the user gives the app permission to use their current location (determined by their phone's GPS), and the app uses that location to match them with other app users nearby. That is, the app connects them with the people closest to them who are also looking for relationships/sex. Once connected, users communicate with one another using the app. For apps without GPS technology, they rely on self-report data about where a person using the app is located. These apps make it very easy to find relationship/sexual partners very quickly.

**Apps and sexual safety.** Previous research by the Pew Research Center has found that 7% of phone app users have reported using at least one relationship/sex-seeking app on their phones (Smith & Duggan, 2013). This represents about 3% of all adults in the US. For individuals 18-25, only 5% report using these apps, but that number jumps to 11% among 25-34 year olds. There are significant differences with regards to urbanicity and gender, but no significant differences on educational attainment and income (Smith & Duggan, 2013).

Relationship/sex-seeking apps first gained popularity among men who have sex with men (MSM), and there has been an interest in studying how they use apps over the past couple of years, particularly with regards to sexual risk taking. Researchers are interested in learning how meeting a sexual partner over an app may lead to increased sexual risk taking. According to Lehmler & Ioerger (2014), those who used Grindr (a relationship/sex-seeking app for MSM) reported more sexual partners than those who did not. Additionally, Grindr users reported a higher rate of ever being diagnosed with a sexually transmitted infection (STI) other than HIV. For example, Rice et al. (2012) found that those who used Grindr were likely to report more

recent sex partners, but were more likely to have used condoms during anal sex with partners they met over Grindr. Rendina, Jiminez, Grov, Venturac, and Parsons (2014) found that a sample of Grindr users in New York City actually reported getting tested for HIV at a higher rate than average. Taken together, these results may indicate a higher number of sexual partners for those who use apps such as Grindr, but engagement in safer sex practices than non-users.

The findings from these studies also suggest that the use of apps to meet sexual partners has created new challenges. For instance, if someone who tests positive for an STI or HIV only knows their former partners by their screen names on apps or dating websites, it can be very difficult for public health professionals to track down those individuals to tell them they may have been exposed. One health department works with various relationship/sex-seeking websites to set up health department accounts on sites to contact those individuals who are only identified by their screen names (Hightow-Weidman et al., 2014). This Internet partner notification service has provided an excellent way of contacting the sexual partners of MSM who would otherwise be lost to follow-up, but there is no known app equivalent to this program.

**The Internet and sexual safety.** There has been no research on smartphone app use for heterosexually identified individuals; however, previous research on Internet relationship/sex-seeking has found multiple types of risks associated with meeting partners online, including online safety and sexual safety (Padgett, 2007). Online safety refers to safety measures employed online to protect personal information such as real names or jobs, and sexual safety refers to STI or unintended pregnancy risk associated with having sex with a partner met online (Padgett, 2007). Previous research has found that women who meet their sexual partners online were more likely to engage in higher risk sexual activity than those who have not met their partners online, but were also more likely to use protection with their partners (McFarlane, Kachur, Bull, &

Rietmeijer, 2004). In addition, the age of the participants appeared to be a factor in sexual risk taking: younger women who met their partners online were more likely to insist on condom use than older women who had met their partners online (Bateson, Weisberg, McCaffery, & Luscombe, 2012). Since there is a greater prevalence of relationship/sex seeking app use among younger adults (Smith & Duggan, 2013), this may be less of a concern among app users. Online safety remains a concern for all ages.

There has been an exponential increase in the use of relationship/sex seeking apps available over the past several years. A search for “dating” among apps in the Google Play Store yields more than 2000 results, making it impossible to sort through all the apps that heterosexually oriented individuals may be using. In order to better understand the use of apps, two research questions were proposed: 1) what are the most popular apps that individuals use to find prospective romantic/sexual partners? 2) How do these apps relate to online and sexual safety?

## **Methods**

A Google search was conducted for “top dating apps” in August 2014. The first 10 articles that listed relationship/sex-seeking apps were selected. From there, any apps that appeared on at least two different lists were selected for analysis (N=18). The links to these articles can be found in Appendix A.

Several of the apps were deemed ineligible for analysis for the following reasons: one listed app turned out not to be available as an app at all (n=1), the apps did not work after repeated attempts to use them (n=2), the apps were not available for both iPhone and Android (n=3), the app was not available in Florida (n=1), the app did not allow for meeting new people (n=1), and the app was already being evaluated under a different name (n=1). In the end, a total

of 9 apps were eligible for the final analysis. Apps were evaluated on the following features: “looking for” options, communication options, geo-social distance information, and reporting options. These are the features that are most related to online and sexual safety and communication.

Looking for options are what users can select to indicate what they are looking for from other users on the app. Geo-social information indicates whether the app uses a user’s GPS information to pinpoint their location. Distance information refers to the minimum distance that an app will share about how close a user is. Blocking options refers to whether a user can block another user, report them, or do both. Reporting reasons refers to the options that the app gives for which one user can report another. Finally, communication options refer to the ways in which users can communicate with one another.

## **Results**

Table 1.1 presents a breakdown of the features on relationship/sex-seeking apps based on whether they are related to online safety, sexual safety, or both. The most common category was that of online safety, with four of the six features falling into it. The online safety category, which can be seen in Table 1.2 included information that could compromise a person’s safety on the Internet, such as geo-social information (which would provide information about where a person is located), which could compromise a person’s anonymity online. Issues such as blocking and reporting allow those who are feeling uncomfortable/unsafe with what another user on the smartphone app is doing to block communication with that user. Table 1.3 includes information about communication options, the feature that is related to both online and sexual safety. The communication options allow users to communicate with each other about issues related to sexual safety, but which also allows them to share information that might compromise



their online safety. Finally, Table 1.4 provides information about the “looking for” option that only four of the nine apps provide, which is connected to sexual safety. This is the feature that is most connected to sexual safety, as it allows users to communicate about what kind of relationship they are looking for.

**Table 1.1. Breakdown of Features by Category**

<u>Online safety, sexual safety, or both</u>	<u>Category</u>	<u>Explanation</u>
Online safety	Geo-social information	Geo-social information provides data related to where a person is physically located, which could compromise online safety
Online safety	Distance	Distance information provides specific information about how close someone is located, which could compromise online safety
Online safety	Blocking/reporting options	Blocking options allows a person to limit their communications with someone who is not following site guidelines, keeping their online safety
Online safety	Blocking/reporting reasons	Blocking reasons provide the reasons that a user is blocking another user, keeping their online safety
Both	Communication options	Communication options allows users to discuss issues related to online and sexual safety
Sexual safety	“Looking for” options	“Looking for” options allow users to post what kind of relationship they are looking for, from “just friends” to “casual sex”

**Table 1.2. Online Safety Features**

<u>App name</u>	<u>Geo social information</u>	<u>Distance</u>	<u>Blocking options</u>	<u>Reporting reasons</u>
Are You Interested?	Yes	N/A	Block/Report	Inappropriate photo, inappropriate text, sending spam, misrepresentation
Blindr/Badoo	Yes	Less than 1 mile	Block/Report	Don’t report abuse, report rude or abusive behavior, report inappropriate photos, report fake photos, report spam/scam

**Table 1.2 (Continued)**

<u>App name</u>	<u>Geo social information</u>	<u>Distance</u>	<u>Blocking options</u>	<u>Reporting reasons</u>
Match.com	No	N/A	Block or Report	User is not really in the location stated in the profile, user asked for money or tried to scam me, user attempted to sell me merchandise or services, user's overall profile just doesn't add up
OKCupid	Yes	"In the area"	Report	"Report this user for violating OKCupid's terms of service?"
Plenty of Fish	Optional	0.5 miles	Report	Abusive users, Incomplete/nonsense profile, indecent images, copyright/cartoon images, forum abuse, under age, Nigerian/Russian Scam, Psycho Profile, Promoting/Selling Stuff, other
Skout	Yes	"0 miles"	Block, Report	Sexual content, violent content, hateful content, dangerous content, copyright content, this is spam or scam, underage content
Tinder	Yes	N/A	Report	Offensive or Abusive Content, This is spam or a scam, they make me uncomfortable, other (explain)
Zoosk	No	Based on zip code	Block/Report	Not interested, under 18, hate speech, inappropriate photo, harassment, spam, fake user, inappropriate content

