

THE COMMUNICATION AND PSYCHOLOGY OF IDENTITY ON MOBILE DATING APPS  
FOR MEN WHO HAVE SEX WITH MEN

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A Dissertation  
presented to  
the Faculty of the Graduate School  
at the University of Missouri-Columbia

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy

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MAY 2016

The undersigned, appointed by the dean of the Graduate School, have examined the  
dissertation entitled  
THE COMMUNICATION AND PYSCHOLOGY OF IDENTITY ON MOBILE  
DATING APPS FOR MEN WHO HAVE SEX WITH MEN  
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hereby certify that, in their opinion, it is worthy of acceptance.

Professor Elizabeth Behm-Morawitz
Professor Colleen Colaner
Professor Cynthia Frisby
Professor Wayne Brekhus

## ACKNOWLEDGMENTS

I would like to express gratitude to those individuals who have contributed to the success of my dissertation, and who have allowed me to navigate the process in a supported, timely, and positive manner. Firstly, I must acknowledge my fantastic advisor, Dr. Elizabeth Behm-Morawitz, without whom I would not be half the scholar that I have become. I have been so incredibly fortunate to benefit from the guidance of a brilliant, encouraging, and thoughtful advisor, and I am beyond thankful to have such a beam of light and inspiration in my life. Dr. Behm-Morawitz's unmatched patience, unwavering positive reinforcement, valuable and extensive feedback, and quick turnaround time allowed me to not only finish my dissertation on schedule, but also to produce a final product of which I am very proud. I thank her for believing in me, always, and for helping me to believe in myself.

I must also thank the other wonderful members of my dissertation committee: Dr. Wayne Brekhus, Dr. Colleen Colaner, and Dr. Cynthia Frisby. Every single meeting with each of my committee members was a constructive experience, and for that I am incredibly grateful. To have a wise, dedicated, and compassionate committee has been a true blessing throughout the dissertation process. My dissertation has greatly benefited from the suggestions made by my committee members and, I, as a person, have greatly benefited from their guidance and support. Thank you to them for making this process an affirmative one, and for believing in my abilities.

Thank you also to the other mentors and teachers who have helped me to solidify my research interests, improve my scholarly skills, and gain confidence as an academic.

This includes (but is not limited to) Dr. Bradley Bond, Dr. Jennifer Stevens Aubrey, Dr. Melissa Click, and Dr. Hillary Pennell.

I must acknowledge my undergraduate research assistants, who helped to make the content analytic portion of my dissertation come together smoothly. They have been invaluable components of my research success, both in relation to my dissertation as well as other scholarly projects. Thank you to Kelsey Bryant, Wilhelm Thuston, Chandler Farrell, and Meghann Black.

Thank you to each and every individual who participated in this research study. I take the responsibility of conducting research on sexual and gender minorities very seriously, and consider it an honor and a privilege when participants trust in me enough to partake in my research. I sincerely appreciate the men who took the time to participate in the current research, as well as anyone who has been involved as a participant in any of my scholarly endeavors.

Thank you to those scholars who conduct research on marginalized communities, and to those who work on the frontlines fighting for equality. I strongly value the organizations and individuals who are attempting to make the world a safer and more welcoming place for people who are different, and to increase awareness of issues of social injustice. It is from these individuals that I draw much of my inspiration.

Finally, I am appreciative of all of the people who have had to listen to me discuss my research, my complaints, my accomplishments, my fears, and my goals over the last four years. Specifically, thank you to my parents, my siblings, my close friends, and my peers. I could not have succeeded with this dissertation without their encouragement, understanding, and love.

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## ABSTRACT

The present study investigated the use of mobile dating apps for men who have sex with men (MSM), the privileging of masculinity in these online spaces, and related effects on attitudes about masculinity, the body, and the self. Using self-categorization theory as a framework, the study explored how men infuse masculinity/femininity and body language into their profiles in order to create symbolic boundaries between a masculine in-group and a feminine out-group, in the process further promoting an in-group bias for masculine partners. Findings indicated a clear preference for masculinity, both generally and in the form of the muscular male body. Drawing on selective self-presentation and the online disinhibition effect, the current work also investigated how patterns of usage and personal attitudes impact photographic self-presentation, how the presence of face-disclosing and/or shirtless photos impact the use of language, and how visual self-presentation is related to demographic and attitudinal variables. The results indicated a connection between outness and face-disclosure, as well as between the amount of usage of MSM-specific mobile dating apps and face-disclosure. Men's use of shirtless photos was significantly related to age, self-perceived masculinity, anti-effeminacy attitudes, and drive for muscularity. Finally, priming theory was used to examine the relationship between MSM-specific mobile dating app usage and attitudes about men's own and others' masculinity/femininity and their bodies, as well as feelings of esteem and connectedness. Findings indicated connections between usage and self-perceived masculinity, internalized homonegativity, collective self-esteem, and body dissatisfaction, as well as social connectedness and anti-effeminacy attitudes for some

men. Age, race, relationship status, education level, geographic location, and outness all served as important moderators. Constructions of gay masculinity have been associated with many issues, including risky sexual behavior, body dissatisfaction, disordered eating, lowered self-esteem, and racism. The current research advances our understanding of how MSM engage with masculinity/femininity and body language in a new media context, as well as the relationship between usage of MSM-specific mobile dating apps, psychosocial attitudes, personal feelings of esteem and connectedness, and photographic self-presentation strategies.

## Chapter 1: Introduction

In 2014, the female comedians of Chicago's legendary Second City started a new segment, *Ladies Looking* (Holmes, 2014). In these videos, the women read actual messages from Grindr, a popular online dating and hook up application for men who have sex with men (MSM). The humor arises not only from the mismatch between the content and the women reading the content, but also from the messages themselves. Messages featured include comedic gems like, "I've got a fetish for dudes blowing up balloons until they burst," and "Dang. I'd do anything to bury my face in your gym sneakers." They also include statements like the following: "Not a muscled up dude here. Very fleshy. Suburban. Long commute. Kind of gay fat. Not straight fat. I'm attractive. I always get laid." The joke is that these messages are shocking and, indeed, they may be for many audiences, including the ladies of Second City. For MSM-specific mobile dating app users, they are a regularly occurring component of online life.

Although some of these messages might be deemed humorous, unfiltered and often toxic masculinity/femininity and body language is common on Grindr and similar applications, and it may have problematic effects. The underpinnings of body shaming are evident in the last example provided, and the privileging of muscular bodies is but one type of communication that can be found on Grindr and other mobile dating apps designed for MSM. In addition to the sexually charged messages shared in the *Ladies Looking* series, it could be argued that these social networks are also a breeding ground for racist, ageist, and femmophobic language, amongst other forms of hatred and

exclusion (Callander, Holt, & Newman, 2012; Miller, 2015a; Riggs, 2013). Numerous online spaces now underscore inappropriate profiles – from the website *Douchebags of Grindr* to the tumblrs *Douchebags of Hook-up Sites*, *douchebags of grindr on tumblr*, and *racist guys on grindr*. Facebook groups and pages related to the application and similar applications run rampant, with titles such as *Gays Against Grindr*, *Grindr Douchebags*, and *Grindr Fails*. It is evident that, within the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community, Grindr usage is quite contentious, and policing the content of profiles has become a pastime in itself. For context, here are some samples of language taken directly from profiles posted to *Douchebags of Grindr* in 2015:

*Looking for masculine guys in my area. Zero femz! Sports, Masc., Drk Mex a ++*

*Straight-acting only. No deep cut v-necks. No gay face. No flamers. No gym freaks. No glee fans. No satchels. Thank you!*

*If you don't send me a face pic, I don't reply. Also not into Asian, blacks, twinkles or fems.*

*I am NOT into men that sound, look, or act like females. I am a man, you should be too.*

*I'm kind of a big deal, so be masculine and in shape.*

*Not into gay guys – so identify as Str8 or Bi to KiK it! Only attracted to men of color – got it.*

*I can spot a queen from 40 yards away. Don't be one.*

*Neg clean guy here and love BB. Neg guys only. No Asians, old, black or fat hairy guys.*

*I'm fit and active. You should be too. Not into queens, chubbies, or old guys. Sorry just keepin it real!*

*Not into the gay scene, masc here. Like sports, camping, I know how to work on a car, not your typical bottom.*

By using exclusionary language in this manner, men privilege certain identities and create borders that separate the desired in-group from the undesired out-group, based

upon a small selection of traits or criterion. For example, someone whose profile calls for “straight acting men” produces a symbolic boundary between those who are masculine enough to pass as “straight,” as conceived by traditional cultural notions of hegemonic masculinity, and those who fall outside this in-group due to their relative effeminacy. As Eguchi (2009) notes, “the rhetoric of straight-acting clearly emerges as opposed to the stereotypical perception of gay male identity as an effeminate phenomenon” (p. 200). Without the effeminate out-group, there can be no “straight-acting” in-group, as this in-group is “co-created and co-shaped” alongside gay male effeminacy and the stereotypes associated with this effeminacy (Eguchi, 2009, p. 200). Similarly, a man who self-describes as muscular and calls for “muscular guys only” not only propagates an in-group of brawny men, but also creates an out-group that encompasses all men who do not fit this body type based upon culturally prescribed hegemonic notions of masculinity, whether he names the out-group or not.

According to the company’s website, Grindr has two million daily active users in 196 countries (Grindr, 2015). Men reportedly log on an average of 9 times a day, for an average of 54 minutes (Grindr, 2015), exposing them to both the positive and negative aspects of MSM-specific mobile dating. Over 70 million messages and five million photos are exchanged on Grindr each day (Grindr, 2015). Grindr is but one MSM-specific mobile application; Jack’d, Scruff, Growlr, BoyAHoy, Hornet, MISTER, and other applications also exist to facilitate sexual or romantic encounters amongst MSM. For many in this community, MSM-specific mobile dating apps are the prime manner for meeting others for sexual activities (Grosskopf, LeVasseur, & Glaser, 2014; Liau, Millett,

& Marks, 2006; Rosser et al., 2011), and the number of men who utilize these networks makes them worthy of study.

Although scholarship has explored both anti-effeminacy and the privileging of masculine ideals (e.g.; Clarkson, 2006; Halkitis, 2001; Halkitis, Green, & Wilton, 2004; Harris, 1997; Levine, 1998; Sánchez & Vilain, 2012), as well as gay male overemphasis on the physical body and aesthetics (e.g. Clarkson, 2006; Gough & Flanders, 2009; Hatala & Prehodka, 1996; Hutson, 2010), much of the literature has been qualitative in nature and/or conducted in fields other than communication. Therefore, much of the extant work has either relied upon smaller sample sizes or case studies, or focused on the non-communicative aspects of these large social issues. Furthermore, a number of researchers have explored the presence of these types of language in traditional personal advertisements (e.g. Bailey, Kim, Hills, & Linsenmeier, 1997; Laner & Kamel, 1978; Lumby, 1978), but limited work has examined communication about masculinity, femininity, or the body on mobile social networking applications for MSM, which mirror traditional dating websites more so than traditional personal advertisements. By examining social constructs through a new media lens, we are able to determine the role of computer-mediated communication in the facilitation of masculinity and femininity-focused language in the online queer space.

The current study examined masculinity/femininity and body language used in mobile dating profiles on applications designed for MSM. Using self-categorization theory as a guiding framework, the purpose of study one was to examine how men utilize these masculine/feminine and muscular/not muscular groupings to create distinct social groups, in the process creating a symbolic boundary between the masculine in-group and

the feminine out-group. In understanding how men are engaging with toxic pro-masculinity and anti-femininity language, as well as identifying which men are more likely to use such language, researchers and practitioners will better be able to tackle a number of problematic issues that have been associated with constructions of masculinity, such as lowered self-esteem (Sánchez, Greenberg, Liu, & Vilain, 2009), and internalized homophobia (Sánchez, Westefeld, Liu, & Vilain, 2010; Sánchez, & Vilain, 2012). Using selective self-presentation (Walther, 1992) and the literature on online identities as background, it is proposed that men may use masculinity/femininity and body language as a means of increasing their own desirability on MSM-specific mobile dating apps.

As people have begun to spend increasing amounts of time on the Internet, online identities and virtual self-presentation have become popular areas of scholarship. Although there are many positive elements of new media and social networking, the anonymity and lack of consequences provided by the Internet create spaces where many post content that they would not necessarily say out loud in a face-to-face (FTF) setting. This disinhibition in communicating online can result in toxic patterns of communication. In the present study, examination of toxic communication in self-descriptions and potential partner descriptions on MSM-specific mobile dating apps allows us to uncover the manner in which MSM define themselves, define other sexual minority men, and create community expectations online. It is through the use of profile language that users convey what is acceptable and what is unacceptable ways for queer men to act, to look, and to be. Using the online disinhibition effect (Suler, 2004), the current research is interested in the question of whether men who do not show their face in their profiles

make more use of masculinity/femininity or body language than the men who visually disclose their identity.

Priming theory was also used to guide the current research, and to advance the theoretical application of this theory to encompass the priming of pro-masculinity and pro-muscularity attitudes by means of exposure to user-generated content on MSM-specific mobile dating apps. No previous study, to my knowledge, has investigated the priming effects of online queer space, nor have previous priming studies focused specifically on masculinity/femininity and body attitudes. By both examining participants' textual and visual profile content, as well as their usage of MSM-specific mobile dating apps in conjunction with their attitudes and feelings, the current research is able to discuss identity and subcultural issues in a new and important manner. Rarely, if ever, are content analyses of profile data combined with surveys of those whose profiles are studied.

The current work surveyed MSM-specific mobile dating app users to (1) content analyze the masculinity/femininity- and body-related messages in participants' preferred MSM-specific mobile dating app profiles, (2) examine the visual self-presentation contained within participants' MSM-specific mobile dating app profiles, and (3) connect the usage of MSM-specific mobile dating apps with profile users' attitudes and behaviors about masculinity/femininity, the physical body, and feelings of self-esteem and connectedness. In particular, emphasis was placed on communication in two interrelated textual areas: (1) language focused on masculinity/femininity to classify one's own or others' identities and/or behaviors (e.g. "no fems", "Act like a man", "Looking for straight-acting dudes"), and (2) language focused on the muscular male body (e.g.

“muscular guys only”). From a visual standpoint, emphasis was placed on the presentation of the user’s face (e.g. face-disclosure vs. no face-disclosure) and presentation of the user’s body (e.g. shirtless vs. not shirtless) in the photographic elements of profiles. Usage was measured on a daily, weekly, and lifetime (duration of membership) scale.

This research is interested in the potentially toxic nature of online communication as it relates to the areas of masculinity/femininity and the body, and the goal is to more fully and contextually explore the presence of masculinity privilege, anti-effeminacy, and body shaming within Grindr and other online zones (e.g. Scruff, Jack’d, Manhunt, etc.) for MSM. While other types of hateful and offensive language certainly exist on Grindr, these categories are some of the most prevalent exemplars of toxic communication within queer online spaces, and an understudied area of research. By examining the impact of facial concealment on toxicity in the online space, the current study advances the literature on anonymity and disinhibition in cyberspace. It also connects the linguistic elements of user profiles with photographic content and demographic variables in order to paint a larger picture of the use of certain types of self-presentational strategies on MSM-specific mobile dating apps.

The results of this two-part study also contribute to our understanding of how MSM self-present, and how they describe their ideal partners. By using a self-categorization theory framework, the current work explores the notion that MSM-specific mobile dating apps help to facilitate boundaries between a masculine in-group and a feminine out-group. This is evident in both the free text portion of profiles, as evidenced by study one, as well as the predetermined categories into which men are asked to slot

themselves. It is also evident in the visual components of a profile, namely through the use of shirtless photos that highlight the unclothed male body as a sexualized and desired entity. Research has linked both the muscular body and masculine ideals in gay male Internet users (Clarkson, 2006), as well as race and masculinity (Ocampo, 2012; Pascoe, 2007; Riggs, 2013), and race and sexual stereotyping (Han, Proctor, & Choi, 2014; Teunis, 2007). By focusing on the type of men using masculinity/femininity and body language, as well as shirtless photos, we are better able to understand why adherence to traditional gender role expectations seems to be a dominant sorting technique.

The present research also utilizes priming theory in order to examine the effects of MSM-specific mobile dating usage. Results indicate that certain masculinity/femininity- and body-related attitudes may be made more chronically accessible with increased usage of these particular online spaces. By applying priming theory to the mediated world of MSM's user-generated content, the current research advances the application of priming theory beyond what is typically thought to be "mass" media. Furthermore, by operationalizing usage in three distinct ways, the current work was able to investigate questions on multiple levels, both examining possible shorter-term effects through daily usage statistics, as well as cumulative effects in examining duration of MSM-specific mobile dating app usage. Another crucial aspect of the current study was the examination of the relationships between usage and attitude variables as moderated by demographics. Significant interactions were found between usage and the dependent variables as moderated by age, race, relationship status, education level, geographic location, and level of outness.

The results of this research also improve our understanding of the relationship between MSM-specific mobile dating app usage and factors such as participants' feelings of social connectedness, self-worth, and internalized homophobia. While causality could not be assessed, it is beneficial to know whether constructs such as social connectedness, for example, are positively or negatively correlated with the amount of daily time spent on these apps, the weekly number of days apps are used, and the duration of membership. Findings indicate that MSM-specific mobile dating apps may, in fact, have prosocial benefits, such as decreased internalized homonegativity and higher collective self-esteem with a longer duration of use. Given how negatively MSM-specific mobile dating apps are perceived, even by their users (e.g. Cassidy, 2013), these prosocial aspects are a fascinating new area of research.

It is important that researchers devote attention to patterns of communication from within the queer male communities rather than simply focus on communication from the outside in. Digital media research is particularly important when working with queer peoples, who have been shown to use social media more than heterosexuals ("Gay and lesbian adults...", 2010) and to have as many as 12 distinct social networking profiles (Gudelunas, 2012). Furthermore, though comparatively small in number next to heterosexuals, sexual minority men are amongst some of the most vulnerable in society, and more attention must be paid to their mental, emotional, and physical wellbeing. For example, while 15 percent of gay and bisexual men have reportedly suffered from an eating disorder at one time or another (Feldman & Meyer, 2007), the majority of communication research on body image focuses on heterosexual women. Gay men have also been identified as having higher rates of recurrent major depression than the rest of

the population, and same-sex attracted people have been noted as having higher rates of anxiety, mood and substance use disorders, and suicidal thoughts than their heterosexual counterparts (Cochran, 2001). Evidently, MSM are an at-risk group of individuals, yet little research has quantitatively investigated social media applications like Grindr outside of a sexual health or HIV-prevention context. Although sexual health is a praiseworthy area of focus, we must not ignore the social issues that abound in relation to MSM digital media interactions, as these often impact the types of men users communicate with, and therefore, the types of sex available to them. We must also recognize the ability of quantitative research to answer new questions about identity and MSM-specific social networks that qualitative work cannot. Constructions of masculinity, in particular, have been associated with gay male substance use (Hamilton & Mahalik, 2009), risky sexual behavior (Hamilton & Mahalik, 2009), body dissatisfaction and body oppression (Signorile, 1997; Strong, Singh, & Randall, 2000), disordered eating (Lakkis, Ricciardelli, & Williams, 1999), steroid use (Halkitis et al., 2004; Halkitis, Moeller, & DeRaleau, 2008), racism (Han et al., 2014), self-esteem (Sánchez, et al., 2009), and internalized homophobia (Sánchez et al., 2010; Sánchez, & Vilain, 2012). It is for this reason, that exploring masculinity and the hegemonically masculine, muscular male body in MSM-specific online space is especially crucial.

The current research advances the literature in a variety of ways. Firstly, it approaches issues often studied qualitatively within the field of queer media studies from a quantitative perspective, combining content analytic and survey methods to best meet research goals. Past communication research has largely examined communication amongst MSM using interview or focus group data, or a critical/cultural perspective. For

example, Cassidy (2013) qualitatively investigated identity management on Gaydar, a website with similar functions to Grindr, and contrasted this identity management with that conducted by MSM on Facebook. Similarly, other communication researchers have qualitatively examined issues such as body image and the construction of cyber bodies on IRC chat rooms for MSM (Campbell, 2004), the uses and gratifications of gay social networks (Gudelunas, 2012), images as cultural currency on Gaydar (Mowlabocus, 2010), and the construction of gay male masculinity on StraightActing.com (Clarkson, 2006). The more limited amount of quantitative inquiry into MSM social networking has often occurred in fields adjacent to the communication discipline, such as psychology, sociology, or public health. Often times, this work has been content analytic, which has not allowed researchers to engage with the profile user to ask questions about their feelings, attitudes, and behaviors. Quantitative survey research allows us to measure constructs, statistically calculate incidences, and generalize the results of the sample to the overall population of MSM-specific mobile application users. It also allows for the examination of differences based upon demographic variables, of which there were many.

Secondly, the present scholarship examined the intersection of a number of issues that are frequently studied in isolation, or with only a limited connection. Rather than examine masculinity/femininity language alone in MSM-specific mobile dating app profiles, for example, the present study examines this construct in conjunction with language about the body, visual self-presentation, internalized homonegativity, and a variety of psychosocial attitudinal and affective variables. This allowed for observations about each issue individually, as well as an overall portrait of the effects of MSM-

specific mobile dating apps on conceptions of masculinity/femininity, self-image, and self worth. Rather than focus on these issues as individual problems, the current work aims to examine them as part of a larger problem of communication between MSM in the online sphere, and particular on mobile social networks designed for dating and hookups.

Thirdly, the present study's focus on larger social issues, identity, self-presentation, and partner preferences on applications like Grindr is novel, as the majority of research on this popular social network and ones like it focuses purely on sex-seeking, sexual health, and/or HIV prevention (e.g. Burrell et al., 2012; Grosskopf et al., 2014; Holloway et al., 2013; Landovitz et al., 2013; Phillips et al., 2014; Rendina, Jimenez, Grov, Ventuneac, & Parsons, 2014). Despite the popularity of Grindr, we know very little about the effects of the content of the profiles therein, or even about the types of men who use the application. Given the large number of men who use this online space, it is crucial that research focus on this user-generated content and its effects, as they do not occur in isolation from the non-virtual queer community. The current research focuses on usage not in relation to sex-seeking, but in relation to self-presentation, men's personal attitudes, and their feelings about themselves.

Lastly, the proposed study applies self-categorization theory, the online disinhibition effect, and priming theory as a framework to examine the contents contained within, and effects of, MSM-specific mobile dating apps. To my knowledge, none of these theories or concepts have been applied to research on MSM-specific mobile dating apps, or even to queer online space more generally. By coupling these frameworks, the current research presents a unique approach to studying masculinity/femininity- and body-related communication and its role in the construction

of in-groups and out-groups in a disinhibited online forum. Self-categorization researchers typically construe gay men as an in-group in themselves, positioning them in opposition to an out-group made up of heterosexuals or women or both (e.g. Cadinu, Galdi, & Maass, 2013). Although this may be true in some contexts with mixed sexual orientations and/or genders, in all-male, all-MSM spaces, other classifications are used to create boundaries between men. No previous work has examined MSM's self-categorization along the lines of gender role labels or conducted a quantitative analysis of in-group/out-group relations based upon notions of pro-masculinity and anti-effeminacy within gay male culture. Furthermore, as previously stated, no other research has examined the potential priming that may occur from exposure to MSM-specific mobile dating apps over either the short or long-term.

The following chapter builds upon the issues identified in this introduction, and contextually situates them within the existing literature. Drawing on the interdisciplinary nature of communication studies, chapter two will utilize research from communication, psychology, sociology, and other fields to establish a thorough review of research published on MSM-specific mobile dating apps, sexual minority Internet use, online identities and self-presentation, and identity-based communication patterns and language within queer communities. Furthermore, chapter two will position this study within the theoretical frameworks of self-categorization and priming theory, as well as the online disinhibition effect.

Chapter three discusses the methodological considerations of this study, and justifies the methodological choices made in its design. This chapter presents information about sampling and the approaches taken to conducting the research. Next, the specific

procedures are defined and described. Lastly, chapter three outlines the various measures that were used in this study, providing information on questions that were asked and scales that were utilized to measure a wide range of constructs. Information is also provided about the demographic makeup of the sample, the reliability of the content analytic items and the scales that were used, and the means and standard deviations of key variables, such as MSM-specific mobile dating app usage.

Chapter four offers a review of the findings, organized by study and research question or hypothesis. In total, the current work explored 12 research questions and two hypotheses. For each question, information on data analysis is provided, as well as the appropriate reporting of what was found. Directional interpretations of the findings are offered, and the appendixes contain visual representation of all significant interaction effects.

Chapter five presents a discussion about the findings and the overall study. Results are explained and summarized, sub-titled by area of inquiry, and connected to larger issues, as well as the relevant extant literature. The study's overall practical and theoretical implications are explicated, as well as the limitations of the current work. Lastly, areas for future research are highlighted.

## Chapter 2: Literature Review

Before surveying the literature, it is important to make a note about terminology. The current project aimed to investigate issues for sexual minority men, including those who do not identify with the gay or bisexual label. I use the term men who have sex with men (MSM) to refer to any man who engages in same-sex sexual activities, regardless of his personal identification. However, many men who participate in research studies on same-sex behaviors do, indeed, identify as gay, and in the past research outlined in this section, samples are often made up of self-identified gay and bisexual men. Therefore, the term “gay” is used throughout this review of literature. While a gay label should not synonymously be used for MSM, much of the literature pertains to all men who participated in the current research. Whether a man who engaged in the current work identifies as gay, bisexual, queer, straight, or other, he is still subject to the pressures of “gay culture” as a participating user of MSM-specific social networks. Therefore, discussion of gay ideals, and of gay men, is both relevant and necessary. When the literature dictated, MSM was used to supplant the term “gay” and refer to any same-sex attracted man irrespective of identification.

I must also note the debate over how to classify Grindr and other similar apps for MSM. Some scholars have referred to this particular set of apps using the very broad “social networking” umbrella term (e.g. Gudelunas, 2012). Others have constructed more precise terminology, such as geosocial networking applications (Holloway, 2015) or location-based real time dating app (Handel & Shklovski, 2012). In the present research, I refer to these apps as MSM-specific mobile dating apps. I chose this term for a

number of reasons. Firstly, because the focus is solely on apps created for (and used specifically by) MSM, I felt that it was important that this be explicit in the chosen terminology. Secondly, the mobility of these social networks was important to highlight, as this feature helps to distinguish them from browser-based dating and hook-up websites. Lastly, in an effort to streamline the terminology used, I chose to not include “location-based” or “real time”. Conversations on apps do not always occur in real time (particularly because users can receive messages when offline), and while GPS technology is vital to the success of apps like Grindr, some of the apps in question allow users to converse with those across the world, muting the importance of sorting by location. The mobility of the apps and the MSM-specific nature is more important to branding these apps than the location element or the potential for instant messages. Though these are important features, they do not help to distinguish an app like Grindr from a more traditional dating websites like OkCupid, wherein users can also be searched by location/distance and exchange messages in real time or on delay.

Furthermore, while I am using the word “dating” in the chosen terminology, this is not to imply that dating is always the main focus of apps like Grindr. Rather, because it was necessary to settle on a succinct term, and because many of these apps are branded as being “dating apps”, dating was chosen as an umbrella for dating, hook-ups, relationships, chat, and any other purpose for which Grindr et al. might be used.

Prior to reviewing the theoretical bases for this study – self-categorization theory, the online disinhibition effect, and priming theory – it is crucial to explore the literature on online self-presentation, and self-presentation in MSM social online spaces

specifically, as well as the literature on gay male masculinity and the gay male body, for a contextual background.

### **Self-Presentation in MSM Networks**

**Selective self-presentation.** Self-presentation is “the packaging and editing of the self during social interactions to create a desired impression in the audience” (Toma & Hancock, 2010, p. 336). It considers both the intended audience and the social environment, and involves making choices, not only about what information to disclose, but also what should go undisclosed, and whether deception should be used (Schlenker, 2002). Thus, self-presentation includes an element of strategic thinking in order to achieve the sought impression (Leary & Kowalski, 1990). When constructing an impression, it is important for individuals to consider the values of the audience, or the person or people who will be the target of the self-presentation (Leary & Kowalski, 1990). Therefore, if a man perceives a social network to be decidedly anti-effeminate in nature, he might craft an equally anti-effeminate presentation of self in his personal profile. As Taywaditep (2002) proposes, “the fact that many gay personal advertisements feature anti-effeminacy attitudes in such a candid manner suggests that perhaps many gay men perceive these negative attitudes to be common and acceptable, or even desirable” (p. 13).

In online self-presentation, there are unique challenges, as the medium poses a pull between what users desire to portray and what they can actually portray in a given situational context (Toma & Hancock, 2010). For example, a person might only have the option of posting one photo on a social networking profile. On many MSM-specific dating apps, including Grindr and Scruff, users must choose only one profile to serve as

their public-facing image. Even on those that allow multiple public images, the number is limited. Users do not have the benefits of face-to-face interaction, where someone can smile, walk, laugh, and touch, not to mention speak. At the same time, users can be selective about the image that is conveyed. Selective self-presentation (Walther, 1992, p. 229) refers to the exaggeration of wanted characteristics, and the minimization of unwanted ones (Walther, 1996). For example, if muscularity is deemed to be a highly desired characteristic, men might choose a shirtless profile photo in order to highlight their fit bodies.

Selective self-presentation is a concept developed by Walther (1996) as part of his hyperpersonal model of computer-mediated communication (CMC). This model suggests that users take advantage of the technological aspects of CMC in order to engage in strategic self-presentation, manage the impressions they give off, and facilitate desired relationships (Walther, 2006). The editable nature of online communication and the asynchronicity that allows for editing and refinishing are two technological factors that contribute to this model. The slowed temporal nature of CMC provides individuals with more time to craft a self-presentation (Walther, 1992). That online communication also allows for more resources to be focused on crafting messages, and that it masks involuntary physical cues and tics, are other contributing elements.

Aside from selective self-presentation, the hyperpersonal model has three other components. Firstly, idealization explains the tendency of users to “fill in the blanks in the development of impressions of online partners via text, by drawing on characteristics of group identities, personality stereotypes, or other projections” (Walther, 2011, p. 4). The hyperpersonal model suggests that CMC’s limited cues will result in exaggerated or

idealized perceptions of others in cyberspace (Walther, 1996). Another component, channel management refers to the use of CMC at times that allows for increased interpersonal engagement, and the crafting of very deliberate messages. Lastly, feedback serves to reinforce, encourage, and exaggerate the effects of self-presentation, idealization, and channel management (Walther, 2011). All of these components play a role in MSM-specific mobile dating apps and the interactions that develop therein. As a channel, MSM-specific mobile dating apps allow for users to craft deliberate and purposeful messages, to edit their public persona, and to control their interactions (e.g. blocking or favoriting others). These highly edited and carefully crafted profiles are the only cues given to other users and, as such, idealization may occur in these online spaces. The feedback users receive will also impact their use of certain self-presentational strategies. Praise for a profile, for example, might encourage a user to continue to present in a similar manner. Negative feedback, however, might cause him to rethink his textual and visual choices.

Unlike personal advertisements of the past, published in newspapers or magazines, online self-presentation is not limited to text-based description. Thus, while Walther conceived of selective self-presentation in terms of textual communication in an online setting, other scholars have extended this concept to include the selective presentation of the visual self in online space. As Hancock and Toma (2009) note, profile photographs are “now a central component of online self-presentation,” and these photographs are often “critical for relational success” (p. 368). Like textual self-description, photographic profile elements are subject to selective self-presentation (Hancock & Toma, 2009). Selective self-presentation is made possible in visual profile

communication because photographs “can be edited and their staging and selection carefully controlled” (Hancock & Toma, 2009, p. 369), allowing for a rehearsed and strategic presentation of the self.

Due to the impersonal nature of a personal advertisement or online profile, “individuals may easily present themselves in what they perceive to be their best light (or embellish their positive attributes) while emphasizing those characteristics they see as most desirable to a potential partner” (Cheeseman, Goodlin-Fahncke, & Tewksbury, 2012, p. 146). Yet, while advertisers seek to maximize their positive characteristics, it is also common for them to attempt to minimize their negative traits (Goode, 1996). In order to increase the pool of potential partners, users may feel the need to stretch the truth (Ellison, Heino, & Gibbs, 2006). Thus, self-presentation choices for online daters are typically guided by two competing factors: the desire for self-enhancement, and the expectation of authenticity that requires accuracy if a face-to-face encounter is expected in the future (Hancock & Toma, 2009).

Though traditional conceptions of online dating websites do not position them as identical to sex/dating applications for MSM, they provide a framework from within which we can identify specific commonalities between these online social spaces. According to Hancock and Toma (2009), online dating services are services that allow individual users to create profiles to describe themselves, to contact others, and to be contacted, in pursuit of romance. Similarly, MSM-specific mobile dating apps provide the space for men to post self-descriptions in a personalized profile, and allow for the facilitation of contact between men. For many men, the goal might be sex over romance; however, the opportunity for casual sex and romance (and other goals) is present on both

traditional dating websites and MSM-specific applications. The same two purposes identified by Ellison et al. (2006) for traditional dating websites – attracting potential partners and scrutinizing potential partners – holds true for MSM-specific mobile dating apps as well.

Both online daters and casual sex-seekers can now access either browser-based websites or mobile applications to achieve their end goal, and it is often not a requirement that individuals make a choice between one and the other. Just as online daters are given the opportunity to self-describe by listing attributes such as height and weight, as well their interests and personality type (Toma, Hancock, & Ellison, 2008), so too are the men who use MSM-specific mobile dating apps. Online, language is the primary means of telling others about the self (Baym, 2010). This goes for both traditional dating websites, as well as more sex-g geared social networking applications. These spaces offer free text options, wherein users can write what they wish, but also predetermined categories by which users construct identities (Baym, 2010). For instance, Grindr asks men which “tribes” to which they belong, and Jack’d asks users to choose one or more “scenes”.

Images are also online identity cues (Baym, 2010), and users of both dating websites and social networks for MSM are given the opportunity to present themselves visually to others. In comparison to traditional daters, online daters have been found to care more about a potential partner’s age and physical appearance (Rosen, Cheever, Cummings, & Felt, 2008). Physical appearance might be more important for online daters than traditional daters because of the large amount of choices dating websites and applications provide, all with the same goals of romance or casual encounters, thus

allowing for users to bypass less attractive profiles in pursuit of the most physically pleasing specimens (Whitty, 2008).

Surprisingly, however, half of online daters report being willing to contact someone without a profile photo (Rosen et al., 2008). This may not be the case for MSM, as Cassidy (2013) found that having a visible photo was the primary criterion for whether a reply was given to a particular user. On MSM-specific dating apps, not having a photo is often associated with men who are strictly interested in casual sexual activity (Cassidy, 2013). However, we must also consider the structural and cultural issues that restrict men from self-identifying in these particular online spaces. Therefore, we must survey the literature about MSM-specific personal advertisements and dating profiles to better understand communication in this community of males.

