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APPLIED PSYCHOLOGY | RESEARCH ARTICLE

On the differences between Tinder™ versus online dating agencies: Questioning a myth. An exploratory study

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Abstract: Despite common stereotypes about those who use different types of online dating, psychological research on online dating agency users' characteristics is actually very limited, and no scientific study has yet examined the individual characteristics of Tinder™ users. The current exploratory study aimed to investigate why individuals use these services, and how they differ in terms of sociability, self-esteem, and sexual permissiveness, with the aim of stimulating further research in the field. Participants ($N = 75$) were recruited over social media and completed questionnaires assessing motivation to use online dating, sociability, self-esteem, and sexual permissiveness. No differences were found in motivations, suggesting that people may use both Online Dating Agencies and Tinder™ for similar reasons. Tinder users in the current sample were younger than online dating agency users, which accounted for observed group differences in sexual permissiveness. There were no differences in self-esteem or sociability between the groups. Men were more likely than women to use both types of dating to find casual sex partners than women. Men also scored more highly on a measure of sexual permissiveness than women. These findings support previous research in indicating that users of both Tinder™ and Online Dating Agencies do not differ from the general population.

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PUBLIC INTEREST STATEMENT

In recent years, a variety of technologies have been developed to help people find potential partners. In addition to traditional Online Dating Agencies, social dating applications such as Tinder™ have grown enormously in popularity. In contrast to Online Dating Agencies, Social Dating Applications are freely available on smart phones, target a different group, are easy to handle and match partners based on more superficial traits, mainly age and gender. Despite commonly held stereotypes about Tinder™ being a "hook-up" app, no scientific study has yet investigated motivations or personality characteristics of its users. In this exploratory study, we therefore begin to pose the questions: "What motivates people to use these Apps?" and "How do these users differ from each other and from people who do not use any online dating service?" Our results indicated that Tinder™ and Online Dating Agency users do not differ from the general population.

Subjects: Applied Social Psychology; Consumer Psychology; Psychological Science; Psychology of New Media; Social Psychology

Keywords: online dating; online dating agencies; Tinder™; dating apps; internet users; characteristics; motivations; Personality; individual differences

1. Introduction

In recent years, online dating has become a popular way of searching for a potential partner. Thirty-eight percent of single adults who are looking for a partner in the US have used Online Dating Agencies or Social Dating Applications (Apps; Duggan & Smith, 2014). Despite the growing increase in usage, there remains very little psychological literature regarding individuals' motivations to use online dating and about the characteristics of individuals who use these services. Of particular interest are Social Dating Apps, such as Tinder™, which have an increasing share of the market (Singleboersen-vergleich, 2014). In Austria, Germany, and Switzerland, 30.8% of people who use dating sites use Social Dating Apps (Singleboersen-vergleich, 2014). In the US, about seven percent of those who use cell phone Apps have used a Social Dating App (Duggan & Smith, 2014).

There has recently been intensive debate in the non-academic press as to whether Tinder is used mainly as a “hook-up” App (Sales, 2015) or whether its users instead seek long-term relationships (Lapowsky, 2015; Petersen, 2015). However, other than the claims of the CEO of Tinder (Petersen, 2015), no independent data have been provided to support or refute either of these arguments. In fact, other than limited demographic information, there appears to be no academic literature currently available about the individual characteristics of users of such Social Dating Apps. One question that arises is whether users of these Social Dating Apps are similar to those who make use of traditional Online Dating Agencies. If so, findings from existing research into those who use Online Dating Agencies could be extrapolated to make hypotheses about Tinder users. In this exploratory study, we attempt to begin to consider this question.

1.1. Online dating

Online dating has revolutionized the way in which we search for a partner, providing us with access to a mass of potential partners, all conveniently laid out like a menu at the click of a button. As such, it is the subject of a burgeoning field of research, studied by academics from many diverse disciplines. A full discussion of this literature is beyond the scope of this paper, but the reader is directed to Finkel, Eastwick, Karney, Reis, and Sprecher (2012) for an excellent review of the causes and consequences of this new way of dating. Psychological research into online dating includes investigations of individuals' attitudes to online dating (e.g. Donn & Sherman, 2002), and also of deception and self-presentation online (e.g. Ellison, Hancock, & Toma, 2012; Guadagno, Okdie, & Kruse, 2012; Hall, Park, Song, & Cody, 2010; Toma & Hancock, 2010, 2012; Toma, Hancock, & Ellison, 2008; Whitty, 2008). Other researchers have approached the field from an economics or business background, including developing and testing economic models of factors such as assortative mating (e.g. Hitsch, Hortacsu, & Ariely, 2010), and investigating ways in which to optimize dating sites to increase payoff for users (e.g. Frost, Chance, Norton, & Ariely, 2008). In this paper, we focus on the individual characteristics (sometimes known as personality factors) and motivations of people who use online dating. We begin by reviewing research into individual characteristics and motivations of Online Dating Agency Users before discussing Social Dating Apps such as Tinder.