**Table 1.3. Online Safety and Sexual Safety Features**

	<u>Communication options</u>
Are You Interested?	Messaging
Blendr/Badoo	Messaging
How About We?	Messaging
Match.com	Can only send a message with a paid membership
OKCupid	Messaging
Plenty of Fish	Messaging
Skout	Messaging
Tinder	Can only communicate if both users express interest in each other
Zoosk	Can't read received messages without paying for an account

**Table 1.4. Sexual Safety Features**

<u>App name</u>	<u>"Looking for"</u>
Are You Interested?	N/A
Blendr/Badoo	Make new friends, chat, date
How About We?	N/A
Match.com	N/A
OKCupid	New friends, long-term dating, short-term dating, casual sex
Plenty of Fish	Hangout, friends, dating, long term
Skout	Friends, flirting, fun, dating, chat, party, relationship
Tinder	N/A
Zoosk	N/A

## **Discussion**

This analysis is of the most popular apps in geo-social networking applications for heterosexually identified individuals. Online safety and sexual safety features do not appear to be priorities addressed in these apps. Online safety is related to the protection of a person's personal information, such as their full name or their address (Padgett, 2007). By using a user's location information, apps may allow for users to track down specific users around them. In particular, apps like Plenty of Fish and Badoo/Blendr give very specific location information (within half a mile), which could be used to compromise online safety. Other online safety concerns arise with topics such as whether or not users are able to block and/or report other users on the smartphone app. Blocking allows users to protect themselves against harassment, abuse, and other inappropriate behavior from other app users.

Sexual safety is a topic that is missing on these apps and no apps provide information or encourage users to discuss sex or sex related topics in their profiles. With the exception of OKCupid (which explicitly lists casual sex as an option), sex is not mentioned. Five of the apps do not include "looking for" options, and it is incumbent upon the users to communicate about what kind of relationship they are looking for. It is currently unknown whether it is safer to promote users explicitly communicating what kind of relationship they are looking for. For example, two users who are explicitly looking for casual sex may be more likely to discuss sexual risk amongst themselves prior to meeting, or being able to sort by users who are looking for casual sex may simply allow for more filtering of users and provide a quicker way to meet up with someone also looking for sex.

With regards to online safety, there appears to be very little done in the way of keeping users safe. In reporting options, there is the option to report profiles for “abusive content” (among other reporting options), but there is no option for users who meet someone in person and have negative experiences to report them. This suggests that the apps are not particularly concerned with the experiences of their users after they have transitioned to meeting in person. The issue of keeping safe when meeting a partner in person may be an excellent opportunity for a public health intervention.

It is not impossible to integrate safer sex with apps. In fact, there are apps such as Healthvana (Healthvana, n.d.), and MedXSafe (MedXPatient, n.d.) that are specifically designed for the purposes of promoting safer sex. These apps allow users to download their latest STI/HIV test results directly to their accounts. The users are then able to show their results with prospective sexual partners or share the results directly over the app. One of the drawbacks of these apps is that users must request that their test results be sent to the app at the time of their testing. As a result, the apps can only be used by those who have been tested. Unfortunately, out of the apps reviewed here, none had the ability to work with these sexual health apps to promote sharing sexual health information. Integration could provide a huge step towards sexual safety on these apps. Most of these apps have no options to provide information such as HIV status, or attitudes towards condom use. Currently, users are free to put this in their “about me” sections, but there is nothing on the app that would allow a person to, for example, sort by partners who are interested in using condoms.

This research was limited by a small sample size (relative to the number of apps available on smartphones) and was limited by the fact that this research did not actually engage with other users on these apps. Future directions for this research include developing relationships with

sexual health apps that could be merged with geo-social networking apps to provide for greater sexual safety. Furthermore, interventions may be developed for individuals who use the apps, such as building in options such as serosorting, communicating about safer sex practices, and partner notification services. These interventions may take the form of targeted educational advertisements, third-party extensions, or even built-in features on relationship/sex-seeking apps. There is a need to go further and investigate the ways in which individuals use these apps with the increase of smartphone use for relationship/sex seeking among heterosexuals.

## References

- Bateson, D. J., Weisberg, E., McCaffery, K. J., & Luscombe, G. M. (2012). When online becomes offline: attitudes to safer sex practices in older and younger women using an Australian Internet dating service. *Sexual health*, 9(2), 152-159.
- Healthvana, (n.d.). About Healthvana. Retrieved from <https://www.healthvana.com/about/>
- Hightow-Weidman, L., Beagle, S., Pike, E., Kuruc, J., Leone, P., Mobley, V., ... & Gay, C. (2014). "No one's at home and they won't pick up the phone": Using the Internet and text messaging to enhance partner services in North Carolina. *Sexually Transmitted Diseases*, 41(2), 143-148.
- Landovitz, R. J., Tseng, C. H., Weissman, M., Haymer, M., Mendenhall, B., Rogers, K., ... & Shoptaw, S. (2013). Epidemiology, sexual risk behavior, and HIV prevention practices of men who have sex with men using GRINDR in Los Angeles, California. *Journal of Urban Health*, 90(4), 729-739.
- Lehmiller, J. J., & Ioerger, M. (2014). Social networking smartphone applications and sexual health outcomes among men who have sex with men. *PloS One*, 9(1), e86603.

- Mcfarlane, M., Kachur, R., Bull, S., & Rietmeijer, C. (2004). Women, the Internet, and sexually transmitted infections. *Journal of Women's Health, 13*(6), 689-694.
- MedXPatient (n.d.). About MedXSafe. Retrieved from <http://medxpatient.com/products/medxsafe/>
- Padgett, P. M. (2007). Personal safety and sexual safety for women using online personal ads. *Sexuality Research & Social Policy, 4*(2), 27-37.
- Rendina, H. J., Jimenez, R. H., Grov, C., Ventuneac, A., & Parsons, J. T. (2014). Patterns of lifetime and recent HIV testing among men who have sex with men in New York city who use Grindr. *AIDS and Behavior, 18*(1), 41-49.
- Rice, E., Holloway, I., Winetrobe, H., Rhoades, H., Barman-Adhikari, A., Gibbs, J., ... & Dunlap, S. (2012). Sex risk among young men who have sex with men who use Grindr, a smartphone geosocial networking application. *Journal of AIDS & Clinical Research.*
- Smith, A. (2013). Smartphone ownership—2013 update. *Pew Research Center: Washington DC.* Retrieved from <http://www.pewinternet.org/2013/06/05/smartphone-ownership-2013/>
- Smith, A., & Duggan, M. (2013). Online dating & relationships. *Pew Internet & American Life Project.* Retrieved from <http://www.pewinternet.org/2013/10/21/online-dating-relationships/>
- Zickuhr, K. (2013). Location-based services. *Pew Internet and American Life Project.* Retrieved from <http://www.pewinternet.org/2013/09/12/location-based-services/>

## **Chapter III: Dating Apps: A Preliminary Study of the Use of Dating**

### **Apps Used by College-Aged Women**

#### **Abstract**

Dating apps have been developed to allow users to connect with other app users around them who may be looking for the same thing, whether it is a relationship, a casual fling, or a hook-up. However, the only research to date conducted on these apps has been on the sexual risk among MSM.

Screening surveys were used to collect information from two classes on the use of dating apps among college students and to identify potential interview participants. Eligible participants were female students who reported having sex with a male partner that they had met over a dating app.

127 surveys were collected and four participants were interviewed as part of this study. Screening surveys found that the use of apps was relatively high among college students (26%), and that sex with a partner met over a dating app was more common among males than females. Interviews found that all participants reported meeting their partners over Tinder, talking for at least one week before meeting in person, and waiting at least three weeks after they first started talking to have sex. Participants reported a variety of reasons that would make them want to meet someone they had been talking to in person and factors that would keep them from meeting someone in person. All participants reported using condoms, and participants reported a variety of relationship outcomes.



Although the sample size is small, there appears to be a need for education for college students on how to safely navigate the world of dating through apps, particularly given the popularity of dating apps among this population.

## **Background**

Geo-social networking applications (or apps) are programs downloaded to smartphones that allow users to connect with others around them using the same apps. Some of these apps may involve finding other people with similar interests (e.g. “Meetup” <http://www.meetup.com>), while others may involve connecting a driver with a passenger going to the same destination (e.g. “Sidecar” <http://www.side.cr>). Others still may use it to connect with other people around them for romantic or sexual relationships (e.g. Tinder <http://www.gotinder.com>; Blendr <http://blendr.com>). These dating apps allow individuals to quickly connect with those in their physical proximity who may be looking for the same thing (e.g. a hook-up, a casual relationship, a serious relationship, etc.). Meeting through these apps may lead to meeting in person, which in turn may lead to these app users having sex. The practice of meeting romantic/sexual partners online has become more popular over the last years, with approximately 7% of cell phone app users (which represents about 3% of the public) reporting that they have personally used a dating app (Smith & Duggan, 2013).