### **MSM Personal Advertisements and Social Networking**

A long line of research has examined sexual minority males' dating/sex-seeking profiles on both the Internet and in traditional offline formats. Among other topics, scholars have examined the use of racialized language in MSM's profiles (e.g. Callander et al., 2012; Riggs, 2013), the partner preferences in MSM's profiles or personal ads (e.g. Gudelunas, 2005; Hatala, Baack, & Parmenter, 1998, Miller, 2015a), patterns of MSM-specific mobile dating app usage (e.g. Grosskopf et al., 2014; Liao et al., 2006; Miller, 2015b), and risky behaviors associated with online sex-seeking in MSM populations (e.g. Bolding, Hart, Sherr, & Elford, 2005; Hirschfield, Remien, Humberstone, Walavalkar, & Chiasson, 2004). Research has also consistently identified MSM as using the Internet in especially high numbers (e.g. Grov, Breslow, Newcomb, Rosenberger, & Bauermeister, 2014; Mustanski, Lyons, & Garcia, 2011). When it comes to social networking, then, it is

not surprising that MSM are active users of both browser-based and app-based networks. In one study, more than half of MSM (54.5%) reported having at least one smartphone application designed to facilitate sex, dating, or hook ups (Lehmiller & Ioerger, 2014). Participants in that particular study reported logging on to these applications an average of three times daily, and spending an average of 12 minutes with the application in each instance (Lehmiller & Ioerger, 2014). Younger men, in particular, have been noted for using the Internet for partner selection (Mustanski et al., 2011; Paul, Ayala, & Choi, 2010), as have men living in rural and suburban settings (Gudelunas, 2005; Mustanski et al., 2011), and those with an STI diagnosis (Sun, Reboussin, Mann, Garcia, & Rhodes, 2015).

Rosser and his colleagues (2011) found that 85 percent of MSM reported recently using the Internet to find other men. In this same study, 94 percent of men said that they have had sex with a partner met on the web, and 78 percent had done so within the previous six months. Other research has indicated a lesser, though still high, prevalence of online sex-seeking by MSM. For example, Liao et al. (2006) claim that between 35 and 45 percent of MSM utilize the Internet to find sexual partners. In a comparison of New York City MSM's use of the web (e.g. Craigslist, Manhunt, etc.) and mobile applications (e.g. Grindr, Jack'd, etc.) for sex-seeking, Grosskopf et al. (2014) found that 55% of men reported using MSM-specific social networking websites at least daily. Those who used mobile applications or the web for MSM-specific social activity were found to have higher income, higher employment rates, and a higher likelihood of being Caucasian than those who solely used browser-based social networking.

Unsurprisingly, some men have expressed a belief that MSM-specific applications are only good for finding casual sex. For example, in a study of Australian men who use the social network Gaydar, Cassidy (2013) found that the website operated in a culture of what he calls participatory reluctance. Men were predominantly contemptuous in their feelings about both the website and its users, believing that other users were only interested in sex, which caused them to stereotype others even though they did not feel that they themselves fit this typecasting of gay masculinity. Men's self-perceptions did not fit with the imagined "other," and they mentioned being nicer, happier, more educated, classier, and more "normal" than other Gaydar users. Furthermore, though these men were often looking for more than strictly sexual encounters, they felt other users were motivated purely by casual sex desires. Thus, Cassidy (2013) identified a large incongruence between what an MSM-specific online space is believed to facilitate (casual sex), and what many users would like for it to be good for facilitating (long-term relationships). In this example, we can see the roots of the self-categorization that helps men to distinguish between themselves and others in online queer spaces.

Nonetheless, Gudelunas (2012) identified a number of uses gay men have for social networking sites, including finding a long-term romantic partner, and facilitating friendships with likeminded others. This sentiment is echoed in other studies; while many MSM use apps for sexual purposes, this is not the sole function of male-only social networks. Even when sex is the first offline contact, romance or dating often occurs thereafter. For example, in one study, one third of men who used dating/sex applications reported having a sexual partner they met through an application turn into a romantic partner (Lehmiller & Iorger, 2014). In another article, participants reported using

websites like Manhunt.com and Gay.com to find friends, to network, and for dating (Mustanski et al., 2011).

For many men, the utility of Grindr revolves largely around the anonymity of this online space (Gudelunas, 2012). Unlike Facebook or mainstream social networks, Grindr is not linked to offline social contacts and allows for what Gudelunas (2012) calls a “sliding scale of anonymity” (p. 359). MSM can therefore choose to identify on a one-to-one basis by exchanging photos and personal information in private communication, while at the same time remaining anonymous publically should they so desire. Online social networks also allow for the initiation or termination of contact without the social awkwardness that comes from face-to-face contact (Paul et al., 2010). Based on open-ended survey data, Miller (2015b) identified a number of sought gratifications that keep users on MSM-specific mobile dating apps, including safety, easiness, control, accessibility, mobility, connectivity, and versatility.

Whether in the traditional sense, or in the form of a social networking profile, personals serve two important purposes. First, they allow individuals to present themselves in the best possible light (Gonzalez & Meyers, 1993), maximizing the traits and values they believe to be the most desirable. Second, they allow individuals to specifically find the respondents they desire (Gonzalez & Meyers, 1993) by offering space to list the characteristics they want or do not want in their preferred partners. As Gonzalez & Meyers (1993) note, “Personal ads thus provide researchers with an intriguing source of information about self-presentation strategies, relationship goals, and contemporary social definitions of what is attractive or desirable, and about gender stereotypes as well” (p. 131). The next section will examine what is desirable in gay male

culture more broadly, as well as how these cultural norms and preferences map onto dating profiles.

### **Masculinity, Aesthetics, and Gay Male Culture**

Research has shown that gay males are more concerned with aesthetics than other groups of individuals. For example, Hatala and Prehodka (1996) have found that male-seeking-male personal advertisements tend to focus more on physical characteristics when compared with those of women seeking women, which focus more on personality variables. When compared with straight males, MSM have also been shown to cater more to aesthetics in both their self-descriptions and stated partner preferences. In a study of Yahoo! personals, Phua and Kaufman (2003) found that MSM were more likely than straight men to request a particular skin, hair, or eye color, as well as specify a racial preference for partners. Gay men were also more likely to mention their own skin, hair, or eye color in their personal advertisements. Sergios and Cody (1986) have also examined the elements that impact dating and partner selection in MSM, determining that aesthetic variables were more important to gay men than internal characteristics. The overall range of characteristics that gay men use to describe themselves and their ideal partner in personal ads is narrower than for heterosexual males (Deaux & Hanna, 1984).

There exists distinguishing norms in the gay male culture that preferences particular looks and put a heavy marker on physical appearances (Clarke & Smith, 2015). Even though there are many disparate communities of MSM, a body-focused gay subculture dominates the “iconography and institutional culture of public gay life” (Signorile, 1997, p. 27). A content analysis of advertisements in four popular gay-themed magazines found that 94 percent of men depicted had a youthful appearance, and 52% of

the men depicted were shirtless (Saucier & Caron, 2008). More than half of the men shown had visible muscle tone and low body fat, and the authors note that the statistic would be higher if not for the advertisements that showed only faces. Nearly one quarter (24 percent) of the articles in these magazines were also found to focus on appearance.

Many MSM might therefore feel a pressure to dress, look, and act a certain way. As Clarke and Smith (2015) note of the participants in their study, “As well as having the ‘right’ clothes, the men also had to have the ‘right’ body under their clothes, particularly if their clothes displayed and revealed their body to other men” (p. 15). For these men, dressing “gay” was a way to signal being comfortable with their own homosexuality and, ultimately, achieved a sense of belonging. However, the participants also policed gay male aesthetics; it was important for them to not appear campy or effeminate, as these men were seen as being “too gay” (Clarke & Smith, 2015, p. 25).

This tendency to not want to appear “too gay” might be due to fear for one’s safety in a homophobic world, or it may be due to the pressures that come from growing up and living in a heteronormative culture (Cameron, Collins, & Hickson, 2009). In one study, gay men reported wearing brighter colors and tighter clothes “that might mark them as visibly gay” (Hutson, 2010, p. 222), though many also “expressed concern over fitting in when wearing clothing that revealed their bodies or clothing that stepped outside the dominant fashion” (p. 224). For these men, expectations about their appearance became amplified in queer spaces, such as gay bars. It might therefore be expected that appearance-related concerns would also be magnified in online spaces for MSM.

In MSM online spaces, photos are symbolic not only of an investment in the online environment, but also of identification with a gay identity (Mowlabocus, 2010). Because of gay males' historic invisibility, posting a face-disclosing photograph online serves as a means of validating a man in the online queer space, and confirming that he is willing to self-identify (Mowlabocus, 2010). Some men have reported a tension between utilizing photos to craft their self-presentation on Grindr and their desire for privacy and anonymity in such a heavily sexualized space (Blackwell, Birnholtz, & Abbott, 2015). Thus, MSM may engage in selective disclosure of face photos, sending them in personal messages or upon request, but not linking them directly with their profile (Blackwell, Birnholtz, & Abbott, 2015).

Body images, on the other hand, serve an entirely distinct purpose from face photos. According to Mowlabocus (2010), body images are more about selling the profile user to others in the community. These photos often utilize techniques that imitate pornography, including tight framing, the general aesthetic, and the poses chosen (Mowlabocus, 2010). Engagement with these types of photos might lead to increased body oppression; Signorile (1997) refers to the body oppression found within gay male culture as body fascism, "a rigid set of standards of physical beauty that pressures everyone within a particular group to conform to them," and which "deems those who don't or can't conform to be sexually less desirable, but in the extreme – sometimes dubbed 'looksism' – also deems an individual completely worthless *as a person*, based solely on his exterior" (p. 27-28).

As Ramallo and colleagues (2015) note, "a sexual undertone is commonly assumed when meeting someone in a gay forum or app, even if the person explicitly

states he is not looking for a sexual encounter” (p. 304). Therefore, as previously mentioned, many men may be reluctant to post photos on apps such as Grindr due to the overwhelmingly sexual nature of these spaces. Those searching for friendship or relationships have been found to be more likely to have a face-disclosing photo than those searching for other interactions (Fitzpatrick, Birnholtz, & Brubaker, 2015). Nonetheless, there are other appearance-related reasons why men might choose not to post a photo. For instance, Fitzpatrick et al. (2015) have found that older men are less likely to have a face-disclosing photo than their younger counterparts. This may be in part generational, or it may be due to perceived ageism and looksism in gay male culture. Interestingly, this line of research has also uncovered that men with higher BMI (body mass index) scores are more likely to have a face-disclosing photo, indicating that those with less fit bodies are aware of the preference for toned and muscular men and choose instead to tightly frame photographs on their face.

The importance of looks might be attributed to the fact that same-sex attracted men must fill dual roles: that of the dominant male, who dictates others be attractive to him, and the submissive female role outlined in society, which seeks to be attractive to the dominant male in order to be of value (Wright, 1997). MSM face distinctive appearance-related burdens because they not only want to look like the ideal male, but they also wish to be seen as attractive by other men (Tylka & Andorka, 2012). Moreover, because aesthetics are so heavily weighed in gay male culture, there is a propensity for gay men (and other MSM) to strongly incorporate appearance into their self-concepts (Silberstein, Mishkind, Stiegel-Moore, Timko, & Rodin, 1989).

Even in spaces where the desirable body takes on a counter-typical form, such as in Campbell's (2004) study of chat rooms for gay muscle bears and obese men, identity remains intrinsically linked with physical appearance and the size and shape of one's build. Furthermore, the hairy, muscled, and/or obese bodies in this alternative space are just as indicative of hegemonic masculine ideals as a fit, toned, young body. Alternative gay bodies are also constructed in comparison to mainstream gay bodies. For example, gay bears have reported differing experiences in relation to the bear community, as opposed to "a more judgmental 'twink society' defined by the policing of appearance and caricatured" (Gough & Flanders, 2009 p. 244). The body in gay male culture is intrinsically linked to maleness and hegemonic masculinity.

Many scholars have noted the value gay male culture places upon masculinity (e.g. Bailey et al., 1997; Clarkson, 2006; Halkitis, 2001; Halkitis et al., 2004, Sánchez & Vilain, 2012). In order to understand the current privileging of masculinity within gay male circles, it is vital that we look to the history of gay male gender performance, as well as constructions of hegemonic masculinity and the cost of gender nonconforming in Western culture. Historically, gay male effeminacy has been denigrated at least back to the late 19<sup>th</sup> century, when theories of sexual inversion emerged in the medical literature (Nardi, 2000). The medicalization of people known as "congenital inverts" (p. 2) emerged at roughly the same time as the popularization of the conceptions of heterosexuality and homosexuality, and the equation of these constructs with the "normal and abnormal" (p. 2). Effeminate men and butch women were examples of the exterior notions of inverted gender behavior, and because both threatened customary conceptions

of masculinity and femininity, they were seen as cause for alarm (Nardi, 2000). Gay men have historically been treated as men who failed at gender (Levine, 1998).

During the queer movement of the 1910s and 1920s, middle-class same-sex attracted men began to identify as queers in order to position themselves in opposition to effeminate gay men (Chauncey, 1994). The label “queer” was seen to positively distinguish these men from mainstream society, but it was not meant to symbolize effeminacy. Rather, “queer” men developed derogatory terminology (e.g. fairy, faggot, queen) to describe effeminate gay men, or men who stood out as visibly gay (Chauncey, 1994). By the 1930s and 1940s, the label “gay” began to be used to describe any man who slept with other men, however, this did not eliminate the tension between more masculine-presenting gay men and their effeminate counterparts (Nardi, 2000). This tension became further intensified with the advent of the gay male “clone” of the 1970s.

Numerous scholars have written about the macho gay male clone of the 1970s (e.g. Levine, 1998; Messner, 1997; Nardi, 2000; Signorile, 1997), a prototype that significantly constricted the range of acceptable gender styles for same-sex attracted males. The gay clone, “ a specific constellation of sociosexual, affective, and behavioral patterns that emerged among some gay men in urban centers of American gay life,” came to symbolize gay masculinity in the Western world (Levine, 1998, p. 7). Glorified in gay media and advertisements, clones were extremely macho, wore blue-collar garb, and lived especially fast lives involving lots of drugs, discos, and sex (Levine, 1998). Physically, clones had hard, fit gym bodies, facial hair, and short haircuts, and they were often white and middle class (Levine, 1998). According to Messner (1997), by the mid 1970s, “the newly hegemonic hard and tough gay masculinity was serving to marginalize

and subordinate effeminate gay men within gay communities” (p. 82). In the 1980s, the AIDS crisis further narrowed the range of gender styles available to gay men, as femininity (and the feminine position in gay sex) became equated with disease (Signorile, 1997). Large chests and biceps upheld notions of traditional masculinity, and signified a virile, healthy body (Signorile, 1997).

The prevailing inclination for queer men has developed into “an attempt to claim, eroticize, and display the dominant symbols of hegemonic masculinity” (Messner, 1997, p. 83). This is because all men come in contact with the masculine gender script in childhood, and society has no anticipatory socialization model for adult homosexuality (Levine, 1998). Children are assumed to be straight until they are not, and all men receive an introductory engagement with hegemonic masculinity early on (Connell, 1992; Levine, 1998). For example, a boy might be told not to wear or dress, or he might be asked if his female friend is his girlfriend. Typically, boys learn that their social worth is dependent upon estimations of their masculinity, and because gender nonconformity is heavily sanctioned, boys discover that they must defeminize and become expectedly masculine (Levine, 1998). It has been noted that a majority of gender nonconforming boys practice defeminization, or the gradual lessening of effeminacy, by adolescence (Whitam, 1977) or adulthood (Harry, 1983).

Popular belief is that hegemonic masculinity dictates a man is youthful, virile, and powerful, but also that he be heterosexual (e.g. Slevin & Linneman, 2010). Gay men – or any man who engages in same-sex behavior – are seen to “break from traditional masculine ideology” because of their “affectional and sexual orientation” (Sánchez et al., 2009, p. 74). When a man engages in sex with another man, he is seen as less masculine

because he breaks through the boundary that classifies heterosexuality and heteronormativity as normal (Chesebro, 2001). This is true for both men who conform to hegemonic masculine ideals, as well as those who reject them. As Slevin and Linneman (2010) have observed, “even if a gay man is not feminized, he is still often not considered able to live up to the true standards of masculinity (p. 487)” and Anderson (2005) has asserted that, “hegemonic masculinity not only requires that a male maintain 100 percent heterosexual desires and behaviors, but that he must continually prove that he is heterosexual” (p. 22). This does not mean that non-heterosexual men are altogether excluded from masculinity, but that they face structural conflicts that keep them from reaching its ideal state (Connell, 1992).

Nardi (2000) views gay masculinities as a concept that must be pluralized; he views multiple means for gay men to carry out gender, impacted by social and psychological factors, setting, institutional constraints, and so on. Any masculinity is constructed in coordination with other masculinities and femininities, and the cultural meanings associated with masculinity factor into any definition (Connell, 1992). As Connell and Messerschmidt (2005) note, however, masculinity is not a permanent facet of an individual, embedded in his or her body or personality, but rather “configurations of practice that are accomplished in social action and, therefore, can differ according to the gender relations in a particular social setting” (p. 836). Pascoe (2007) asserts that rather than see masculinity as a standardized category befitting of all males, we must view it as a conformation of practices that anyone of any gender can embody in disparate ways and in varying degrees. For example, in a sample of black men on the “down low,” Han, Rutledge, Bond, Lauby, and LaPollo (2014) observed that men did not see masculinity as

“a rigid and unchanging personal trait,” but “perceived masculinity as an ‘act’ that one shifted in and out of depending on the circumstances and the situation” (p. 96). Yet, although “men can adopt hegemonic masculinity when it is desirable” and “the same men can distance themselves strategically from hegemonic masculinity at other moments”, as Connell and Messerschmidt (2005) claim, this affordance might not be available to the effeminate gay man who cannot “pass” as sufficiently masculine at will.

According to Nardi (2000), engagement with gay sexual activity actually challenges “dominant definitions of patriarchal masculinity” (p. 6). Non-heterosexual masculinity depends on the existing gender order and the subordination of women, but it also subverts it (Connell, 1992). Gender performance can be a form of resistance, and even those men who are effeminate benefit from the overall structure (Connell, 1992). As Hennen (2008) detailed in his book on gay masculinities, there are a number of ways that MSM have learned to resist the connection between homosexuality and effeminacy. For instance, they may do so by embracing the feminine (e.g. the Faerie subculture), by normalization (e.g. gay bear culture), or by adopting a hypermasculine persona (e.g. leathermen).

Despite their exclusion by heterosexual men, some MSM strive for a very traditional form of hegemonic masculinity, and they use the concept of “straight-acting” to denote that they are more masculine than feminine (Eguchi, 2009). According to Eguchi (2009), the rhetoric of this term maintains that the only difference between straight men and straight-acting gay men is their sexual preference for one sex or the other. For Martino (2006), however, straight-acting rhetoric “functions as a compensatory mechanism for displacing an already internalized sense of inferiority that is attributed on

the basis of identifying as gay, constituted as failed masculinity,” and is built on norms, “reinforcing and rearticulating the hegemonic force of a hierarchical gender binaric system, built on a misogynistic repudiation and denigration of the feminine” (p. 43).

Two forms of hegemony have been noted in relation to masculinity (Demetriou, 2001). The first, external hegemony, refers to the institutionalization of males’ dominance over females. The second form of hegemony, internal hegemony, refers to the social superiority of one assembly of men over all other men. Under Demetrio’s conceptions of internal hegemony, it is the “straight-acting” or masculine gay men who assert dominance over the effeminate, stereotyped gay “other.” By “repudiating femininity”, and feminine men by association, gay men are able “to achieve and embrace their masculine images in this heteronormative society” (Eguchi, 2009, p. 203). In the process, they might be able to accumulate a degree of what Anderson (2005) calls masculine capital, or a relative worth among other boys and men due to adherence to traditional gender role scripts and proscribed behavioral traits. Those with the most masculine capital are given the most social privileges, and even though non-heterosexual men can never achieve a true state of hegemonic masculinity, many still try to raise their masculine capital by aligning with traditional masculinity (Anderson, 2005).

Bergling (2006) uses the term *sissyphobia* to describe, “the hatred, fear, or just distaste that straight *and* gay people have for a man who behaves in an effeminate way” (p. 28). Much like high school boys who use homophobic epithets to lay claim to a masculine identity (Pascoe, 2007), adult MSM might similarly value the dominance that derives from being masculine in gay culture. According to Anderson (2005), “otherwise marginalized men cling to notions of hegemonic masculinity because it both begets

rewards of patriarchy and stays off potential social criticism for performing further marginalized masculine identities” (p. 47). This is primarily because *all* men in Western culture experience early engagement with hegemonic masculinity, including those who grow up to be gay, bisexual, queer, questioning, or otherwise non-heterosexual (Connell, 1992). According to Connell (1992), “Gay men are not free to invent new objects of desire any more than heterosexual men are – their choice of object is structured by the existing gender order” (p. 747).

A straight-acting gay male identity cannot truly exist without an oppositional identity (Eguchi, 2009). Scholars have noted that this masculine gay identity is positioned in relation to, and in contrast of, the cultural stereotypes of the effeminate gay male (Clarkson, 2006). This performance of gender creates a symbolic boundary between those men who are “straight-acting” and those who are more effeminate (Eguchi, 2009), effectively creating an in-group and an out-group. To make a claim for a masculine identity, one must position the self in comparison to a feminine “other” (Han et al., 2014). In an analysis of StraightActing.com, Clarkson (2006) found that the dominant discourse was of the aesthetic components of straight-acting masculinity. It was the combination of masculine physicality and masculine traits that was desired, including physical power, a large physique, and other elements of the body. Faces, too, can signify masculinity, as gender-inverted faces are more likely to be judged as gay or lesbian (Freeman, Johnson, Ambady, & Rule, 2010). Similarly, Halkitis’ (2001) work with gay men with HIV uncovered that the majority of men equated masculinity with physical appearance and sexual adventurism. The next section will further discuss masculinity as marked on the physical body.

## **The Body and Masculinity in Gay Male Culture**

Building off the work of Wolf (1991), Campbell (2004) coined the phrase gay male beauty myth to refer to “the hierarchies of beauty” that “are imposed on gay men in their understandings of their own bodies and the bodies they should desire” (p. 156). This gay male beauty myth seems to be ultimately a matter of hypermasculinization and the promotion of hegemonically masculine visual representation. For example, in his study of gay men and aesthetics, Hutson (2010) noted that hypermasculinization frequently led the men to hyper-muscularization and the expectation of muscle tone and gym bodies. Bodies that did not fit this gay ideal were deemed undesirable bodies, even by participants who themselves did not fit the gay male body ideal. As Hutson (2010) stated, “Particularly prominent was the notion of the hegemonic gay ‘look,’ an idealized image of thinness, muscle tone, and style typically devoid of fat that one could show off through clothing in gay spaces” (p. 228-229).

Wood (2004) claims that gendered body aesthetics function to determine dominance between gay subcommunities. According to Wood (2004), “The body itself has become a crucial site of social struggle, . . . between dominant masculinities and subordinate male gender styles that are marginalized and stigmatized” (p. 57). Masculine norms among gay men are established not only through behaviors, but also physical appearance (Halkitis et al., 2004). Some gay men have noted that they feel pressure from masculine norms to have a model body in order to catch the eye of other men (Sánchez et al., 2009). This may be amplified in queer spaces, such as gay bars, where gay identity is specifically enacted and where going out means one must look good to other MSM

(Chauncey, 1994). As Chauncey (1994) notes, “Showing more of the body is considered ‘good,’ beneficial for the person showing and for others who may be looking” (p. 225).

In some online MSM spaces, the notion of the masculine male body is built into the collective identity of the space. For example, Campbell (2004) conducted a study on three Internet Relay Chatroom (IRC) focused on the hypermasculine male body - #gaymuscle, #gaychub, and #gaymusclebears. In these spaces, the body is both compartmentalized and objectified, and the physical body is central to intragroup relations despite the virtuality of the space. Participants in Campbell’s (2004) study reported being drawn to these chatrooms because of their shared identities as either possessor of the desired muscular or obese bodies, desirer of muscular or obese bodies, or both. Some of the bodies discussed conformed to hegemonic ideals (e.g. gay muscle bears), however, the online space also served as a place to talk about marginalized MSM bodies, such as the obese man, the hairy man, and the older man, and to affirm their worth and desirability. In relation to more contemporary online space, certain MSM-specific dating apps are also built around certain types of bodies. Scruff, for example, is a place for hairier men, and offers users the chance to select from predetermined categories like “bear,” “muscle,” “jock,” “twink,” or “daddy” when answering the questions of who “I am” and whom “I am into”. Similarly, Growlr labels itself “The Bear Social Network”, and offers an even more broad array of body-based categories, such as “cub,” “muscle bear,” “chub,” “superchub,” “silver daddy,” “polar bear,” and so on. This categorical classification system may enhance the tendency for MSM to self-categorize and to treat their partners like commodities. Choosing a partner and describing what one wants on

Grindr, for example, seems to be similar to a checklist one might have for a potential new car or home.

It is also important to note the place that race has in the construction of masculine male bodies, wherein certain groups are stereotyped as feminine and certain groups as hypermasculine. Asian men, for instance, are commonly positioned as “skinny, effeminate, passive and submissive” and in opposition to Westernized, masculine male bodies (Poon & Ho, 2008, p. 254-55). Gay Asian men have been found to attempt to neutralize their perceived femininity by appearing more masculine or, in extreme cases, passing as non-Asian (Han, Proctor, & Choi, 2014). Thus, for same-sex attracted Asian men, achieving the “white masculine norms of physical attractiveness” (p. 224) might never be truly possible.

### **Self-Description, Partner Preferences, and MSM Dating/Sex Profiles**

As Chesebro (2001) notes, masculinity is at its core a communication concept. It is a “socially and symbolically constructed notion,” and one “that every culture and every era revisits and redefines in different ways” (p. 36). People communicate masculinity through language, as well as through their visual communication practices (Chesebro, 2011). In the gay community in particular, research has consistently shown that MSM are biased toward self-descriptions of masculinity over femininity when linguistically presenting themselves to potential partners (e.g. Bailey et al., 1997; Laner & Kamel, 1978; Miller, 2015a). Research has also consistently indicated a tendency for MSM to provide descriptions of their preferred partners that focus on masculine traits and behaviors (e.g. Bailey et al., 1997; Bell & Weinberg, 1978; Laner & Kamel, 1978; Lumby, 1978; Miller, 2015a).

In one of the first studies on gay male personal advertisements, Laner and Kamel (1978) found that 43 percent of men claimed to be stereotypically masculine, using terms such as “masculine” and “straight-looking” to describe themselves. Even more men – 63 percent – made mention of their desired masculine attributes in a partner. Fifty four percent of men also claimed to have a traditionally masculine body type, using terms such as “rugged,” “very strong,” or “athletic,” and 56 percent of men explicitly mentioned a desire for this masculine type of body (Laner & Kamel, 1978). In one early study, only one percent of men said they desired feminine characteristics in a partner, compared with 27 percent who reported wanting masculine characteristics in potential mates (Bell & Weinberg, 1978).

Similarly, a content analysis of early gay personal advertisements in *The Advocate* found a distinct privileging of masculinity. As Lumby (1978) observed, “Traits and descriptions characterized as feminine are seldom mentioned, and ‘fems’ are among the frequently rejected individuals” (p. 71). More recent studies on male-seeking-male personal advertisements have uncovered comparable data. For instance, Bailey et al. (1997) found that gay men tended to represent themselves as both masculine looking and acting in their personals, and to describe wanting these same features in potential partners. In this particular study, “muscular” and “straight-acting” were two of the most commonly mentioned descriptors (p. 970). Gudelunas’ (2005) study on PlanetOut.com personals also found that masculinity was a concern, particularly for men from small towns, who mentioned seeking “other straight acting” or “masculine” and not “femme” partners in free text sections of their advertisements (p. 20). In a content analysis of the MSM-specific social networking application Jack’d, Miller (2015a) examined 300

profiles, finding that not one man in 300 self-described as feminine. Contrarily, six percent of men described their self-possessed masculinity. Though the prevalence of masculinity and femininity-based language might not be extremely high in proportion to the overall number of profiles (Birnholtz, Fitzpatrick, Handel, & Brubaker, 2014; Miller, 2015a), this type of categorizing language is noteworthy, as anti-feminine language has been found to be the most common type of exclusionary language. In a study of nearly 70,000 North American Grindr profiles, Birnholtz et al. (2014) uncovered that “no” clauses were often used for the purposes of an “attempt preemptively to avoid interaction with certain others” (p. 7). Though only 1.5% of men in college towns and 0.7% of men in urban settings had profiles that asked for no fems/feminine/girly/flamers, this was more than any other type of negatively-skewed categorizing language, including language based on exclusion surrounding age, race, body size/type, relationship status, and political identification.

Masculinity-focused language and the connection between muscularity and masculinity are also evident in the way that men describe their bodies and the bodies they desire. In an examination of gay male telephone personals, Bartholome, Tewksbury, and Bruzzone (2000) found that more than three quarters of advertisements (81%) included language about the body, which is not surprising given the lack of visual cues on telephone personal lines. These authors conceive of body language as “references and direct discussion of an individual’s appearance, stature, and size” and note that this type of talk “was the most dominant theme throughout this sample of personal ads” (p. 318). Sixty-six percent of men made mention of their own appearance, and a third of men had a description of their body as well as the body they desired in others. Mentions of being

“in shape” or having a “muscular build” were present in a quarter of all advertisements, and a muscular or “in shape” body was the most desired characteristic men sought in a partner (p. 318). Lumby (1978) has also found that, when bodies are mentioned, many men emphasize size and build, particularly muscularity and firmness.

According to Chesebro (2001), hegemonic masculinity is communicated by physical elements such as larger, more muscular bodies, and body language must be seen as an extension of masculinity privileging in MSM personal advertisements. Furthermore, in the same study by Bartholome and his colleagues (2000) cited above, 12 percent of advertisers explicitly mentioned looking masculine or “straight”, and 4 percent required masculinity in potential partners. In a content analysis of men’s MSM-specific dating app profiles, Miller (2015a) found that 19 percent of men included language about their body, level of fitness, or gym interests. Thirty-one percent of men in the study also included shirtless photos in their profiles, which emphasizes the connection between visual and linguistic bodily representation.

### **Theoretical Frameworks**

The current research uses multiple frameworks as theoretical guides: self-categorization theory, the online disinhibition effect, and priming theory. Self-categorization theory will assist in explaining the use of masculinity/femininity language in the construction of a desired in-group (masculine men) and an undesired out-group (feminine men) on MSM-specific mobile dating applications. Online disinhibition will illuminate the technological features of cyberspace that help to contribute to the use of masculinity/femininity and body language on MSM-specific applications, particularly in the absence of face-disclosing profile photos. Finally, priming theory will aid in

explaining the relationship between MSM-specific mobile dating app usage and attitudes and feelings about the self and others.

**Self-categorization theory.** Self-categorization theory regards the self as a contextually fluctuating mix of personal and social identities (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Personal identities incorporate the individual's unique characteristics, while social identities consist of their cultural and/or ethnic memberships. The activation of an identity in a social context, or the identity's salience, is the product of accessibility of the given category in the mind, and fit between the stored category and perceptions of the situation (Oakes, 1987). A salient social identity is, therefore, "one which is functioning psychologically to increase the influence of one's membership in that group on perception and behavior" (Oakes, 1987, p. 118). When the personal identity is salient, individuals focus on their individual characteristics in constructing a distinct sense of self (Turner et al., 1987). When a social identity is salient, however, individuals focus on in-group characteristics that cause them to view themselves as a transposable member of the in-group (Turner et al., 1987). The fundamental component of social group membership is simply that an individual defines himself or herself, and that others define this individual, as members of the in-group or out-group (Tajfel & Turner, 1979). Thus, the social group provides a means through which the individual can identify in social terms (Tajfel & Turner, 1979).

Self-categorization theory operates as an extension of social identity theory; because social categorization always involves or indicates the self, individuals not only categorize others, but also themselves (Turner et al., 1987). Because it is a reflexive entity, the self may be considered an object, causing it to classify or name itself in

relation to other groupings of social classification. This, in essence, is self-categorization (Turner et al., 1987). A person's membership in social groups makes up a crucial component of their self-concept (Brewer, 1991), and people have been found to use a combination of individual characteristics and group membership information to describe themselves (Kuhn & McPartland, 1954).

According to Hogg and Abrams (1988), self-categorization is but one important mechanism involved in the creation of a social identity. The other is social comparison. The social comparison process results in selective accentuation along the dimensions that will result in self-enhancement for the self-concept (Hogg & Abrams, 1988). Self-esteem is heightened when the in-group and out-group are judged along lines that position the in-group positively and the out-group negatively. Thus, people tend to uniformly make positive assumptions about the in-group once they become a member (Hogg & Abrams, 1988). In the context of MSM, the above literature on the privileging of masculinity expounds the relative positivity through which an in-group of masculine queer men are judged in relation to the feminine male out-group.

Social categories are cognitively embodied as prototypes (Reid & Hogg, 2005). Prototypes are essentially sets of characteristics that define categories by both maximizing perceived within-group similarities, as well as between-group differences (Rosch, 1978). Once categorization occurs, individuals are perceived through the understanding of the prototyped group rather than as individuals (Hogg & Reid, 2006). Like with the classification of others, in certain situations and contexts, group identity might overshadow a sense of the self as a unique person (Turner et al., 1987). Thus, identification with the in-group enhances stereotypes about both the in-group and out-

group members and their homogeneity (Haslam, Oakes, McGarty, Turner, Reynolds, & Eggins, 1996), including viewing one's own self as prototypical within the group (Hogg & Hardie, 1992). Depersonalization describes the process through which individuals begin to conceive of themselves as interchangeable with other in-group members (Turner et al., 1987). When the group identity is salient, group norms directly and indirectly shape much of what is communicated within the social group or among members of broader social categories (Hogg & Tindale, 2005).

The practice of depersonalization based on self-categorization “produces conformity to shared in-group prototypes and thus produces in-group normative behavior” (Hogg & Reid, 2006, p. 11). In this sense, group prototypes are essentially group norms, as they tend to be shared between members of the group (Turner, 1991). That is, in the same situational context, in-group members will share the same prototype of both the in-group and the relevant out-groups (Turner, 1991). These in-group norms are structured in position to out-group norms (Turner, Wetherell, & Hogg, 1989). In-group norms are constructed as polarized opposition from the out-group, and then conformed to by means of self-categorization and depersonalization (Turner et al., 1989). People are increasingly likely to uncover their attitudes if they hold a strong identification with the group for which the attitudes and its associated conduct are normative (Terry & Hogg, 1996). Self-categorization “systematically biases self-perception and behavior to render it more closely in accordance with stereotypic in-group characteristics and norms” (Hogg & Turner, 1987, p. 325-326). Thus, in addition to being descriptive, group prototypes are also prescriptive; prototypes dictate observations, thoughts, feelings, and behaviors (Hogg & Hains, 1996). Social categorization guides thoughts and actions,

which creates stereotypical expectations and stereotypically-affirmative readings of ambiguous behaviors (Hogg & Reid, 2006).

Past research has found that context impacts self-categorization and self-stereotyping for gay people (Cadinu et al., 2013). In one study, when sexual orientation was highlighted and made salient (e.g. in a gay bookstore), gay individuals tended to self-categorize (Cadinu et al., 2013). This self-categorization was positively related to self-stereotyping. Given that a gay identity is unmarked on MSM-specific mobile applications, it is expected that men will classify themselves and others along other identity markers, such as gender role performance, race, age, body size, HIV-status, and so on. The social environment is segmented, categorized, and ordered by means of social categorization (Tajfel & Turner, 1979), and on MSM-specific mobile dating apps, this occurs along traditional masculine/feminine gender role lines. The current study takes a self-categorization approach to investigate how MSM self-categorize and create in-group/out-group boundaries based upon conceptions of masculinity and femininity.