1.2. Research investigating individual characteristics of online dating agency users

For a long time, the use of Online Dating Agencies was considered to be stigmatizing. The use of the internet was viewed as a way to compensate for real-life defects (Valkenburg & Peter, 2007). Early studies of internet use found positive relationships between loneliness, social anxiety, and time spent on the internet (e.g. Kraut et al., 1998). Later studies, however, could not replicate these results (Kraut et al., 2002; Valkenburg & Peter, 2007). Valkenburg and Peter (2007) suggest that because the internet is now so widely used, “the online population increasingly resembles the offline population (p. 852).”

Hence, stigmatizing perceptions of Online Dating Agency Users as less sociable individuals who fear face-to-face contact (e.g. Doan, 2010; Ormonde, 2013) have reduced over the last 10 years. Duggan and Smith (2014) found that 21% of people in 2013 agreed with the statement “people who use online dating sites are desperate” in comparison with 29% in 2005. There has actually been very little research conducted to test whether any negative stereotypes (such as people being low in self-esteem and unsociable) associated with Online Dating Agency use are actually accurate. To date, it appears that there have been only a few studies investigating these parameters in Online Dating Agency Users, most of which appear to contradict these negative stereotypes. Two individual difference variables have been studied in particular: sociability—which has also been framed as shyness or “dating anxiety”—(Aretz, Demuth, Schmidt, & Vierlein, 2010; Brym & Lenton, 2003; Kim, Kwon, & Lee, 2009; Valkenburg & Peter, 2007; Whitty & Buchanan, 2009), and self-esteem (Aretz et al., 2010; Blackhart, Fitzpatrick, & Williamson, 2014; Kim et al., 2009).

1.2.1. Sociability

Early speculation that those who use internet dating may be those who struggle in social interactions has not been borne out by empirical evidence. Three studies concluded that those who use online dating sites are just as sociable (Aretz et al., 2010; Brym & Lenton, 2003; Kim et al., 2009) as those who do not. Of course, the construct of sociability is defined and measured differently in different studies. It is sometimes reported in relation to extraversion, shyness, or social anxiety. Most research indicates a lack of difference between online daters and those who do not use online dating sites in these variables too (e.g. Steffek & Loving, 2009; Whitty & Buchanan, 2009) although see (Aretz et al., 2010) who found that those who use dating sites are more introverted. Some research actually indicates the opposite: that internet dating may be particularly the preserve of those who are low in dating anxiety (Valkenburg & Peter, 2007) and higher in sociability (Kim et al., 2009) although any such effects seem small at best. Taken as a whole, the (admittedly limited) body of research thus far, suggests that those who use internet dating sites are either just as sociable or perhaps even more so than those who do not.

1.2.2. Self-esteem

As with sociability, the stereotype of internet dating sites being used by people who have low self-esteem is not broadly supported by the literature. Most studies have found no difference in self-esteem (Aretz et al., 2010; Blackhart et al., 2014; Kim et al., 2009) or self-confidence (Brym & Lenton, 2003) between those who do and do not use internet dating sites.

1.3. Research investigating motivations for using online dating agencies

There is very limited research investigating individuals’ motivations for using Online Dating Agencies. However, understanding the function these media serve for individuals is an important factor in understanding individual differences in choice of dating medium. Uses and Gratifications Theory assumes that individuals seek out media in order to satisfy individual needs such as social identity, interpersonal communication, and companionship needs (Ruggiero, 2000). Social needs, in particular, may be gratified through internet use (Stafford, Stafford, & Schkade, 2004). The use of Online Dating Agencies to meet social needs is, perhaps not surprisingly, borne out by a recent study. An investigation of Online Dating Agency Users found that users’ motivations for engaging in online dating formed four broad factors: communication, affirmation (originally labeled confirmation), developing closeness, and “amusement” (Aretz et al., 2010).