There have been very limited studies that examine the use of dating apps. There has been some research conducted on the use of apps among men who have sex with men (MSM) (Beymer et al., 2014; Burrell et al., 2012; Gudelunas, 2012; Hightow-Weidman et al., 2014; Landovitz et al., 2012; Lehmler & Ioerger, 2014; Rendina et al., 2014; Rice et al., 2012), which has focused on the sexually transmitted infection (STI) risk associated with those who use dating apps. There are currently no known studies that have examined what happens when two people

connect over an app, nor are there any known studies on the use of dating apps among heterosexuals. As a result, what actually happens when partners meet via these apps is unknown.

Since there is no known literature on how women use dating apps, the closest medium through which women may meet sexual or romantic partners is through online dating. While the way women use dating apps may be different than the way women use online relationship/sex-seeking (dating) sites, their experience with such sites is an important place to start when considering the risks they may face with dating apps. Padgett (2007) divided the risks that women may face with online dating into distinct categories including online safety, personal (face-to-face) safety, and sexual safety. Online safety is related to who a person is talking to online and protecting how much information they reveal about themselves, such as their real name, job, or address. Personal safety has to do with women keeping themselves from being hurt or killed while on a date with someone they met online, and sexual safety has to do with taking precautions to minimize the risk of sexually transmitted infections (STIs) or unintended pregnancy.

In order to protect their online safety, participants mentioned minimizing the information that they shared about themselves as a way to reduce their risk was mentioned in a study by Couch and Liamputtong (2007) and Padgett (2007). Protecting this information generally seems to be a concern prior to meeting their partner in person for the first time. For instance, many of the participants reported doing research on a prospective partner before they met in person, whether through a Google search or hiring an agency to do it for them. It was generally expected that the male partner would be willing to give his real name and occupation, but acceptable for women to keep their identities private. Additionally, participants in one study mentioned using ways of assessing the authenticity of prospective romantic partners by trying to assess how

authentic their profiles were (e.g. through the sharing of photos and using Google Maps to try and figure out if the person they are talking to is actually from that area) (Couch, Liamputtong, & Pitts, 2011). The same study also discussed ways that online participants would try and see if they were being scammed by the person they were talking to, by tracking their IP (Internet Protocol) addresses to see where they were really located, or searching information about them online related to online scams (Couch, Liamputtong, & Pitts, 2011). Despite the fact that women do not appear to face any kind of immediate threat when talking to someone online, this introductory stage is important for individuals to assess the risk of meeting a prospective partner in-person.

In order to keep themselves physically safe during first dates, participants in both studies (Couch & Liamputtong, 2007; Padgett, 2007) listed a number of ways to protect themselves. When it came to personal safety, participants in two studies mentioned several similar steps they took when meeting a partner in person for the first time to ensure their safety, such as meeting in a public location during the day, having their own transportation to and from the date, and ensuring that a trusted person had all the details about who they were meeting with in case something went wrong (Couch & Liamputtong, 2007; Padgett, 2007). In one study, while the majority (74%) of college students reported meeting an online partner in-person alone, they reported telling a friend (96%), a parent (45%), or a roommate (42%) that they were meeting with someone they had met online (Buhi, Powers, & Noble, 2013).

With regard to sexual risk, previous research among MSM has found that HIV-negative individuals who meet sexual partners online are more likely to have sex with a partner who is HIV-positive, as well as that partners met over the Internet were considered more casual (Kim, Kent, McFarland, & Klauser, 2001). A meta-analysis by Liau, Millett, & Marks found that men

who use the Internet to meet sexual partners are more likely to have unprotected sex, while Mustanski, Lyons, & Garcia found that there was not an increased risk with sexual partners individuals had met online. However, research by Al-Tayyib, McFarlane, Kachur, & Rietmeijer (2009) reported that there did not appear to be an increased risk for Gonorrhea or Chlamydia (the only two STIs studied) for individuals who meet sexual partners online. Research has found that women who met sexual partners online were more likely to engage in higher risk behavior than those who had never met a sexual partner online, but were also more likely to use protection (McFarlane, Kachur, Bull, & Rietmeijer, 2004). Other research has found that younger women (18-39) who use dating sites were less likely to discuss their sexual history but more likely to insist on condom use with a partner they met online than older women (40 and older) (Bateson, Weisberg, McCaffery, & Luscombe, 2012). Among college students, however, Buhi et al. (2012) found that individuals who met their partners online only showed no greater risk than those who met their sexual partners offline only (although there was an increased risk for those who reported meeting their partners both online and offline). According to Padgett (2007), 30% of participants reported having vaginal sex with their partner the first time they met in person. Of these, only 57% reported having used a condom, and the majority of participants reported that they had not talked about STI risk prior to meeting in person. The findings from these studies and the risk perceived by women who report meeting their partners online suggest that women are aware of risks that may be associated with their personal safety, but there does not appear to be as much concern with their sexual safety in such situations.

According to the Pew Research Center, 27% of social network users have reported having to block or unfriend a user who is flirting inappropriately on social networking sites (Smith & Duggan, 2013). However, only 8% of women reported feeling unsafe when meeting

with someone who they had met online (Padgett, 2007). Though there is no explanation provided for this figure, it may be that women are effectively screening out many undesirable potential partners, that the steps they take to protect themselves help them to feel safe, or that online dating may not be as dangerous as the mainstream media has made it out to be. Recent results from the Pew Research Center's Internet and American Life Project suggest that acceptance for online dating has increased, with the majority of Internet users agreeing that "online dating is a good way to meet people" (59% in 2013 vs. 44% in 2005), and fewer Internet users agreeing that "people who use Internet dating are desperate" (21% in 2013, down from 29% in 2005 [Smith & Duggan, 2013]).

Young women represent a particularly vulnerable population for negative outcomes from sexual experiences. In order to protect against these outcomes through education and interventions, it is first necessary to understand how these apps are being used by women and what risks they actually face. Women are more susceptible to sexually transmitted infections (STIs) due to their physiology. According to the Centers for Disease Control and Prevention (CDC) (2011), the lining of the vagina is more sensitive than the skin on a man's penis, so it is easier for bacteria and viruses to pass through. Women are also responsible for bearing the physical consequences of pregnancies and therefore any pregnancy related complications. In addition, more than half of the cases of Chlamydia and Gonorrhea occurred in people under the age of 25 years in 2011 (CDC, 2012).

The purpose of the proposed research is to answer three main questions: 1) What occurred during the pilot testing of the interview guide 2) What were the results from the screener surveys 3) What did participants report happened when meeting partners over dating

apps? This paper also includes a discussion of the difficulties related to online survey recruitment.

## **Methods**

**Participants.** Participation was open to female students enrolled in the College of Public Health's Sex, Health, & Decision Making class (4 sections, in-person) or Women's Health class (2 sections, online), aged 18-24, who had voluntarily engaged in sex with a male partner who they had met through a dating app. Despite a goal of recruiting 12 participants to take part in interviews, only eight eligible participants were identified and only four eligible participants actually took part in the interview process.

**Procedures.** All procedures were reviewed and approved by the University of South Florida's Institutional Review Board. Participants in the Sex, Health, & Decision Making class were recruited to participate in screener surveys from an in-class announcement by the primary investigator. For the Women's Health class, participants were sent a message from their professors and directed to an online version of the same screener survey. Participants were asked about their gender, whether they had ever engaged in sex, whether they had ever used a dating app, whether they had ever met someone in person they had met over a dating app, and whether they had ever had sex with someone who they met over a dating app. They were also asked for contact information if they would be interested in participating in interviews (name, phone number, and e-mail address). Overall, 117 people participated in the in-class screener surveys, and 12 participated in the online screener surveys. Two of the participants in the online survey left all their responses blank, leaving only 10 eligible responses for the online class and 127 total responses. All female participants who reported having sex with a member of the opposite sex

who they had met over an app were contacted by the primary investigator to set up a time for an interview.