We can conceptualize a “masculine” in-group and a “feminine” out-group, given Tajfel and Turner’s (1979) definition of a group as:

A collection of individuals who perceive themselves to be members of the same social category, share some emotional involvement in this common definition of themselves, and achieve some degree of social consensus about the evaluation of their group and of their membership of it (p. 40).

Social groups provide individual members with identification in social terms. These identifications are interpersonal and comparative. As Tajfel and Turner (1979) note, “they define the individual as similar to or different from, as ‘better’ or ‘worse’

than, members of other groups.” (p. 40). The literature on masculinity and femininity in gay culture illustrates the positive social identity provided for members of the masculine in-group, relative to the feminine out-group, and the associated in-group bias that has been uncovered. However, it is also important that we consider the role of cyberspace in the enablement of pro-masculinity and anti-femininity language on MSM-specific mobile applications. The online disinhibition effect offers a psychological explanation for decreased reservation in expressing these preferences in technologically facilitated spaces.

**Online disinhibition effect.** Disinhibition is “any behavior that is characterized by an apparent reduction in concerns for self-presentation and the judgment of others” (Joinson, 1998, p. 4). The online disinhibition effect simply extends the notion of disinhibition to encompass an online arena; what people do or say in cyberspace might be things they are unwilling to do or say in face-to-face settings (Suler, 2004). The effect can take on a positive or negative form. Benign online disinhibition describes the positive aspects of disinhibition, wherein the Internet opens up the space for people to share intimate and personal parts of themselves, reveal secret emotions, aspiration, or anxieties, and engage in extraordinary acts of kindness (Suler, 2004). On the other hand, toxic online disinhibition describes the more damaging effects that the Internet can have on an individual’s actions. Toxic online communication includes the use of rude or offensive language, the exhibition of hatred, threats, and engagement with the darker elements of the web (e.g. pornography, gambling, violence) in a way that is uncharacteristic of the individual’s offline persona (Suler, 2004). According to Grosskopf et al. (2014), the

Internet might contribute to a willingness to engage sexual fantasies and indulge in risky practices because it offers a “false sense of protection” that decreases inhibition (p. 512).

Suler (2004) identified six factors that contribute to the online disinhibition effect. The first, dissociative anonymity refers to the ability for identity to be hidden or altered in online spaces, and the subsequent lack of responsibility that people might therefore feel for their actions (Suler, 2004). Anonymity frees people from the expectations of their social spheres, allowing for expressions or behaviors that might not be possible offline (Bargh, McKenna, & Fitzsimmons, 2002).

The second factor, invisibility, refers to the ability for individuals to go unseen, or to lurk, in many online spaces. Even when their presence is known, a lack of eye contact and face-to-face perceptibility disinhibits people (Suler, 2004). Lapidot-Lefler and Barak (2012) take the ideas of anonymity and invisibility further by positioning them within the idea of unidentifiability. A crucial aspect of anonymity, unidentifiability refers to the state of being unknown to online others in terms of identifying individual details (Lapidot-Lefler & Barak, 2012). For example, one can still be relatively anonymous if his or her real name is visible, but other personal details remain unidentifiable. For Lapidot-Lefler and Barak (2012), this online unidentifiability is made possible because of a lack of personal information (or anonymity), a lack of visibility, and a lack of eye contact – the latter two of which we can align with Suler’s concept of invisibility. A lack of eye contact has been found to be more impactful on online disinhibition than anonymity (Lapidot-Lefler & Barak, 2012).

Suler’s (2004) third factor contributing to online disinhibition is asynchronicity. When people interact online, replies might take minutes, hours, days, weeks, months, or

even years. Some replies might never come, and even if they do, an individual need not acknowledge them. This causes some people to disclose information or engage in actions online without facing consequences. On MSM-specific mobile applications, users may employ various degrees of synchronicity. Although some occurrences of instantaneous replies might mimic FTF conversations, it is more likely for replies to take longer than they would in a FTF setting. One reason for this asynchronicity is the ability for users to be chatting to multiple men at once, splitting their attention between a number of conversations. By devoting attention to multiple others, each individual conversation receives fewer resources. Furthermore, because of the mobility of social networking applications designed for smartphones, users might leave an application running while at work, in transit, or while out and about in public spaces. Men may receive new messages even when not online. Because mobile social networks hold onto messages and present them upon login, users might not know they have messages, or they might delay the reading of messages until they are in the desired physical space or mental mindset.

Solipsistic introjection, the fourth factor, refers to the feeling of one's mind merging with the mind of the online partner. Because of this perceived merging, individuals assign characteristics to online others and begin to experience them not as people in their own right, but as characters within an intrapsychic world (Suler, 2004). Individuals may assign voices, or even visual components when photographs are absent, to others they encounter in online space.

As characters start to feel more real, conversations are experienced as taking place in the mind, hence the fifth factor, dissociative imagination. Given the safety of one's imagination, people may then feel free to let down their inhibitions. They may feel that

when they log offline, the characters they have “created” and their online persona remain in another galaxy. Cyberspace, to some effect, might then be experienced as a stage wherein people perform identities (Goffman, 1959), or aspects of their identities, that they have disassociated from their offline presentation of self.

The sixth and final factor identified by Suler (2004) is that of minimized status or authority. The absence of pictorial cues for authority figures in predominantly text-based online spaces means that they are not as visible, and thus are less impactful on individuals’ behaviors. It must be noted that MSM-specific mobile applications are not solely text-based spaces; nonetheless, moderators are not visually perceptible and features such as “report” or “block” are not connected to a personage or visible human. The Internet itself has no central authority, which makes it a space where authority is diminished, and where people of any status can have a voice. Not only is there less risk of sanctions from authority figures, but the Internet also lowers the social risks associated with communication (Baym, 2010). Because social expectations do not exist online in areas far from one’s social sphere, the costs or risks of social sanctions are lessened in comparison to face-to-face settings (Bargh et al., 2002). The lowered social sanctions work together with anonymity to create an atmosphere where negative or taboo aspects of the self can be disclosed with reduced risk (Bargh et al., 2002). Nonetheless, online personas must still abide by the normative rules of the social setting they occupy (Bullingham & Vasconcelos, 2013).

All of these factors may contribute to a disinhibited experience on MSM-specific mobile dating apps. Dissociative anonymity is an important feature of these online spaces, as a non-required profile photo allows men to find similar others in a discreet and

somewhat anonymous manner. It also allows them to be invisible, in that men do not have to make eye contact or engage other users face-to-face. Thus, users with no profile photo and no personal details may feel less inhibited than those who divulge their name or occupation, and/or post a photo of their face. The asynchronicity of MSM-specific mobile dating apps may also contribute to a disinhibited atmosphere. Messages can be sent at all times, even when one user is not online. One can also send a message and then promptly block a user, ensuring that no response is ever presented. As with any online space, users may assign voices or other characteristics to characters (solipsistic introjection), and they may hold conversations in their imagination (dissociative imagination). This may decrease their inhibitions, as might the lack of visible authority figures on MSM-specific mobile dating apps. Beyond a “report” button, most apps have no active moderation, which may allow users to engage in the space feeling free of offline limitations on behavior and conversation.

Under the online disinhibition framework, both online and offline behaviors are viewed as parts of the self, as the self does not exist separate from the environments in which it is enacted (Suler, 2004). Similarly, Baym (2010) claims that virtual identities, though they may be partitioned off into separate spaces wherein they can become distinct identities, are all a part of the self. However, the partitioning of aspects of the self might make averting responsibility for one’s actions easier. The online self might assume that one’s behavior can be left in cyberspace and somehow divorced from the offline person (Suler, 2004).

Alternately, some scholars have distinguished between multiples types of selves (e.g. Bargh, et al., 2002). The actual self has been explained as the self that individuals

believe they inhabit and express openly to others in social interactions (Bargh et al., 2002). Like the actual self, the true self is the self that individuals believe they actually inhabit. Unlike the actual self, however, the true self is one that people often do not express, despite often wanting to share this self with others (Bargh et al., 2002). We might perhaps connect the expression of the true self to benign online disinhibition. The Internet's unique features contribute to the positive disinhibition that leads to a disclosure of those self-aspects that one cannot express in FTF, real-world settings.

The idea of a truer or more honest online self might be especially important for MSM. While Gudelunas (2012) views all aspects of online identity as parts of the same self, based upon the particular social network, he found that aspects are either “edited” or “elaborated” upon (p. 361). MSM – and other sexual and gender minorities – might be especially adept at managing multiple aspects of the self. As Gudelunas (2012) noted in his study of gay male users of Facebook and Grindr, sexual minorities are used to managing multiple identities based upon context and setting. Because outness is more a continual process than a one-time disclosure, gay men in his study were used to making frequent decisions about disclosing their queer identities in varying degrees. In a study of Australian gay males' use of cyberspace, Brown, Maycock, & Burns (2005) identified control over the presentation of self as a major theme of participant web usage. They noted that, “the fact that they could disconnect from the Internet at any time provided an experience of control over their privacy and how much of themselves they chose to present, which they did not experience in other spaces” (p. 67). For sexual minorities, the Internet is a safe space that ensures discretion and anonymity if one desires it. However, not all MSM use the Internet in the same manner; self-presentation and the language used

to describe the self and others might be impacted by a number of factors, including psychosocial attitudes.

**Priming theory.** The final theoretical framework used in the current work is priming, which serves to help explain the relationship between the use of MSM-specific mobile dating apps and psychosocial attitudes about the self and others. Priming theory posits that exposure to a stimulus will effect how individuals behave in relation to subsequent stimuli (Roskos-Ewoldsen, Roskos-Ewoldsen, & Dillman Carpentier, 2009). It suggests that media content will alter the standards by which individuals make evaluations, by encouraging audiences to utilize certain specific issues as standards for evaluation (Scheufele & Tewksbury, 2007). Priming judgments is accomplished by increasing the accessibility of constructs related to the issue (Brosius & Bathelt, 1994; Busselle, 2001; Iyengar, 1990; Iyengar & Kinder, 1987; Shrum, 1996), thus impacting what information is used to make judgments and construct opinions (Wyer & Radvansky, 1999; Wyer & Srull, 1989). No previous study has examined how the use of MSM-specific mobile dating apps might prime pro-masculinity or anti-femininity attitudes and beliefs.

In a classic sense, media priming investigates how media content impacts individuals' judgments and behaviors in relation to the content areas processed (Roskos-Ewoldsen et al., 2009). Scholarly research suggests that media can prime stereotypes, and that these stereotypes may in turn impact how people are perceived (Roskos-Ewoldsen et al., 2009). The largest proportion of the extant media priming literature is focused on news media and the characterization of issues in news reports (Scheufele & Tewksbury, 2007), particularly as it relates to issues such as violence, crime, and race (e.g. Dixon,

2006; Mastro, Knight Lapinski, Kopacz, & Behm-Morawitz, 2009). However, a smaller amount of research has examined priming in relation to other media content, including children's television programs (Josephson, 1987), rock music videos (e.g. Hansen & Hansen, 1988), food advertisements (e.g. Harris, Bargh, & Brownell, 2009), and so on. The current study builds on the application of priming theory by examining the priming effect of user-generated media content in MSM-specific space on attitudes about masculinity and the body.

According to Roskos-Ewoldsen et al. (2009), priming effects have two important characteristics. Firstly, a prime's impact on thoughts or behaviors is dependent on both the intensity and the recency of the prime. Intensity relates to the frequency or duration of the prime. Higher intensity primes produce stronger priming effects (Roskos-Ewoldsen et al., 2009). Recency refers to how recently the prime was utilized; more recent primes produce larger priming effects (Roskos-Ewoldsen et al., 2009). Similar to how greater television viewing has been associated with the ease of retrieving commonly occurring media examples (Busselle & Shrum, 2003), on MSM-specific mobile dating apps, a longer duration of usage might then be associated with an increased priming effect, due to the length of time spent with the primed content, in terms of pro-masculinity and anti-effeminacy attitudes.

The second distinguishing characteristic of priming is that the effects of a prime fade with time (Roskos-Ewoldsen et al., 2009). If an individual is exposed to a mediated message for only a short period, its effects should theoretically be strong in the short-term, but wear off as time progresses. For example, if a man joins Grindr, becomes primed by the pro-masculinity messages, but deletes the app the next day, he is unlikely

to exhibit a priming effect a year from then. Nonetheless, one can imagine how a longer-term member of Grindr might have longer-term effects due to the continued and consistent messages they experience on the app, indicative of both high intensity and high recency. We might view depictions of pro-masculine attitudes and aesthetics as exemplars, or instances of a category frequently depicted in media and encountered by an individual in real-life (Fiske & Taylor, 1991).

Priming is connected to categorization, as the presence of primes has been associated with how people subsequently categorize items (Higgins, Bargh, & Lombardi, 1985). Wyer and Srull (1980) proposed a “storage bin” model to explain the mechanics behind priming’s effect on categorization. This model posits that constructs are stored in distinct bins, or layers, based upon the recency of their activation. When a subsequent stimulus is presented, the individual will search the top bin, with the most recently activated constructs, to make judgments and categorizations. Therefore, the most current and available construct will be used for processing, even if multiple constructs may potentially be applicable. In order to remain on the top of the bin, a construct must be recently used; frequently used constructs are, thus, more likely to remain at the top and to be more accessible. In relation to MSM-specific mobile dating apps, if usage were to prime pro-masculinity and muscularity attitudes, it would therefore hold that increased usage would make these primes more available for subsequent judgments related to masculinity and muscularity in the self and others. These exemplars have a direct effect on accessibility, or the ease with which something (exemplars, traits, attitudes, and so forth) can be retrieved in the memory (Higgins & King, 1981; Wyer & Srull, 1989).

Alternately, the synapse model of priming suggests that, while the most recently primed construct will be more likely to be used with a short delay, in the longer-term, the most frequently primed construct has the advantage (Higgins et al., 1985). Based on the literature on MSM's attitudes and behaviors toward masculinity, we might assume that, on MSM-specific mobile dating apps, masculinity and muscularity are frequently primed in a positive and desirable manner, while femininity and a lack of fitness are frequently primed in a negative and undesirable manner. Therefore, men who are heavier users of these apps should be more likely to exhibit primed attitudes that align with the variables being studied. Because the short-term psychological priming effect has been found to fade with time (e.g. Grant & Logan, 1993), often called decay, the current study examines priming as a long-term phenomenon, wherein the most frequently found primes on MSM-specific social networking apps will be the most likely to impact masculinity and body-related variables.

Buselle and Shrum (2003) identified three attributes of exemplars that may impact their accessibility. First, the vividness of media content may make exemplars more accessible for later use in judgments and categorizations. On MSM-specific mobile dating apps, masculinity and body language may not be especially prevalent, however, sites like *Douchebags of Grindr* and the exemplars found therein expose the vividness of these types of language. More vivid exemplars tend to attract more attention (Taylor & Thompson, 1982), as well as cause for an increase evocation of emotion (Zillmann & Brosius, 2000). This causes them to be more accessible in the memory than colorless depictions.

Secondly, Buselle and Shrum (2003) posit that distinctiveness may affect an exemplar's accessibility. Those exemplars that are more distinct, unusual, or extreme, may be more accessible in later judgments. On MSM-specific mobile dating apps, masculinity and body language may be seen as extreme by the average user, given that it appears in a relatively low number of profiles (e.g. Miller, 2015a). Nonetheless, due to its slanted, masculinity-privileging nature, this distinctiveness can only be seen in comparison to those profiles without masculinity and body language rather than profiles with pro-femininity or body type-inclusive messages.

Lastly, realism is said to be a factor in exemplar accessibility (Buselle & Shrum, 2003). More realistic exemplars are more accessible than those that are believed to be fictional or unrealistic. Because the pro-masculinity exemplars on MSM-specific mobile dating apps so closely mirror the pro-masculinity messages of gay culture at large, it can be assumed that these exemplars ring true for MSM viewing them. Furthermore, given the non-fictional media content being studied, perceived realism can be assumed. Regardless of the veracity of a profile user's identity, content on Grindr and similar apps is presumed to have been organically created by an individual and not a media professional.

In the current study, interest is not in recently primed constructs, but in chronically accessible construct. In other words, the current research is interested in constructs that are accessible as a result of their frequent activation, but not necessarily their recent usage (Bargh, Bond, Lombardi, & Tota, 1986; Busselle & Shrum, 2003; Higgins, King, & Mavin, 1982). For this reason, MSM-specific mobile dating app usage is examined in terms of frequency of usage (daily and weekly), and the duration of

membership on MSM-specific mobile dating apps, rather than in relation to app usage within a fixed period of time (e.g. the last 24 hours). The assumption, then, is that those with higher daily, weekly, or duration of usage will be more able to activate chronically accessible constructs, which will in turn impact how they view their own and others' masculinity, femininity, and bodies.

## **Psychosocial Attitudes**

### **Attitudes about masculinity and femininity.**

*Anti-effeminacy.* Overall, gay men report negative attitudes toward other gay men when they are effeminate, or gender nonconforming (Skidmore, Linsenmeier, & Bailey, 2006). Correspondingly, anti-effeminacy attitudes have been associated with negative feelings about being gay for MSM (Sánchez & Vilain, 2012). Bailey (1996) has noted that this anti-effeminacy attitude – which he terms femiphobia – may be at least partially based upon the desire to avoid being stereotyped as an effeminate gay man. It might also be due to the desire of gay men to create distance from the fact that they were once effeminate boys themselves (Bailey, 1996). It might, therefore, be a psychological consequence of defeminization (Taywaditep, 2002). Taywaditep (2002) suggests that, “As a result of discrimination and marginalization during childhood and adolescence, defeminized men’s ongoing preoccupation with ‘fitting in’ may unfortunately come with a price, as they have associated their own and other gay men’s gender nonconformity with discomfort and disapproval” (p. 18).

Other research suggests that gay males’ negative attitudes toward femininity in other men are rooted in their more general anti-effeminacy attitudes about gender roles. In a study of Chinese gay men, Zheng and Zheng (2015) found that hostile sexist

attitudes toward women predicted a preference for facial masculinity in gay men. Those gay men with stronger feelings about traditional gender roles favored more physically masculine partners, indicating a link between attitudes about women and attitudes about feminine men. Clarkson (2006) argues that the perpetuation of hypermasculinity within gay male culture functions to encourage negativity directed toward femininity, feminine men, and women. The connection between negative attitudes about women and negative attitudes about feminine men is perhaps predictable, as for the more masculine gay male, effeminate men are sometimes seen as men who perform as women (Eguchi, 2009).

*Masculinity consciousness.* For some MSM, anti-effeminacy might symbolize a desire to fit in with a culture that values hypermasculinity (Taywaditep, 2002). Seeking to be accepted by others, “these gay men seek to enhance their appeal by aligning themselves with the anti-effeminacy ethos they perceive to be popular” (Taywaditep, 2002, p. 13). Not only do these men police others’ effeminacy, but also they police their own gender behaviors. Anti-effeminacy attitudes might be predicted by masculinity consciousness, a “psychological construct defined as men’s personal tendency to be concerned and preoccupied with masculinity in their public appearance” (Taywaditep, 2002, p. 18). Men high in masculinity consciousness often view themselves as masculine social objects, and as such, they consistently engage in selective self-presentation in order to control and normalize a masculine impression (Taywaditep, 2002).

Indeed, appearing masculine in social settings is important to many self-identified gay men (Sánchez et al., 2010). It is also important to same-sex attracted men who shun the gay label. For example, Ocampo (2012) found that Latino MSM paid particular attention to their presentations of masculinity, including policing how they spoke, how

they dressed, and the social scenes in which they partook. Furthermore, many gay men report that it is important for their romantic partners to appear masculine in public (Sánchez et al., 2010). Like anti-effeminacy attitudes, masculinity consciousness has been found to be a predictor of negative feelings about being gay, or internalized homonegativity (Sánchez et al., 2010; Sánchez & Vilain, 2012; Syzmanski & Carr, 2008). Actual conformity to these masculine norms has also been associated with internalized homophobic attitudes (Hamilton & Mahalik, 2009).

*Self-perceived masculinity/femininity.* Despite the fact that gay men report being more masculine than feminine, many wish to be more masculine than they currently are (Sánchez et al., 2010; Sánchez & Vilain, 2012). In one study, Sánchez and Vilain (2012) found that, on average, self-identified gay men wanted to be more masculine in both looks and behavior than they perceived themselves to be. In a study of gay and bisexual Latino men, those who considered themselves effeminate displayed higher levels of mental distress, particularly due to an increased amount of experiences with homophobia (Sandfort, Melendez, & Diaz, 2007). Gender nonconforming men in this study also reported more childhood sexual abuse, physical abuse, verbal abuse, and rape.

Han et al. (2014) found that black men who identified with the down low lifestyle were not reluctant to identify as gay, but rejected the stereotypical effeminate behaviors associated with gay men. These men made linkages between homophobia in the African American community and a lack of observance of traditional gender roles, and felt that “acting gay” was a choice one made. When examining presentations of gender in Latino gay men, Ocampo (2012) similarly found that Latino men associated the label “gay” with White, effeminate men. He noted that, “Many men were resistant to gay identity because

the gendered, racialised, reductionist connotations of the term fit neither their racial experiences as Latino men, nor their self-perceived masculine gender presentation” (p. 459).

In an examination of the website StraightActing.com, Clarkson (2006) found that femininity was consistently viewed as an act of derision. Even when some masculine traits or behaviors were exhibited, they could not make up for the feminine performance elements. Calls for a more affirmative depiction of homosexuality simply meant expunging the femininity from the gender performance (Clarkson, 2006). When surveyed, 70 percent of gay men felt that masculinity was equated with behavior, while another 24 percent equated masculinity with both behavior and physical appearance (Sánchez & Vilain, 2012). While some gay men recognize that they hold both masculine and feminine components, others restrict themselves to more inflexible conceptions of manhood (Slevin & Linneman, 2010). Gay men who rate themselves as especially masculine have been found to be more likely to hold a bias for masculine partners (Bailey et al., 1997). Accordingly, those men who consider themselves especially feminine have no such bias (Bailey et al., 1997), indicating that one’s own perceived masculinity, or lack thereof, impacts the types of partners one might seek out.

#### **Attitudes about the physical body.**

*Body dissatisfaction.* Research indicates that gay men have higher body dissatisfaction than their heterosexual counterparts (e.g. Beren, Hayden, Wilfley, & Grilo, 1995; Duggan & McCreary, 2004; Lakkis et al., 1999; Levesque & Vichesky, 2006; Russell & Peel, 2002; Silberstein et al., 1989; Strong et al., 2000; Yelland & Tiggemann, 2003). Levels of body dissatisfaction in this population are closer to the levels of body

dissatisfaction found in women (Beren et al., 1995; Levesque & Vichesky, 2006). Male body dissatisfaction can be predicted by childhood gender nonconformity, and a personal perception that one is lacking masculinity has been associated with negative body image for males (Borchert & Heinberg, 1996). Since gay males have been found to be more feminine overall than heterosexual males, it makes sense that gay men would exhibit higher body dissatisfaction levels (Strong et al., 2000). Additionally, for men and women, gay or straight, body dissatisfaction has been linked with higher scores on negative femininity, a construct that “encompasses stereotypic behavior associated with passivity, dependence, unassertiveness, and low self-esteem” (Lakkis et al., 1999, p. 12).

Furthermore, findings indicate that gay men’s self-esteem is significantly related to their body dissatisfaction (Beren et al., 1995; Levesque & Vichesky, 2006). In one study, while gay men were just as close to their body ideal as straight men, gay men were significantly more discontented with their bodies (Beren et al., 1995). This difference may be due to individuals’ engagement with gay culture, as affiliation with the gay community was a significant predictor of body dissatisfaction (Beren et al., 1995). Some gay men experience body anxiety related to the expectation that masculine gay men must fit an idealized muscular body (Kimmel & Mahalik, 2005), yet other research has shown that acceptance within the gay community aids in body satisfaction, even though mere involvement with the community does not (Levesque & Vichesky, 2006). Levesque and Vichesky (2006) suggest that, “feeling accepted may insulate gay men from pressure to look a particular way to ‘fit in’ with the gay community,” and recognize that perceived acceptance might be associated with a lessening of internalized homophobia, a construct that might be embodied as body dissatisfaction (p. 52). Indeed, gay men who express

more comfort with their sexuality have been found to have less body dissatisfaction than those who are less satisfied with being gay (Williamson & Hartley, 1998).

Gay male body dissatisfaction has also been associated with a tendency for social comparison to idealized media images (Levesque & Vichesky, 2006). The more a man engages in comparison with idealized media images, “the less positively he evaluates his own appearance, the more concerned he is about being or becoming overweight and the more muscularity he desires” (Levesque & Vichesky, 2006, p. 52). Duggan and McCreary (2004) hypothesize that gay male body dissatisfaction is the product of viewing larger amounts of pornography and media that accentuates the male body. Gay men also reported higher distress related to childhood weight-specific teasing when compared with straight men, straight women, and lesbians (Beren et al., 1995).

*Drive for muscularity.* In Western culture, society reinforces the idealization of the muscular mesomorph by highlighting the connection between hegemonic masculinity and muscularity (McCreary & Sasse, 2000). This mesomorph body features a combination of physical bulk and low body fat (Mishkind, Rodin, Silberstein, & Striegel-Moore, 1986; Tylka & Andorka, 2012). Thus, men are provided with the idea that they must strive for a defined, muscular, but not too large body that fits this mesomorphic somatotype (Tylka & Andorka, 2012). Due to the mesomorphic somatotype, and its idealization within gay culture, MSM experience both a desire for thinness and a drive for muscularity (Tiggemann, Martins, & Kirkbride, 2007).

A drive for muscularity has been connected with more frequent weight-training sessions, increased dieting, lower self-esteem, and higher rates of depression in males (McCreary & Sasse, 2000). This may be especially problematic for MSM, as studies

comparing gay males with other groups consistently show that gay men exhibit a higher drive for muscularity than heterosexual men or women (Swami & Tovee, 2008; Yelland & Tiggemann, 2003). Not only have gay men reported less satisfaction with their current muscularity, but they have also been found to express more desire for increased muscularity, relative to other groups of people (Levesque & Vichesky, 2006; Yelland & Tiggemann, 2003). While heavier gay men have expressed a desire to reduce their body fat and gain muscle, other gay men are interested in increasing their overall mass by adding muscle (Levesque & Vichesky, 2006). In particular, gay men have been found to have a preference for low waist-to-chest ratios (WCR), indicating a strong emphasis on upper-body muscularity (Swami & Tovee, 2008). WCRs have been found to be the prime basis for attractiveness ratings for both gay and straight men, and upper-body shape has been found to be more important to conceptions of male attractiveness than overall body weight (Swami & Tovee, 2008). According to Mealey (1997), males coordinate their workouts in ways that strive to improve their upper body musculature.

Levesque and Vichesky (2006) note the idealization of the muscular male commonly seen in the media, recognizing it as the “dominant ideal among gay men” and reporting of their sample that “most of the men acknowledged this ideal by selecting a muscular physique as the one that gay men would find most attractive” (p. 51).

Unsurprisingly, given their increased body dissatisfaction and drive for muscularity, gay men have also reported more disordered eating than heterosexual men (Russell & Peel, 2002; Silberstein et al., 1989). Involvement with the gay community has been connected with a greater desire for muscularity, however, acceptance within this community has been associated with a lower drive for muscularity (Levesque & Vichesky, 2006).

*Drive for thinness.* As previously discussed, the dominant idea of the mesomorphic somatotype within gay culture causes MSM to experience not only a desire for muscularity, but also a desire for thinness (Tiggemann et al., 2007). While a drive for muscularity is consistent for both gay and straight men, gay men have been found to have an increased desire to also become thinner, in addition to increasing muscularity, despite already being lighter than straight men, on average (Siever, 1996). The unique combination of a drive for thinness and a drive for muscularity might cause MSM to strive for unquestionably unrealistic body standards.

**Other affective variables.**

*Internalized homonegativity.* Scholars often use the term internalized homonegativity to describe the “internalization by LGBs of cultural stereotypes about same-sex sexuality,” though internalized homophobia is sometimes used to refer to a similar construct. Internalized homonegativity has been found to be highest in males, bisexuals, and those with a lesser degree of outness (Cox et al., 2011, p. 122). It is linked with depression, self-esteem, and psychological distress (Cox, Vanden Berghe, Dewaele, & Vincke, 2008), as well as issues of body dissatisfaction (Kimmel & Mahalik, 2005).

*Self-esteem.* Gay men have been found to have significantly lower self-esteem than heterosexual men (Yelland & Tiggemann, 2003). This is perhaps due to the fact that gay men are more likely to be gender nonconforming (Strong et al., 2010). Being more effeminate or gender nonconforming in both childhood and adulthood has been correlated with lower self-esteem (Harry, 1983). Furthermore, those men who do not defeminize by adulthood have been shown to have lower self-esteem than those who do (Harry, 1983).

*Social connectedness.* Social connectedness refers to feelings of emotional closeness or distance between the self and others (Lee & Robbins, 1995). This concept encompasses both feelings of closeness or distance toward individuals, as well as society as a whole. Research indicates that social connectedness is related to individuals' opinions of self as seen in reference to others (Lee & Robbins, 1995). A lack of social connectedness has also been related to online sexual addiction in MSM populations (Chaney & Blalock, 2006).

Feeling connected to a queer community, specifically, might have important ramifications for feelings of self-worth. For example, Cox et al. (2011) found that in-group ties significantly reduced homonegative feelings in sexual minorities. The authors suggest that, "If an LGB individual's environment is positive about same-sex sexuality, and if an LGB person can develop a healthy affiliation with other LGBs, he/she will perceive sexual identity development as an instructive and positive experience" (p. 131). In a separate study, Cox, Vanden Berghe, Dewaele, and Vincke (2009) found that internalized homonegativity was highest for LGB individuals who felt connected only to larger society, and lowest for those who felt connected only to the queer community.

### **Individual Difference Variables**

**Outness.** Outness is an important variable of study due to the impact that it may have on both the psychological feelings of MSM, as well as their online and offline practices. A lesser degree of outness has been linked with higher levels of internalized homonegativity (Cox, Dewaele, Von Houtte, & Vincke, 2011). On social networks, sexual minority men have reported varying degrees of outness. For example, Gudelunas (2012) found that gay male Facebook users were strategic about their outness on such a

mainstream platform. He unearthed that gay men were more willing to reveal information about themselves on social networks with a sexual focus than on mainstream social networks.

**Race.** Research indicates that the experiences and attitudes of Asian (e.g. Poon & Ho, 2008), Latino (e.g. Ocampo, 2012) and black (e.g. Cochran, Scott, Mays, & Vellos, 2004) MSM differ significantly from those of White MSM. For example, many black men might identify with the down low lifestyle because of a hesitancy to associate with both a racial and sexual minority status and achieve a double discriminated-against identity (Han et al., 2008). In particular, some black men who engage in gay sex have reported not identifying with a gay identity, either because they do not associate with what it means to be “gay” or because they simply prefer to keep their personal sexual lives private (Cochran et al., 2004; Hunter, 2010; Lapinski, Barz, & Maloney, 2010; Martinez & Sullivan, 1998). Latino men have also reported not identifying with a gay identity (Ocampo, 2012). In Latino cultures, it is not uncommon for MSM to create “cultural boundaries of masculinity that are consistent with those of heterosexual men” (p.461), as they often times separate themselves from a gay identity that they associate with White effeminacy (Ocampo, 2012).

Research on gay ethnic minority men has also uncovered a tendency to self-categorize and to use race to intensify “the idea of race/ethnicity as a source of difference and value” (Paul et al., 2010, p. 532). Because Asian men are seen as being less desirable than White men, gay Asian males often attempt to distance themselves from other Asians (Han et al., 2014; Poon & Ho, 2008). In one study, participants consistently resisted the stereotypes surrounding Asian men, as they felt they themselves were both physically and

behaviorally different (Poon & Ho, 2008). However, by categorizing themselves as atypical gay Asian men, as good not bad, as not traditionally feminine, these men “also simultaneously, though unwittingly, (re)produce the ‘Other’, the ‘bad’ gay Asian men whom they blame for maintaining the negative stereotypes about gay Asian men” (p. 256). Correspondingly, Han et al. (2014) see the practice of distancing from other Asian men and affiliating with Caucasians as “characterized by trying to distance from femininity and affiliate with masculinity” (p. 223).

**Age.** As Slevin and Linneman (2010) note, because gay male culture idealizes the young, muscular man, “gay men are considered old much sooner than in nongay culture.” (p. 488). Other research (e.g. Berger, 1996) has confirmed the tendency for younger, fitter men to be considered the ideal sexual partners. Nonetheless, gay men report being more willing to date someone older than heterosexual men, and racial minority gay men tend to specifically prefer older partners (Kaufman & Phua, 2003). As they age, however, gay men have been found to progressively prefer younger partners (Hayes, 1995; Kaufman & Phua, 2003).

Lodge and Umberson (2013) suggest that, “because Western ideals of masculinity rely on notions of independence, control and functionality,” older males might find their aging bodies troubling, “not only because they run counter to a culturally idealized and defined notion of youthfulness, but also to notions of masculinity” (p. 226). Yet, while age may be distressing for men of all sexual identities and orientations, it seems to be more difficult for gay-identified men (Lodge & Umberson, 2013). In one study of older males, both gay and straight men described the worsening of their bodies in terms of their functionality and the negative feelings associated with this deterioration. However, only

gay men mentioned the deterioration of their *physical* appearance, which they also found painful (Lodge & Umberson, 2013).

**Relationship status.** Some men involved with MSM-specific social networking are in relationships, either closed or open, same-sex or opposite-sex. In samples of sexual minority men, a distinct boundary between monogamous and non-monogamous is complicated, as many men have been found to be “monogamish,” engaging in threesomes or group sex alongside their partner, but otherwise maintaining the rules of traditional monogamy (Parsons, Starks, Dubois, Groy, & Golub, 2013). As Parsons et al. (2013) note, “A simple dichotomy of monogamous versus non-monogamous may be insufficient to fully explain relationship differences” (p. 309). We must look at a multitude of possible relationship arrangements, and allow for individuals to define their own relationships, as some MSM believe fidelity to be emotionally-based rather than strictly physical (Bonello & Cross, 2009).

In one study of sexual minority men in New York City, 42 percent of those who were partnered identified as being in an open or a monogamish relationship (Parsons et al., 2013). Monogamish men showed lower rates of depression and higher life satisfaction relative to single men. In fact, being in any type of relationship provided “protective health benefits” for the men in the sample (Parsons et al., 2013, p. 309). In another study, younger men were found to be more likely to be monogamously partnered than older men (Moskowitz & Roloff, 2010).

Other work has similarly identified samples with a large number of non-monogamous or monogamish men. In Lehmilller and Ioerger’s (2014) study of men who use smartphone applications to find other men, only 70 percent of men reported being

single. The other 30 percent of men were coupled, but had sex with outside partners in addition to their primary partner. Hoff and Beougher (2010) discovered that 64 percent of couples in their sample had arrangements that allowed for sex with others besides the primary partner.

### **Research Questions and Hypotheses**

**Study one.** As previously discussed, study one is a content analysis of participants' personal MSM-specific mobile dating app profiles. The following set of research questions and hypotheses has been developed based on self-categorization theory and the online disinhibition effect as theoretical frameworks. These questions and predictions are also guided by the literature on MSM and masculinity, gay male aesthetics, personal advertisements and dating profiles, and selective self-presentation. Masculinity- and femininity-focused language is here conceived of in relation to both behaviors (e.g. mannerisms, voice, *acting* "straight" or "gay") and aesthetics (e.g. muscularity, physical largeness, *looking* "straight-acting"), as well as generalized statements such as being "Masc" or "Fem". However, only explicit depictions of masculinity can be effectively accounted for; more implied notions of hegemonic masculinity – such as an interest in cars or sports – will not be considered masculinity-focused language for the purposes of investigating the research questions and hypothesis. Based upon the literature, and to be answered by the content analytic portion of the current research (study one), the following set of research questions and hypotheses are proposed:

RQ1a: How many men will include language about masculinity or femininity in the text of their MSM-specific mobile dating app profile?