1.4. Online dating agencies vs. social dating apps

Social Dating Apps are very different from Online Dating Agencies. Online Dating Agencies offer a service that assesses their users’ characteristics and expectations of a potential partner in order to create matches with users who share these characteristics and meet their expectations. Those targeted are adults over 25 who want to engage in a serious relationship and are willing to pay for the service (Singleboersen-vergleich, 2014). Social-Dating Apps, such as Tinder™, on the other hand, do not require a fee and work somewhat differently. Firstly, they are available to all (including minors over 13) but target individuals over 18 years; 38% of Tinder’s™ users are between 16 and 24 years

old (GlobalWebIndex Q1, 2015). Rather than filling out a survey, the user is presented with all other Tinder™ users in their area and in an age range that s/he determines. A swipe left with the finger means “reject”, a swipe right means “like.” The “like” or “reject” occurs anonymously. If two people “like” each other, they become able to chat.

Anecdotally, Tinder™ does not appear to be a service dedicated only to people in search of a serious relationship. In public, it is rather perceived as a “hook-up” App (e.g. Sales, 2015). Although no peer-reviewed study has examined the motivations of Tinder™ users, one non-scientific study suggests that less than 20% of Tinder™ users use the service because they are looking for a relationship (Stein, 2013). This is in contrast to claims by Tinder™’s CEO, who stated at the Web Summit conference in Dublin (Petersen, 2015) that an in-house survey revealed that 80% of users are looking for a long-term relationship. Such claims have not yet been substantiated by independent research. A comprehensive search of the literature revealed no study as yet which examines the characteristics of Tinder™ users. However, because Tinder™ is so widely associated with “hook-ups” and casual dating (e.g. Sales, 2015), the research within the field of casual dating could potentially be extrapolated to make hypotheses about the characteristics of Tinder™ users.

Casual “hook-up sex” has been mostly associated with sexual permissiveness in the offline-world (Katz & Schneider, 2013). Peter and Valkenburg (2007) found that the same was true for people looking for casual sex online. They suggest that explanations from the offline-world seem to apply to the online world as well. Thus, because “sexually permissive” people look for casual sex in the “real world” more than “sexually restrictive” people, they may also do so online. In fact, most current research supports the hypothesis that the internet is just another platform for individuals to do what they would in real life (Moody, 2001; Peter & Valkenburg, 2007; Tyler, 2002; Valkenburg & Peter, 2007). Hence, it is of interest to discover whether those who use Tinder™ do so to find a casual sex partner, and whether they are more sexually promiscuous than Online Dating Agency Users, or whether, in fact, this is just a myth (e.g. Lapowsky, 2015).

1.5. Aim of current research

Research on Online Dating Agency Users’ characteristics is very limited and to the best of our knowledge, no study has yet examined the characteristics of Tinder™ users. It is unclear whether even the limited research pertaining to Online Dating Agency Users can be extrapolated validly to Social Dating App users. Therefore, the following exploratory study examined potential differences between Tinder™ users and users of Online Dating Agencies, with the aim of further understanding the psychological and sociological impacts of online dating and providing indications about useful future research avenues. Motivations for using the two forms of dating were investigated, followed by individual characteristics (sociability, self-esteem, and sexual permissiveness) of the two groups. As this was an exploratory study, two-tailed hypotheses were used throughout.

2. Method

2.1. Procedure

The study used a correlational design with a convenience sample. Participants were recruited over the internet through the social media website Facebook. The first author posted the link to the study on her Facebook profile and encouraged others to do so too. Thus, snow-ball sampling was used. People who visited the profiles of those who posted the link to the study were able to access the survey and/or share it on their profiles. Participants were provided with an information sheet inviting them to take part in a research study into online dating. The information sheet informed them that the aim of the research was to help understand why people used different types of online dating, particularly Online Dating Agencies and Tinder™. After providing informed consent, participants were asked to indicate whether they used Tinder™, whether they used Online Dating Agencies, and provide their age and sex. They then completed the Cheek & Buss Sociability Scale (Cheek & Buss, 1981). Next, they were asked to rate their motivations for using Tinder™ or Online Dating Agencies.