All confidential interviews took place in a private office in the Lawton and Rhea Chiles Center building at the University of South Florida. Participants had the opportunity to read over the consent forms and ask questions of the primary investigator before signing the informed consent forms. With permission, all of the interviews were audio-recorded and notes were taken. The interview was conducted using the interview guide in appendix B, and all audio recordings were transcribed by the primary investigator for analysis. Participants were given a \$25 Amazon.com gift card as an incentive for participating in these interviews.

**Analysis.** Transcripts were analyzed using NVivo 9 (QSR International) and coded inductively using qualitative content analysis (QCA). QCA is a method that has recently been gaining popularity in public health (Elo & Kyngas, 2007). It allows for the reduction of data by sorting findings into categories. According to Elo and Kyngas (2007), “[t]he aim [of QCA] is to attain a condensed and broad description of the phenomenon, and the outcome of the analysis is concepts or categories describing the phenomenon” (p. 108). The main phases of QCA include 1) re-reading of the content to become immersed in it 2) selecting phrases as codes 3) developing codes into categories 4) developing categories into themes 5) using the themes to explain the results (Elo & Kyngas, 2007; Graneheim & Lundman, 2004).

## **Results**

**Pilot testing.** The pilot testing process took place in person, over the phone, and through Facebook messenger. Pilot participants were acquaintances of the primary investigator who had experience working with dating apps or using dating apps. Their responses to the questions were not recorded. Several questions were added, deleted, and modified during the pilot phase.

Questions about red flags for meeting someone in person and factors that enhance the likelihood of meeting in person were added. Questions were streamlined to be clearer, and clarification was added to sections (e.g. clarifying that they need to have had sex with the partner that they talk about during the interview) to ensure that the data being collected was what the interviewer was looking for.

**Screeners surveys.** Screener surveys had a much better uptake during the in-person classes than on the online classes. During the in-person classes, the primary investigator went into classes during class time (either at the beginning or the end of the class, depending on the preference of the instructor), briefly explained about the study and why they were being asked to participate, and passed out the surveys. This allowed for students to ask questions as they arose, and the students present elected to participate (though some students did leave their contact information blank). For the online classes, the same blurb that was used in classes was sent out to the students, but most students chose not to participate. Only 12 students in two sections of the class participated. Of those, two were eligible to participate in the study, but never replied to e-mails from the primary investigator.

**Table 2.1.** *Screener Survey Results*

Question	Percentage
Female	74.8%
Willingly had sex	81.9%
Used a dating app	26.0%
Had sex with a partner met over a dating app	13.4%

Of the 127 participants in the Sex, Health, & Decision Making and Women’s Health classes, 95 were female (74.8%) and 104 (81.9%) reported having willingly participated in sex (oral, vaginal, or anal). Only 33 (26.0%) reported having used a phone app before, and only 17



(13.4%) of those reported ever having had sex with a partner they had met over the app (eight were female).

**Interviews.** Participants were four female students 19-21 years old, and the majority reported being in health-related programs of study. Regarding the type of phone they used, participants were evenly split between iPhones and Androids. The most commonly reported apps used by these participants (for any purpose) were social networking applications such as Instagram (n=3), Snapchat (n=3), Facebook (n=2), and Twitter (n=1). Other apps that participants reported often using included banking apps, e-mail, surfing the Internet, and games apps.

Participants were asked about what things would make them want to meet a person they were communicating with over an app in person (facilitators). Only one response came up multiple times, and that was having someone verify their identity matched the pictures on their dating app profile (one time by videochat, one time by Snapchat). Other facilitators were exclusive to each participant, and they included having a good flow of discussion, being funny, honest, or not “creepy”, having good compatibility, or being willing to meet in public. One participant reported

“ . . . another thing that usually I’m looking for well is obviously base, well, base compatibility. I’m looking for common interests like have we been able to have and hold a conversation, um, and that kind of thing because um, personally, I’m not interested in just finding anyone, um, if I’m going to have any type of relationship with someone like I have to connect with them on a, like, emotional level.” (I2).

When asked about factors that would keep them from meeting someone they were talking to over an app (inhibitors), the majority of participants listed being “sexually straightforward” as

a major inhibitor (asking for nude pictures, launching into sexually explicit conversations, etc.). One participant said “. . . sexual off the bat, like don’t know anything about the person and they’re just trying to sext and, you know, hook-up” (I1). Other inhibitors were only mentioned by one participant each, including conversation flow and topics, getting mad about safety precautions the participant was taking, using relationship-style language (“babe” or “baby”), wanting to meet in private, being in a relationship, or having a large age difference with the participant.

When asked about the reason that they first tried using dating apps, the majority of participants reported that their friends were using them, and half of participants reported that they started using one after a relationship had ended. One participant explained that “Um, some of my friends were using it and they were like having fun with it and like I said I wanted to meet people and so I thought I might give it a try” (I4). Participants were varied in what they were looking for over the app: someone to be in a relationship with, a “fling”, to meet new people, and just to see who was interested in her. Although multiple apps were reported being used by the participants (Plenty of Fish, Meet Me, OKCupid, Seeking Arrangement), all participants reported that the partner that they talked about in the interview was someone they had met through Tinder.

Participants reported that they talked to their partner for 1-3 weeks before they finally met in person. Besides Tinder, participants reported communicating over Snapchat, Facebook, Instagram, and most commonly, through texting. Most participants reported going to a public location for their first meeting/date, including a coffee shop, an on-campus dining facility, and local museum. One participant reported that she met her partner for the first time when he came

over to her apartment to watch movies (with her roommates there). No participant reported having sex the first time that they met their partner in person.

Participants reported the time between first communicating with their partner over the app and first having sex with them was anywhere from three weeks to three months. Two participants reported that the sex was planned and discussed in advance (“. . .we had begun spending more time together and eventually that did lead to me being like “Would you like to um basically have sex?” and he was “Mhmm, yep”. And I was like “That was an enthusiastic yes, I’ll take it.” “ [I2]), while two of the participants reported that it hadn’t been planned or discussed in advance. One participant reported:

Um, it definitely wasn’t planned, I don’t know if it ever is though, but um, I don’t know just kind of kissing led to another thing and I felt comfortable around him and I kind of knew that I intended on having a relationship with him in the future so it just kind of happened” [I3].

None of the participants reported that they or their partner had been drinking or using drugs the first time they had sex. In addition, all of them reported that they used condoms the first time they had sex. Their reasons for using condoms most commonly included protection against STIs, but other reasons listed included that it was a habit to use condoms, that it was for their peace of mind, and to protect against pregnancy. One participant explained: “[b]ecause I didn’t know what he could possibly have. And he’s a personal trainer so I know he does this with a lot of women and didn’t wanna put myself at risk for anything” (I1).

When asked about the status of their relationship with that particular partner, participants reported a range of answers: not dating (no contact), broken up but still good friends, broken up

and not friends, and still dating. Participants reported that their relationships lasted between three weeks and more than a year.

Finally, when asked about using dating apps again, participants had mixed feelings. Two participants still using dating apps at the time of the interview, while two said they had no intention of using a dating app again. One participant had a particularly strong view about dating apps, reporting:

I've told my friends that if I ever tell them I'm going to make another one of those apps, to just smack me across the face because there's no reason that I can think of why I would do that (I1).

Participants were also asked about what tips they would give to anyone for using these apps safely. Most participants suggested meeting in public as their main safety tip, and half of the participants suggested verifying the identity of the person that they were talking to, either through Snapchat or videochat. Other safety tips that participants provided included giving a friend the information of the person that they were meeting, not drinking or using drugs for the first three dates, having someone else there (in the same coffee shop, restaurant, etc.) during the date, and being cautious about who they meet.

When asked about whether they wanted to add anything else, one participant suggested that dating apps were a much better way for women to meet partners than trying to meet them in person. In part, she said

“like especially for a female like you don't want to deal with a guy being like creepy or like overly like sexually like pushing you to do things in person too when you first meet them so it's more comfortable to be able to like do it from like the safety from your own

home and be able to just be like “no, don’t wanna talk to you anymore” and just leave it at that.” (I3).

Although not explicitly asked about, two participants referenced previous bad experiences with partners that they had met over apps. One simply referred to being in “bad shape” the next day, while the other told a story of how she had been led to believe that she was talking to one person, but someone else arrived at her apartment complex when it came time to meet in person.

## **Discussion**

Recruiting participants for this study was much more difficult than had been anticipated, and only 50% of eligible participants were willing to take part in an in-person interview, even with a \$25 gift card incentive. The use of in-class surveys appeared to work well, although the students who did not attend class were not included in the study. Participants who were in class generally responded to the survey upon the request of the professor and the primary investigator. There were only a handful of students across the four classes that refused to participate, and the majority of the Screener Surveys were collected this way.