RQ1b: Will there be differences by demographics in the use of masculinity or femininity language in the text of their MSM-specific mobile dating app profile?

RQ2a: How many men will include body-focused language in the text of their MSM-specific mobile dating app profile?

RQ2b: Will there be differences by demographics in the use of body-focused language in the text of their MSM-specific mobile dating app profile?

RQ3: Will masculinity/femininity language be correlated with body language in the text of MSM-specific mobile dating app profiles?

In addition to inserting the text of their profile into the online survey, participants were asked to answer questions about their online self-presentation as it relates to MSM-specific social networks. Shirtless photos were a particular area of concern, as their focus on the body supports the literature on muscular male bodies, the importance of aesthetics in MSM communities and photographs in MSM online space, and the connection between visual and linguistic components of the online profile. Facial visibility in photographs is another specific area of focus; facial recognition lends to a lessening of anonymity, and as the literature indicates, anonymity is connected to online disinhibition and the use of toxicity in cyberspace. Therefore, based upon the literature and integrating photographic elements of user profiles, I propose the following hypotheses and research questions, also a part of study one:

RQ4a: How many men will report including face-disclosing and/or shirtless photos in their MSM-specific mobile dating app profile?

RQ4b: Will there be differences by demographics in the use of face-disclosing or shirtless photos in MSM-specific mobile dating app profiles?

H1: Participants with face-disclosing photos be less likely than participants without face-disclosing photos to include a) masculinity/femininity language or b) body language in the text of their profiles.

H2: The use of shirtless photos in MSM-specific mobile dating app profiles will be correlated with a) masculinity/femininity language and b) body language.

**Study two.** The main goal of the second study was to examine the participants' MSM-specific mobile dating app profiles in conjunction with patterns of usage, visual self-representation, and attitudinal variables. The research strived to examine the relationship between participants' psychosocial attitudes and their use of MSM-specific mobile dating apps, as well as the relationship between these attitudes and their visual self-presentation. Attitudes have been grouped as follows: attitudes regarding masculinity and femininity, attitudes regarding the physical body, feelings of internalized homonegativity, and feelings related to self-esteem and social connectedness. Therefore, I proposed the following research questions:

RQ5: Will participants' MSM-specific mobile dating app usage be related to the type of photos (face-disclosing vs. face-obscuring, shirtless vs. fully clothed) they attach to their MSM-specific mobile dating app profile?

RQ6: Will participants' MSM-specific mobile dating app usage be related to their attitudes about their own and others' masculinity?

RQ7: Will participants' MSM-specific mobile dating app usage be related to their attitudes about their body?

RQ8: Will participants' MSM-specific mobile dating app usage be related to their level of internalized homonegativity?

RQ9: Will participants' MSM-specific mobile dating app usage be related to their feelings of self-esteem and social connectedness?

A number of demographic variables have been found to be relevant to communication in online spaces for MSM. For instance, research has examined how race is linked to language use in online spaces for gay, bisexual, and other sexual minority men (e.g. Callender et al., 2012). Thus, one might assume that demographic factors may also impact how users of MSM-specific mobile dating apps see themselves and others. While I have posed the following as a research question, rather than a hypothesis, based

on the previous literature, it is possible that there are stronger negative attitudes toward masculinity/femininity, the body, and the self for users who are non-dominant in MSM-specific online space. This includes those who are not White, those who are older, those who are not out, and those with lesser levels of education. RQ10 explores all of these factors, as well as geographic location and relationship status.

RQ10: Will demographic variables moderate the relationship between participants' MSM-specific mobile dating app usage and a) their masculinity/femininity attitudes, b) their body attitudes, c) their level of internalized homonegativity, or d) their feelings of self-esteem and social connectedness?

The next research question relates to the type of photos men use in their profiles, examined in study one, and their relationship to attitudes about masculinity/femininity and the body. It is expected that men with shirtless photos may have stronger attitudes surrounding the body (e.g. drive for muscularity), as well as around masculinity (e.g. masculinity consciousness). In terms of face-disclosure in photographs, it is possible that those who are less comfortable with their own or others' masculinity may be less likely to show their face.

RQ11: Will the type of photos (face-disclosing vs. face-obscuring, shirtless vs. fully clothed) attached to participants' MSM-specific mobile dating app profile be related to a) their attitudes about their own and others' masculinity and/or b) their attitudes about their physical body?

Finally, the last research question seeks to connect participants' attitudes about masculinity/femininity and the body. This is a crucial link, as a significant result would justify the current work's focus on masculinity/femininity on both a behavioral as well as an aesthetic level.

RQ12: Will participants' attitudes about their own and others' masculinity be related to their attitudes about their physical body?

## Chapter 3: Method

### Recruitment

The current study utilized a purposive sampling method, with attempts to garner as random a sample as possible. Because men with current MSM-specific mobile dating app profiles were the only appropriate targets for the study, efforts were made to find the broadest range of men using these social networks. By the very nature of these adult networks, men were required to be 18 years of age, and were assumed to have sex with other men, though this may not always have been the case. Because constructions of masculinity differ across cultures, participants were required to live in a location that aligns with Western culture norms and had to be proficient in the English language in order to complete the survey.

Recruitment occurred in a variety of places. Firstly, a series of Facebook advertisements were developed and purchased, and the study was advertised on Facebook for a period of one week. During the second week of June 2015, a set of advertisements directed individuals to the study based on the following criteria: that they were male-identified, between 18 and 65+, from Canada or the United States, and romantically interested in either men or men and women. In total, a variation of the study advertisement was shown 531,238 times. In other words, this is the number of impressions the ad made, regardless of whether or not action was taken by the user.

Secondly, the study was advertised in approximately 30 Facebook groups for gay, bisexual, queer, or questioning men. This includes groups like *Hairy Cowboys* (approximately 21,000 members), *The Gay Geek* (approximately 17,000 members), and

*(Ginger) Bears and their Admirers* (approximately 14,000 members). Administrator approval was always sought before postings appeared, and some groups allowed the study advertisement to be posted multiple times.

Thirdly, the study information was e-mailed and/or tweeted to Internet celebrities and bloggers, LGBTQ journalists, LGBTQ resource centers, LGBTQ non-profits, and LGBTQ publications, as well as parody Twitter accounts such as “Drunk Grindr” The majority of LGBTQ resource centers and organizations declined to aid in recruitment, however, these efforts were successful on the individual level. Twitter users were very helpful in spreading word of the study, including some retweeters with tens of thousands of followers. Anecdotally, much of the sample seemed to come from retweets, favorites, and word-of-mouth on Twitter.

Fourthly, the link to the study was promoted in academic circles, particularly on the CRTNET listserv and in the *Queer Ph.D. Network* Facebook group.

Fifthly, the proposed study was posted on a few online forums geared toward gay, bisexual, queer, or questioning men. For example, a link to this study was promoted on *StraightActing.com*, *RealJock.com*, and *GayForum.org*. Administrator approval was once again sought before posting, and this method of recruitment had limited fruitfulness.

Participants were offered a chance to win a selection of gift cards as an incentive to participate in the study. Four \$50 Amazon gift cards were advertised in relation to the study, with participants having the option to enter or not enter the draw at the end of the study. Upon the study’s completion, winners were randomly selected and gift cards were distributed electronically by e-mail.

In total, 455 participants began the study. This does not include individuals who clicked on the link but never made it past the permission form. From the original 455 started surveys, 52 were deleted for one of the following reasons: 1) the participant failed a test question, which required them to list MSM-specific dating apps they used, by listing only non-MSM-focused networks, 2) the participant entered the profile text for a non-MSM-focused app or social network (e.g. Love It Or List It Too forums, Tinder, Google Plus), or 3) the participant repeated the study, according to the IP address used. These deletions left 403 remaining participants who began the survey, and who were not deleted. Of these 403, 241 men completed the survey from start to finish ( $n = 284$  prior to the deletion of unfit responses). This indicates a 62.42% completion rate before deleted responses, and a 59.80% completion rate when only accounting for the retained surveys.

### **Sample**

For the purposes of study one, surveys from 322 men were retained for analysis, as all of these men fully completed the content analytic portion of the survey. For study two, the sample was smaller depending on the research question of hypothesis. Despite not all men completing the full survey, many participants' data were able to contribute to the investigation of at least some research questions and hypotheses in study two. Participants were treated as missing data for the proportion of the survey that they did not complete. The following data refers to the overall final sample of 322.

Nearly all participants in the sample identified as male ( $n = 318$ ; 98.8%), with one participant identifying as female-to-male transgender (0.3%) and three as "other identification" (0.9%). An overwhelming majority of men described themselves as homosexual/gay ( $n = 295$ ; 91.6%). Other sexual orientation descriptions in the sample

included bisexual ( $n = 14$ ; 4.3%), pansexual/polysexual ( $n = 7$ ; 2.2%), questioning/curious ( $n = 1$ ; 0.3%), asexual ( $n = 1$ ; 0.3%), and “other identification” ( $n = 4$ ; 1.2%). The average age of the men in the sample was 30.6, with the range spanning from 18 to 71. Data on age was missing for one participant.

Three quarters of the sample identified their race/ethnicity as Caucasian or white ( $n = 242$ ; 75.2%). The most dominant minority racial/ethnic self-identifications were mixed race ( $n = 27$ ; 8.4%), Hispanic/Latino ( $n = 22$ ; 6.8%), Asian ( $n = 14$ ; 4.3%), and Black/African American ( $n = 9$ ; 2.8%). Smaller amounts of men self-identified as South Asian ( $n = 2$ , 0.6%), Pacific Islander ( $n = 1$ ; 0.3%), Middle Eastern ( $n = 1$ ; 0.3%), and “other” ( $n = 4$ ; 1.2%).

Most men in the sample reported being single ( $n = 228$ ; 70.8%). A number of men also reported being in monogamous relationships in which they lived with ( $n = 24$ ; 7.5%) or apart from ( $n = 29$ ; 9.0%) their partner. A slightly smaller number of men reported being in non-monogamous relationships of the live-in ( $n = 22$ ; 6.8%) and live-apart ( $n = 13$ ; 4.0%) variety. Three participants described being in a polyamorous relationship (0.9%) and three participants described their relationship status as “other” (0.9%).

Overall, the sample was highly educated, with the majority of men holding college degrees. Ninety-one men (28.2%) reported having a graduate degree (masters, doctorate, or professional), and another 85 men (26.4%) reported having a four-year college degree. Many men also reported having either a two-year college degree ( $n = 22$ ; 6.8%) or completing some college ( $n = 91$ ; 28.3%). Finally, 31 men (9.6%) reported completing high school or a GED, and 2 (0.6%) men reported not finishing high school.

The sample was diverse in terms of geographic orientation. The largest amount of participants came from the Southern United States ( $n = 70$ ; 21.7%), followed by the Western United States ( $n = 58$ ; 18.0%), the Midwestern United States ( $n = 53$ ; 16.5%), and the Northeastern United States ( $n = 48$ ; 14.9%). Forty men reported being from Canada (12.4%) and 42 reported being from Europe or Australia (13%). Eleven men (3.4%) reported being from another continent aside from North America, Europe, or Australia. The majority of these 11 men reported being from countries such as South Africa and Israel – where LGBT people are legally recognized, gay culture exists, and English is widely spoken – or being transplants in less Westernized locations such as Japan. Therefore, these 11 men were retained in the sample with the belief that their conceptions of gay culture and masculinity/femininity would not inherently differ from the remainder of the sample.

### **Procedure**

Participants were asked to complete an anonymous online survey. The survey began with simple demographic questions, as well as questions about their own MSM-specific mobile dating app usage and habits. Participants were also asked to answer questions related to one of their own profiles, which included a request that they copy their profile text word-for-word into the survey. Because these blurbs are typically relatively short, this specific request was not anticipated to be a laborious effort on the part of the participant. Participants were also given the option to choose the profile for the social network on which they spend the most time/are most invested. Other questions in this section of the survey asked about topics such as the nature of the profile photo the participant uses (e.g. face-obscuring or face-disclosing, shirtless or not shirtless) and the

types of optional information he enters (e.g. age, weight, height, “tribes” he belongs to, purposes for being there, GPS data, etc.).

Once participants were finished answering questions about their personal profile content, they undertook questions related to a number of scales in order to assess their attitudes and behaviors toward masculinity/femininity, their attitudes and behaviors about their bodies, and their feelings of self-esteem, social connectedness, and internalized homonegativity.

When data collection was complete, undergraduate coders were trained to code the uploaded profile text in search of language centered on masculinity/femininity and the body. See Appendix L to view the codebook. The coded language was either self- or other-directed, depending on whether it is used as a means of self-description or to present partner preferences. In study one, these content analytic variables were explored in conjunction with self-reported photographic self-presentation variables (e.g. face-obscuring photos versus face-disclosing photos, shirtless versus non-shirtless photos) and socio-demographic variables, including more typical demographic categories as well as MSM-oriented variables such as degree of outness.

In study two, participants’ MSM-specific mobile dating app usage was examined in relation to the types of photos they include in their profile, their level of internalized homonegativity, their attitudes about their own and others’ masculinity, their attitudes about their body, and their feelings of self-esteem and social connectedness. Study 2 also examined the connection between all of these attitudes and feelings and the visual presentation of the face and body in participant profiles.

### **Content Analytic Measures**

### **Profile content.**

*Self-descriptions.* Participants entered the text contained within the free-text portions of their profile, and coders examined this text for the communication language of interest. Coders recorded mentions of participants' own masculinity/femininity, and particular attention was paid to the type of language used to self-describe. For example, does a participant simply mention his own masculinity, or does he mention it in a homophobic and stigmatizing manner by claiming to be “not feminine”? If a man were to state that he is “Not feminine”, then, his language would have been coded as an instance of femininity language. If a man had stated that he is “Masculine and sane”, this would have been coded as masculinity language, because of its explicit mention of masculinity as a positive entity, despite the implicit indication that this man feels he is lacking in femininity.

Though complementary, masculinity language and femininity language were measured separately (see Appendix L for full codebook). Each variable had three levels: the user refers to himself as masculine (or feminine), the user refers to himself as NOT masculine (or feminine), or the user does not mention masculinity in relation to the self (or femininity, for the femininity variable). While masculinity self-description was a reliable variable ( $\alpha = .809$ ), the coders were unable to achieve reliability for femininity self-description ( $\alpha = .329$ ). This lack of reliability is most likely due to the extreme lack of variability in the sample; the majority of profiles measured by coders had no self-directed femininity language and the coders were unable to agree on the two instances that differed from the norm.

As research indicates, gay masculinity is constructed as being about both looks and behaviors (e.g. Clarkson, 2006; Halkitis et al., 2004; Halkitis et al., 2008; Levine, 1998; Sánchez & Vilain, 2012), including in personal advertisements (Bailey, Kim, Hills, & Linsenmeier, 1997). As such, coders were instructed not only to look for instances of general gender classification toward the self and self-behaviors (e.g. “Masc guy here,” “Not fem,” “Not into girly shit”), but also for gender-linked appearance markers that revolve around the muscular male body (e.g. “Muscular and beefy guy,” “I am fit and toned,” “Not a muscle bear.”). Therefore, two variables were devised to examine body language self-descriptions. The first, a measure of muscularity self-description, examined whether a man mentioned his own muscularity, whether he mentioned his absence of muscularity, or whether muscularity went unmentioned in relation to the self. A second variable replicated these categorizations in relation to self-descriptions of non-muscular bodies. For simplicity, this was labeled “Fat Self-Description”, however, it was applied to measure any body type one would not consider muscular and/or fit. Both the muscularity self-description ( $\alpha = .72$ ) and the fat self-description ( $\alpha = 1.0$ ) had acceptable reliability.

It should be noted that coders did not record instances where stereotypically “male” or masculine and “female” or feminine interests – such as sports for the former and musical theatre for the latter – were mentioned. Because this language is used to reference hobbies and pastimes rather than the self or the ideal partner specifically, it may be far more ambiguous for the purposes of the current study. It may also be the case that hobbies and interests are rated as “masculine” or “feminine” on a different scale for MSM than in mainstream culture. Therefore, it is impossible to definitively classify stereotype-linked interests in the way that we are able to classify specific masculinity-

laden or femininity-laden language. For example, language that is abstractly about behavior but uses gender-infused language – such as being “a man’s man” or liking “queeny” things, would be classified as masculinity/femininity language due to the overt use of masculine and feminine terminology. On the other hand, language that simply discusses stereotypically male (e.g. cars, sports, beer) and female (e.g. dancing, fashion) interests would not be included in the current content analysis.

***Partner Preferences.*** Mentions of explicit partner preferences were also assessed in terms of the type of language used in relation to others’ masculinity/femininity, which includes allusions to masculine or not masculine bodies. Once again, particular attention will be paid to negative ideal partner descriptions and toxic profile communication. For example, a profile that includes a sentence on how “fems” should not message the user was coded as anti-femininity language, whereas a profile asking for only masculine men was coded as pro-masculinity, though it is no less femmophobic in theory. Similarly, coders were asked to look for instances of masculinity/femininity-focused language in terms of classifying ideal partners identities and behaviors (e.g. “Masc guys only,” “Not into feminine men,” “No queens,” “Must act like a dude,” “Don’t act gay.”) and in terms of gender-linked appearance-related descriptions (e.g. “Looking for muscular men,” “No twink,” “I love guys with abs.”).

Partner preference variables were similar to self-description variables in that each contained coded categories – the desire for partners of a certain type (e.g. being desiring of masculine partners), the aversion to partners of a certain type (e.g. explicitly desiring men who are not masculine), or the absence of a partner preference based on the variable of interest. One variable measured masculinity partner preferences ( $\alpha = .80$ ), one

measured femininity partner preferences ( $\alpha = .66$ ), one measured muscularity partner preferences ( $\alpha = .88$ ), and one measured a fat body preference ( $\alpha = .56$ ). Coders were only able to achieve reliability on the masculinity and muscularity coding categories, once again likely due to the low level of profiles that included text about femininity or non-muscular bodies.

*Any masculinity/femininity language.* Coders were instructed to determine whether any instance of self and/or other-directed masculinity/femininity language was contained within the profile by examining all of the masculinity/femininity variables. The categories of self-directed masculinity/femininity language and partner-focused masculinity/femininity language were then combined to create a category that noted whether there was *any* masculinity/femininity language in the overall profile, directed at any target. Language that did not relate to the self or potential partners (e.g. discussing masculinity as a construct) was not included in this overall tally. The presence of masculinity/femininity language directed at any target (referred to from this point on as “Any masculinity/femininity language”) was a reliable variable ( $\alpha = .92$ ).

*Any body language.* Coders were instructed to determine whether any instance of self and/or other-directed body language was contained within the profile by examining all of the body language variables. The categories of self-directed body language and partner-focused body language were then combined to create a category that noted whether there was *any* masculinity/femininity language in the overall profile, directed at any target. Language that did not relate to the self or potential partners was not included in this overall tally. The presence of body language directed at any target (referred to from this point on as “Any body language”) was a reliable variable ( $\alpha = .84$ ).

## Survey Measures

### **Profile content.**

*Photographic content.* Participants were asked to report on a number of variables related to the profile's visual components. First, participants were asked whether their profile photo depicted themselves (it is not uncommon to find photos of nature, cartoons, memes, or even blackness on MSM-specific mobile applications). Next, participants reported whether the main photograph in the profile showed their full or partial face (face-disclosing photos), or whether the participants' face was left hidden (face-obscuring photos). To determine the presence of shirtless profile photos, participants were also asked to report whether their main profile photo showed their full or partial unclothed torso. Men were then asked about whether *any* of their public profile photos showed their full or partial face, or their full or partial unclothed torso. This is necessary, as some applications allow for more than one visible photo on a profile; however, even on these particular networks, the main profile photo remains the dominant photo that others see when searching users in a grid. In analysis, the variables of face photos and shirtless photos represent the presence of any publically accessible face-disclosing or shirtless photos in the profile.

### **MSM-specific social networking usage.**

*Daily frequency of usage.* MSM-specific social networking usage was measured in a number of ways. Firstly, application usage was measured through the hourly frequency of use on a daily basis. Participants were asked, on average, for how long they use these types of application on weekdays and on weekends. To measure these items, participants were asked to enter a number relating to the number of hours spent on the

application. The reported weekday time ( $M = 2.01$  hours;  $SD = 2.45$ ) was multiplied by five and added to the reported weekend time ( $M = 2.86$  hours;  $SD = 3.08$ ), which had been multiplied by two. This summed number accounted for a seven-day week, and was then divided by seven to determine an average daily usage measure. The average daily frequency usage was 2.25 hours ( $SD = 2.41$ ).

***Weekly frequency of usage.*** Participants were also asked about their usage of the application in terms of how many days per week, on average, they log on. This was labeled their weekly frequency of usage. Participants were able to enter any number between 0 and 7. Participants who entered a number outside of 0 to 7 (six participants entered 8) were treated as missing data. The mean was 5.46 days per week, with a standard deviation of 1.88.

***Duration of usage.*** Lastly, the study asked participants about the duration of their membership as a means of determining a cumulative usage measure. Participants were probed about how long they had been a member of *any* dating/sex application specifically designed for MSM. Participants were asked to enter a number in years and/or months, and this number was converted to indicate the number of months of membership. For example, an entry of “one year, three months” was recoded as “15 months” in the final data set. Participants were instructed to answer the question based on when they first joined Grindr or a similar mobile application, regardless of whether or not they maintained continual membership. The mean duration of membership was 54.71 months ( $SD = 45.24$ ).

**Attitudes about gender and sexuality.**

***Anti-effeminacy.*** To measure participants' level of anti-effeminacy, or the degree to which sexual minority men feel negatively toward effeminacy in other sexual minority men, the Negative Attitudes Toward Effeminacy Scale (Taywaditep, 2001) was used. This scale has been found to be highly valid and reliable in previous research. While the original scale used a 7-point range, participants in this study will be asked to agree or disagree with 17 items on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). For example, statements include, "I don't want to be associated with the stereotypical image of effeminate gays" and "I am comfortable hanging out with gay guys who are feminine by most people's standards." Items 3, 6, 8, 10, and 11 were reverse-coded. In the present study, the majority of men completed anti-effeminacy scale questions ( $n = 272$ ) and the scale had high reliability ( $\alpha = .95$ ). The mean anti-effeminacy score was 2.34 ( $SD = .82$ ), with scores ranging from 1.0 to 4.94. A higher score indicates a higher level of anti-effeminacy values. Please see Appendix A for the full scale.

***Masculinity consciousness.*** The Masculine Consciousness Scale (Taywaditep, 2001) was utilized to assess the extent to which participants are concerned with how masculine they appear to be to others in public settings. On a scale ranging from 1 (not at all true for me) to 10 (definitely true for me), participants were asked to agree or disagree with 18 statements. For example, statements include, "I often wonder whether people think I am masculine," "When I see myself in a photograph, I sometimes try to size up how masculine I appear," and "I would feel unsettled if somebody I know said that I was not very masculine." This scale has been found to be reliable and valid in the past. In the present study, 266 men completed the scale items and it was found to be similarly reliable ( $\alpha = .95$ ). Scores ranged from 1.0 to 9.94, with a mean score of 3.82 ( $SD = 2.12$ ). A

higher score indicated a higher level of masculinity consciousness. Please see Appendix B for the full scale.

***Self-perceived masculinity and femininity.*** Participants' self-perceptions of their own masculinity and femininity was measured using the Social Identity Scale (SIS) (Stern, Barak, & Gould, 1987). On a scale ranging from 1 (very masculine) to 5 (very feminine), participants rated their perceived masculinity/femininity based upon 16 statements. For example, participants were prompted with statements such as, "I FEEL as though I am...", "I LOOK as though I am...", "How I DRESS is...", and "My INTERESTS are mostly those of a person who is...", and asked to complete each statement using the scale. The majority of men completed the SIS questions ( $n = 267$ ) and it was found to be reliable ( $\alpha = .89$ ). Scores ranged from 1.0 to 3.94, with a mean score of 2.67 ( $SD = .45$ ). A higher score indicated a more feminine self-identity, while a lower score indicated a more masculine self-identity. Please see Appendix C for the full scale.

***Internalized homonegativity.*** Internalized homonegativity was measured using Mayfield's (2001) Internalized Homonegativity Inventory (IHNI). Twenty-three items assessed participants' level of internalized homonegative feelings, and participants were asked to answer on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). The IHNI includes 3 subscales: *Personal homonegativity*, which includes 11 items and aims to measure negative emotions (e.g. shame) and attitudes (e.g. wanting to control same-sex attraction) towards one's own homosexuality; *Gay affirmation*, which consists of 7 items measuring positive feelings about one's own homosexuality, how important it is, and how fulfilling it is; and *Morality of homosexuality*, a five-item sub-scale measuring negativity

related to the moral implications of same-sex behavior and attraction. The second subscale was reverse-coded due to its positive nature. Sample statements include, “I believe that it is unfair that I am attracted to men instead of women,” “In general, I believe that homosexuality is as fulfilling as heterosexuality,” and “I believe that it is morally wrong for men to have sex with other men.” The IHNI has proven to be a highly reliable scale in past research. In the present study, 241 men completed all the items for the IHNI and it was found to be reliable as a measure ( $\alpha = .91$ ). Scores ranged from 1.0 to 3.57, and the mean score was 1.72 ( $SD = .55$ ). A higher overall score indicated higher levels of internalized homonegativity. Please see Appendix D for the full scale.

#### **Attitudes about the physical body.**

***Body dissatisfaction.*** The Male Body Dissatisfaction Scale (MBDS) (Ochner, Gray, & Brickner, 2009) measured participants’ body image. Participants were asked to agree or disagree with 25 statements about their body, rating their agreement on a scale ranging from 1 (strongly agree) to 5 (strongly disagree). Although the original scale used 1 (always) to 5 (never) for five items, the agree-disagree pattern also fit these items, and so the answer choices were changed in order to remain cohesiveness. For example, statements include, “Other people think I have a good body,” “I am a good weight for my height,” and “I think I have a generally attractive body.” Participants were also asked to rate how important the item is to them on a scale of 1 to 10. This number was divided by 10, and the importance rating was multiplied by the item response (1 to 5) to establish an overall score for each item. Items 4–7, 9,10,12,13,16,17, 22, 24, and 25 were reverse-scored, and a mean score was created for each participant. The MBDS has proven to be a highly reliable scale. In the present study, 239 men completed this scale and reliability

was high ( $\alpha = .96$ ). Scores ranged from .18 to 4.76 ( $M = 2.27$ ,  $SD = .98$ ), with a higher score representing a higher level of body dissatisfaction. Please see Appendix E for the full scale.

***Drive for muscularity.*** The Drive for Muscularity Scale (DMS) (McCreary & Sasse, 2000) was employed to measure participants' drive for muscularity. The scale contains 15 items, including statements such as, "I wish that I were more muscular", "I use protein or energy supplements," and "I think my legs are not big enough." Participants were asked to answer using a 5-point scale ranging from 1 (never) to 5 (always), adapted from the original 6-point scale. This scale has been found to be valid and reliable in past research. In the present study, 267 men completed the full scale and it was found to be reliable ( $\alpha = .87$ ). Scores ranged from 1.0 to 4.8, with a mean score of 2.31 ( $SD = .69$ ). A higher overall score indicated a higher drive for muscularity. A full copy of the scale can be found in Appendix F.

***Drive for thinness.*** The Drive for Thinness subscale of the Eating Disorder Inventory (Garner, Olmstead, & Polivy, 1983) was used to measure participants' disordered attitudes towards eating and dieting in the quest for thinness. This 7-item subscale reflects a fear of weight gain, as well as a strong wish for weight loss. Participants were asked to rate statements on a scale ranging from 1 (always) to 5 (never), adapted from the original 6-point scale. Examples of items include, "I feel extremely guilty after overeating," "I am terrified of gaining weight," and "If I gain a pound, I worry that I will keep gaining." This scale has been found to be reliable in past research. In the present study, 241 men completed the scale items and it was highly reliable ( $\alpha = .91$ ). Scores ranged from 1.0 to 5.0, with a mean score of 2.92 ( $SD = 1.06$ ). A higher

summed score indicated a more disordered attitude towards weight and a stronger drive for thinness. Please see Appendix G for the full Drive for Thinness subscale.

**Feelings of self-esteem and connectedness.**

*Self-esteem.* The Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) was used to measure participants' feelings of self worth. Participants were asked to rate how much they agree or disagree with 10 items on a scale ranging from 1 (strongly agree) to 5 (strongly disagree), adapted from the original four-point scale. Items included statements such as, "On the whole, I am satisfied with myself" and "I feel that I have a number of good qualities." Items 1,2,4,6, and 7 were reverse-scored. Cronbach's alpha for various samples has typically been in the range of .77 to .88 for this scale (Blascovich, & Tomaka, 1993). In the present study, 272 men completed the scale items and it was found to be a highly reliable measure ( $\alpha = .91$ ). Scores ranged from 1.0 to 5.0, with a mean score of 3.73 ( $SD = .76$ ). Higher scores indicated a higher level of self-esteem. A full copy of the scale can be found in Appendix H.

*Collective self-esteem.* Collective self-esteem was measured using an adapted version of Luhtanen and Crocker's (1992) Collective Self-Esteem Scale (CSE), the Collective Self-Esteem: Male Version (Herek & Glunt, 1995). Participants were asked to rate how they feel about their membership and social identity as a gay/bisexual group member, and to agree or disagree with statements such as "I am glad I belong to the gay/bisexual community" and "I feel I don't have much to offer the gay/bisexual community." Items were scaled using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), adapted from the original 7-point scale. Items 2, 7, 8, and 9 were reverse-scored. This scale has been found to be reliable and valid in past research.

In the present study, 272 men completed the full scale and it was found to be reliable ( $\alpha = .86$ ). Scores ranged from 1.56 to 5.0, with a mean score of 3.66 ( $SD = .74$ ). A higher overall score indicated higher collective self-esteem. The full scale can be found in Appendix I.

***Social connectedness.*** The Social Connectedness Scale (SCS) (Lee & Robbins, 1995) was used to measure participants' feelings of social connectedness. This scale measured participants' sense of belonging across eight items, such as "I feel disconnected from the world around me," and "I feel so distant from people." Responses were measured on a Likert-scale ranging from 1 (strongly agree) to 5 (strongly disagree), adapted from the original six-point scale, with a higher total score indicating stronger feelings of social connectedness. Scores ranged from 1.0 to 5.0, with a mean score of 3.52 ( $SD = 1.04$ ). This scale has been found to be highly reliable and valid in past research. In the present study, 267 men completed all scale items and the scale was found to be similarly reliable ( $\alpha = .95$ ). Please see Appendix J for the full scale.

### **Data Analysis**

A number of statistical tests were employed to assess the two hypotheses and 12 research questions. Further details on the specific variables and tests can be found in the chart in Appendix K.

## Chapter 4: Results

This chapter will cover results for each research question and hypothesis in both study one and study two of the present research. As previously discussed in chapter three, there were 322 men in the final sample. All 322 men provided their profile text, which allowed for them to be included in the content analysis of textual profile elements, and the analysis of self-reported visual profile elements. However, fewer men completed the survey in its entirety. When men did not complete an item, they were treated as missing data.

A number of tests were used to run analyses, including Chi-square, bivariate correlations, independent samples t-tests, MANOVAs, and a variety of regressions. Appendix K contains a full list of the tests used for each research question or hypothesis, as well as the variables entered for each. In reference to the Chi-square tests, ASR represents the adjusted standardized residuals. When the ASR is above 1.9, this indicates that the number of cases in the particular cell is larger than what would be expected if the null hypothesis were to be valid. When the ASR is -1.9 or below, this indicates that that number of cases in the cell is significantly smaller than what would be expected with a true null hypothesis. Only cells that meet this ASR barometer are considered to be evidence that something is occurring beyond the level of chance.

### Study One

**Research question 1a: How many men will include language about masculinity or femininity in the text of their MSM-specific mobile dating app profile?** Frequencies were used to answer research question 1a. Overall, 15 men (4.7%)

had profiles that contained any instance of self- or other-directed masculinity/femininity language. There were 10 (3.1%) instances of self-directed masculinity/femininity language, and 8 (2.5%) instances of other-directed masculinity/femininity language, which indicates that three men had both self- and other-directed masculinity/femininity language in their profiles.

As previously noted, reliability for self-descriptions of femininity and partner preferences related to femininity was not adequate. This is likely due to the extremely low amount of femininity language in the profile text provided by men in the sample. Masculinity language, however, produced reliable variables from which data can be analyzed. Six men in the sample (1.9%) explicitly referred to their own masculinity, while another two men (.6%) explicitly mentioned not being masculine. Though the discrepancy is small, it is suggested that men more commonly provided masculine descriptions of self than descriptions about lacking masculinity.

In terms of partner preferences, men were also shown to privilege masculinity. All eight (2.5%) masculinity/femininity partner preferences found in the sample were instances of a man stating that he wanted a masculine partner. No man in the sample provided profile content that stated an explicit preference for men who were not masculine. This is consistent with previous research on partner preferences in MSM-specific dating app preferences (e.g. Miller, 2015a).

**Research question 1b: Will there be differences by demographics in the use of masculinity or femininity language in the text of their MSM-specific mobile dating app profile?** Differences in the use of masculinity/femininity language (self- or other-directed) in profile text was examined in relation to participants' age, race,

relationship status, education level, geographical location, and level of outness. Though outness is not typically considered a demographic variable, it has been grouped accordingly in the current study due to its importance in the population of interest. Differences by gender and sexual orientation were not examined due to a lack of variation on these demographic variables. Furthermore, some demographic variables were collapsed in order to create more measurable categories. Overall, no differences were found for any of the demographic variables.

**Age.** A simple linear regression was used to test differences in masculinity/femininity language by age. The results were not significant,  $F(1, 320) = .744$ ,  $b = -.001$ ,  $t = -.863$ ,  $p = .389$ .

**Race.** Chi-square analysis was used to test race, relationship status, educational level, geographic location, and level of outness. Due to low variability, the race categories were collapsed to the dichotomous categories of White versus non-White participants. Results showed no significant differences in masculinity/femininity language by race,  $\chi^2(1, N = 322) = .607$ ,  $p = .436$ .

**Relationship status.** Relationship status was also collapsed to create dichotomous categories: single or not single. A Chi-square analysis revealed no differences in masculinity/femininity language by relationship status,  $\chi^2(1, N = 322) = 2.324$ ,  $p = .127$ .

**Education.** Education was similarly collapsed into a dichotomous variable to examine differences between those who graduated college and those who did not. No significant differences were detected in the Chi-square analysis,  $\chi^2(1, N = 322) = .178$ ,  $p = .673$ .

**Geographic location.** Geographic location was also tested using a Chi-square analysis. No significant differences in masculinity/femininity language were observed based upon region of the North America or beyond,  $\chi^2(6, N = 322) = 2.933, p = .817$ . This result gives weight to the idea of gay cultural norms trumping geographic or regional norms.