They then completed the Permissiveness subscale of the Brief Sexual Attitudes Scale (Hendrick, Hendrick, & Reich, 2006) followed by Rosenberg's Self-Esteem Scale (Rosenberg, 1965).

2.2. Participants

Participants over 18 who could speak fluent English ($N = 85$) were recruited through Facebook. Participants with incomplete data ($n = 8$) and those who used both Tinder and Online Dating Apps ($n = 2$) were excluded from the study. The final sample ($N = 75$; 61% female) comprised three groups. These were Tinder™ users, Online Dating Agency Users, as well as those who did not use either of the two services (Non-Users). Demographic data are displayed in Table 1. The age of the total sample ranged from 20 to 69 years and the mean age differed significantly between the three groups; $F(2, 72) = 16.96$, $p < 0.0001$ (unadjusted for multiple testing) (see Table 1 for means). The effect size, calculated using η^2 , was 0.32. Post-hoc comparisons using the Tukey HSD test indicated that the mean age of the Tinder™ group differed significantly from both the other groups ($p < 0.0001$).

2.3. Measures

2.3.1. Motivation

Participants were asked to indicate on a 4-point rating scale, the extent to which a given reason contributed to their choice to use either Tinder™ or online dating agencies. Responses ranged from 1 (*strongly contributed*) to 4 (*did not contribute*). Hence, lower scores indicated *stronger* contribution of a given reason to use the service. Scores were measured for each possible reason separately. The reasons assessed were based on (i) the debate regarding whether individuals use Tinder as a casual "hook up" app (Petersen, 2015; Sales, 2015), (ii) on scanning the literature including Aretz et al. (2010), and (iii) discussion between the researcher and other psychologists following anecdotal discussions with those who use online dating. The reasons assessed were: "To find a romantic relationship", "To find casual sex partners", "To make new friends", "To keep in contact with existing friends", "Just for fun (I never meet up with anyone)".

2.3.2. Sociability

Sociability was assessed using total scores on the five-item Cheek and Buss Sociability Scale (Cheek & Buss, 1981). The scale measures the extent to which people prefer to be in a social environment and interact with people, rather than being alone (e.g. "I like to be with people"). The original scale requires a response on a 5-point Likert-like scale ranging from 1 to 5. The scale used in this study used a 4-point point scale from 1 (*very true*) to 4 (*very untrue*). A total score was computed; the maximum possible score was 20 with higher scores indicating higher sociability. The scale has been shown to have acceptable internal consistency (Bruch, Gorsky, Collins, & Berger, 1989; Cheek & Buss, 1981) and strong test-retest reliability and convergent, divergent, and predictive validity (Rai, 2011). In the current study, the Cronbach α coefficient was 0.71.

2.3.3. Self-esteem

Global self-esteem was measured using Rosenberg's Self-Esteem Scale (RSES; Rosenberg, 1965). The RSES consists of 10 items measured using a Likert scale (e.g. "On the whole, I am satisfied with myself"). A total score was computed, with higher scores indicating higher self-esteem (Rosenberg, 1965). Each item is answered on a four-point scale ranging from *strongly agree* to *strongly disagree*.

Table 1. Demographic data by group

Type of dating	Male	Female	Mean age (SD)
Tinder™ ($N = 30$)	14	16	27.40 (9.07)*
Online dating agency ($N = 26$)	7	19	44.08 (10.98)
Non-users ($N = 19$)	8	11	43.00 (16.13)

Note: Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the Tinder™ group differed significantly from both the other groups.

* $p < 0.0001$.

The scale has a high validity as well as reliability with $\alpha = 0.77-0.88$ (Blascovich & Tomaka, 1993). In the current study, the Cronbach α coefficient was 0.79.

2.3.4. Sexual permissiveness

Sexual permissiveness was measured using Hendrick et al.'s (2006) Permissiveness subscale of the Brief Sexual Attitudes Scale (10 items, e.g. "I do not need to be committed to a person to have sex with him/her"). Each item is answered on a 5-point scale. Responses range from 1 (*strongly agree with this statement*) to 5 (*strongly disagree with this statement*). In the current study, sexual permissiveness was measured using the total score on this subscale. The maximum possible score was 50, with lower scores indicating *higher* sexual permissiveness. The subscale has been found to be a reliable and valid measure with Cronbach's α ranging from 0.95 to 0.79 depending on the sample (Hendrick et al., 2006). In the current study, the Cronbach α coefficient was 0.89.