Unfortunately, online survey recruitment did not work nearly as well. Although the instructors of the Women’s Health courses sent out a class announcement with a message from the primary investigator requesting the student’s assistance, students did not participate in these surveys at nearly the same rate. In total, only 12 individuals out of about 100 students started the survey, and only 10 completed it. This represented only 8% of the total responses for the Screener Surveys.

There are several possible reasons why the online recruitment did not work as well as the in-class recruitment. With the in-class recruitment, participants were given class time by their

instructors to complete the survey, and they had the opportunity to ask questions along the way. In addition, in-class participants were able to see their peers participating in the survey process. Unfortunately with the online surveys, participants were asked to use their own time to take the survey for someone they had never met before; they had no opportunity to ask questions without e-mailing the primary investigator (no participants elected to do so), and they had no way of knowing whether their peers were participating in the survey. It is possible that providing an incentive may have induced more participation from the students in the online classes.

Additional results from the Screener Surveys found that though the use of dating apps was high (26% of participants), the rate of those who had had sex with a partner they met over an app was much lower (13.4%). In addition, having sex with partners met over apps was reported to be more common for male participants (28%) than for females (8.4%)

**Pilot testing.** During the pilot testing phase, there was a lot of fine tuning of the questions to enhance their clarity. Pilot testing allowed for the interviewer (primary investigator) to become more comfortable with asking the questions, as well as getting experience with the interview process. In general, the pilot testing phase was a great opportunity to refine the interview guide questions.

**Screener surveys.** During the screener surveys, one question that came up frequently was “Is the Facebook app considered a dating app?” This was quickly clarified and written into the introductory blurb for the survey that no, the Facebook app did not qualify as a dating app. Although the results are limited, they do suggest that dating app use is high among undergraduate college students, and having sex with partners met over an app is more common among men than among women.

**Interviews.** These analyses provide insight into what happens with regards to communication, interactions, and sex when women meet partners over apps. They present a wide variety of relationships with a range of different experiences and opinions. Interestingly, though some participants reported trying a variety of apps to find partners, all participants reported that they met their partners using Tinder. Given the mainstream attention that has been paid to Tinder (e.g. featured on television shows such as *The Mindy Project* and *Grey's Anatomy*), it may not be surprising that people are using that app the most frequently.

There was little consensus on what facilitated the meeting of app partners in person throughout the interviews. While two participants did report that verifying their partner's identity was a facilitator to meeting in person, the two other participants were more focused on partner characteristics like "honest" or "funny". Similarly, there was little consensus on what was an inhibitor or "red flag" to meeting in person. Although the majority of the participants reported that being "sexually straightforward" was a red flag for someone they were talking to, there was little consensus about what else would keep them from meeting someone in person. Issues such as conversation flow and conversation topics were listed as inhibitors. Thus, there appears to be little consensus in the way of what people look for before they meet their partners in person.

Relationships that started on apps did not simply remain on apps, even before having met their partner in person. This related to Padgett's (2007) category of online safety. Instead, of communicating through the apps before meeting in person, communication always transitioned to texting, and often to other forms of social media. This means that participants are sharing private information about themselves before ever meeting their partner in person, including their phone numbers, their full names, and in some cases their addresses. As opposed to Padgett's 2007 findings about women keeping much of their personal information private prior to meeting

their partner in person, participants in this study were much more likely to share some personal information with their partners prior to meeting.

Related to Padgett's 2007 findings about personal safety, most of the first meetings took place in public locations, though in one case it did take place at the participant's apartment. However, it appears that not all participants were taking the safety precautions that were shared by participants in Padgett's (2007) or Couch & Liamputtong's (2007) studies. Given the previous bad experiences reported by two of the participants, this may indicate that not all app users are being safe when meeting for the first time. This indicates a need for education related to app dating safety.

Although apps provide the ability to make instant connections with people in a close geographical proximity and potentially meet up with them right away, these results did not suggest that that is how participants were using them. Instead, they talked for at least a week before meeting in person, and at least three weeks before initiating sex. None of the participants reported using alcohol and drugs the first time they had sex, which may be related to the fact that the majority of the participants were underage.

All participants reported using condoms for a variety of reasons, including STIs, pregnancy, and out of habit. However, it is important to note that these participants were taken from a class about sexual health, and thus may make them a special population. Great caution should be taken when applying these results to a larger population. This relates to Padgett's (2007) findings that many of the participants in her study were not protecting themselves the first time they had sex with a partner they met online. Unlike the other two categories, where participants were taking significantly less safety precautions, in the arena of sexual safety, all participants were being safe.



Participants also reported a range of outcomes from their relationships, which may suggest that several different types of relationships can be initiated via dating apps. Participants also have mixed feelings about whether they would use apps again in the future, with half stating that they would not. The other half of participants reported currently using dating apps. Reasons for not using an app again in the future were somewhat unclear, while reasons for continuing to use an app included being more in control of situations (for females) with an app than in person situations and because of being focused on finding a relationship.

Safety tips from the participants largely included meeting in public, and two participants recommended verifying a person's identity before meeting in person. However, there was no other consensus about safety tips. This may suggest a need for more education on how to safely navigate meeting people through an app.

Finally, the report by two of the participants that they had had previous bad experiences suggests that negative experiences with partners met over these apps may not be so rare. Further research is required to determine the prevalence of such incidents.

**Limitations and strengths.** There are serious limitations to this research. Most notably, the sample size for interview participants was very small (N=4). In addition, the results from the screener surveys come from a non-random sample and cannot be generalized to a general population. Despite that, the screener surveys have provided a general idea of the use of dating apps among college students from the College of Public Health, and the interviews have provided insight into some of the experiences of young women who use dating apps. To date, this is the first study that has looked at the use of apps by young women who have met male sexual partners via dating apps. This study has provided the first insight into the way relationships form over dating apps and how they transition to sexual relationships.

**Future research.** This study has provided many future directions for research in this area. Repeating this study with a larger sample size may provide a greater breadth of experiences to further expand on the knowledge of what happens when relationships are formed through dating applications. Another future area of research would be to study how young men use these dating apps to form relationships, especially since men report meeting sexual partners through dating apps at a higher rate than women. It would also be important to explore the experiences of a wider population who use dating apps, not just college students. And finally, a more serious avenue for research would be to look into the negative experiences that individuals report having with partners that they have met over dating apps.

**Implications.** There are some implications that can be drawn from this research. First, dating app use is relatively common among college students, and it may be worthwhile for college wellness education programs to start focusing on how students can use these apps safely. There appears to be a particular need for education for young women (based on this study) on keeping their personal information private over these apps. In addition, it may be worthwhile to provide information on how to navigate safely meeting someone in person that students have met through dating apps. Although all students in this study reported condom use, it is still essential for colleges to continue to promote condom use, especially among new partners.

Overall, this research provides the first insight into how young women are using dating apps. There is still a lot to be learned about how individuals are using dating apps, but this research provides a first look at how apps are being used and to provide researchers with multiple directions for future research in this area.

## References

- Al-Tayyib, A. A., McFarlane, M., Kachur, R., & Rietmeijer, C. A. (2009). Finding sex partners on the Internet: what is the risk for sexually transmitted infections?. *Sexually Transmitted Infections*, 85(3), 216-220.
- Bateson, D. J., Weisberg, E., McCaffery, K. J., & Luscombe, G. M. (2012). When online becomes offline: attitudes to safer sex practices in older and younger women using an Australian Internet dating service. *Sexual health*, 9(2), 152-159.
- Beymer, M. R., Weiss, R. E., Bolan, R. K., Rudy, E. T., Bourque, L. B., Rodriguez, J. P., & Morisky, D. E. (2014). Sex on demand: geosocial networking phone apps and risk of sexually transmitted infections among a cross-sectional sample of men who have sex with men in Los Angeles county. *Sexually Transmitted Infections*. 1-6.
- Buhi, E. R., Cook, R. L., Marhefka, S. L., Blunt, H. D., Wheldon, C., Oberne, A. B., ... & Dagne, G. A. (2012). Does the Internet represent a sexual health risk environment for young people?. *Sexually Transmitted Diseases*, 39(1), 55-58.
- Buhi, E. R., Powers, E., & Noble, S. M. (2013). *Young people's reports of meeting online partners: how online initiated relationships transition to offline sex*. Unpublished manuscript, College of Public Health, University of South Florida, Tampa, FL.
- Burrell, E. R., Pines, H. A., Robbie, E., Coleman, L., Murphy, R. D., Hess, K. L., ... & Gorbach, P. M. (2012). Use of the location-based social networking application GRINDR as a recruitment tool in rectal microbicide development research. *AIDS and Behavior*, 16(7), 1816-1820.