**Outness.** Lastly, differences based upon level of outness were tested using a simple linear regression. To test differences in masculinity/femininity language by outness level, an overall outness score was used as the independent variable. This score was the summed total of items on familial, friendship, and workplace outness. The results showed no significant effects,  $F(1, 320) = .003, b < .001, t = .054, p = .957$ .

**Research question 2a: How many men will include body-related language in the text of their MSM-specific mobile dating app profile?** Frequencies were used to answer research question 2a. Overall, 22 men (6.8%) had profiles that contained any instance of self- or other-directed body language. This is slightly higher than the proportion of men with profiles containing masculinity/femininity language. There were 14 instances of self-directed body language (4.3%), and 13 (2.5%) instances of other-directed body language, indicating that three men had both self- and other-directed body language.

As previously noted, reliability for partner preferences related to non-muscular bodies was not adequate. Muscularity language, however, produced reliable variables from which data can be analyzed, as did self-descriptions of fatness. Four men in the sample (1.2%) explicitly referred to themselves as muscular or fit, while another man (.3%) explicitly mentioned not being muscular or fit. On the other hand, nine men

(2.8%) mentioned being fat or unfit, and one man (.03%) self-described as not being fat or unfit. The results indicate a certain level of awareness of the body. For some men, self-describing as fat or unfit might be a proactive measure in body fascist spaces such as Grindr and Scruff. They may choose to point out their perceived flaws as a defense mechanism.

In terms of partner preferences, seven men (2.2%) had profile text that explicitly mentioned a desire for muscular or fit men. Only one man (.03%) had profile text that detailed a desire for men who were not muscular or fit. As previously explained, reliability was not achieved for partner preferences for fat partners.

**Research question 2b: Will there be differences by demographics in the use of body language in the text of their MSM-specific mobile dating app profile?**

Differences in the use of any body language (self- or other-directed) in profile text was examined in relation to participants' age, race, relationship status, education level, geographical location, and level of outness. Differences in body language were found in relation to participants' age and relationship status, but not along other demographic variables.

**Age.** A simple linear regression was used to test differences in body language by age. The results were significant,  $F(1, 320) = 28.594$ ,  $b = -.007$ ,  $t = -5.347$ ,  $p < .001$ . Men who utilized body language in their profiles were significant older ( $M = 42.23$ ,  $SD = 12.75$ ) than those who did not ( $M = 29.75$ ,  $SD = 10.39$ ).

**Race.** Chi-square analysis was used to test race, relationship status, educational level, geographic location, and level of outness. Due to low variability, the race categories were collapsed to the dichotomous categories of White versus non-White

participants. Results showed no significant differences in body language by race,  $\chi^2(1, N = 322) = .075, p = .785$ .

**Relationship status.** Relationship status was also collapsed to create dichotomous categories: single or not single. A Chi-square analysis revealed differences in body language by relationship status,  $\chi^2(1, N = 322) = 4.616, p = .032, V = .120$ . Results indicated that single men were overrepresented in using body language in their profiles (ASR = 2.1), while non-single men were underrepresented in using body language in their profiles (ASR = -2.1).

**Education.** Education was similarly collapsed into a dichotomous variable to examine differences between those who graduated college and those who did not. No significant differences were detected in the Chi-square analysis,  $\chi^2(1, N = 322) = .046, p = .830$ .

**Geographic location.** Geographic location was also tested using a Chi-square analysis. No significant differences in body language were observed based upon region of the North America or beyond,  $\chi^2(6, N = 322) = 6.241, p = .397$ .

**Outness.** Lastly, differences based upon level of outness were tested using a simple linear regression. To test differences in body language by outness level, an overall outness score was used as the independent variable. This score was the summed total of items on familial, friendship, and workplace outness. The results showed no significant effects,  $F(1, 320) = .170, b = -.004, t = -.412, p = .680$ .

**Research question 3: Will masculinity/femininity language be correlated with body language in the text of MSM-specific mobile dating app profiles?** A bivariate correlation was used to test RQ3, which considered whether there was a

connection between masculinity/femininity language and body language. The results indicated that there existed a positive correlation between these two variables,  $r(320) = .174, p = .002$ .

**Research question 4a: How many men will report including face-disclosing and/or shirtless photos in their MSM-specific mobile dating app profile?**

The majority of men reported having a publically accessible face-disclosing profile photo ( $N = 283, 87.9\%$ ). Nonetheless, more than one tenth of the sample ( $N = 39, 12.1\%$ ) reported having only face-obscuring public photos attached to their profile.

Publically accessible shirtless profile photos were reported by nearly one fifth of men in the sample ( $N = 62, 19.3\%$ ). The majority of men ( $N = 260, 80.7\%$ ) reported having no shirtless photos on their profile.

**Research question 4b: Will there be differences by demographics in the use of face-disclosing or shirtless photos in MSM-specific mobile dating app profiles?** Differences in reports of face-disclosing and shirtless photos in profiles was examined in relation to participants' age, race, relationship status, education level, geographical location, and level of outness. Differences in the use of photos by type were found for age and outness.

*Age.* A simple linear regression was used to test differences in face-disclosing photos by participants' age. The results were not significant,  $F(1, 320) = 1.414, p = .235$ . Age was not related to the use of face-disclosing photos,  $b = -.002, t = -1.189$ .

A separate simple linear regression tested the relationship between the presence of shirtless profile photos and age. This relationship was significant,  $F(1, 320)$

= 8.983,  $p = .003$ . Thus, age was an important predictor of shirtless profile photo usage,  $b = -.006$ ,  $t = -2.997$ . Similar to how men with body language in their profiles were older than men without body language, men with shirtless photos ( $M = 34.32$ ,  $SD = 12.03$ ) were significantly older than men without shirtless photos ( $M = 29.71$ ,  $SD = 10.58$ ).

**Race.** Chi-square analysis was used to test racial differences in profile photo use. Due to low variability, the race categories were collapsed to the dichotomous categories of White versus non-White participants. Results showed no significant differences in the presence of face-disclosing photos by participants' race,  $X^2(1, N = 322) = 1.712$ ,  $p = .191$ . Correspondingly, no significant racial differences were found for shirtless photos,  $X^2(1, N = 322) = 1.239$ ,  $p = .266$ .

**Relationship status.** Relationship status was also collapsed to create dichotomous categories: single or not single. A Chi-square analysis revealed no differences in photo presence for face-disclosing photos,  $X^2(1, N = 322) = 1.844$ ,  $p = .174$ . or shirtless photos,  $X^2(1, N = 322) = .349$ ,  $p = .555$ .

**Education.** Education was similarly collapsed into a dichotomous variable to examine differences between those who graduated college and those who did not. No significant differences were detected in the Chi-square analysis for face-disclosing photos,  $X^2(1, N = 322) = 1.99$ ,  $p = .158$ . Similarly, there were no educational differences in regards to the presence of shirtless profile photos,  $X^2(1, N = 322) = .297$ ,  $p = .586$ .

**Geographical location.** Geographic location was also tested using a Chi-square analysis. No significant differences in were observed based upon location for either face-disclosing photos,  $X^2(6, N = 322) = 8.746$ ,  $p = .188$ , nor shirtless photos,  $X^2(6, N = 322) = 1.874$ ,  $p = .931$ .

**Outness.** Lastly, differences based upon level of outness were tested using a simple linear regression. To test differences in photo presence by outness level, an overall outness score was used as the independent variable. This score was the summed total of items on familial, friendship, and workplace outness. The results showed a significant relationship between level of outness and the presence of face-disclosing photos,  $F(1, 320) = 31.545$ ,  $b = .072$ ,  $t = 5.616$ ,  $p < .001$ . Unsurprisingly, men who reported having a face-disclosing photo were more out ( $M = 3.74$ ,  $SD = 1.13$ ) than those who reported only having face-obscuring photos ( $M = 4.97$ ,  $SD = 2.15$ ). A higher outness score indicates a greater degree of closetedness in one's personal and professional life, with three representing fully out and nine representing no outness.

A second simple linear regression tested the relationship between the use of shirtless profile photos and level of outness. The results were not significant,  $F(1, 320) = 1.354$ ,  $b = -.019$ ,  $t = -1.164$ ,  $p = .245$ . Those men who reported having shirtless profile photos tended to be less out ( $M = 4.06$ ,  $SD = 1.71$ ) than those who reported having no shirtless profile photos ( $M = 3.84$ ,  $SD = 1.25$ ), but not significantly so.

**Hypothesis 1: Participants with face-disclosing photos will be less likely than participants without face-disclosing photos to include a) masculinity/femininity language or b) body language in the text of their profiles.** To test the first hypothesis, an independent samples t-test was run to assess differences between those with face-disclosing profile photos and face-obscuring profile photos. Results revealed significant differences in masculinity/femininity language, but not body language.

There were significant differences between the groups in the use of (self- or other-directed) masculinity/femininity language in profiles,  $t(282) = 3.973$ ,  $p < .001$ ,  $r =$

.08. Men with face-disclosing profile photos were, on average, more likely to use masculinity/femininity language than men with face-obscuring profile photos. Therefore, the hypothesis was not supported, as the direction is contrary to what was hypothesized.

The t-test revealed no significant differences in the use of body language between those with face-disclosing photos and those with face-obscuring photos,  $t(320) = .226, p = .821, r = .013$ .

**Hypothesis 2: The use of shirtless photos in MSM-specific mobile dating app profiles will be correlated with a) masculinity/femininity language and b) body language.** To test the second hypothesis, an independent samples t-test was run. The grouping variable was shirtless photos vs. fully clothed photos. A significant relationship was not found between the use of shirtless photos and body language, nor between the use of shirtless photos and masculinity/femininity language. Therefore, the hypothesis was not supported.

As previously stated, the use of shirtless photos was not significantly related to the use of body language in profile text,  $t(74.521) = -1.665, p = .100, r = .035$ . Men with shirtless photos were not significantly more likely to use body language in their profiles than men without shirtless photos.

The use of shirtless photos was also not significantly related to the use of masculinity/femininity language in profile text,  $t(320) = -.744, p = .457, r = .042$ .

## **Study Two**

**Research question 5: Will participants' MSM-specific mobile dating app usage be related to the type of photos they attach to their MSM-specific mobile dating app profile?** To examine Research Question 5, two multiple regressions were run

with each of the three usage variables (daily frequency, weekly frequency, and duration) as independent variables. With face-disclosing photos as the dependent variable, the model was significant,  $F(3, 276) = 7.183, p < .001, R^2 = .072, \text{adj } R^2 = .062$ . Two of the independent variables were significantly related to the use of face-disclosing photos. Both weekly frequency of usage and duration of usage were negatively related to the use of face-obscuring photos. Daily frequency of usage was not found to be significant.

Appendix M contains the statistics denoting the individual relationships between the independent variables and the dependent variable. On average, those with face-disclosing photos had higher levels of weekly usage ( $M = 5.58, SD = 1.81$ ) than those with face-obscuring photos ( $M = 4.59, SD = 2.13$ ). These mean scores correspond to days per week in which the user reported logging on. Correspondingly, those with face-disclosing photos had, on average, longer duration of membership ( $M = 57.99$  months of membership,  $SD = 46.26$ ) than those with face-obscuring photos ( $M = 30.38, SD = 26.51$ ).

A second multiple regression model utilized the same independent variables, with shirtless photos as the dependent variable. This model was not significant,  $F(3, 276) = 1.509, p = .212$ . Appendix M contains the statistics denoting the individual relationships in the model.

**Research question 6: Will participants' MSM-specific mobile dating app usage be related to their attitudes about their own and others' masculinity?** Three separate multiple regression models were used to test Research Question 6. Each model included the three usage variables as independent variables. However, each model

utilized a different dependent variable aimed at measuring a masculinity-related attitude.

Models are further discussed below.

The first regression model utilized masculinity consciousness as the dependent variable. This model was not significant,  $F(3, 262) = .636, p = .593$ . Appendix N contains the statistics denoting the individual relationships in the model.

The second regression model utilized self-perceived masculinity as the dependent variable. This model was significant,  $F(3, 257) = 4.046, p = .008, R^2 = .045, \text{adj } R^2 = .034$ . The only individual predictor that was significant was duration; neither daily frequency nor weekly frequency produced significant results. Appendix N contains the statistics for the individual relationships in the model. Duration of membership was negatively related to self-perceived masculinity, indicating that the longer a man had been using MSM-specific mobile dating apps, the less masculine a self-perception he was likely to have.

The final regression model utilized anti-effeminacy as the dependent variable. This model was not significant,  $F(3, 262) = .288, p = .834$ . Appendix N contains statistics denoting the individual relationships in the model.

**Research question 7: Will participants' MSM-specific mobile dating app usage be related to their attitudes about their body?** Three separate multiple regression models were used to test research question 7. Each model included the three usage variables as independent variables. However, each model utilized a different dependent variable aimed at measuring a body-related attitude. Models are further discussed below.

The first regression model utilized drive for thinness as the dependent variable. This model was not significant,  $F(3, 231) = .442, p = .723$ . Appendix O contains the statistics denoting the individual relationships in the model.

The second regression model utilized drive for muscularity as the dependent variable. This model was also not significant,  $F(3, 257) = .445, p = .721$ . Appendix O contains the statistics for the individual relationships in the model.

The final regression model utilized body dissatisfaction as the dependent variable. This model was similarly not significant,  $F(3, 231) = 1.493, p = .217$ . While the model was not significant, daily frequency of usage proved to be a significant negative predictor of body dissatisfaction. Appendix O contains statistics denoting the individual relationships in the model.

**Research question 8: Will participants' MSM-specific mobile dating app usage be related to their level of internalized homonegativity?** A multiple regression was used to test research question 8, and the results revealed a significant model,  $F(3, 231) = 5.312, p = .001, R^2 = .065, \text{adj } R^2 = .052$ . Both daily frequency of usage and the duration of usage were related to levels of internalized homonegativity; however, daily usage was positively related to the outcome variable, while duration of usage was negatively related. In other words, more daily usage was associated with higher levels of internalized homonegativity. A longer number of months spent on MSM-specific mobile dating apps was related to lower levels of internalized homonegativity. Appendix P contains statistics denoting the individual relationships in the model.

**Research question 9: Will participants' MSM-specific mobile dating app usage be related to their feelings of self-esteem and social connectedness?** Three

separate multiple regression models were used to test research question 9. Each model included the three usage variables as independent variables. However, each model utilized a different dependent variable aimed at measuring a separate feeling. Models are further discussed below.

The first regression model utilized self-esteem as the dependent variable. This model was not significant,  $F(3, 262) = 1.874, p = .134$ . Appendix Q contains the statistics denoting the individual relationships in the model.

The second regression model utilized collective self-esteem as the dependent variable. The overall model was not significant,  $F(3, 262) = .445, p = .721$ . However, one individual predictor was found to be significant; duration of usage was positively related to collective self-esteem. A longer use of MSM-specific mobile dating apps was thus associated with higher feelings of collective self-esteem as a member of the gay community. Appendix Q contains the statistics for the individual relationships in the model.

The final regression model utilized feelings of social connectedness as the dependent variable. This model was similarly not significant,  $F(3, 257) = .826, p = .480$ . Appendix Q contains statistics denoting the individual relationships in the model.

**Research question 10: Will demographic variables moderate the relationship between participants' MSM-specific mobile dating app usage and a) their masculinity/femininity attitudes, b) their body attitudes, c) their level of internalized homonegativity, or d) their feelings of self-esteem and social connectedness?** Andrew Hayes' PROCESS macro was used to test the various components of research question 10. All products were mean-centered. The choice was made to test each component of the

research question using separate regression models with one of the three independent variables: daily frequency of use, weekly frequency of use, and duration of use. Age, race, relationship status, education level, geographic location, and outness were all tested as potential moderators.

For the purposes of research question 10, a number of the demographic variables were recoded to represent dichotomous categories that were more equal in size. Firstly, race was recoded into a binary variable with the categories of White/Caucasian and Not White/Caucasian. Any man who indicated he was mixed race was labeled as being a part of the latter category. Despite the fact that Caucasian may be in the racial mix for some or all of these men, they may be more likely to be seen by society as not fully Caucasian. Secondly, relationship status was recoded into two categories. The first included men who reported being single, and the second included men who reported being in any type of relationship (open or closed, live-in or live-apart, singular or polyamorous). Thirdly, the variable of education was recoded to represent college graduates (those possessing degrees from a two- or four-year college or above) and those who had not (or not yet) graduated college. Lastly, geographic location was recoded to represent the categories of North American and Non-North American.

For research question 10a, three dependent variables were utilized: masculinity consciousness, self-perceived masculinity, and anti-effeminacy. The results are presented in relation to these three dependent variables.

***Masculinity consciousness.*** No interaction effects were found between daily frequency of usage and demographic variables in relation to participants' masculinity consciousness. The data produced no significant regression models when daily frequency

of usage was measured in terms of its interaction with age,  $F(3, 267) = .352$ ,  $b = -.001$ ,  $t = -.870$ ,  $p = .787$ , race,  $F(3, 268) = .861$ ,  $b = .174$ ,  $t = 1.187$ ,  $p = .462$ , relationship status,  $F(3, 268) = 2.123$ ,  $b = .124$ ,  $t = .577$ ,  $p = .098$ , education level,  $F(3, 268) = .777$ ,  $b = .083$ ,  $t = .619$ ,  $p = .508$ , geographic location,  $F(3, 268) = .067$ ,  $b = -.003$ ,  $t = -.011$ ,  $p = .977$ , or outness,  $F(3, 268) = 1.516$ ,  $b = .042$ ,  $t = .762$ ,  $p = .211$ .

Accordingly, no interaction effects were found when the independent variable used was weekly frequency of usage. Regression models measuring interactions with race,  $F(3, 262) = .326$ ,  $b = .063$ ,  $t = .348$ ,  $p = .806$ , education level,  $F(3, 262) = 1.028$ ,  $b = .111$ ,  $t = .748$ ,  $p = .381$ , geographic location,  $F(3, 262) = .797$ ,  $b = .257$ ,  $t = 1.395$ ,  $p = .496$ , and outness,  $F(3, 262) = 1.304$ ,  $b = -.010$ ,  $t = -.130$ ,  $p = .274$ , were not significant. While the models for age,  $F(3, 261) = 2.587$ ,  $b = .011$ ,  $t = 1.560$ ,  $p = .054$ ,  $R^2 = .020$ , and relationship status,  $F(3, 262) = 2.994$ ,  $b = .227$ ,  $t = 1.625$ ,  $p = .031$ ,  $R^2 = .023$ , were significant or marginally significant, the interaction terms themselves were not.

Finally, no interaction effects were found when duration of usage was used as an independent variable. Regression models measuring interactions with age,  $F(3, 267) = .818$ ,  $b < -.001$ ,  $t = -.640$ ,  $p = .485$ , race,  $F(3, 268) = .910$ ,  $b = -.006$ ,  $t = -.755$ ,  $p = .437$ , geographic location,  $F(3, 268) = .806$ ,  $b = .001$ ,  $t = .050$ ,  $p = .492$ , and outness,  $F(3, 268) = 1.903$ ,  $b = .002$ ,  $t = .700$ ,  $p = .129$ , were not significant. While the models relationship status,  $F(3, 268) = 3.488$ ,  $b = -.005$ ,  $t = -1.109$ ,  $p = .016$ ,  $R^2 = .026$ , and education level,  $F(3, 268) = 2.312$ ,  $b = -.007$ ,  $t = -1.337$ ,  $p = .077$ ,  $R^2 = .018$ , were significant or marginally significant, the interaction terms themselves were not.

***Self-perceived masculinity.*** One interaction effect was found between daily frequency of usage and demographic variables in relation to participants' self-perceived

masculinity. Geographic location proved to be a significant moderator of the main effect,  $F(3, 263) = 3.531, p = .015, R^2 = .031$ . Men from outside of North America who were heavier daily users had a significantly more masculine self-perception than men from North America who were heavier daily users,  $b = .090, t = 2.807, p = .005$ . A graphical representation of the interaction can be found in Appendix R.

No significant regression models were produced in relation to daily frequency and race,  $F(3, 263) = 1.754, b = -.052, t = -1.976, p = .156$ , relationship status,  $F(3, 263) = 2.138, b = -.056, t = -2.512, p = .096$ , or outness,  $F(3, 268) = 1.425, b = -.007, t = -1.000, p = .001$ . Furthermore, while the overall models using age,  $F(3, 262) = 6.710, b = -.002, t = -.863, p < .001, R^2 = .060$ , and education level,  $F(3, 263) = 3.123, b = .037, t = 1.575, p = .024, R^2 = .035$ , as moderating variables were significant, the interaction terms were not.

When the independent variable used was weekly frequency of usage, no interaction effects were produced. Regression models measuring interactions with, race,  $F(3, 257) = .572, b = -.020, t = -.586, p = .634$ , relationship status,  $F(3, 257) = .271, b = -.013, t = -.439, p = .847$ , geographic location,  $F(3, 257) = 1.560, b = .044, t = 1.098, p = .200$ , and outness,  $F(3, 257) = .958, b = -.007, t = -.602, p = .413$ , were not significant. The models for age,  $F(3, 256) = 7.574, b = -.002, t = -1.402, p < .001, R^2 = .064$ , and education level,  $F(3, 262) = 2.565, b = .032, t = .999, p = .055, R^2 = .028$ , were significant or marginally so, however, the interaction terms were not.

Finally, when duration of usage was used as an independent variable, two significant interaction effects were found. Firstly, education level was found to be a significant moderator of the main effect,  $F(3, 263) = 5.942, p < .001, R^2 = .071$ . Men

who have a longer duration of usage of MSM-specific mobile dating apps differed on their self-perceptions of masculinity based on whether they had graduated college,  $b = .003$ ,  $t = 2.511$ ,  $p = .013$ . There was a decrease in self-perceptions of masculinity with a longer duration of usage for those who had not graduated college. A graphical representation of the interaction can be found in Appendix S.

Secondly, outness was found to be a significant moderator of the effect of duration of usage on self-perceived masculinity,  $F(3, 263) = 5.957$ ,  $p < .001$ ,  $R^2 = .064$ . While a longer duration of usage led to a markedly less masculine self-perception for both those with low and high levels of outness, this relationship was significantly stronger for those who were more out,  $b = -.001$ ,  $t = -2.059$ ,  $p = .041$ . A graphical representation of the interaction can be found in Appendix T.

While the moderators of age,  $F(3, 262) = 6.839$ ,  $b < .001$ ,  $t = 1.262$ ,  $p < .001$ ,  $R^2 = .065$ , race,  $F(3, 263) = 3.765$ ,  $b = .001$ ,  $t = .600$ ,  $p = .011$ ,  $R^2 = .039$ , relationship status,  $F(3, 268) = 3.661$ ,  $b = .001$ ,  $t = .668$ ,  $p = .013$ ,  $R^2 = .034$ , and geographic location,  $F(3, 263) = 3.749$ ,  $b = .001$ ,  $t = .324$ ,  $p = .012$ ,  $R^2 = .034$ , produced significant regression models, none of the interaction terms themselves were significant.

***Anti-effeminacy.*** No interaction effects were found between daily frequency of usage and the demographic variables in relation to participants' anti-effeminacy levels. The data produced no significant regression models when daily frequency of usage was measured in terms of its interaction with age,  $F(3, 267) = .379$ ,  $b = .003$ ,  $t = .676$ ,  $p = .768$ , race,  $F(3, 268) = .532$ ,  $b = .057$ ,  $t = .925$ ,  $p = .661$ , relationship status,  $F(3, 268) = 1.475$ ,  $b = .039$ ,  $t = .452$ ,  $p = .222$ , education level,  $F(3, 268) = 1.045$ ,  $b = .002$ ,  $t = .027$ ,  $p = .373$ , or geographic location,  $F(3, 268) = .354$ ,  $b = -.085$ ,  $t = -.841$ ,  $p = .787$ . While a

significant model was produced for outness,  $F(3, 268) = 4.166$ ,  $b = .009$ ,  $t = .385$ ,  $p = .007$ ,  $R^2 = .053$ , the interaction term was not found to be significant in itself.

Accordingly, no interaction effects were found when the independent variable used was weekly frequency of usage. Regression models measuring interactions with age,  $F(3, 261) = 1.663$ ,  $b = .005$ ,  $t = 2.053$ ,  $p = .175$ , race,  $F(3, 262) = .396$ ,  $b = -.010$ ,  $t = -.137$ ,  $p = .756$ , relationship status,  $F(3, 262) = 2.019$ ,  $b = .042$ ,  $t = .795$ ,  $p = .112$ , education level,  $F(3, 262) = 1.510$ ,  $b = .007$ ,  $t = .123$ ,  $p = .212$ , and geographic location,  $F(3, 262) = .410$ ,  $b = .040$ ,  $t = .540$ ,  $p = .746$ , were not significant. While a significant model was produced for outness,  $F(3, 262) = 4.811$ ,  $b = .014$ ,  $t = .764$ ,  $p = .003$ ,  $R^2 = .056$ , the interaction term was not found to be significant.

Finally, one interaction effect was found when duration of usage was used as an independent variable. Relationship status,  $F(3, 268) = 4.575$ ,  $p = .004$ ,  $R^2 = .037$ , was found to significantly moderate the relationship between duration of usage and anti-effeminacy attitudes. For single men, duration had no effect on anti-effeminacy; however, for men who were in a relationship of any kind, a longer duration of usage was associated with significantly lower levels of anti-effeminacy,  $b = -.006$ ,  $t = -3.117$ ,  $p = .002$ . A graphical representation of the interaction can be found in Appendix U.

Regression models measuring interactions with age,  $F(3, 267) = .335$ ,  $b < .001$ ,  $t = .613$ ,  $p = .800$ , race,  $F(3, 268) = .239$ ,  $b = -.002$ ,  $t = -.503$ ,  $p = .869$ , education level,  $F(3, 268) = 2.023$ ,  $b = -.004$ ,  $t = -1.676$ ,  $p = .111$ , and geographic location,  $F(3, 268) = .035$ ,  $b = .001$ ,  $t = .188$ ,  $p = .991$ , were not significant. Outness produced a significant model,  $F(3, 268) = 5.492$ ,  $b = .001$ ,  $t = 1.136$ ,  $p = .001$ ,  $R^2 = .059$ , however, the interaction term itself was not significant.

For research question 10b, three dependent variables were utilized: drive for thinness, drive for muscularity, and body dissatisfaction. The results are presented in relation to these three dependent variables.

***Drive for thinness.*** No interaction effects were found between daily frequency of usage and demographic variables when using participants' drive for thinness as the dependent variable. The data produced no significant regression models when daily frequency of usage was measured in terms of its interaction with age,  $F(3, 236) = .697$ ,  $b = -.003$ ,  $t = -.836$ ,  $p = .555$ , race,  $F(3, 237) = 1.617$ ,  $b = .129$ ,  $t = 2.191$ ,  $p = .186$ , relationship status,  $F(3, 237) = 1.674$ ,  $b = .094$ ,  $t = 1.804$ ,  $p = .173$ , education level,  $F(3, 237) = .397$ ,  $b = .054$ ,  $t = .740$ ,  $p = .755$ , geographic location,  $F(3, 237) = .383$ ,  $b = -.044$ ,  $t = -.537$ ,  $p = .766$ , or outness,  $F(3, 237) = 1.893$ ,  $b = .041$ ,  $t = 2.365$ ,  $p = .132$ .

Accordingly, no interaction effects were found when the independent variable used was weekly frequency of usage and the dependent variable was drive for thinness. Regression models measuring interactions with age,  $F(3, 230) = .524$ ,  $b = -.001$ ,  $t = -.435$ ,  $p = .666$ , race,  $F(3, 231) = .309$ ,  $b = -.003$ ,  $t = -.034$ ,  $p = .819$ , relationship status,  $F(3, 231) = .809$ ,  $b = -.069$ ,  $t = -.998$ ,  $p = .490$ , education level,  $F(3, 231) = .706$ ,  $b = .061$ ,  $t = .866$ ,  $p = .549$ , geographic location,  $F(3, 231) = .411$ ,  $b = .021$ ,  $t = .137$ ,  $p = .745$ , and outness,  $F(3, 231) = 1.961$ ,  $b = .047$ ,  $t = 2.080$ ,  $p = .121$ , were not significant.

Finally, no interaction effects were found when duration of usage was used as the independent variable. Regression models measuring interactions with age,  $F(3, 236) = 1.830$ ,  $b < -.001$ ,  $t = -2.104$ ,  $p = .142$ , race,  $F(3, 237) = .156$ ,  $b = -.002$ ,  $t = -.519$ ,  $p = .924$ , relationship status,  $F(3, 237) = 1.089$ ,  $b = -.002$ ,  $t = -.803$ ,  $p = .354$ , education level,  $F(3, 237) = .761$ ,  $b = -.004$ ,  $t = -1.426$ ,  $p = .517$ , geographic location,  $F(3, 237) =$

.239,  $b = .004$ ,  $t = .665$ ,  $p = .869$ , and outness,  $F(3, 237) = 2.093$ ,  $b = .004$ ,  $t = 2.352$ ,  $p = .102$ , were not significant.

***Drive for muscularity.*** No interaction effects were found between daily frequency of usage and demographic variables in relation to participants' drive for muscularity. The data produced no significant regression models when daily frequency of usage was measured in terms of its interaction with age,  $F(3, 262) = .495$ ,  $b = .001$ ,  $t = .704$ ,  $p = .686$ , race,  $F(3, 263) = .645$ ,  $b = -.044$ ,  $t = -1.259$ ,  $p = .587$ , relationship status,  $F(3, 263) = .212$ ,  $b = .004$ ,  $t = .126$ ,  $p = .888$ , education level,  $F(3, 263) = .404$ ,  $b = .005$ ,  $t = .138$ ,  $p = .750$ , geographic location,  $F(3, 263) = .610$ ,  $b = -.026$ ,  $t = -.692$ ,  $p = .609$ , or outness,  $F(3, 263) = .240$ ,  $b = -.007$ ,  $t = -.557$ ,  $p = .868$ .

Accordingly, no interaction effects were found when the independent variable used was weekly frequency of usage. Regression models measuring interactions with age,  $F(3, 256) = .234$ ,  $b = -.001$ ,  $t = -.310$ ,  $p = .873$ ,  $R^2 = .003$ , race,  $F(3, 257) = .144$ ,  $b = -.023$ ,  $t = -.391$ ,  $p = .933$ , relationship status,  $F(3, 257) = .656$ ,  $b = .062$ ,  $t = 1.284$ ,  $p = .580$ , education level,  $F(3, 257) = .764$ ,  $b = .050$ ,  $t = 1.074$ ,  $p = .515$ , geographic location,  $F(3, 257) = .514$ ,  $b = .052$ ,  $t = .563$ ,  $p = .673$ , and outness,  $F(3, 257) = .520$ ,  $b = -.020$ ,  $t = -1.121$ ,  $p = .669$ , were not significant.

Finally, no interaction effects were found when duration of usage was used as an independent variable. Regression models measuring interactions with age,  $F(3, 262) = 1.161$ ,  $b < -.001$ ,  $t = -1.530$ ,  $p = .325$ , race,  $F(3, 263) = .545$ ,  $b = .001$ ,  $t = .855$ ,  $p = .652$ , relationship status,  $F(3, 263) = .434$ ,  $b = -.001$ ,  $t = -.336$ ,  $p = .729$ , education level,  $F(3, 263) = 1.213$ ,  $b = -.002$ ,  $t = -1.235$ ,  $p = .305$ , geographic location,  $F(3, 263) = .759$ ,  $b = -$

.002,  $t = -.621$ ,  $p = .518$ , and outness,  $F(3, 263) = .609$ ,  $b = .001$ ,  $t = .645$ ,  $p = .610$ , were not significant.

**Body dissatisfaction.** Limited interaction effects were found between daily frequency of usage and demographic variables in relation to participants' body dissatisfaction. Relationship status,  $F(3, 237) = 4.003$ ,  $p = .008$ ,  $R^2 = .044$ , proved to be a (marginally) significant moderator. With a lower daily frequency of use, single men have higher body dissatisfaction, on average, than non-single men,  $b = .083$ ,  $t = 1.900$ ,  $p = .059$ . However, the difference between the groups levels off with a higher level of daily usage. A graphical representation of the interaction can be found in Appendix V.

While the data produced a significant regression model when daily frequency of usage was measured in terms of its interaction with age,  $F(3, 236) = 3.045$ ,  $b = -.002$ ,  $t = -.730$ ,  $p = .030$ , the interaction term was not itself significant. Race,  $F(3, 237) = 2.174$ ,  $b = -.060$ ,  $t = -1.182$ ,  $p = .092$ , education level,  $F(3, 237) = 2.237$ ,  $b = .070$ ,  $t = 1.383$ ,  $p = .085$ , geographic location,  $F(3, 237) = 1.985$ ,  $b = .026$ ,  $t = .483$ ,  $p = .117$ , and outness,  $F(3, 237) = 2.131$ ,  $b = -.011$ ,  $t = -.822$ ,  $p = .097$ , were also not significant moderators of the main effect.

Accordingly, no interaction effects were found when the independent variable used was weekly frequency of usage. Regression models measuring interactions with age,  $F(3, 230) = 1.150$ ,  $b = -.002$ ,  $t = -.551$ ,  $p = .330$ , race,  $F(3, 231) = .104$ ,  $b = -.048$ ,  $t = -.544$ ,  $p = .958$ , relationship status,  $F(3, 231) = .852$ ,  $b = -.006$ ,  $t = -.089$ ,  $p = .467$ , education level,  $F(3, 231) = 1.045$ ,  $b = .113$ ,  $t = 1.733$ ,  $p = .373$ , geographic location,  $F(3, 231) = 1.329$ ,  $b = .182$ ,  $t = 1.775$ ,  $p = .266$ , and outness,  $F(3, 231) = .197$ ,  $b = .017$ ,  $t = .736$ ,  $p = .898$ , were not significant.

Finally, one interaction effect was found when duration of usage was used as an independent variable. Age was a significant moderator of the main effect between duration and body dissatisfaction,  $F(3, 236) = 2.539, p = .057, R^2 = .031$ . While there was a decrease in body dissatisfaction for all men with a longer duration of usage, older men had significantly less body dissatisfaction than younger men, both at lower and higher duration levels,  $b < .001, t = -2.149, p = .033$ . This gap was exacerbated by the duration of usage. A graphical representation of the interaction can be found in Appendix W.

Regression models measuring interactions with race,  $F(3, 237) = .100, b = .001, t = .254, p = .960$ , relationship status,  $F(3, 237) = 1.469, b < -.001, t = -.042, p = .224$ , education level,  $F(3, 237) = .149, b = .001, t = .240, p = .931$ , geographic location,  $F(3, 237) = .409, b = .002, t = .353, p = .747$ , and outness,  $F(3, 237) = .982, b = .002, t = 1.488, p = .402$ , were not significant.

For research question 10c, internalized homonegativity was used as the dependent variable. Results are explored below.

***Internalized homonegativity.*** No interaction effects were found between daily frequency of usage and demographic variables, in relation to participants' internalized homonegativity. While the data produced significant or marginally significant regression models when daily frequency of usage was measured in terms of its interaction with age,  $F(3, 236) = 3.093, b = -.001, t = -.710, p = .028, R^2 = .044$ , race,  $F(3, 237) = 2.758, b = .042, t = 1.408, p = .043, R^2 = .018$ , relationship status,  $F(3, 237) = 2.922, b = .011, t = .226, p = .035, R^2 = .031$ , , and outness,  $F(3, 237) = 13.581, b = -.001, t = -.110, p < .001, R^2 = .183$ , none of the interaction terms proved to be significant. Education level,  $F(3,$

237) = 2.040,  $b = .103$ ,  $t = .294$ ,  $p = .109$ , and geographic location,  $F(3, 237) = 1.106$ ,  $b = -.026$ ,  $t = -.205$ ,  $p = .347$ , were also not moderators of the main effect.