- Centers for Disease Control and Prevention (2011). CDC fact sheet: 10 ways STDs impact women differently from men. Retrieved from <http://www.cdc.gov/nchhstp/newsroom/docs/STDs-Women-042011.pdf>
- Centers for Disease Control and Prevention (2012). STD trends in the United States: 2011 national data for Chlamydia, Gonorrhea, and Syphilis. Retrieved from <http://www.cdc.gov/std/stats11/trends-2011.pdf>
- Couch, D., & Liamputtong, P. (2007). Online dating and mating: perceptions of risk and health among online users. *Health, Risk & Society*, 9(3), 275-294.
- Couch, D., Liamputtong, P., & Pitts, M. (2011). Online Daters and the Use of Technology for Surveillance and Risk Management. *International Journal of Emerging Technologies and Society*, 9(2), 116-134.
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107-115.
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112.
- Gudelunas, D. (2012). There's an app for that: the uses and gratifications of online social networks for gay men. *Sexuality & Culture*, 16(4), 347-365.
- Hightow-Weidman, L., Beagle, S., Pike, E., Kuruc, J., Leone, P., Mobley, V., ... & Gay, C. (2014). "No one's at home and they won't pick up the phone": using the Internet and text messaging to enhance partner services in North Carolina. *Sexually Transmitted Diseases*, 41(2), 143-148.

- Kim, A. A., Kent, C., McFarland, W., & Klausner, J. D. (2001). Cruising on the Internet highway. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 28(1), 89-93.
- Landovitz, R. J., Tseng, C. H., Weissman, M., Haymer, M., Mendenhall, B., Rogers, K., ... & Shoptaw, S. (2013). Epidemiology, sexual risk behavior, and HIV prevention practices of men who have sex with men using GRINDR in Los Angeles, California. *Journal of Urban Health*, 90(4), 729-739.
- Lehmiller, J. J., & Ioerger, M. (2014). Social networking smartphone applications and sexual health outcomes among men who have sex with men. *PloS One*, 9(1), e86603.
- Liau, A., Millett, G., & Marks, G. (2006). Meta-analytic examination of online sex-seeking and sexual risk behavior among men who have sex with men. *Sexually Transmitted Diseases*, 33(9), 576-584.
- Mcfarlane, M., Kachur, R., Bull, S., & Rietmeijer, C. (2004). Women, the Internet, and sexually transmitted infections. *Journal of Women's Health*, 13(6), 689-694.
- Mustanski, B., Lyons, T., & Garcia, S. C. (2011). Internet use and sexual health of young men who have sex with men: a mixed-methods study. *Archives of Sexual Behavior*, 40(2), 289-300.
- Padgett, P. M. (2007). Personal safety and sexual safety for women using online personal ads. *Sexuality Research & Social Policy*, 4(2), 27-37.
- Rendina, H. J., Jimenez, R. H., Grov, C., Ventuneac, A., & Parsons, J. T. (2014). Patterns of lifetime and recent HIV testing among men who have sex with men in New York city who use Grindr. *AIDS and Behavior*, 18(1), 41-49.

Rice, E., Holloway, I., Winetrobe, H., Rhoades, H., Barman-Adhikari, A., Gibbs, J., ... &

Dunlap, S. (2012). Sex risk among young men who have sex with men who use Grindr, a smartphone geosocial networking application. *Journal of AIDS & Clinical Research*.

Smith, A., & Duggan, M. (2013). Online dating & relationships. *Pew Internet & American Life Project*.

## **Chapter IV: Conclusion**

This thesis is intended to explore how relationship/sex-seeking apps work (Chapter II) and the experience of women who have met through a sexual partner through a geo-social networking app (Chapter III).

### **Strengths**

The qualitative nature of this study provides a rich data set that explores in-depth how women use dating apps to find sexual partners. The in-depth interview strategy will allow for depth and breadth in the research results.

In addition, this is the first known study to explore the experiences of women who use these apps. To date, there have been few studies that look at the use of geo-social networking apps for finding sex partners, and these studies are all exclusive to MSM (e.g. Lehmler & Iorger, 2014; Rendina et al, 2014; Rice et al, 2012).

### **Limitations**

Due to a small sample size, it is impossible to generalize these findings onto a larger scale. Participants were only drawn from a single site, further restricting the generalizability of the findings. This study is also made up of a convenience sample, so it cannot generate estimates for the general population.

This study asked only about one specific partner and the first time the participant had sex with that partner, limiting the information that may be gathered about any situations where women have met a sexual partner through an app or if they have an ongoing sexual relationships

with the partner they are discussing. However, the specific purpose of this research was to focus on a one-time event in depth.

### **Implications**

Given the online, physical, and sexual risks that women may face when meeting partners through a dating/sex-seeking app and the social stigmas associated with women engaging in casual sex, it remains unclear why women would be using these apps to seek out casual sex partners. However, the number of apps that are available for heterosexual users suggests that there are women who find the option appealing. This research provides the first insights into why women are using dating apps. Based on the reports of the interviewees, it appears that participants may not be engaging in safe online practices (e.g. keeping their full name, phone number, and address private before meeting in person). In addition, it appears that participants are not always being vigilant about their safety when meeting their partners in person for the first time (e.g. meeting at the participant's apartment rather than in a public location). This may indicate a need for education for young people who are using these apps on topics such as keeping safe while using dating apps. Condom use was high among interview participants, though it is important to continue promoting condom use for young adults.



## **Appendices**

## **Appendix A- Sites Used for App Comparisons**

- 1) <http://blog.laptopmag.com/best-dating-apps>
- 2) <http://www.digitaltrends.com/mobile/best-dating-apps/#!bJ70hP>
- 3) <http://www.tomsguide.com/us/smartphone-dating-apps,review-2274.html>
- 4) <http://phandroid.com/2014/07/15/best-android-dating-apps/>
- 5) <http://heavy.com/tech/2014/01/top-best-dating-apps-for-iphone-and-android-2014/>
- 6) <http://www.idownloadblog.com/2014/07/27/best-dating-apps-iphone/>
- 7) <http://www.thedailybeast.com/articles/2012/12/27/13-best-dating-apps-ok-cupid-to-grindr-to-sonar.html>
- 8) <http://mashable.com/2014/01/17/online-dating-sites/>
- 9) <http://www.forbes.com/sites/natalierobehmed/2013/09/04/5-dating-apps-to-help-you-find-love/>
- 10) [http://www.huffingtonpost.com/julie-spira/mobile-love-mobile-dating\\_b\\_4318293.html](http://www.huffingtonpost.com/julie-spira/mobile-love-mobile-dating_b_4318293.html)

**Appendix B: Screener Survey**

Screening Survey – Research Project

Thanks for your help! Your answers will be kept confidential and your instructor will never know what you answered.

- 1) What is your gender?
  - Male
  - Female
  - Other
  - Refuse to answer
- 2) Have you ever willingly engaged in sexual intercourse? (Vaginal, oral, or anal)
  - Yes
  - No
  - Refuse to answer
- 3) Have you ever used a phone app for dating and/or hooking up?
  - Yes
  - No
  - Refuse to answer
- 4) Have you ever met someone in person you met over an app?
  - Yes
  - No
  - Refuse to answer
- 5) Have you ever willingly engaged in sex with someone of the opposite sex who you met over an app?
  - Yes
  - No
  - Refuse to answer

Would you be interested in participating in a confidential interview about your experiences? If you are interested, and you're eligible for participation in this study, you'll be provided with a \$25 gift card as a token of appreciation for participating. If so, please list your contact information below

Name \_\_\_\_\_

Phone \_\_\_\_\_

E-mail \_\_\_\_\_

If you feel upset from answering any of these questions, please contact USF Counseling Services

at 813-974-2831 (8am-5pm) or The Crisis Center of Tampa Bay at 211 (24 hours).

## **Appendix C: Interview Guide**

### **Introduction**

Thank you for your participation. The purpose of this study is to learn more about how women use dating applications to meet sexual partners as part of my master's thesis. The information that I gather from these interviews will be used to help better understand how young women use these apps in their lives.

With your permission, I'd like to audio-record our interview. These interviews will be kept confidential, and I will delete them as soon as I have transcribed our interview. Is it okay if I audio-record this interview?

[If no] Would it be okay if I took notes?

If at any point you feel uncomfortable, you can skip a question or stop the interview. Do you have any questions?

[If no] Great, let's get started

### **Introductory questions:**

Can you tell me a bit about yourself? Like how old you are, what program you're in, things like that.

I'd like to ask you some questions about dating apps, so first I have a couple of questions about your phone. What kind of phone do you have? PROMPT: Windows, Android, Apple

What are the apps that you use the most often on your phone? It doesn't matter what they're for. PROMPT: Candy Crush, Facebook, Instagram, Pandora

What apps have you used to try and find romantic or sexual partners in the past? You don't have to have actually met someone from the app, just if you've used it.

Do you currently use any apps to find romantic or sexual partners? (If YES, which ones?)

What term would *you* use to describe these apps? (such as dating apps, hook-up apps, relationship/sex-seeking apps)

What prompted you to first try using these apps? PROMPT: New in town and didn't know anyone, didn't want to date anyone in your program, going away for Spring Break, etc.

What were you looking for when you first tried these apps? PROMPT: a hook-up, a relationship, etc.

What kind of things are you looking for when deciding whether to meet a person you've communicated with over an app in person?

What kind of things are red flags for meeting someone when you're communicating with a person over an app?

### **Main questions**

Next, I'm going to ask you about a person that you've met and had sex with through one of these apps. If you've met more than one partner through these apps, I'm going to ask you to think of one male partner in particular and keep your experience with him in mind when you're answering these questions. Do you have someone in mind?

Can you tell me about how you and this person first connected over the app?

What kinds of things did you talk about?

Before you met in person, how did you communicate with them? (Over the app, texting, through social media, etc.)

How long passed between first talking on the app and first meeting in person?

One thing that I'm interested in learning about is how a person decides to meet someone they met over an app in person. How did you decide to meet this person in person?

Can you tell me about the first time you met in person?

Next, I have some questions regarding sex. Remember, the answers that you give me will be kept confidential. Did you have sex with them the first time you met? Sex could mean oral, vaginal, or anal.

How long passed between first communicating with this person over the app and first having sex with them?

How did you decide to have sex with this person?

Were you or this person drinking or using drugs the first time you had sex?

Did you and this person use condoms the first time you had sex?

Why did you use/not use condoms?

Thinking back, how do you feel about the first time you had sex with this person?

Thinking back, what (if anything) would you change about the first time you had sex with this person?

What's your relationship with them now?

[If not mentioned] Do you still have any contact with this person?

**Few more questions, and then we're done:**

Would you use a [insert their term here] app again? Why?

If you had to give someone advice on how to use these apps safely, what would you tell them?

Is there anything else about apps that you think I should have asked you?

**Conclusion**

That's all my questions. Do you have any questions for me?

Thank you so much for your participation! If you will just fill out this form, I can give you your amazon.com gift card.

## **Appendix D: IRB Protocol**

**Title:** *Women's use of and decision-making regarding geo-social networking applications to arrange sexual experiences.*

### **Rationale for the study, area of current scientific concern and why the research is needed**

Geo-social networking (i.e. dating) applications have become more popular as smartphones have become more available, but little research has been conducted on how people use these apps. In particular, applications (“apps”) for seeking romantic and sexual partners (e.g. Tinder, Blendr) have become more widespread, but there are no existing data on how individuals are using these apps and how interactions started through these apps may transition to in-person relationships. The way these apps are used may have serious implications for issues such as personal safety issues, sexually transmitted infections (STIs), unwanted pregnancy, and relationship formation.

### **Background information, description of existing research and information that is already known**

Approximately 56% of all American adults have a smartphone (Smith, 2013). Among 18-24 and 25-34 year-olds, the proportion who own smartphones rises to approximately 80%. The widespread adoption of smartphones has allowed users to shift from simply making calls or sending short message service (SMS; text messages) to using it as a portable computer. Among US adults, 34% report that they use their cell phone rather than desktop or tablet computer to access the Internet. As a result, developers have created applications (or apps) to make their websites or services easier to use via a mobile device. Many popular social media sites such as Facebook, Twitter, and Instagram have free apps that optimize the users' experience on a phone.

Among smartphone owners, one of the more popular features is the global positioning system (GPS), which allows users to find information customized to their current location.

Application developers have taken advantage of the rise in location-based services, and have begun to design geo-social networking apps that allow users to connect with others around them. These apps have taken many forms, including ridesharing (“Sidecar”, <http://www.side.cr>), which helps to connect users who are needing a ride with users who are offering a ride nearby, finding others with various different interests around you (“Meetup”, <http://www.meetup.com>), which offers location-based groups organized around different interests (such as book clubs, web developers, and support groups), and relationship and/or sex seeking. As part of the Pew Research Center’s Internet & American Life Project, the use of dating sites and apps were examined. Overall, 11% of Internet users (9% of Americans) have reported using an online dating site. Among 25-34 year olds, that rises to 22%. Dating app use is somewhat less common, with 7% of cell phone app users (which represents about 3% of the public) reporting that they have personally used an app for this purpose (Smith & Duggan, 2013). Among the 18-24 year old age group, that number rose to 5%, and to 11% among the 25-34 year olds (Smith & Duggan, 2013). Overall, 38% of those who classify themselves as currently looking for a partner report having used dating sites or apps.

With the advent of Grindr, a geo-social networking app to help men find other bisexual or gay men around them, in 2009, there have been a handful of studies that have studied these apps and the sexual risks of users. Grindr allows users to choose a username, post a profile picture, and answer a few brief questions, and the app uses the phone’s GPS to connect with other users, based on their physical proximity (measured in feet). From there, users can chat with one another, exchange pictures, or make arrangements to meet on their own. Although the app is



marketed as a way to meet other men, the primary concern of researchers has been the sexual risk associated with its use (i.e., using it to arrange quick, anonymous sexual encounters). Since the introduction of Grindr, it has grown to more than 4 million users in 192 countries (Grindr, 2014), and countless similar apps have been introduced, including Growlr (<http://www.growlrapp.com>), Scruff (<http://www.scruff.com>), GuySpy (<http://www.guyspy.com>) and Recon (<http://www.recon.com>).

Hook-up apps have increased access to anonymous sexual partners, which has created new challenges for public health. In particular, this is a problem with regard to partner notification after a positive HIV or syphilis test. In North Carolina, they have actually created an Internet Partner Notification (IPN) service, where a designated field coordinator uses dating websites and hook-up applications to contact partners who may otherwise go without notification (Hightow-Weidman et al., 2014). Rendina et al. (2014) found that almost 20% of Grindr users aged 18-25 years had never had an HIV test, and that one-third of those who had never had an HIV test identified themselves as HIV-negative, rather than HIV-status unknown. Additionally, among users who reported engaging in unprotected anal intercourse, 70% reported it being unlikely or very unlikely that they would ever be exposed to HIV (Landovitz et al., 2012). Taken together, these results suggest that there may be some kind of disconnect between the actual and perceived risks of meeting partners via sex-seeking apps.

**Research questions:**

- 1) What decision-making occurs when women who are utilizing geo-social networking apps decide to meet their prospective sex partners in person?
- 2) What decision-making occurs when women who are utilizing geo-social networking apps decide to have sex with their prospective partners?

3) What happens between women and the sex partners that they have met over apps have sex?

**Research objectives**

To determine the decision-making process that occurs among women and their sexual partners they have met through an app.

**Research purpose**

To learn more about how women make decisions and interact with sexual partners they meet over apps.

**The study design, including information that is needed to answer the research questions**

**Sample size**

400 for screener surveys, 12 for interviews

**Study population or inclusion and exclusion criteria**

Inclusion criteria: Female University of South Florida (USF) students between the ages of 18 and 24 who report having had a heterosexual sexual experience with someone who they met through an app.

Exclusion: Women who are unable to speak fluently in English, women who were not at least 18 at the time they met their partner, women who are unable to give informed consent, and women who do not identify their experiences as those in which they willingly engaged.

**The expected results of the research such as reports, papers, and contributions to theory**

The research is expected to produce a master's thesis and an academic publication.

**Name of the Principal Investigator and Faculty Advisor if applicable;**

The Principal Investigator is Shireen Noble and the Faculty Advisor is Dr. Ellen Daley.