Accordingly, no interaction effects were found when the independent variable used was weekly frequency of usage. While regression models were significant or marginally significant for interactions with age,  $F(3, 230) = 4.049$ ,  $b < .001$ ,  $t = .126$ ,  $p = .008$ ,  $R^2 = .047$ , relationship status,  $F(3, 231) = 3.012$ ,  $b = .032$ ,  $t = .913$ ,  $p = .031$ ,  $R^2 = .024$ , and outness,  $F(3, 231) = 16.804$ ,  $b = -.020$ ,  $t = -1.625$ ,  $p < .001$ ,  $R^2 = .199$ , the interactions themselves were not significant. Correspondingly, race,  $F(3, 231) = .408$ ,  $b = .006$ ,  $t = .050$ ,  $p = .747$ , education level,  $F(3, 231) = 2.223$ ,  $b = -.009$ ,  $t = -.229$ ,  $p = .086$ , and geographic location,  $F(3, 231) = .634$ ,  $b = .043$ ,  $t = .787$ ,  $p = .594$ , were also not significant moderators.

Finally, no interaction effects were found when duration of usage was used as an independent variable. All regression models measuring the demographic variables were significant, however, the interaction terms were not; age,  $F(3, 236) = 5.879$ ,  $b < .001$ ,  $t = -.291$ ,  $p < .001$ ,  $R^2 = .056$ , race,  $F(3, 237) = 9.416$ ,  $b = -.002$ ,  $t = -1.546$ ,  $p < .001$ ,  $R^2 = .052$ , relationship status,  $F(3, 237) = 10.783$ ,  $b = -.001$ ,  $t = -.768$ ,  $p < .001$ ,  $R^2 = .071$ , education level,  $F(3, 237) = 5.988$ ,  $b = .001$ ,  $t = .752$ ,  $p < .001$ ,  $R^2 = .061$ , geographic location,  $F(3, 237) = 6.349$ ,  $b = .003$ ,  $t = .690$ ,  $p < .001$ ,  $R^2 = .052$ , and outness,  $F(3, 237) = 16.769$ ,  $b < .001$ ,  $t = .096$ ,  $p < .001$ ,  $R^2 = .191$ , were not significant moderators of the main effect.

For research question 10d, three dependent variables were utilized: self-esteem, collective self-esteem, and social connectedness. The results are presented in relation to these three dependent variables.

**Self-esteem.** One interaction effect was found between daily frequency of usage and demographic variables, in relation to participants' self-esteem. When examining outness as a moderator, the model was significant,  $F(3, 268) = 3.015, p = .031, R^2 = .027$ , and the interaction term was marginally significant. Men who were less out had higher self-esteem with lower levels of daily usage than men who were more out. In other words, for those who had lower levels of daily usage, outness was negatively related to self-esteem,  $b = .022, t = 1.792, p = .074$ . A graphical representation of the interaction can be found in Appendix X.

While the data produced significant regression models when daily frequency of usage was measured in terms of its interaction with, relationship status,  $F(3, 268) = 4.365, b = -.014, t = -.287, p = .005, R^2 = .044$ , and education level,  $F(3, 268) = 5.724, b = -.033, t = -.890, p < .001, R^2 = .061$ , no interaction terms were significant. Age,  $F(3, 267) = 2.106, b = .001, t = .589, p = .100$ , race,  $F(3, 268) = 1.388, b = .044, t = 1.035, p = .247$ , and geographic location,  $F(3, 268) = .773, b = -.041, t = -.484, p = .510$ , did not produce a significant model or interaction term.

Accordingly, no interaction effects were found when the independent variable used was weekly frequency of usage. Regression models measuring interactions with age,  $F(3, 261) = 1.777, b = .001, t = .349, p = .152$ , race,  $F(3, 262) = 1.162, b = .070, t = 1.098, p = .325$ , geographic location,  $F(3, 262) = .206, b = -.034, t = -.394, p = .892$ , and outness,  $F(3, 262) = .868, b = .004, t = .134, p = .458$ , were not significant. While the regression models for relationship status,  $F(3, 262) = 4.512, b = .038, t = .797, p = .004, R^2 = .039$ , and education level,  $F(3, 262) = 5.446, b = -.032, t = -.680, p < .001, R^2 =$

.056, were significant, the interaction terms themselves were not. Therefore, there were no moderators of the main effect.

Finally, no interaction effects were found when duration of usage was used as an independent variable. Regression models measuring interactions with age,  $F(3, 267) = 2.159$ ,  $b < -.001$ ,  $t = -.706$ ,  $p = .093$ , race,  $F(3, 268) = 1.659$ ,  $b = .001$ ,  $t = .391$ ,  $p = .176$ , geographic location,  $F(3, 268) = 1.517$ ,  $b < .001$ ,  $t = -.006$ ,  $p = .210$ , and outness,  $F(3, 268) = 2.245$ ,  $b = -.001$ ,  $t = -.598$ ,  $p = .083$ , were not significant. While the data produced significant regression models for relationship status,  $F(3, 268) = 4.970$ ,  $b = .001$ ,  $t = .501$ ,  $p = .002$ ,  $R^2 = .048$ , and education level,  $F(3, 268) = 5.108$ ,  $b = -.001$ ,  $t = -.649$ ,  $p = .002$ ,  $R^2 = .055$ , neither of the interaction terms were significant.

**Collective self-esteem.** No interaction effects were found between daily frequency of usage and demographic variables, in relation to participants' collective self-esteem. While the data produced significant regression models when daily frequency of usage was measured in terms of its interaction with education level,  $F(3, 268) = 2.901$ ,  $b = .064$ ,  $t = 1.528$ ,  $p = .035$ ,  $R^2 = .033$ , geographic location,  $F(3, 268) = 2.659$ ,  $b = .102$ ,  $t = .857$ ,  $p = .049$ ,  $R^2 = .028$ , and outness,  $F(3, 268) = 7.939$ ,  $b = -.017$ ,  $t = -.846$ ,  $p < .001$ ,  $R^2 = .091$ , no interaction terms were significant. The moderators of age,  $F(3, 267) = 1.693$ ,  $b < .001$ ,  $t = .016$ ,  $p = .169$ , race,  $F(3, 268) = .478$ ,  $b = -.065$ ,  $t = -1.182$ ,  $p = .698$ , and relationship status,  $F(3, 268) = 1.154$ ,  $b = -.086$ ,  $t = -1.709$ ,  $p = .327$ , did not produce significant regression models.

Accordingly, no interaction effects were found when the independent variable used was weekly frequency of usage. While the regression models for age,  $F(3, 261) = 2.916$ ,  $b = .003$ ,  $t = 1.458$ ,  $p = .035$ ,  $R^2 = .031$ , education level,  $F(3, 262) = 2.933$ ,  $b =$

.037,  $t = .789$ ,  $p = .034$ ,  $R^2 = .033$ , geographic location,  $F(3, 262) = 2.737$ ,  $b = -.038$ ,  $t = -.505$ ,  $p = .044$ ,  $R^2 = .028$ , and outness,  $F(3, 262) = 8.818$ ,  $b = .011$ ,  $t = .591$ ,  $p < .000$ ,  $R^2 = .096$ , were significant, the interaction terms themselves were not. Regression models measuring interactions with race,  $F(3, 262) = .479$ ,  $b = .019$ ,  $t = .296$ ,  $p = .697$ , and relationship status,  $F(3, 262) = 1.239$ ,  $b = -.065$ ,  $t = -1.309$ ,  $p = .296$ , were not significant.

Finally, no interaction effects were found when duration of usage was used as an independent variable and collective self-esteem was used as the dependent variable.

While the data produced significant regression models measuring interactions with education level,  $F(3, 268) = 3.094$ ,  $b < .001$ ,  $t = .101$ ,  $p = .028$ ,  $R^2 = .034$ , and outness,  $F(3, 268) = 8.820$ ,  $b < .001$ ,  $t = .250$ ,  $p < .001$ ,  $R^2 = .089$ , the interaction terms were not themselves significant. Regression models using the moderators of age,  $F(3, 267) = 1.840$ ,  $b < .001$ ,  $t = -.280$ ,  $p = .140$ , race,  $F(3, 268) = 1.157$ ,  $b = .002$ ,  $t = .705$ ,  $p = .327$ , relationship status,  $F(3, 268) = 2.017$ ,  $b = -.002$ ,  $t = -.801$ ,  $p = .112$ , and geographic location,  $F(3, 268) = 2.405$ ,  $b = -.002$ ,  $t = -.505$ ,  $p = .068$ , were not significant.

***Social connectedness.*** No demographic variable was found to moderate the relationship between daily frequency of usage and participants' social connectedness. While the data produced a significant regression model when daily frequency of usage was measured in terms of its interaction with relationship status,  $F(3, 263) = 4.793$ ,  $b = -.101$ ,  $t = -1.615$ ,  $p = .003$ ,  $R^2 = .049$ , the interaction term was not significant. The moderators of age,  $F(3, 262) = .613$ ,  $b = .004$ ,  $t = 1.030$ ,  $p = .607$ , race,  $F(3, 263) = 2.030$ ,  $b = -.015$ ,  $t = -.211$ ,  $p = .110$ , education level,  $F(3, 263) = 1.818$ ,  $b = -.009$ ,  $t = -.105$ ,  $p = .144$ , geographic location,  $F(3, 263) = .441$ ,  $b = .067$ ,  $t = .439$ ,  $p = .724$ , and

outness,  $F(3, 263) = 1.454$ ,  $b = -.004$ ,  $t = -.139$ ,  $p = .228$ , did not produce significant regression models.

No interaction effects were found when the independent variable used was weekly frequency of usage. While the data produced a marginally significant regression model using relationship status,  $F(3, 257) = 2.430$ ,  $b = -.009$ ,  $t = -.132$ ,  $p = .066$ ,  $R^2 = .028$ , the interaction term was not significant. Age,  $F(3, 256) = .137$ ,  $b = .002$ ,  $t = .546$ ,  $p = .938$ , race,  $F(3, 257) = 1.933$ ,  $b = .100$ ,  $t = .976$ ,  $p = .125$ , education level,  $F(3, 257) = 1.8242$ ,  $b = -.005$ ,  $t = -.073$ ,  $p = .143$ , geographic location,  $F(3, 257) = .197$ ,  $b = .063$ ,  $t = .463$ ,  $p = .899$ , and outness,  $F(3, 257) = 1.701$ ,  $b = .023$ ,  $t = .866$ ,  $p = .167$ , did not produce significant regression models.

Finally, two interaction effects were found when duration of usage was used as an independent variable and collective self-esteem was used as the dependent variable. Firstly, relationship status,  $F(3, 263) = 5.886$ ,  $p < .001$ ,  $R^2 = .055$ , was found to be a significant moderator of this main effect. Not only did single men have significant lower levels of social connectedness than those in relationships, at both lower and higher duration points, but non-single men also had a significant boost in their feelings of social connectedness with higher durations of usage,  $b = .007$ ,  $t = 2.605$ ,  $p = .010$ . Single men saw no such increase in their experiences of social connectedness. A graphical representation of the interaction can be found in Appendix Y.

Additionally, using race as a moderating variable produced a significant regression model,  $F(3, 263) = 2.793$ ,  $p = .041$ ,  $R^2 = .035$ , and a marginally significant interaction term,  $b = .006$ ,  $t = 1.859$ ,  $p = .064$ . When there was a lower duration of usage, or less time using MSM-specific mobile dating apps, White men had higher levels of

social connectedness than did non-White men. However, when there was a higher duration of usage, non-White men had higher levels of social connectedness than White men. A graphical representation of the interaction can be found in Appendix Z.

While the data produced a significant regression model using education level,  $F(3, 263) = 2.720$ ,  $b = .003$ ,  $t = 1.053$ ,  $p = .045$ ,  $R^2 = .027$ , the interaction term was not significant. Age,  $F(3, 262) = .197$ ,  $b < -.001$ ,  $t = -.756$ ,  $p = .899$ , geographic location,  $F(3, 263) = .537$ ,  $b = .006$ ,  $t = 1.026$ ,  $p = .657$ , and outness,  $F(3, 263) = 1.925$ ,  $b = -.001$ ,  $t = -.752$ ,  $p = .126$ , did not produce significant models.

**Research question 11: Will the type of photos attached to participants' MSM-specific mobile dating app profile be related to a) their attitudes about their own and others' masculinity and/or b) their attitudes about their physical body?** A series of MANOVAs were used to test research question 11. To test research question 11a, two separate MANOVAs were utilized. The first utilized face-disclosing photos, and the second utilized shirtless photos, as the independent variable. Dependent variables for both included self-perceived masculinity, masculinity consciousness, and anti-effeminacy. Face-disclosing photos were not found to significantly relate to any of the three dependent variables, Wilks lambda = .995,  $F(3, 263) = .432$ ,  $p = .720$ ,  $\eta^2 = .005$ . Neither self-perceived masculinity,  $F(1, 265) = .230$ ,  $p = .632$ ,  $\eta^2 = .001$ , anti-effeminacy,  $F(3, 263) = 1.158$ ,  $p = .283$ ,  $\eta^2 = .004$ , nor masculinity consciousness,  $F(1, 263) = .131$ ,  $p = .718$ ,  $\eta^2 = .000$ , produced significant results.

The second MANOVA used shirtless photos as the independent variable, and significant results were produced for the multivariate main effect, Wilks lambda = .971,  $F(3, 263) = 2.632$ ,  $p = .05$ ,  $\eta^2 = .029$ . Self-perceived masculinity was found to be

associated with shirtless photos,  $F(1, 265) = 6.721, p = .01, \eta^2 = .025$ . Men with shirtless photos were significantly more likely to hold a more masculine self-concept ( $M = 2.52, SD = .51$ ) than men without shirtless photos ( $M = 2.7, SD = .43$ ). A higher mean score indicates a more feminine self-perception, while a lower score indicates a more masculine self-perception.

Additionally, the relationship between shirtless photos and anti-effeminacy attitudes was marginally significant,  $F(1, 265) = 3.126, p = .08, \eta^2 = .012$ . Men with shirtless photos had overall higher levels of anti-effeminacy attitudes ( $M = 2.50, SD = .90$ ) than men without shirtless photos ( $M = 2.28, SD = .79$ ). Masculinity consciousness was not significantly related to the use of shirtless photos,  $F(1, 265) = .184, p = .261, \eta^2 = .005$ .

To test research question 11b, a further two MANOVAs were conducted. The first, using face-disclosing photos as the independent variable and the three body-related scales as dependent variables, produced no significant main effect, Wilks lambda = .998,  $F(3, 237) = 2.632, p = .907, \eta^2 = .002$ . Neither drive for thinness,  $F(1, 239) = .142, p = .707, \eta^2 = .001$ , drive for muscularity,  $F(1, 239) = .267, p = .606, \eta^2 = .001$ , nor body dissatisfaction,  $F(1, 239) = .002, p = .963, \eta^2 = .000$ , were significantly related to the use of face-disclosing profile photos.

A second MANOVA examined the relationship between shirtless photos and the three body-related variables. The multivariate main effect was significant, Wilks lambda = .929,  $F(3, 237) = 6.003, p = .001, \eta^2 = .071$ . Significant effects were found for drive for muscularity,  $F(1, 239) = 6.131, p = .014, \eta^2 = .025$ , wherein men with shirtless profile photos had a higher drive for muscularity ( $M = 2.52, SD = .80$ ) than men without

shirtless profile photos ( $M = 2.25$ ,  $SD = .64$ ). Neither drive for thinness,  $F(1, 239) = 1.542$ ,  $p = .216$ ,  $\eta^2 = .006$ , nor body dissatisfaction,  $F(1, 239) = 2.307$ ,  $p = .130$ ,  $\eta^2 = .010$ , were significantly related to the use of shirtless profile photos.

**Research question 12: Will participants' attitudes about their own and others' masculinity be related to their attitudes about their physical body?** Bivariate correlations were used to test research question 12. Results revealed a number of significant relationships between masculinity and body related attitudes. In particular, masculinity consciousness was related to all of the other masculinity and body-related variables. Significant correlations were also found between self-perceived masculinity and anti-effeminacy attitudes. The full correlation matrix can be found in appendix AA.

## Chapter 5: Discussion

The aim of the current work was to examine some of the ways in which men self-present in the disinhibited landscape of MSM-specific mobile dating apps, as well as to examine patterns of usage in conjunctions with men's feelings about their own and others' masculinity/femininity and physical bodies. This research also aimed to investigate differences related to demographic variables, and to explore the relationship between MSM-specific mobile dating app usage and self-esteem and connectedness.

Few scholars have focused on the cultural or identity-related aspects of MSM-specific mobile dating apps, and fewer still have done so from a quantitative perspective. Thus, the current work adds to the literature on these specific online spaces, as well as the literature on MSM identity, partner preferences, and masculinity. The current research also allows scholars and practitioners a better understanding of the impact of MSM-specific mobile dating app usage on men's personal attitudes and feelings. This is crucial, given the issues faced by MSM within and beyond the LGBTQ community, and the overwhelming rate at which MSM utilize Grindr and other similar apps. The present studies aimed to connect MSM-specific mobile app usage to some of the more pressing issues for this population of men, such as internalized homonegativity, body image, constructions of masculinity, and feelings of self-worth and collective belonging.

Study one was a content analysis of men's self-reported profile text and photos. Findings indicated a rather small amount of masculinity/femininity and body language. A number of demographic variables were related to the use of body language, face-disclosing photos, and shirtless photos. Using a survey design, study two explored participants' MSM-specific mobile dating app usage, their attitudes about their own and

others' masculinity/femininity, their attitudes about their physical body, and their feelings of esteem and connectedness. Study two also explored photographic self-presentation in relation to app usage. A number of interesting results were illuminated, including an effect of usage on self-perceived masculinity, body dissatisfaction, internalized homonegativity, and collective self-esteem. A relationship between the use of shirtless photos and drive for muscularity, self-perceived masculinity, and anti-effeminacy values was also uncovered. Lastly, the findings examined a number of interaction effects; age, race, relationship status, education level, geographic location, and level of outness all proved to be significant moderators for at least one of the main effects. Results are discussed in depth below.

### **Textual and Visual Profile Content**

The current research's findings on masculinity/femininity language are consistent with previous work, which has found this type of language to be favorable toward masculinity and unfavorable toward femininity, but also rather minimal in terms of overall quantity (Miller, 2015a). Results indicate that more men described themselves as masculine ( $n = 6$ ) than feminine ( $n = 2$ ), and that an equal number of men self-described as non-masculine ( $n = 2$ ) or non-feminine ( $n = 2$ ). In terms of partner preferences, a larger amount of men ( $n = 8$ ) requested masculine partners or partners who were not feminine ( $n = 1$ ). Only one man had a profile that expressed a desire for feminine partners, and no profile text included a preference for partners who were not masculine. However, the minimal quantity of masculinity/femininity language in the current study makes it difficult to draw conclusions. The lack of masculinity/femininity language in the profiles examined for current study may be evidence of a rather educated, White sample

than any reduction or minimization of this type of language on MSM-specific mobile dating apps. Furthermore, regardless of how widespread the use of masculinity/femininity language, the one-sided nature of these descriptions and preferences may have the ability to gravely impact men's sense of self and perceptions of their own masculinity, desirability, and self worth. Even if mentions of masculinity are sparse, the fact that nearly all partner preferences were pro-masculinity rather than pro-femininity might increase individual's perceptions of self or their feelings about other men and the gay community as a whole. Any space that promotes pro-masculinity ideals might be problematic when one considers the established connection between constructions of MSM masculinity and gay male substance use (Hamilton & Mahalik, 2009), risky sexual behavior (Hamilton & Mahalik, 2009), body dissatisfaction and body oppression (Signorile, 1997; Strong, Singh, & Randall, 2000), disordered eating (Lakkis, Ricciardelli, & Williams, 1999), steroid use (Halkitis, Green, & Wilton, 2004; Halkitis, Moeller, & DeRaleau, 2008), racism (Han, Proctor, & Choi, 2014), self-esteem (Sánchez, et al., 2009), and internalized homophobia (Sánchez et al., 2010; Sánchez, & Vilain, 2012).

Body language was slightly more prevalent than masculinity/femininity language, which implies that some MSM view this type of desirable in terms of attracting potential mates. Once more, body language was similarly skewed to favor those who fit the typical hegemonic masculine ideal. When masculinity/femininity language and body language are considered together (if we consider these types of language to refer to the mannerisms and aesthetics of masculinity) there is evidence that MSM-specific mobile dating apps greatly encourage pro-masculine self- and other-directed ideals over pro-feminine ones.

That age is related to body language is not particularly surprising, however, the direction of this relationship merits discussion. The mean age for men who utilized body language in their profiles was higher than men who did not utilize body language. There are a number of possible explanations for this relationship. It is possible that older men might feel the need to overcompensate for what they deem to be a shortcoming (their age) by explicitly highlighting what they view to be in-demand on MSM-specific mobile dating apps. It is clear from the research that the body plays a central role in gay male culture (e.g. Slevin & Linneman, 2010; Strong et al., 2000; Wood, 2004; Yelland & Tiggemann, 2003), and an older man discussing his body and his fitness level positively may be an attempt to solidify his desirability to others.

Another explanation for the relationship between age and body language may be simpler; it is possible that older men have, through their extended time in MSM spaces online and off, grown accustomed to discussing their bodies. Perhaps this is a trait that is cultivated over time spent in the LGBTQ community, and it is a connection that warrants further research. The finding that shirtless photos were also associated with older men supports the idea that, over time, men may begin to “sell” themselves in a certain manner. This finding is perhaps driven by the fears that older MSM have about their aging bodies (Lodge & Umberson, 2012; Slevin & Linneman, 2010) or the ageism they perceive from within the LGBTQ community (Kaufman & Phua, 2003; Simpson, 2013).

Single men were also more likely to utilize body language than non-single men. Intuitively, this seems to relate to the idea that muscular and fit bodies are desirable, and there may be a need for single men to be especially desirable in order to find a mate on MSM-specific mobile dating apps. Describing one’s own and one’s ideal partner’s

muscularity has long been a feature of MSM's dating profiles (Bailey et al., 1997). It would be sensible to assume that single men have more interest in investing in this norm, as they have more of a need to market themselves as attractive to potential partners.

From a visual self-presentational standpoint, the data indicated that more than one in ten men refrained from disclosing his face publically on his MSM-specific mobile dating app profile. While this may speak to the hesitation of some men to associate with a gay identity or online space, it may also speak to the fact that the majority of the men in the sample were highly educated and, presumably, employed in professional roles. Because of the sexualized and somewhat stigmatized reputation of apps like Grindr, men of certain professional, economic, or cultural background may refrain from face-disclosure for fear of reputational consequences. Research indicates that men view MSM-specific mobile dating apps in a negative manner, despite being users themselves. According to Cassidy (2013), websites and apps like Grindr (and Gaydar, which Cassidy himself studied) operate in a culture of participatory reluctance, in which even the men who engage with these spaces are unenthusiastic about them. Men have been found to feel that MSM-specific mobile dating apps are only good for finding casual sex (Cassidy, 2013), which could explain a professional man's reluctance to disclose his face in such a setting.

Roughly one in five men reported having a shirtless photo publically available on his profile, which again speaks to both the sexualized nature of MSM-specific mobile dating apps, as well as the focus on the muscular and fit male body. Objectification theory may be a necessary lens for considering males' usage of shirtless photos, as well as their usage of body-specific terminology in their profiles. Generally, sexual

objectification has been conceptualized as instances where a person's body, body parts, or sexual functions are separated from the rest of their person (Bartky, 1990). By association, objectification theory suggests that females, in particular, are socialized to internalize an observer's perspective when viewing the self, leading to habitual body monitoring and increased self-objectification (Fredrickson & Roberts, 1997). This theory is almost exclusively used to discuss women and girls, but the current study's findings indicate that MSM may engage in similar self-objectification practices. As a means of gaining attention, some men seem to be using their bodies in a salacious manner, as well as compartmentalizing the self to a quite narrow area of focus (e.g. the torso). Given that both women and MSM are the subjects of a sexualized male gaze, this theory's application to sexual minority males merits further inquiry.

Not only were shirtless photos prevalent, but also the use of this type of photo was associated with a greater drive for muscularity, which implies a connection between muscularity and visual representation of the body. Nonetheless, it is unclear whether those with a higher drive for muscularity are more likely to use shirtless photos because of this drive, or whether those who use shirtless photos develop a higher drive for muscularity because of the attention their bodies receive on their profiles.

The connection between masculinity and the muscular male body is evidenced by the use of shirtless photos and the attitudes that were found to be associated with it. Firstly, having shirtless photos on a profile was positively associated with self-perceived masculinity. In other words, men with shirtless photos believe themselves to, on average, be more masculine than men without shirtless photos. It is possible, too, that men who feel more masculine have higher confidence and thus choose to utilize shirtless photos

more often. Clearly, a conception of one's own masculinity is at least somewhat related to bodily self-presentation. Furthermore, using shirtless photos in one's profile was related to higher anti-effeminacy attitudes. Men who presented themselves bare-chested not only viewed themselves as more masculine, but they seemingly also viewed feminine MSM more negatively. Consequently, there is support for examining masculinity language in relation to both mannerisms and bodily expectations, as has been done in the current project.

There is also support for a connection between outness and visual self-presentation. Men who were less out were less likely to disclose their face in profile photos. This is an instinctive finding, and one that is relatively self-explanatory. A less out man is hiding an aspect of self that could be exposed widely with the disclosure of his face on an MSM-specific mobile dating app. However, outness was also related to the use of shirtless photos, in that men who had lower levels of outness were more likely to utilize photos of their unclothed bodies. While one could argue that more closeted men utilize shirtless photos as a substitute for face photos, this argument would not explain the reasoning for men appearing shirtless in a photo rather than posting photos of their clothed torsos, nature, a cartoon, or the various other profile photo types one might find on MSM-specific mobile dating apps. More likely, men who are less out post shirtless photos as a means of attracting partners. Because not having a face-disclosing photo is looked down upon in online gay culture (Mowlabocus, 2010), shirtless photos may serve as a way to counterbalance this perceived deficit.

### **Attitudes about Masculinity and the Body**

As previously stated, the current research illuminated a connection between profile language about the body and visual presentation of the body. There also existed a correlation between masculinity/femininity language and body language. The connection between these profile elements is all the more problematic when one considers the findings related to the psychosocial attitudinal measures. In addition to the language variables, masculinity and bodily attitudes were similarly correlated, establishing the importance of examining the various aspects of masculinity rather than simply focusing on either personality or aesthetic traits. It is also evidence that MSM's masculinity attitudes are negatively affecting their conceptions of themselves from a health standpoint. For example, masculinity consciousness, or how much attention a man pays to his masculinity when out in public, is not only related to self-perceived masculinity and anti-effeminacy attitudes, but also to a drive for thinness, a drive for muscularity, and body dissatisfaction. If increased consciousness about one's masculinity is associated with increased body dissatisfaction and an increased desire to be skinny and muscular, clearly there is an argument for the detrimental effect of the rigid masculine norms and expectations for gay men on how they view their physical bodies.

The survey illuminated other connections between masculinity and muscularity, all of which are equally troubling. Self-perceived masculinity was positively correlated with drive for muscularity; therefore, either men who perceived themselves to be more masculine were more likely to have a higher drive for muscularity, or men with a higher drive for muscularity were more likely to perceive themselves as more masculine. In either scenario, the connection between muscularity and masculinity is obvious.

A drive for muscularity was also associated with anti-effeminacy, which gives weight to the idea that muscular bodily ideals are not only related to pro-masculinity attitudes, but also to anti-femininity ones. The finding that anti-effeminacy and body dissatisfaction are correlated further supports this. If higher anti-effeminacy attitudes are associated with greater body dissatisfaction, we might infer that this body dissatisfaction has something to do with fear of the body not appearing to be “masculine” or “muscular” enough. This phenomenon may be related to a comfort with one’s own femininity as an aspect of sexuality, as those who are more satisfied with being gay have been found to have less body dissatisfaction than those who are less comfortable with their gayness (Williamson & Hartley, 1998).

### **MSM-specific Mobile Dating App Usage**

Few scholars have examined MSM-specific mobile dating app usage, and those who have done so have tended to focus on the sex-seeking and/or sexual health aspects of usage. The current work examined the daily frequency, weekly frequency, and duration of usage, in conjunction with visual self-presentation, psychosocial attitudes about the self and others, and feelings of esteem and connectedness.

At the most basic level, study two helps us to better understand the magnitude of MSM-specific mobile dating app usage. By examining usage on three different planes, we are able to achieve a more well-rounded and robust understanding of just how much time men are investing in Grindr, Scruff, Jack’d, and other apps. On average, men reported being members of MSM-specific mobile dating apps for 54.706 months, or slightly over four and a half years. This indicates a long-term investment in these particular online communities, and it supports the notion that these are spaces that we

must be researching in order to fully understand MSM and their wellbeing in today's culture. Statistics from the current work not only indicate a long-term investment in MSM-specific mobile dating apps, but also a rather large daily ( $M = 2.01$  hours per day) and weekly ( $M = 2.86$  days per week) frequency of use. It is not clear from the current studies, however, if men are utilizing MSM-specific mobile dating apps as a substitute for, or a compliment to, offline LGBTQ spaces.

A higher level of usage seems to indicate a greater investment in authenticity on MSM-specific mobile dating apps. Because face-disclosing photos are often linked to authenticity (Mowlabocus, 2010), the significant relationship between usage and face-disclosing photos is noteworthy. Men who reported higher weekly usage were more likely to reveal their face in profile photos, as were men who reported being members of MSM-specific mobile dating apps for a longer duration of time. Since outness was also related to face-disclosure, we might make the connection between outness and level of usage in relation to the use of face-disclosing photos.

Other revealed relationships with usage are less intuitive and require a deeper level of contemplation and analysis. They also, perhaps, hold more weight in terms of potential consequences, either positive or negative. Given what we know about online spaces for MSM, we must view each relationship as not only indicative of attitudes or feelings that live online, but one's that impact a person's total self, regardless of how much of that self is compartmentalized in offline versus online space.

Duration of usage of MSM-specific mobile dating apps was negatively related to self-perceived masculinity. It appears that MSM, through their long-term use of Grindr and similar apps, begin to view themselves as less masculine and/or more feminine over

time. If this were a case of men more fully accepting their feminine aspects, it would perhaps be a prosocial element of app usage. However, it is more likely, given what we know about MSM-specific online spaces, that a longer duration causes men to feel less secure in their masculinity because of the rigid and repetitive standards for masculinity presented by the community. It is also possible that men who view themselves as more masculine are simply put off by MSM-specific mobile dating apps, which decreases their duration of usage in comparison to more feminine-identified men.

Daily frequency of usage was positively related to body dissatisfaction. More time spent on MSM-specific mobile dating apps was associated with higher body dissatisfaction. However, because the current research was a survey design, it is impossible to know which comes first, the high daily usage or the high body dissatisfaction. That there is a relationship at all symbolizes the danger of these online spaces in reference to men's body surveillance and comfort in their own skin. This is especially concerning when one considers the high prevalence of eating disorders in MSM, which has been numbered at 15 percent (Feldman & Meyer, 2007), and is likely a conservative estimate due to the stigma surrounding disordered eating, particularly for males

The connection between usage and internalized homonegativity appears to be rather complex. Daily frequency of usage was positively related to internalized homonegativity, which indicates that the more time a man spends on MSM-specific mobile dating apps per visit, the higher his internalized homonegative feelings are likely to be. Evidently, there is something about these apps that makes men – at least temporarily – feel shameful, fearful, or resentful of their homosexual desires and

identities. Nonetheless, it is unclear whether these dejected feelings related to sexual orientation can be traced to an overall negative atmosphere, or whether they are symptomatic of men's personal interactions. For example, if a man spends one hour a day on Grindr, quickly giving up on chatting or seeking partners for whatever reason, he may log off without his feelings about his sexuality being altered. However, if a man spends four hours a day on Grindr, he might more strongly begin to internalize the rejection or disappointment that many experience on online dating websites or apps. If a MSM spends a greater number of hours per day unsuccessfully engaging with other MSM, he may begin to feel more negatively about being gay. It is easy to imagine how a lack of success or engagement online might impact scale items such as "When I think of my homosexuality, I feel depressed," "I believe it is unfair that I am attracted to men instead of women," "I am thankful for my sexual orientation," or "I see my homosexuality as a gift."

Fascinatingly, on a longer-term scale, usage was found to have a positive effect on internalized homonegativity. A decrease in homonegative feelings was associated with a longer duration of use of MSM-specific mobile dating apps. On the surface, this finding seems antithetical to the finding that daily frequency of usage is negatively related to internalized homonegativity. However, it is possible that a longer duration of usage is indicative of a greater enjoyment of MSM-specific mobile dating apps. A greater appreciation for these apps might indicate that men who are longer-term members receive value from their usage in some capacity, which may make them feel better about being MSM and being a part of the gay community. This explanation also coincides with the finding that a longer duration of usage is associated with greater collective self-esteem.

The longer a man has been a member of MSM-specific mobile dating apps, the more positive feelings a man had about his membership and identity as a member of the gay community. Items measuring collective self-esteem included statements such as “I am glad I belong to the gay/bisexual community” and “Belonging to the gay/bisexual community is an important part of my self image.” It is sensible that, because duration is positively associated with increased collective self-esteem, these feelings may also counteract the increased internalized homonegativity that some men experience with higher daily app usage.

The significance of usage’s relationship with collective self-esteem should not be overlooked. In the LGBTQ community – and even from outside of it – apps like Grindr are often demonized for a host of reasons. Gay singer Sam Smith has been quoted as saying that Grindr (and Tinder, it’s mainstream equivalent) is “ruining romance” (Wong, 2014). Heiress Paris Hilton, upon being told about Grindr, was recorded as saying that, “Gay guys are the horniest people in the world. They're disgusting. Dude, most of them probably have AIDS... I would be so scared if I were a gay guy” (Watkins, 2012). Even men who use these spaces have self-perceptions that do not fit with the imagined “other,” as they have noted feeling that they are nicer, happier, more educated, classier, and more “normal” than other users (Cassidy, 2013). It may be that self-categorization as an in-group member of the gay community, fostered by the usage of MSM-specific mobile dating apps, plays a role in collective self-esteem, though this has yet to be tested.

The *Ladies Looking* series and *Douchebags of Grindr*, and the slew of other websites mentioned in the introduction, are devoted to highlighting the toxic, funny, or ridiculous nature of MSM-specific mobile dating apps. Much effort is instilled in

demonizing or shaming users of such apps rather than on recognizing the value in the collective user experience. In qualitative scholarship, the tendency is, at times, to focus on the outliers – the most extreme examples of femmephobia, racism, body shaming, ageism, and other societal issues that may give these apps and their users a bad name. While these issues are of extreme importance, focusing on the most problematic aspects of MSM-specific mobile dating apps may skew what scholars view as normative behavior and communication. The current results indicate that most men do not utilize problematic masculinity/femininity or body language in their online profiles, despite what popular belief may be.

For many, online queer space may be their dominant or only connection to other sexual minorities. The prosocial aspect of MSM-specific mobile dating app usage is one that should be further explored in scholarly research, and one that should perhaps be promoted by LGBTQ-focused organizations and companies. A socially aware campaign on fostering community on MSM-specific mobile dating apps might lead to an overall more positive, meaningful, and engaging existence for sexual minority men who feel isolated, confused, or misunderstood in their everyday lives.

### **Interaction Effects**

One of the most distinct benefits of study two is the examination of interaction effects, which allows for a more nuanced and clear understanding of the impact of MSM-specific mobile dating app usage. A number of interesting and important findings were uncovered, and this section will explore these interactions in more depth. It is crucial to note the role of many of the measured dependent variables – for example, self-esteem and

social connectedness – in the overall wellbeing of MSM and the community of which they are a part.

Geographic location was a significant moderator between daily frequency of use and self-perceptions of masculinity. While daily frequency of usage had no significant effect on self-perceived masculinity for North American men, a higher daily frequency of usage was associated with more masculine self-perceptions for men from outside North America. Furthermore, with higher daily usage, non-North American men had significantly more masculine self-perceptions than those from within North America. This may indicate that the standards for masculinity on MSM-specific mobile dating apps may mirror the standards for masculinity in the North American gay male community offline. Hence, this would explain why higher levels of daily usage would have little impact on North American men. However, it is possible that MSM-specific mobile dating apps differ in how they present masculinity when compared with gay male communities outside of North America. If men in Europe and Australia (where the majority of non-North American men identified being from) interpret an MSM-specific online space to hold more rigid standards for masculinity than their offline world, they may begin to feel that they must up to these standards. Thus, this may account for an increase in self-perceived masculinity for non-North American men.

The relationship between MSM-specific mobile dating app usage and self-perceptions of masculinity was also moderated by education level. A longer duration of usage of the apps in question was related to a decrease in self-perceptions of masculinity for men without a college degree, but not for those with a college degree. This finding may indicate that more educated men have a somewhat more evolved understanding of

masculinity to begin with, or it may simply be indicative of the age of the men in each group, as those who had no graduated college were on average much younger ( $M = 26.31$ ,  $SD = 10.30$ ) than those who had ( $M = 33.31$ ,  $SD = 10.60$ ). Younger men may simply not have as much experience with the LGBTQ community, and college may be a time where conceptions of gay male masculinity and femininity evolve.

The relationship between duration of usage and self-perceived masculinity was also impacted by the outness of participants. For all men, regardless of level of outness, length of duration of MSM-specific mobile dating apps decreased self-perceptions of masculinity. Therefore, we may conclude that long-term usage of these apps impacts the way that men see themselves in terms of their masculinity, causing them to either embrace their femininity more, or to question their masculinity in the face of the rigid standards they find online. Given the skew of masculinity and body language in study one, the latter scenario seems more likely. For men with higher level of outness, this relationship was stronger, indicating that men who were more fully out of the closet were more impacted by their app usage in their self-constructions of masculinity. This is particularly noteworthy, as it indicates that out men might be more likely to internalize the preferences they find online when compared to men with lower levels of outness (who may themselves be less interested in forming relationships and community in these spaces).

Outness also played an important role in the relationship between usage and self-esteem. For men in the sample, regardless of how out they were, more daily usage of MSM-specific mobile dating apps was associated with higher self-esteem. This finding seems to indicate the positive nature of these apps on feelings of self-worth. However, it

is unclear whether the increase in self-esteem is due to superficial feelings of desirability or due to a deeper-level of comfort with one's MSM identity. For men who had lower levels of daily usage, being more out of the closet was associated with lower levels of self-esteem when compared with men who were less out about their sexuality. One explanation for this relationship may be the degree to which men feel invested in their usage of MSM-specific mobile dating apps. At a higher frequency level, we might assume that all men are somewhat invested in engaging with others; however, at lower levels of usage, perhaps those who are more out are somewhat more engaged than those who are less out. Study one revealed that outness was related to the use of face-disclosing photos, and this may play a role in the effect of usage on self-esteem levels.

Relationship status was a significant moderator for a number of associations between usage and the dependent variables. Firstly, relationship status moderated the effect of duration of usage on anti-effeminacy attitudes. For single men, how long they had been using MSM-specific mobile dating apps had no effect on their anti-effeminacy. Conversely, for those in relationships of any kind, longer duration of usage was associated with lower levels of anti-effeminacy. Not only were non-single high duration users lower in anti-effeminacy than non-single low duration users, but they also had lower anti-effeminacy scores than single men who were high duration users. One explanation for this difference may be the nature of *why* men are on these apps. For example, if a single man is on Grindr because he wants to find a date or a boyfriend, he may find that holding an anti-effeminate attitude is marketable. Taywaditep (2002) suggests that many MSM might find anti-effeminacy to be not only a common attitude, but also a desirable one. Therefore, single men may more strongly hold onto these views,

whereas non-single men, who may be looking for sex (if in a non-monogamous relationship) but are less likely to be looking for dating or love, may have less interest in maintaining anti-effeminacy standards and attitudes.

Relationship status also moderated the effect of usage on body dissatisfaction in an interesting manner. With lower levels of daily usage, single men had significantly higher body dissatisfaction than non-single men. Once again, this may be attributed to the very nature of their usage of MSM-specific mobile dating apps. If a man is not partnered, he is more likely to be more invested in finding a partner, which may cause him to engage in more body surveillance. If single men are using MSM-specific mobile dating apps at a low frequency, they may only be interacting with a small proportion of profiles. Study one indicates that roughly one in five profiles include shirtless photos, which may be causing single men to question their own bodies when faced with so many potential mates who they perceived to be more muscular, fit, or confident than themselves. Fascinatingly, higher daily usage was associated with a decrease in body dissatisfaction for single men, causing the gap between single and non-single men to all but disappear. With a higher level of usage, single men may be able to come to the conclusion that there exist a variety of body types on Grindr and such apps, which may allow them to feel better about their own bodies. While the preference for muscularity and hegemonically masculine aesthetics remains, more usage and more interactions online may lessen the effects of this preference for single men searching for partners.

Lastly, relationship status affected the relationship between duration of usage and social connectedness. Men who reported being in relationships had higher levels of social connectedness, regardless of how long they had been using MSM-specific mobile dating

apps. It is probable that this level of connection is higher due to their partner and the natural connection that one feels when they are in a relationship. Single people, in general, may be lonelier than partnered individuals. That single men did not see a rise in their feelings of social connectedness with an increase in duration of usage is somewhat surprising; it indicates that MSM-specific mobile dating apps do not intrinsically increase feelings of connection for their users, particularly when these users remain single over time. However, longer duration was associated with a significant increase in feelings of social connectedness for men in relationships. By eliminating the desire to find a long-term life partner, these men may be more able to focus on fostering friendships and feelings of community that lead to social connectedness. These men may also be more likely to overlook perceived flaws in those with whom they are communicating, as their intentions may differ from those of single men.

Race was another significant moderator of the relationship between duration of usage and social connectedness. With a shorter duration of usage, White men had significantly more feelings of social connectedness than non-White men. This is not entirely surprising, as the gay male community has often been criticized for its racist nature (e.g. Callander et al., 2012; Paul et al., 2010; Riggs, 2013; Teunis, 2007). However, findings indicate that a longer duration of usage was associated with an increase in social connectedness for non-White men. In fact, high duration non-White users had altogether higher feelings of social connectedness than high duration White users. The implication, then, is that MSM-specific mobile dating apps – despite the criticism of their racist undertones – increase connection for men of color in the long-term. It is possible that the racism on MSM-specific mobile dating apps simply mirrors

the racism that non-White men experience in offline LGBTQ spaces and in society at large. However, because it is clear that these apps have a prosocial impact on feelings of connectivity, it is also possible that non-White men utilize these apps to find other non-White men, or those who desire non-White partners, thus increasing feelings of connection. This finding runs counter to much of the existing literature, which focuses more on the toxic nature of MSM's online racism rather than on the opportunity for increased experiences with diversity in an online queer setting.

Age also played a role in the relationship between usage and men's attitudes about themselves. In particular, the relationship between duration of usage and body dissatisfaction was moderated by participants' age. Regardless of duration of usage, age had a negative effect on body dissatisfaction; those who were older tended to have lower levels of body dissatisfaction. It is possible that MSM simply become more comfortable with their bodies as they age, however, this would be counterintuitive with study one's findings that associated body language and shirtless photos with increased age. More likely, this finding could indicate that a longer relationship with the gay male community (as evidenced by an older age) causes one to be more body-aware and, perhaps, more invested in diet and exercise. A deeper investment in diet and exercise for older men might therefore cause them to feel better about their bodies, which may also cause them to discuss their bodies more in their profiles and to highlight their bodies more in profile photographs. Those who are younger and newer to the gay community may feel increased dissatisfaction with their body, or they may simply feel more pressure to live up to certain standards.

For both younger and older men, body dissatisfaction decreased with a higher duration of usage. This relationship was more pronounced for older men. There is evidence, then, that MSM-specific mobile dating apps have a positive effect on men's feelings about their own bodies. Due to the highly sexualized nature of these particular online spaces, as well as the increasingly shallow nature of dating apps and websites more generally, men may experience feelings about their bodies in relation to their perceived desirability on MSM-specific mobile dating apps. However, this may not necessarily be a positive finding, as directionality cannot be assessed. It is possible that body dissatisfaction decreases simply due to the use of MSM-specific mobile dating apps, particularly for older men who may find themselves more desirable than they expect. However, it is also possible that men with more body dissatisfaction are shorter-term members of MSM-specific mobile dating apps because they have less desired bodies and thus are not as comfortable in such spaces. This is especially important when one considers the extant literature on the high rates of disordered eating in MSM (Feldman & Meyer, 2007).

### **Theoretical Implications, Limitations, and Future Directions**

The current research has a number of implications for self-categorization theory, the online disinhibition effect, and priming theory. In particular, the present work is useful for future scholars looking to examine MSM from these theoretical standpoints. Due to the breadth of the research, a variety of theoretical advancements were able to emerge. These will be discussed in the following subsection.

Research has not typically examined subgroups within the MSM identity category, particularly as these subgroups may relate to the categorization of self and

others. Therefore, the current work's focus on a masculine in-group of MSM and a feminine out-group of MSM was novel. That the findings indicate a preference for masculine self- and other-directed language, as well as muscularity language, supports the idea that these traits are desired in this particular community. Apps like Grindr may be an area ripe for self-categorization, as they not only allow men to self-categorize in free text areas, but also encourage them to do so using app features. The idea of a masculine in-group is bolstered by the fact that many men chose to use categorization features provided by the apps themselves. For example, of the 186 men who chose Grindr as their preferred app, 54.8% ( $n = 102$ ) utilized the "tribe" feature that required them to assign themselves to particular subgroups of MSM. While a few of the tribes fall outside traditional masculine norms (e.g. "Geek," "Twink"), many of these options reinforce rigid masculine boundaries (e.g. "Bear," "Otter," "Jock," "Rugged," and "Leather.").

An even higher percentage of Scruff users categorized themselves using the app's features; 51 out of 55 of these men (92.7%) chose at least one "I am" category in order to classify the self. Once again, the resulting categories were skewed to favor masculinity as the in-group. Categories such as "Bear," "Muscle," and "Military," very clearly have hegemonic masculine implications. Given that men self-categorize in this manner, in addition to at times categorizing the self and others in their free text profile text, MSM-specific mobile dating apps are a uniquely useful space for the study of social identity and self-categorization in MSM communities. Future research may apply this theoretical lens to examine other in-groups in these online spaces, such as Caucasian men, younger men, or HIV-negative men.

The current studies also help to advance the concept of the online disinhibition effect. Using MSM-specific mobile dating apps tended to decrease inhibition, in that more weekly use and a longer duration of use were both associated with having a face-disclosing photo. Attaching one's face to one's profile may, in itself, be a disinhibited act, as research indicates that MSM-specific mobile dating apps have rather unfortunate public perceptions (Cassidy, 2013). At the same time, there was no indication that face-disclosure was related to the use of masculinity/femininity or body language. This runs counter to the assumption that total anonymity is required for toxic disinhibition to occur. It is more likely that unidentifiability (Lapidot-Leffler & Barak, 2012) is a better measure than anonymity to examine the impact of the Internet's effects on toxic communication for MSM. While a man may show his face on Grindr or Scruff, he may still feel a sense of unidentifiability if he does not also list his full name, profession, or other identifying details. Therefore, face-disclosure may not be as important a variable as theorized, particularly in an online space perceived to be as toxic as MSM-specific mobile dating apps.

Media priming theory was also advanced with focus and scope of the current research. Firstly, by focusing on user-generated content specifically, this research has applied priming to an area that is not commonly examined through this theoretical lens. The majority of priming research has tended to focus on the effects of the mass media's content; however, the boundaries between what is mass and what is not are becoming less strict over time. User-generated content is a crucial next step for priming theory; as this content may be seen as even more trustworthy and important to audiences when

compared to the impersonal mass media-created content, the priming effect may be even stronger.

The current research was also unique in that it examined the priming of masculinity and body attitudes in MSM individuals. No other study has examined this particular phenomenon from a priming standpoint, and that is an important advancement in itself. Some of the more traditional priming attitudes, such as attitudes about crime and violence, would not necessarily be useful to examine along the lines of sexual orientation, unless there was an LGBTQ-specific angle (e.g. hate crimes). Nonetheless, examining issues such as the priming of masculinity and muscularity attitudes is especially applicable to MSM-specific mobile dating apps, and future work may seek to examine other attitudes that are of specific interest to this population, such as HIV stigma, transphobia, ageism, and so forth. The cultural aspects of MSM online space is an understudied area of quantitative communication research, and future studies that investigate priming in these spaces using an experimental design are necessary.

There is evidence that exposure to the text and images on MSM-specific mobile dating apps contributes to the priming of certain problematic masculinity and body attitudes by making these attitudes chronically accessible to users. Findings indicated that increased usage (daily, weekly, and/or duration) of MSM-specific mobile dating apps was associated with more body dissatisfaction and a lessened sense of one's own masculinity. However, these spaces were also associated with positive elements, such as a long-term decrease in internalized homonegativity. While the survey design of the current research makes it difficult to draw steadfast conclusions, there is very clearly a

relationship between MSM-specific mobile dating apps and masculinity and body attitudes.

One limitation, then, of an online survey design is the inability to draw conclusions on the direction of significant effects found in the data. For example, we cannot know for certain whether men who utilize shirtless photos in their profiles begin with more masculine self-perceptions, or whether this perceived masculinity is bolstered by a man's use of, or the response to, shirtless photos. Similarly, the current work does not allow us to know the direction of the association between usage and attitudinal variables. For instance, it is theoretically possible that those with higher collective self-esteem have developed this higher esteem through a longer duration of use of MSM-specific mobile dating apps. Nonetheless, it is also theoretically possible that having a greater amount of collective self-esteem has caused some men to enjoy MSM-specific mobile dating apps more, and thus to remain members for longer. Future research must probe these relationships further, and experimental work would seem to be the next step.

It would be useful to contrast MSM-specific mobile dating app users with non-users, and to measure the between-group differences on the current work's key variables, such as self-esteem, masculinity consciousness, body dissatisfaction, and so on. A significant contrast between the groups would allow for more robust conclusions on the contributions of MSM-specific mobile dating app use to these attitudinal and emotional variables. Comparing current versus past users of MSM-specific mobile dating apps might also be a fruitful area for research. This particular comparison would be able to decipher the longer-term effects from the shorter-term effects, both from a priming

standpoint, as well as an overall survey of the long-term relationship to MSM's health and wellbeing.

Future research should also expand upon the international scope of the current work. Quantitatively examining MSM-specific mobile dating apps in an international sense is a necessity if we want to make generalizations about a global MSM cultural and the associated expectations. While it makes sense to use a more localized sample when investigating the behaviors or offline intentions related to app usage, it is crucial that research explore gay/MSM culture through a broader, more global lens. The findings indicated that geographic region moderated the relationship between daily frequency of usage and self-perceptions of masculinity. This finding speaks to the importance of examining gay male masculinity, body, and identity norms in a global context. Currently, it is a rarity to find research that does not concentrate solely on MSM app users from only one continent or, in many cases, only one country. Consequently, research on MSM-specific mobile apps at times ignores the global reality of Grindr and similar technologies. Not only can met chat to those far away when they are traveling, but on many MSM-specific mobile dating apps (e.g. Scruff, Jack'd, etc.), users can utilize a global function that allows them to chat with men from across the world. Many apps even allow users to search by city, state, and country. There are no borders where the Internet is concerned, and scholars must therefore continue to erase the borders in the research on MSM's online experiences.

One other area that is suitable for future inquiry is the examination of user's intentions on MSM-specific mobile dating apps. Despite the popular cultural belief that Grindr, Scruff, and other similar apps are primarily used for sex-seeking, the limited

research in this area has not supported the assumption that sex is the only purposes for which men are using MSM-specific mobile dating apps. For example, Gudelunas (2012) found that, while men often engage on MSM-specific mobile dating apps to find sexual partners, many also use them to search out long-term relationship partners, as well as friends with similar interests. The versatility of apps like Grindr has been noted as a key motivation for use, with men reporting using MSM-specific mobile dating apps for everything from sexual encounters to friendship to connection with the larger gay community (Miller, 2015b). The multitude of functions, and the fact that one need not choose only one usage intention, is a defining feature of MSM-specific mobile dating apps (Miller, 2015b). Nonetheless, few studies focus on the various ways MSM engage online, instead choosing to focus on only one area, most often sex-seeking as a function of online interaction (e.g. Burrell et al., 2012; Grosskopf et al., 2014; Holloway et al., 2013; Landovitz et al., 2013; Rendina et al., 2014). Studying the sexual practices of MSM is a worthy area of scholarship, however, we must refrain from reducing gay, bisexual, and other MSM to purely sex-motivated online users.

That race has a moderating effect on the relationship between MSM-specific mobile dating app usage and social connectedness is not surprising, giving how much scholarly research has focused on racism in gay male online spaces (e.g. Callander et al., 2012; Paul et al., 2010; Phua & Kaufman, 2003) and the connection between race and face-disclosure on MSM-specific mobile dating apps (Fitzpatrick et al., 2015; Miller, 2015a). Nevertheless, the current study's prosocial finding that associates duration of usage with increased social connectedness for non-White MSM is noteworthy, as it runs counterintuitive to the notion that online MSM spaces are inherently damaging for non-

White men. While there is no disputing the evidence that racism persists in the LGBTQ community, both online and off, evidently, there is a longer-term benefit for non-White men who participate on MSM-specific mobile dating apps. Future scholarship should investigate the prosocial aspects of app use for different races/ethnicities and subgroups of MSM, perhaps focusing on the increased intergroup interaction that may occur online.

Another prosocial finding of the current research was that higher daily usage was associated with higher self-esteem. Once again, this underscores the need for more research to focus on the potential positive uses of Grindr, Scruff, and similar online space. For many MSM, the online world may be their only connection to other MSM, and understanding how LGBTQ organizations and groups might advantageously use MSM-specific mobile dating apps is important in ensuring the continued resiliency of sexual minority men. Furthermore, researchers must strive to understand not only how MSM are interacting on MSM-specific mobile dating apps, but also how these interactions relate to their offline lives. For instance, a man using Grindr as an alternate sphere (Marciano, 2014), wherein he compartmentalizes his online MSM life and his offline life, will presumably differ in how he experiences himself in relation to MSM-specific mobile dating when compared to a man who uses these apps as a compliment to his offline LGBTQ contact. Understanding more about the context of usage will greater illuminate the members of the population most in need of intervention, support, and connection.

It is crucial that future research investigate not only cognitive variables, but also behavioral outcomes associated with MSM-specific mobile dating app use. In particular, because there is a clear relationship between usage and certain masculinity, body, esteem, and connectedness variables, scholarship must also consider how using Grindr and

similar apps affects behaviors associated with these attitudes and feelings. It would be beneficial for scholarship to explore MSM-specific mobile dating apps in relation to behaviors such as participation in social/dating activities, disordered eating practices, physical activity, substance use, and offline interaction with other LGBTQ individuals. Furthermore, future work may seek to measure other mental and physical health variables not covered in the current studies (e.g. depressive symptomology or coping capabilities and styles). A continued exploration of the prosocial and antisocial effects of MSM-specific mobile dating apps will lead to not only a better understanding of the use of such apps and the communication that occurs therein, but also a better understanding of how they make men feel, how they impact the way men act, and how they are related to men's overall well-being.

As with most research on MSM, one significant limitation of the current work is a lack of diversity in the sample. Lack of diversity occurs on a number of levels, and for a number of specific reasons. Firstly, the current study had a minimal amount of men who did not identify as gay when compared to the number of straight, bisexual, or curious-identified men that seem to, anecdotally, participate in MSM-specific mobile dating apps. Obviously, attempting to convince men who do not identify as gay or bisexual, but who engage in sex or chat with other men, to participate in research is a continued struggle. We must recognize the personal, cultural, and societal barriers that restrict some men from adopting a gay/bisexual identity, even when they engage in same-sex activity, and accept that it may be harder to reach these men in a research sense. At the same time, recruiting online and ensuring anonymity is a somewhat necessary tool for recruiting participants who may not identify with, or be out about, their status as a MSM.

Despite one quarter of men identifying as non-White, race was another issue with the diversity of the sample. In order to examine effects in a more nuanced manner, a greater proportion of African American, Hispanic, and Asian men would have been useful. However, much like some MSM may be reluctant to participate in scholarly research for fear of what the scholar will find/write about them, racial/ethnic minorities may exhibit an even greater reluctance to participate in scholarship. Seeking out double-minorities is a difficult endeavor. The current sample was also overeducated in terms of the general population, or presumably, the general population of MSM-specific mobile dating app users. Since more education may contribute to more evolved conceptions of masculinity and, perhaps, more critical thinking about issues surrounding sexuality, masculinity, and the body, future research should make a greater effort to target men from all educational backgrounds.

Because education tends to be linked to other issues such as class and race, targeting those with lower levels of education would increase diversity on multiple factors. While more educated individuals, as those who attended college and/or graduate school, may be more likely to see the value in academic research, scholarship could make greater efforts to target those with lower economic or educational status. This may be done by arranging to pay participants, or by advertising on MSM-specific mobile dating apps themselves, where all users would be equally likely to read about the study, rather than on social media, where it is more likely to be targeted to those in certain social groups.

Finally, as with all survey-based research, there was a reliance on self-reported data for which we can never be fully certain of veracity and exactness. While it is

unlikely that participants willing to invest more than thirty minutes in an online survey would lie about their profile contents or their attitudes, it is of course a reminder that we should interpret the data with caution. However, an anonymous online survey allows participants to feel less inhibited in their responses; because the only link to their identity was an optional e-mail request, in order to be entered into the gift card draw, we can assume that responses were perhaps even more honest than they would have been had the data been collected using real names, or in a laboratory setting.

### **Conclusion**

The current research approached the study of MSM-specific mobile dating apps in a comprehensive and innovative manner. By focusing on multiple elements of usage, on masculinity and the body, on self-presentation, and on men's personal attitudes and feelings, the present work advances what scholars know about MSM, their online space, and their community norms. Self-categorization theory was applied to MSM-specific mobile dating apps, and the quantitative exploration of a masculine in-group and a feminine out-group was novel. Furthermore, the use of the online disinhibition framework allowed for supplementary illumination of the use of certain linguistic and visual self-presentational strategies on MSM-specific mobile dating apps. Lastly, the current research applied priming theory to the examination of a distinct type of media that had not yet been approached through such a lens. The findings of the present scholarship elucidate the importance of studying MSM-specific mobile dating apps by exposing both their antisocial and prosocial effects, their relationship to MSM's attitudes about masculinity/femininity and the body, and their connection to feelings of esteem and connectedness. They also underscore the importance of examining patterns in profile

content and MSM-specific mobile dating app usage for the many different demographics and traits of men who may fall under the MSM umbrella term.

## Appendix A

### Negative Attitudes Toward Effeminacy Scale (Taywaditep, 2001)

Please indicate how much you agree or disagree with each of the following statements.  
(5) Strongly Agree, (4) Agree, (3) Neither Agree nor Disagree, (2) Disagree, (1) Strongly Disagree

1. If I were to run a personal ad looking for a date, I would include "no fems" in the requirements.
2. I don't want to be associated with the stereotypical image of effeminate gays.
3. I would enjoy going to a party where many gay guys "camp it up" and act in a feminine manner.
4. It bothers me to see a gay guy acting like a woman.
5. A gay man's effeminate behavior would probably get in the way of my developing a comfortable relationship with him.
6. I don't mind letting people see that some of my gay friends are quite effeminate.
7. Generally, I try to avoid gay men who are overtly feminine.
8. I am comfortable hanging out with gay guys who are feminine by most people's standards.
9. When I meet a gay man for the first time, I would be turned off immediately if he acted effeminate.
10. It is all right with me to see gay men talk, walk, and do things in a feminine way.
11. Effeminate gay men help contribute to the good diversity within the gay community.
12. When in public, I try to maintain some distance from gay guys who are apparently "sissy queens."
13. "Femme" gay men are ruining the respectability of gay men overall.
14. It is embarrassing to be seen in public with a "queenie" gay man.
15. The effeminacy of some gay men is detrimental to the public image of gay people in general.

16. I would feel nervous being in a group of "sissy" gay guys.

17. The gay community would be a much more comfortable place if some of its members try to keep their flamboyant behavior down.

## Appendix B

### Masculine Consciousness Scale (Taywaditep, 2001)

Please indicate how personally true each of the following statements is for you on a scale from 1 (Not at all true for me) to 5 (Definitely true for me).

1. I want to be thought of as a regular, down-to-earth, masculine guy.
2. I often wonder whether people think I am masculine.
3. It is embarrassing when I inadvertently do or say something feminine.
4. My public behaviors are usually guided by what I think a masculine man might do.
5. I take extra effort to make sure people don't see me as a "sissy."
6. I would feel good if someone presumed I was heterosexual.
7. I always make sure I appear masculine when I meet people for the first time.
8. It is important that people recognize the masculine side of me.
9. I sometimes modify my public manners to give off that extra "masculine" appearance.
10. When I hear my own recorded voice, I listen to see how masculine it sounds.
11. I work on my appearance to look like regular, masculine men.
12. For me, being masculine goes hand-in-hand with my self-esteem.
13. In the presence of others, I sometimes deliberately act in a masculine manner in the things I do.
14. When I see myself in a photograph, I sometimes try to size up how masculine I appear.
15. I am sometimes concerned that I am not appearing masculine enough.
16. I would feel unsettled if somebody I know said that I was not very masculine.
17. Sometimes, I may do things that suggest "I am not gay" to strangers.
18. I would be humiliated if someone commented that I was somewhat feminine.

## Appendix C

### Social Identity Scale (Stern, Barak, & Gould, 1987)

For each of the following statements, please indicate how MASCULINE or FEMININE you consider yourself to be currently, using most people's definition of what is masculine or feminine.

(1) Very Masculine, (2) Masculine, (3) Neither Masculine or Feminine, (4) Feminine, (5) Very Feminine

1. I FEEL as though I am...
2. I LOOK as though I am...
3. I DO most things in a manner typical of someone who is...
4. My INTERESTS are mostly those of a person who is...
5. My PERSONALITY is typical for someone who is...
6. My EMOTIONS are...
7. My BODY is typical of someone who is...
8. My PHYSICAL STRENGTH is typical of someone who is...
9. How I DRESS is...
10. What I DO FOR A LIVING (or STUDY) is...
11. The way I COME ACROSS TO OTHERS is typical of someone who is...
12. The way I SPEAK is...
13. My HOBBIES are...
14. I am INTERESTED in THINGS that typically interest someone who is...
15. The way I SOLVE PROBLEMS is...
16. My VALUES AND IDEALS are typical of a person who is...

## Appendix D

### Internalized Homonegativity Inventory for Gay Men (Mayfield, 2001)

Please indicate how much you agree or disagree with the following statements. (1) Strongly Disagree, (2) Disagree, (3) Neither Agree nor Disagree, (4) Agree, (5) Strongly Agree.

Subscale: Personal homonegativity (11 items)

5 I feel ashamed of my homosexuality.

3 When I think of my homosexuality, I feel depressed.

17 Sometimes I feel that I might be better off dead than gay.

20 I sometimes feel that my homosexuality is embarrassing.

13 I am disturbed when people can tell I'm gay.

18 I sometimes resent my sexual orientation.

10 When people around me talk about homosexuality, I get nervous.

7 When I think about my attraction towards men, I feel unhappy.

15 Sometimes I get upset when I think about being attracted to men.

23 I believe it is unfair that I am attracted to men instead of women.

11 I wish I could control my feelings of attraction toward other men.

Subscale: Gay affirmation (7 items)

6 I am thankful for my sexual orientation.

9 I see my homosexuality as a gift.

21 I am proud to be gay.

1 I believe being gay is an important part of me.

22 I believe that public schools should teach that homosexuality is normal.

12 In general, I believe that homosexuality is as fulfilling as heterosexuality.

8 I believe that more gay men should be shown in TV shows, movies, and commercials.

Subscale: Morality of homosexuality (5 items)

19 I believe it is morally wrong for men to be attracted to each other.

16 In my opinion, homosexuality is harmful to the order of society.

4 I believe that it is morally wrong for men to have sex with other men.

14 In general, I believe that gay men are more immoral than straight men.

2 I believe it is OK for men to be attracted to other men in an emotional way,  
but it's not OK for them to have sex with each other.

Note. The item numbers represent the placement of the items in the final version of the IHNI. Items in subscale 2 should be reverse scored

## Appendix E

### Male Body Dissatisfaction Scale (Ochner, Gray, & Brickner, 200)

Please indicate an answer for each item in column one according to how you currently feel about your body. *In addition*, rate how important the item is to you by placing a number from 1 to 10 (1 = no importance to you, 10 = great importance to you) in column two. Read all carefully and answer honestly; all responses are kept confidential.

1. \_\_\_\_\_ I am happy with how much muscle I have compared to how much fat I have.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
2. \_\_\_\_\_ Other people think I have a good body.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
3. \_\_\_\_\_ I am a good weight for my height.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
4. \_\_\_\_\_ I wish I had more muscular arms.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
5. \_\_\_\_\_ I am hesitant to take my shirt off in public because people will look at my body.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
6. \_\_\_\_\_ I fantasize about having more muscle.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
7. \_\_\_\_\_ I have thoughts of dissatisfaction towards my body.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
8. \_\_\_\_\_ I think I have a generally attractive body.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
9. \_\_\_\_\_ I wish I had more of a V-shaped torso (upper body).  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
10. \_\_\_\_\_ I wish I could become more toned in order to accentuate the muscle I do have.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
11. \_\_\_\_\_ I am more muscular than the average male my age.  
(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree
12. \_\_\_\_\_ I worry about being more muscular.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

13. \_\_\_\_\_ I wish I had bigger biceps.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

14. \_\_\_\_\_ I think my pectoral (chest) muscles are well developed.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

15. \_\_\_\_\_ I have a “six-pack” or “washboard” stomach.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

16. \_\_\_\_\_ Others would find me more attractive if I had more muscle.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

17. \_\_\_\_\_ I wish I could lose more fat.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

18. \_\_\_\_\_ My body looks healthy.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

19. \_\_\_\_\_ I like to show off my body.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

20. \_\_\_\_\_ The shape of my body is one of my assets.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

21. \_\_\_\_\_ I look like I could lift more weight than the average male my age.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

22. \_\_\_\_\_ I wish I had better muscle definition.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

23. \_\_\_\_\_ My body is sexually appealing to others.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

24. \_\_\_\_\_ I think about how different my body looks from what my ideal body would look like.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

25. \_\_\_\_\_ I wish I could build a better body for myself.

(1) Strongly Agree, (2) Agree, (3) Neutral, (4) Disagree, (5) Strongly Disagree

Note: Items 4–7, 9,10,12,13,16,17, 22, 24, and 25 are reverse-scored.

## Appendix F

### Drive for Muscularity Scale (McCreary & Sasse, 2000)

Please read each item carefully then, for each one, indicate which number best applies to you using the following scale: (1) Never, (2) Rarely, (3) Sometimes, (4) Often, (5) Always

1. I wish I were more muscular.
2. I lift weights to build up muscle.
3. I use protein or energy supplements.
4. I drink weight gain or protein shakes.
5. I try to consume as many calories as I can in a day.
6. I feel guilty if I miss a weight training session.
7. I think I would feel more confident if I had more muscle mass.
8. Other people think I work out with weights too often.
9. I think that I would look better if I gained 10 pounds in bulk.
10. I think about taking anabolic steroids.
11. I think that I would feel stronger if I gained a little more muscle mass.
12. I think that my weight training schedule interferes with other aspects of my life.
13. I think that my arms are not muscular enough.
14. I think that my chest is not muscular enough.
15. I think that my legs are not muscular enough.

## Appendix G

### **Drive for Thinness Subscale of the Eating Disorder Inventory (Garner, Olmstead, & Polivy, 1983)**

Please indicate a response for each of the following statements using the following scale:  
(1) Never, (2) Always, (3) Sometimes, (4) Often, (5) Always

1. I eat sweets and carbohydrates without feeling nervous.
2. I think about dieting
3. I feel extremely guilty after overeating.
4. I am terrified of gaining weight.
5. I exaggerate or magnify the importance of weight.
6. I am preoccupied with the desire to be thinner.
7. If I gain a pound, I worry that I will keep gaining.

Note: Item 1 is reverse-scored.

## Appendix H

### Rosenberg Self-Esteem Scale (Rosenberg, 1965)

Please indicate how much you agree or disagree with the following statements.

(1) Strongly Agree, (2) Agree, (3) Neither Agree nor Disagree, (4) Disagree, (5) Strongly Disagree

1. I feel that I'm a person of worth, at least on an equal plane with others.
2. I feel that I have a good number of good qualities.
3. All in all, I am inclined to feel that I am a failure.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times I think I am no good at all.

Note: Items 1,2,4,6, and 7 are reverse-scored.

## Appendix I

### Collective Self-Esteem: Male Version (Herek & Glunt, 1994)

Please read each statement carefully, and respond by using the following scale from 1 to 5: (1) Strongly Disagree, (2) Disagree, (3) Neither Agree nor Disagree, (4) Agree, (5) Strongly Agree.

1. I'm glad I belong to the gay/bisexual community.
2. I regret belonging to the gay/bisexual community. (Reversed)
3. My membership in the gay/bisexual community is an important reflection of who I am.
4. I feel good about belonging to the gay/bisexual community.
5. I make a positive contribution to the gay/bisexual community.
6. Belonging to the gay/bisexual community is an important part of my self image.
7. I feel I don't have much to offer to the gay/bisexual community. (Reversed)
8. I feel that belonging to the gay/bisexual community is not a good thing for me. (Reversed)
9. My membership in the gay/bisexual community has very little to do with how I feel about myself. (Reversed)

Note: Items 2, 7, 8, and 9 are reverse-scored.

## Appendix J

### Social Connectedness Scale (Lee & Robbins, 1995)

Please indicate how much you agree or disagree with the following items using the following scale: (1) Strongly Agree, (2) Agree, (3) Neither Agree nor Disagree, (4) Disagree, (5) Strongly Disagree.

1. I feel disconnected from the world around me.
2. Even around people I know, I don't feel that I really belong.
3. I feel so distant from people.
4. I have no sense of togetherness with my peers.
5. I don't feel related to anyone.
6. I catch myself losing all sense of connectedness with society.
7. Even among my friends, there is no sense of brother/sisterhood.
8. I don't feel I participate with anyone or any group.