**Any potential risks to the subjects**

The subjects may feel embarrassed to answer questions about their sexual experiences. They will have the option to skip any questions that make them feel uncomfortable.

**Any experimental procedures or interventions that will be implemented**

There will be no experimental procedures or interventions implemented during this study.

**Any potential benefits to subjects**

Subjects may benefit by feeling good that they are helping the researcher to learn more about the decision making process in sexual experiences that were arranged by geo-social locating applications.

**Human subject considerations, including description of the informed consent process; if applicable include a discussion of safeguards that are in place to protect potentially vulnerable subjects such as children, prisoners, the cognitively impaired, institutionalized, or critically/terminally ill; discussion of how the privacy and confidentiality of the subjects will be maintained**

Participants will have the opportunity to read about the informed consent process and give their informed consent prior to beginning the study.

Privacy will be maintained by identifying all participants by code names within the study. They will be assigned code names prior to beginning the interview, and their files will be marked with their code name.

Files will be kept confidential by being transferred to a password protected computer immediately following the interview, and the original recordings will be destroyed.

**If the study is greater than minimal risk, describe the data and safety monitoring plan, whether or not there is a data and safety monitoring board, how often data will be reviewed for safety, early stopping criteria, etc.**

This study is not greater than minimal risk.

### **Research references**

Hightow-Weidman, L., Beagle, S., Pike, E., Kuruc, J., Leone, P., Mobley, V., ... & Gay, C.

(2014). “No One’s at Home and They Won’t Pick up the Phone”: Using the Internet and Text Messaging to Enhance Partner Services in North Carolina. *Sexually transmitted diseases*, 41(2), 143-148.

Rendina, H. J., Jimenez, R. H., Grov, C., Ventuneac, A., & Parsons, J. T. (2014). Patterns of lifetime and recent HIV testing among men who have sex with men in New York city who use Grindr. *AIDS and Behavior*, 18(1), 41-49.

Smith, A. (2013). Smartphone ownership—2013 update. *Pew Research Center: Washington DC*.

Smith, A., & Duggan, M. (2013). Online dating & relationships. *Pew Internet & American Life Project*.

## Appendix E- IRB Forms



### **Informed Consent to Participate in Research Information to Consider Before Taking Part in this Research Study**

#### **IRB Study # Pro00020282**

---

---

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand. We encourage you to talk with your family and friends before you decide to take part in this research study. The nature of the study, risks, inconveniences, discomforts, and other important information about the study are listed below.

We are asking you to take part in a research study called:

*Women's use of and decision-making regarding geo-social networking applications to arrange sexual experiences.*

The person who is in charge of this research study is Shireen Noble. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. She is being guided in this research by Dr. Ellen Daley.

The research will be conducted in the College of Public Health and the Lawton and Rhea Chiles Center at the University of South Florida.

This research is being sponsored by a Community and Family Health Departmental Student Research Award.

---

---

#### **Purpose of the study**

The purpose of this study is to:

- Explore the experiences of women who have used a phone app to meet a sexual partner. This research is being conducted as part of a master's thesis project.

#### **Study Procedures**

If you take part in this study, you will be asked to:

- Answer the interview questions asked by the researcher; this should take approximately 1 hour

- Allow for the audio-recording of the interview with the researcher. These recordings will be destroyed after transcription has been completed.

### **Total Number of Participants**

About 15 individuals will take part in this study at USF.

### **Alternatives**

You do not have to participate in this research study.

### **Benefits**

The potential benefits of participating in this research study include: feeling good that you are helping a researcher to learn more about women's sexual experiences and decision-making regarding the use of geo-social networking applications.

### **Risks or Discomfort**

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

If at any point you feel uncomfortable, you can skip a question or withdraw your participation in the study. If this study brings up negative feelings, you can contact

USF Counseling Services at 813-974-2831 (8am-5pm)

The Crisis Center of Tampa Bay at 211 (24 hours)

### **Compensation**

You will receive a \$25 Amazon.com gift-card upon completion of the interview. If you decide to withdraw for any reason from the study before completion of the interview, you will still receive the \$25 Amazon.com gift-card.

### **Cost**

There is no cost to participate in this study.

### **Privacy and Confidentiality**

We will keep your study records private and confidential. Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are:

- The research team, including the Principal Investigator, study coordinator, research nurses, and all other research staff.
- Certain government and university people who need to know more about the study. For example, individuals who provide oversight on this study may need to look at your records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety.
- Any agency of the federal, state, or local government that regulates this research. This includes the Food and Drug Administration (FDA), Florida Department of Health, and the Department of Health and Human Services (DHHS) and the Office for Human Research Protection (OHRP).
- The USF Institutional Review Board (IRB) and its related staff who have oversight responsibilities for this study, staff in the USF Office of Research and Innovation, USF

Division of Research Integrity and Compliance, and other USF offices who oversee this research.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

### **Voluntary Participation / Withdrawal**

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Your decision to participate or not participate will not affect your course grade.

### **New information about the study**

During the course of this study, we may find more information that could be important to you. This includes information that, once learned, might cause you to change your mind about being in the study. We will notify you as soon as possible if such information becomes available.

### **You can get the answers to your questions, concerns, or complaints**

If you have any questions, concerns or complaints about this study, or experience an adverse event or unanticipated problem, call Dr. Ellen Daley at (813) 974-8518.

If you have questions about your rights as a participant in this study, general questions, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638.

### **Consent to Take Part in this Research Study**

It is up to you to decide whether you want to take part in this study. If you want to take part, please sign the form, if the following statements are true.

**I freely give my consent to take part in this study.** I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

\_\_\_\_\_  
Signature of Person Taking Part in Study

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Person Taking Part in Study

### **Statement of Person Obtaining Informed Consent**

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I hereby certify that when this person signs this form, to the best of my knowledge, he/ she understands:

- What the study is about;
- What procedures/interventions/investigational drugs or devices will be used;
- What the potential benefits might be; and
- What the known risks might be.

I can confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in the appropriate language. Additionally, this subject reads well enough to understand this document or, if not, this person is able to hear and understand when the form is read to him or her. This subject does not have a medical/psychological problem that would compromise comprehension and therefore makes it hard to understand what is being explained and can, therefore, give legally effective informed consent. This subject is not under any type of anesthesia or analgesic that may cloud their judgment or make it hard to understand what is being explained and, therefore, can be considered competent to give informed consent.

---

Signature of Person Obtaining Informed Consent / Research Authorization

---

Date

---

Printed Name of Person Obtaining Informed Consent / Research Authorization



## Appendix F- IRB Approval



RESEARCH INTEGRITY AND COMPLIANCE  
Institutional Review Boards, FWA No. 00001669  
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799  
(813) 974-5638 • FAX(813)974-7091

12/16/2014

Shireen Noble, BAsC  
Community and Family Health  
13201 Bruce B. Downs Blvd. MDC 56  
Tampa, FL 33612

**RE: Expedited Approval for Initial Review**

IRB#: Pro00020282

Title: Women's use of and decision-making regarding geo-social networking applications to arrange sexual experiences.

**Study Approval Period: 12/16/2014 to 12/16/2015**

Dear Ms. Noble:

On 12/16/2014, the Institutional Review Board (IRB) reviewed and **APPROVED** the above application and all documents outlined below.

**Approved Item(s):**

**Protocol Document(s):**

[Study Protocol](#)

**Consent/Assent Document(s)\*:**

[Informed Consent Form.pdf](#)

\*Please use only the official IRB stamped informed consent/assent document(s) found under the "Attachments" tab. Please note, these consent/assent document(s) are only valid during the approval period indicated at the top of the form(s).

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review category:

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The screening portion of your study qualifies for a waiver of the requirements for the process of informed consent as outlined in the federal regulations at 45CFR46.116(d) which states that an IRB may approve a consent procedure which does not include, or which alters, some or all of the elements of informed consent, or waive the requirements to obtain informed consent provided the IRB finds and documents that (1) the research involves no more than minimal risk to the subjects; (2) the waiver or alteration will not adversely affect the rights and welfare of the subjects; (3) the research could not practicably be carried out without the waiver or alteration; and (4) whenever appropriate, the subjects will be provided with additional pertinent information after participation.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval by an amendment.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

A handwritten signature in black ink that reads "John A. Schinka, Ph.D." The signature is written in a cursive, flowing style.

John Schinka, Ph.D., Chairperson  
USF Institutional Review Board