## Appendix K

**Chart of Hypotheses and Research Questions, Variables, and Analyses**

<b>Research Question or Hypothesis</b>	<b>Variables</b>	<b>Analysis</b>
RQ1a	<b>Variables:</b> Masculinity self-description, Femininity self-description, Masculinity partner preference, Femininity partner preference, Any masculinity/femininity self-description, Any masculinity/femininity partner preference, Any masculinity/femininity language	Frequencies
RQ1b	<b>Rows or DV:</b> Any masculinity/femininity language <b>Columns or IV:</b> Age, Race, Relationship status, Education level, Geographic location, Outness	Chi-square & Simple linear regression
RQ2b	<b>Variables:</b> Muscularity self-description, Fat self-description, Muscular partner preference, Fat partner preference, Any body self-description, Any body partner preference, Any body language	Frequencies
RQ2b	<b>Rows or DV:</b> Any body language <b>Columns or IV:</b> Age, Race, Relationship status, Education level, Geographic location, Outness	Chi-square & Simple linear regressions
RQ3	<b>Variables:</b> Any masculinity/femininity language, Any body language	Bivariate correlation
RQ4a	<b>Variables:</b> Face-disclosing photos, Shirtless photos	Frequencies
RQ4b	<b>Rows or DV:</b> Face-disclosing photos, Shirtless photos <b>Columns or IV:</b> Age, Race, Relationship status, Education level, Geographic location, Outness	Chi-square & Simple linear regressions
H1a & b	<b>Grouping Variable:</b> Face-disclosing photos <b>Test Variables:</b> Any masculinity/femininity language, Any body language	Independent samples t-test
H2a & b	<b>Variables:</b> Shirtless photos, Any masculinity/femininity language, Any body language	Bivariate correlations
RQ5	<b>Independent Variables:</b> Daily frequency, Weekly frequency, Duration <b>Dependent Variables:</b> Face-disclosing photos, Shirtless photos	Multiple linear regressions
RQ6	<b>Independent Variables:</b> Daily frequency,	Multiple linear

	Weekly frequency, Duration <b>Dependent Variables:</b> Masculinity consciousness, Self-perceived masculinity, Anti-effeminacy	regressions
RQ7	<b>Independent Variables:</b> Daily frequency, Weekly frequency, Duration <b>Dependent Variables:</b> Drive for thinness, Drive for muscularity, Body dissatisfaction	Multiple linear regressions
RQ8	<b>Independent Variables:</b> Daily frequency, Weekly frequency, Duration <b>Dependent Variables:</b> Internalized homonegativity	Multiple linear regression
RQ9	<b>Independent Variables:</b> Daily frequency, Weekly frequency, Duration <b>Dependent Variables:</b> Self-esteem, Collective self-esteem, Social connectedness	Multiple linear regressions
RQ10a	<b>Independent Variables:</b> Face-disclosing photos, Shirtless photos <b>Dependent Variables:</b> Masculinity consciousness, Self-perceived masculinity, Anti-effeminacy	MANOVAs
RQ10b	<b>Independent Variables:</b> Face-disclosing photos, Shirtless photos <b>Dependent Variables:</b> Drive for thinness, Drive for muscularity, Body dissatisfaction	MANOVAs
RQ11	<b>Variables:</b> Masculinity consciousness, Self-perceived masculinity, Anti-effeminacy, Drive for thinness, Drive for muscularity, Body Dissatisfaction	Bivariate correlations
RQ12a	<b>Independent Variables:</b> Daily frequency, Weekly frequency, Duration <b>Dependent Variables:</b> Masculinity consciousness, Self-perceived masculinity, Anti-effeminacy <b>Moderating Variables:</b> Age, Race, Relationship status, Education level, Geographic location, Outness level	Multiple hierarchical regressions
RQ12b	<b>Independent Variables:</b> Daily frequency, Weekly frequency, Duration <b>Dependent Variables:</b> Drive for thinness, Drive for muscularity, Body dissatisfaction <b>Moderating Variables:</b> Age, Race, Relationship status, Education level, Geographic location, Outness level	Multiple hierarchical regressions
RQ12c	<b>Independent Variables:</b> Daily frequency,	Multiple

	<p>Weekly frequency, Duration</p> <p><b>Dependent Variable:</b> Internalized homonegativity</p> <p><b>Moderating Variables:</b> Age, Race, Relationship status, Education level, Geographic location, Outness level</p>	hierarchical regressions
RQ12d	<p><b>Independent Variables:</b> Daily frequency, Weekly frequency, Duration</p> <p><b>Dependent Variables:</b> Self-esteem, Collective self-esteem, Social connectedness</p> <p><b>Moderating Variables:</b> Age, Race, Relationship status, Education level, Geographic location, Outness level</p>	Multiple hierarchical regressions

## Appendix L

### MSM APP PROFILE CODEBOOK

The purpose of this content analysis is to code masculinity/femininity-focused self-descriptions, and partner preference descriptions in social networking profiles for men who have sex with men (MSM). We will be using text from actual social networking profiles provided by a sample of MSM-specific mobile application users who undertake an online survey. All of the textual content from the provided profile will be merged into one document, as the overall profile is the level of analysis. Each person will be responsible for coding a portion of the total sample.

Coder IDs:

1 =

2 =

3 =

Variables

Variables are listed by level/type of coding. The variable name as it appears on the Excel coding sheet is in parentheses.

Basic Detail Variables

Profile ID: Each profile has a unique identification number. This is the number in the title of the file, and it corresponds to the rest of the profile user's survey content. It is very important that this number is reported correctly.

Self-Description Variables

Masculine Self-Description (SelfMasc): This variable refers to a user's description of himself, not of his preference in others. Does the user refer to himself or his behavior as masculine, masc, straight-acting or some other variation of such (e.g. "a guy's guy," "I act like a dude")? Alternately, does the user explicitly mention NOT being masculine, masc, straight-acting or some other variation of such?

1 = User refers to himself as masculine

2 = User refers to himself as NOT masculine

3 = User does not mention masculinity in relation to the self

Feminine Self-Description (SelfFem): This variable refers to a user's description of himself, not of his preference in others. Does the user refer to himself or his behavior as feminine, femme, or some other variation of such (e.g. flaming, queen, girlie)?

Alternately, does the user explicitly mention NOT being feminine, femme, or some other variation of such?

- 1 = User refers to himself as feminine
- 2 = User refers to himself as NOT feminine
- 3 = User does not mention femininity in relation to the self

Presence of a Masculinity/Femininity Self-Description (SelfMFPresence): This variable refers to the presence of masculinity or femininity language to describe the self in any capacity. Note that if you answered “yes” to one or more of the previous two questions, this variable must be coded as “yes” as well.

- 1 = yes
- 2 = no

Muscularity Self-Description (SelfMusc): Does the user mention his own muscularity, fitness level, or toned body in the profile text? Alternately, does the user mention his own lack of muscularity, lack of fitness level, or lack of being toned in the profile text (e.g. “I’m not muscular/musc”).

- 1 = User mentions his own muscularity/fitness
- 2 = User mentions his own LACK of muscularity/fitness
- 3 = User does not mention muscularity in relation to the self.

Fat Self-Description (SelfFat): Does the user mention how he is fat, unfit, chubby, plus-sized, or some other variation of body type that is not muscular (e.g. having a “Dadbod”)? Alternately, does the user mention how he is not fat, unfit, chubby, or some other variation of non-muscular?

- 1 = User mentions his fatness/unfitness
- 2 = User mentions his own LACK of fat
- 3 = User does not mention fatness in relation to the self.

Presence of a Body Self-Description (SelfBodyPresence): This variable refers to the presence of body-focused language to describe the self in any capacity. This includes references to muscularity or lack thereof. Note that if you answered “yes” to one or more of the previous two questions, this variable must be coded as “yes” as well.

- 1 = yes
- 2 = no

#### Partner Preference Variables

The user’s preferences are determined by the mention of the men they are seeking in the profile text. Often times, there will be no preference mentioned. Other times, there will be very straightforward preferences listed. The user might describe what they want in a

partner (e.g. “seeking masc”), or they may describe what they do not want in a partner (e.g. “no fems”). In both of these instances, a preference for masculine men over feminine men is presented, and you would code as such. If no preference is listed, indicate this.

**Masculine Preference (MascPref):** Does the user explicitly state a desire for men who are – or who act – masculine, masc, straight-acting or some other variation of such (e.g. “a guy’s guy”)? Alternately, does the user explicitly mention NOT wanting men who are – or what act – masculine, masc, straight-acting or some other variation of such?

- 1 = User explicitly mentions wanting masculine partners
- 2 = User explicitly mentions NOT wanting masculine partners
- 3 = User does not explicitly mention masculinity in relation to potential partners

**Feminine Preference (FemPref):** Does the user explicitly state a desire for men who are – or who act – feminine, femme, or some other variation of such (e.g. “guys who act like chicks”)? Alternately, does the user explicitly mention NOT wanting men who are – or who act – feminine, femme, or some other variation of such?

- 1 = User explicitly mentions wanting feminine partners
- 2 = User explicitly mentions NOT wanting feminine partners
- 3 = User does not explicitly mention femininity in relation to potential partners

#### Presence of Masculinity/Femininity Language in Partner Preferences

**(PartnerMFPresence):** This indicates the overall presence of a masculinity and/or femininity language used to describe the men who the user would like to contact him. Some users will express what they desire (e.g. “masc for masc” or “straight-acting only”). Others will explicitly express those they do not want to contact them (e.g. “no fems” or “no flamers”). Many profiles will not have a stated preference. If there is any sort of other-directed masculinity or femininity language, please indicate it here. Please do not include instances of self-directed gender role language. Note that if you answered “yes” to one or more of the previous two questions, this variable must be coded as “yes” as well. If you coded the previous two questions as “no”, then the answer here would be also be “no”.

- 1 = Masculinity/femininity language is used to describe potential partners
- 2 = Masculinity/femininity language is NOT used to describe potential partners

**Muscular Body Preference (MuscPref):** Does the user mention desiring men who are muscular, fit, in shape, or who have a toned body in the profile text? Examples might look like “muscular guys only,” “only looking for guys who take care of themselves physically,” “in shape dudes to the front of the line,” “love guys with abs and pecs,” etc. Alternately, does the user mention NOT desiring men who are muscular, fit, in shape, or who have a toned body in the profile text? An example might look like, “not looking for a muscle God.”

- 1 = User explicitly mentions wanting muscular/fit partners
- 2 = User explicitly mentions NOT wanting muscular/fit partners
- 3 = User does not indicate a muscularity preference for potential partners

Fat Body Preference (FatPref): Does the user mention desiring men who are fat, chubby, or unfit in the profile text? Other words might include big, large, bearish, chunky, thick, husky, curvy, big-boned, or fuller-figured. Alternately, does the user mention how he is not desiring of fat, unfit, chubby, or some other variation of non-muscular men?

- 1 = User explicitly mentions wanting fat/chubby partners
- 2 = User explicitly mentions NOT wanting fat/chubby partners
- 3 = User does not indicate an unwanted body preference for potential partners

Presence of a Body Partner Preference (PartnerBodyPresence): This variable refers to the presence of body-focused language to describe others in any capacity. This includes references to muscularity or lack thereof. Note that if you answered “yes” to one or more of the previous two questions, this variable must be coded as “yes” as well. If you coded the previous two questions as “no”, then the answer here would be also be “no”.

- 1 = yes
- 2 = no

## Appendix M

**Table 1: Research Question 5, Face-Disclosing Photos as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	.002	.260	.795
Weekly Frequency of Usage	-.031	-2.996	.003*
Duration of Usage	-.001	-3.550	.000*

\* Indicates significance at the  $p = .05$  level or below.

**Table 2: Research Question 5, Shirtless Photos as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	-.006	-.594	.553
Weekly Frequency of Usage	-.019	-1.427	.155
Duration of Usage	-.001	-1.239	.216

## Appendix N

**Table 3: Research Question 6, Masculinity Consciousness as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	-.011	-.208	.835
Weekly Frequency of Usage	.027	.387	.699
Duration of Usage	-.004	-1.286	.200

**Table 4: Research Question 6, Self-perceived Masculinity as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	.019	1.605	.110
Weekly Frequency of Usage	.008	.528	.598
Duration of Usage	-.002	-3.144	.002*

\* Indicates significance at the  $p = .05$  level or below.

**Table 5: Research Question 6, Anti-Effeminacy as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	.001	.035	.972
Weekly Frequency of Usage	.024	.877	.381
Duration of Usage	.000	.199	.842

## Appendix O

**Table 6: Research Question 7, Drive for Thinness as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	-.023	-.797	.427
Weekly Frequency of Usage	.035	.944	.346
Duration of Usage	.001	.360	.719

**Table 7: Research Question 7, Drive for Muscularity as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	-.013	-.728	.467
Weekly Frequency of Usage	.015	.630	.529
Duration of Usage	-.001	-.665	.507

**Table 8: Research Question 7, Body Dissatisfaction as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	-.054	-2.069	.040*
Weekly Frequency of Usage	.016	.460	.646
Duration of Usage	.000	-.220	.826

\* Indicates significance at the  $p = .05$  level or below.

## Appendix P

**Table 9: Research Question 8, Internalized Homonegativity as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	.030	2.058	.041*
Weekly Frequency of Usage	.005	.255	.799
Duration of Usage	-.003	-3.535	.000*

\* Indicates significance at the  $p = .05$  level or below.

## Appendix Q

**Table 10: Research Question 9, Self-Esteem as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	.012	.614	.540
Weekly Frequency of Usage	.004	.169	.866
Duration of Usage	.002	1.645	.101

**Table 11: Research Question 9, Collective Self-Esteem as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	-.016	-.855	.393
Weekly Frequency of Usage	.032	1.288	.199
Duration of Usage	.002	1.982	.048*

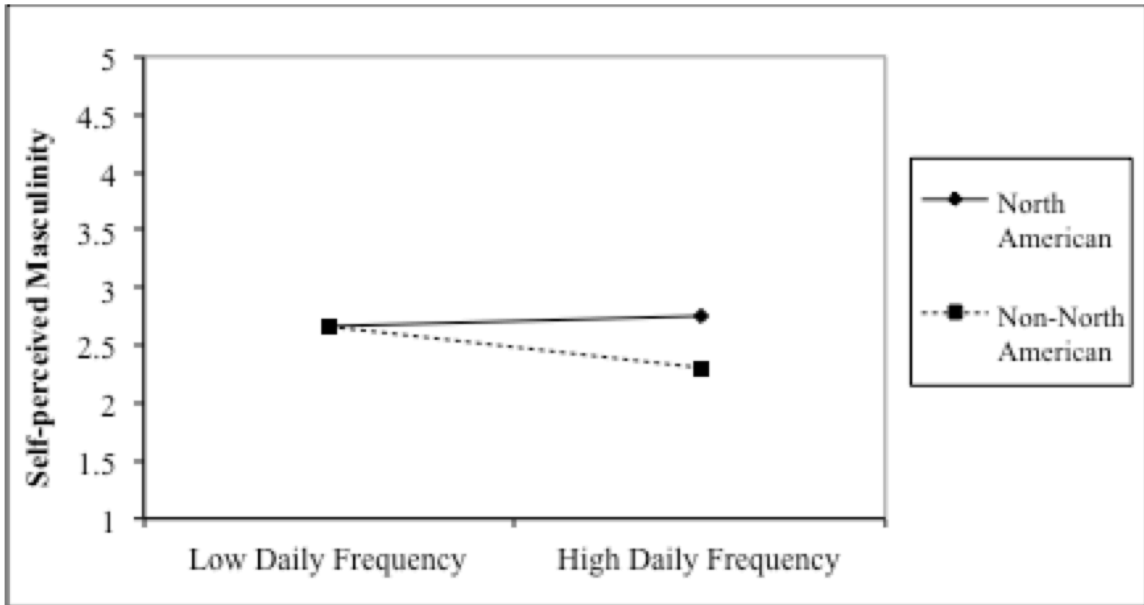
\* Indicates significance at the  $p = .05$  level or below.

**Table 12: Research Question 9, Social Connectedness as Dependent Variable**

<b>Predictor</b>	<b>b</b>	<b>t</b>	<b>p</b>
Daily Frequency of Usage	-.038	-1.416	.158
Weekly Frequency of Usage	.006	.169	.866
Duration of Usage	-.001	-.499	.618

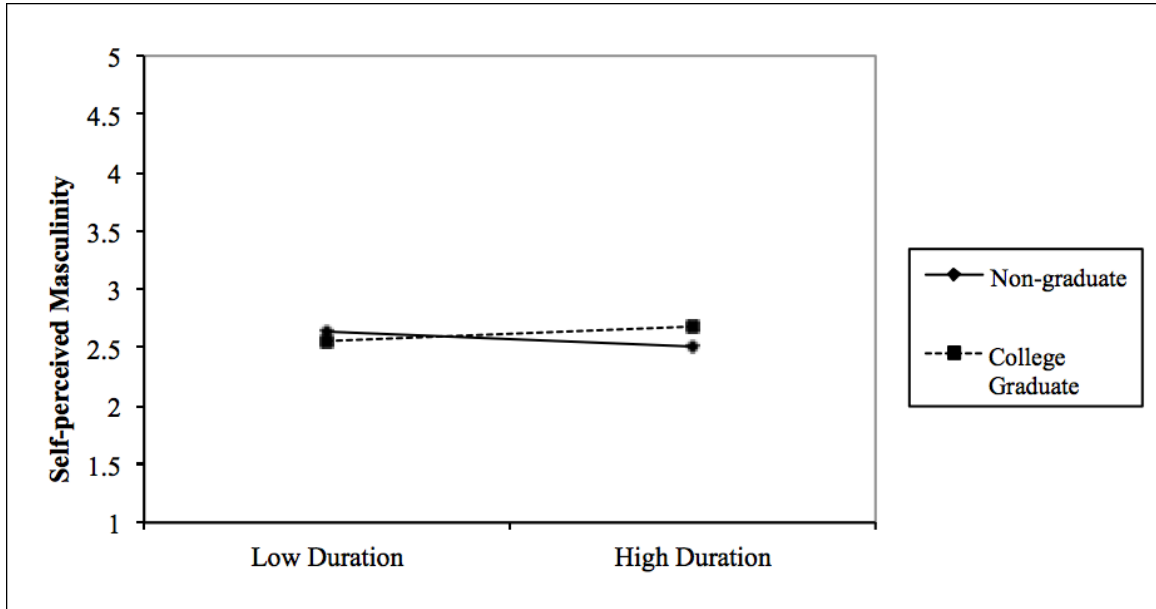
## Appendix R

**Figure 1: Research Question 10a, The interaction between daily frequency of use and geographic location on self-perceived masculinity.** Note: a higher number on self-perceived masculinity represents a more feminine self-perception.



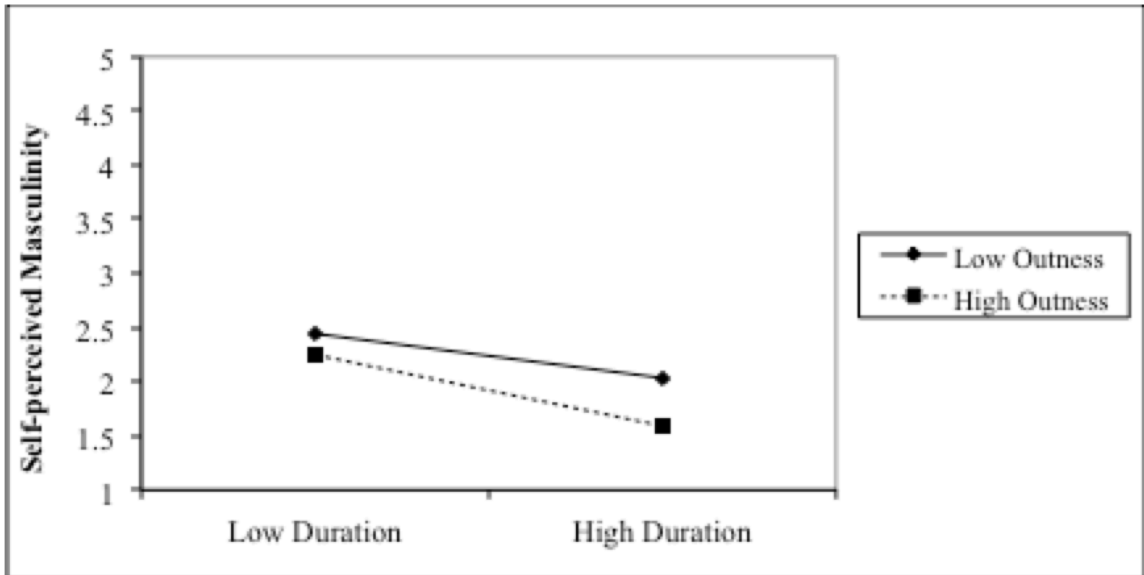
## Appendix S

**Figure 2: Research Question 10a, The interaction between duration of usage and education level on self-perceived masculinity.**



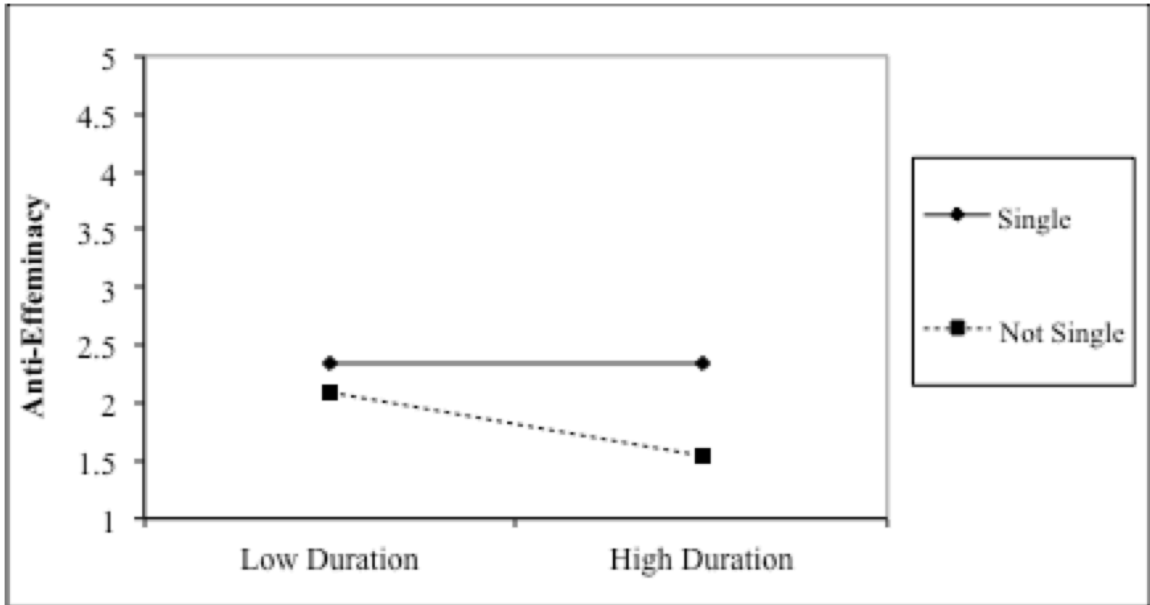
## Appendix T

**Figure 3: Research Question 10a, The interaction between duration of usage and outness level on self-perceived masculinity.**



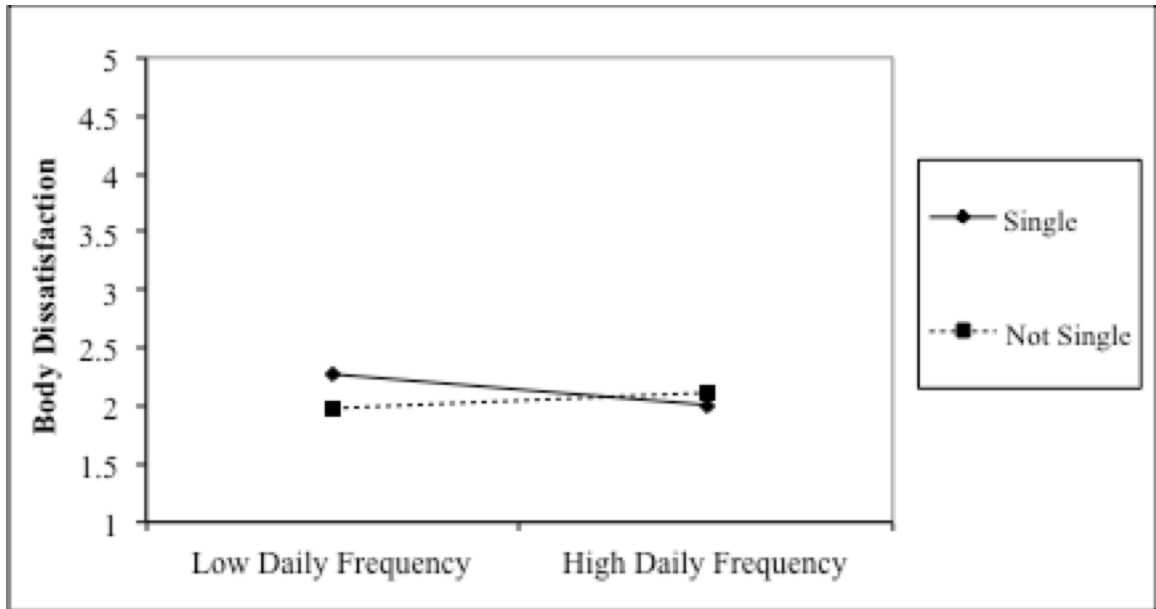
## Appendix U

**Figure 4: Research Question 10a, The interaction between duration of usage and relationship status on anti-effeminacy.**



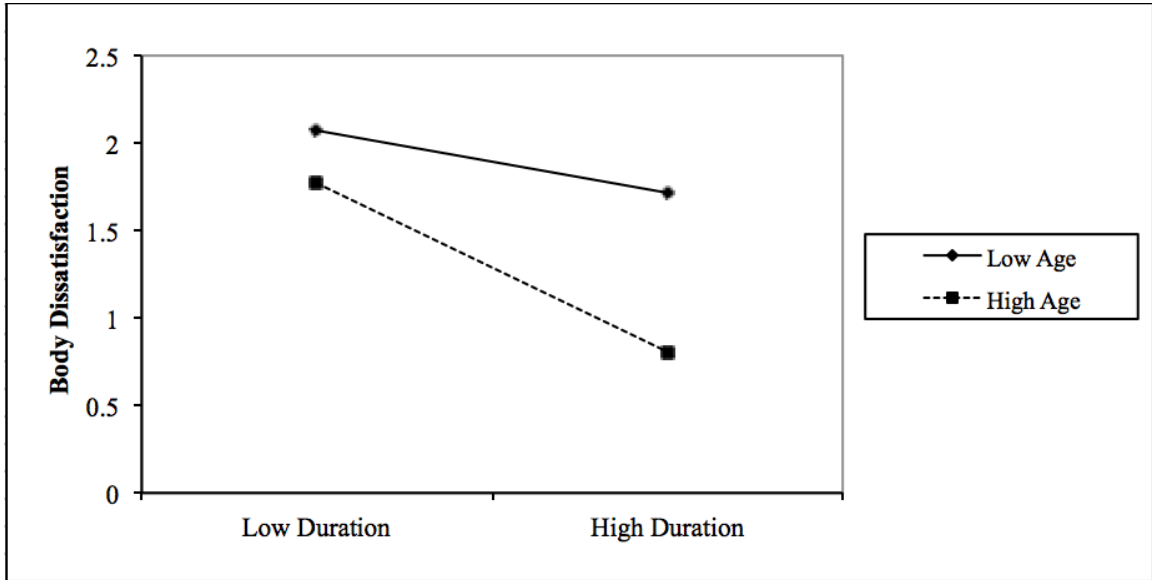
## Appendix V

**Figure 5: Research Question 10b, The interaction between daily frequency of usage and relationship status on body dissatisfaction.**



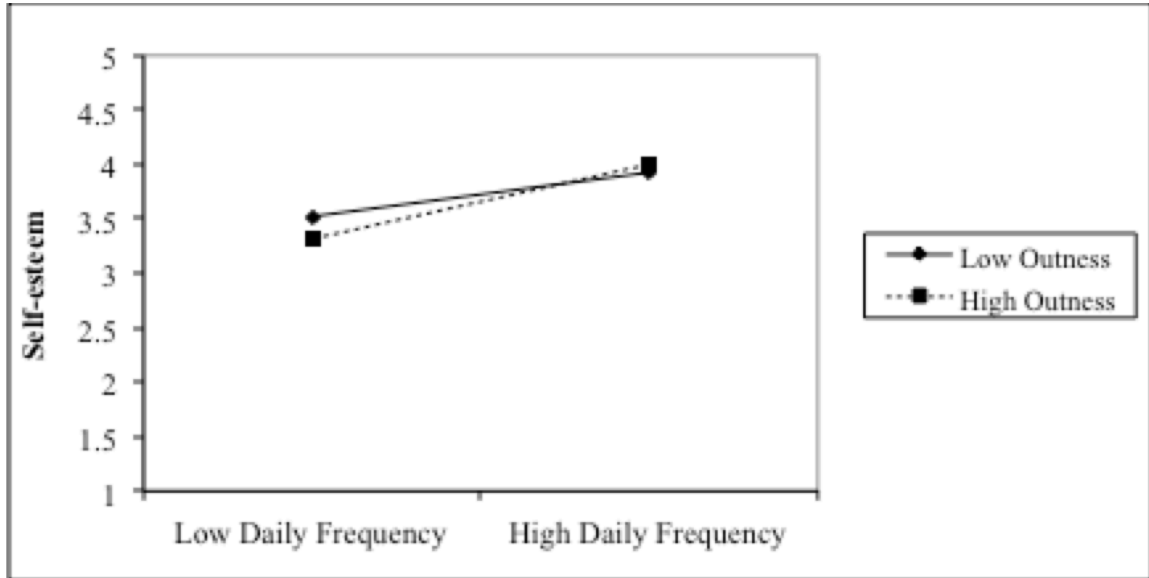
## Appendix W

**Figure 6: Research Question 10b, The interaction between duration of usage and age on body dissatisfaction.**



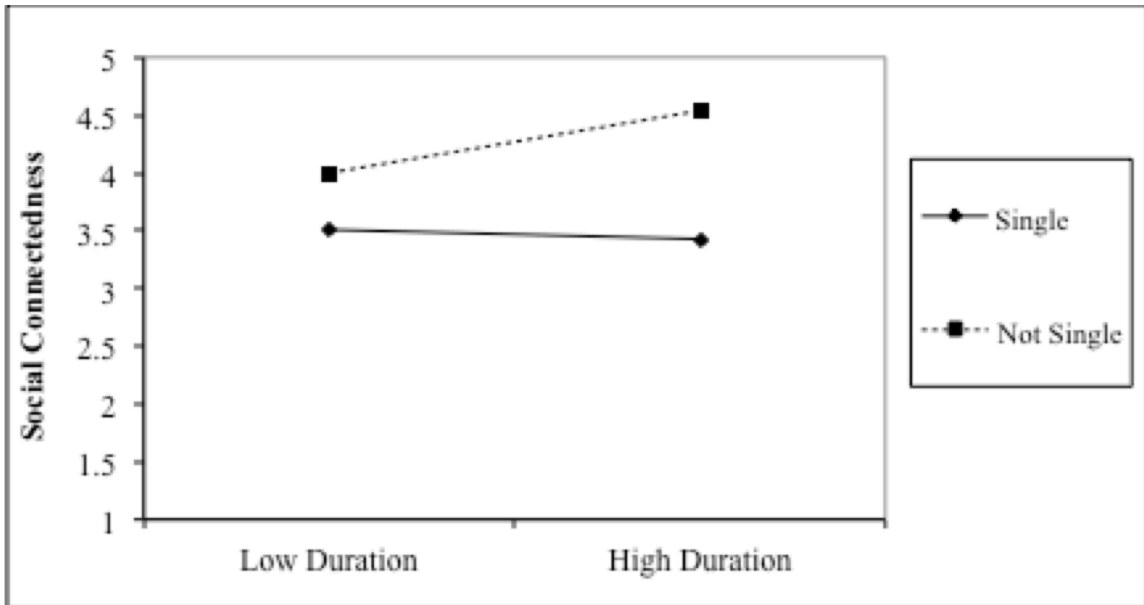
## Appendix X

**Figure 7: Research Question 10d, The interaction between daily frequency of usage and outness on self-esteem.**



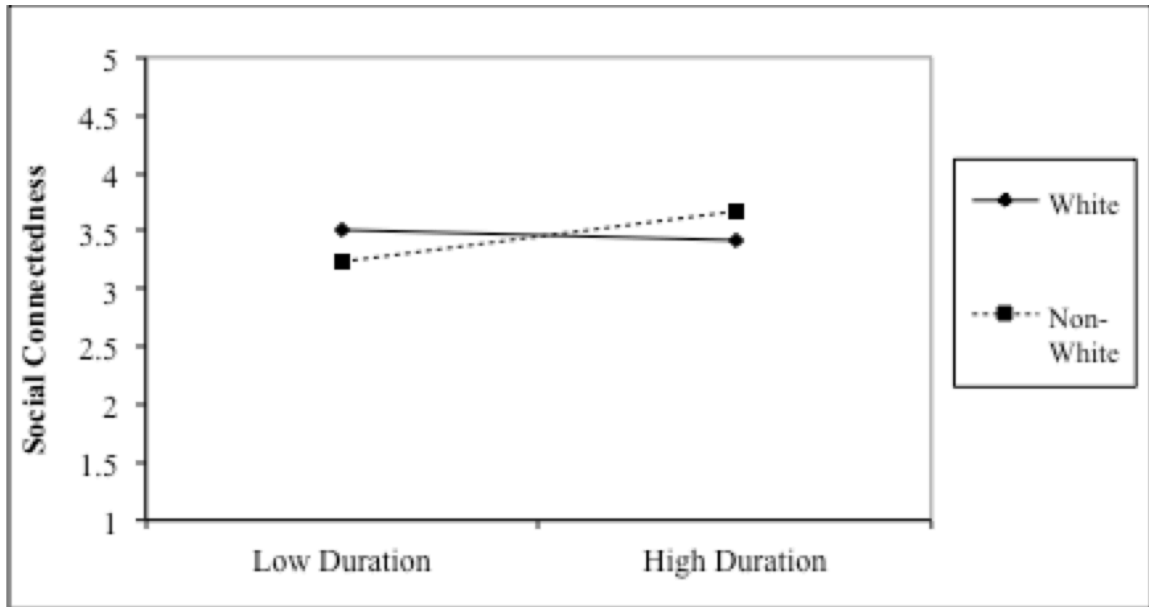
## Appendix Y

**Figure 8: Research Question 10d, The interaction between duration of usage and relationship status on social connectedness.**



## Appendix Z

**Figure 9: Research Question 10d, The interaction between duration of usage and race on social connectedness.**



## Appendix AA

**Table 13: Research Question 12, Correlation matrix for masculinity- and body-related variables.**

	Correlation coefficients					
	1	2	3	4	5	6
1. Self-perceived masculinity						
2. Masculinity Consciousness	-.217**					
3. Anti-effeminacy	-.279**	.580**				
4. Drive for Thinness	.001	.270**	.046			
5. Drive for Muscularity	-.214**	.411**	.190**	.248**		
6. Body Dissatisfaction	.890	.398**	.148*	.566**	.527**	

Note: Correlation coefficients marked with an asterisk were statistically significant at the  $p < .05$  level. Correlation coefficients marked with two asterisks were statistically significant at the  $p < .01$  level.

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## VITA

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