2.4. Data analysis

The data obtained were analyzed using IBM SPSS version 23. Bonferroni corrections were employed throughout for multiple comparisons (11 tests, adjusted α level = $0.05/11 = 0.0045$).

3. Results

3.1. Motivation to use online dating

Only Tinder™ users and Online Dating Agency Users were included in this analysis. Means, standard deviations, and p values for the different motivation scores for each group are displayed in Table 2 and for males and females in Table 3.

Five two-way between groups ANOVAs were conducted to explore the impact of group and gender on motivations for using online dating. There were no significant group differences: i.e. no differences in motivation to use the service between Tinder™ and Online Dating Agency Users. However, males ($M = 1.71$; $SD = 0.90$) were significantly more likely than females ($M = 2.89$; $SD = 1.13$) to use Tinder or Online Dating Agencies to find a casual sex partner, $F(1, 52) = 12.24$, $p = 0.001$; partial $\eta^2 = 0.190$ (adjusted α level 0.0045). There were no other differences in motivation found between genders, and no significant interactions.

3.2. Sociability

All participants were included in this analysis. A two-way between-subjects analysis of variance revealed no significant difference in the level of sociability (Cheek & Buss Sociability Scale) between Tinder™ Users ($M = 15.1$; $SD = 0.05$), Online Dating Agency Users ($M = 15.85$; $SD = 2.98$) and Non-Users ($M = 15.0$; $SD = 2.56$); $F(2, 69) = 0.49$, $p = 0.95$ (adjusted α level 0.0045). There were no gender differences in sociability; $F(2, 69) = 3.06$, $p = 0.85$ (adjusted α level 0.0045). Means and standard deviations are displayed in Table 4.

Table 2. Motivations to use online dating by group

Mean (SD)			p
Motivation	Tinder™ (N = 30)	Dating agency (N = 26)	
To find casual sex partners	2.13 (1.22)	2.81 (1.06)	0.10
To find a romantic relationship	2.17 (1.02)	1.92 (1.06)	0.68
Just for fun (I never met up with anyone)	2.63 (1.00)	2.58 (0.86)	0.92
To make new friends	2.90 (1.06)	2.35 (0.89)	0.13
To keep in contact with existing friends	3.67 (0.61)	2.96 (1.15)	0.02

Note: Lower mean scores indicate *stronger* contribution of a given reason to use the service.
 Adjusted α level = $0.05/11 = 0.0045$.

Table 3. Motivations to use online dating by gender

Mean (SD)			p
	Male (N = 21)	Female (N = 35)	
Motivation			
To find casual sex partners	1.71 (0.90)	2.89 (1.19)	0.001*
To find a romantic relationship	2.14 (1.11)	2.00 (1.00)	0.60
Just for fun (I never met up with anyone)	2.76 (0.70)	2.51 (1.04)	0.33
To make new friends	2.91 (0.77)	2.49 (1.12)	0.23
To keep in contact with existing friends	3.57 (0.75)	3.20 (1.05)	0.31

Note: Lower mean scores indicate stronger contribution of a given reason to use the service.

*Adjusted α level = 0.05/11 = 0.0045.

Table 4. Mean (SD) for group and gender for sociability, sexual permissiveness and self-esteem

		Sociability	Sexual permissiveness	Self-esteem
Tinder	Male	15.36 (2.79)	21.21 (6.19)	23.00 (4.51)
	Female	14.88 (2.83)	30.00 (6.18)	25.19 (3.73)
	Total	15.10 (2.77)	25.90 (7.54)	24.17 (4.19)
Dating Agency	Male	13.71 (1.98)	22.00 (5.00)	23.14 (5.34)
	Female	16.63 (2.93)	32.95 (7.11)	23.89 (3.98)
	Total	15.85 (2.98)	30.00 (8.18)	23.69 (4.29)
None	Male	14.38 (3.07)	28.00 (11.82)	23.88 (5.46)
	Female	15.45 (2.16)	39.36 (7.28)	24.36 (3.56)
	Total	15.00 (2.56)	34.58 (10.82)	24.16 (4.32)

Note: Sociability: higher means = higher sociability score; Sexual Permissiveness: higher means = lower sexual permissiveness score; Self-esteem: higher means = higher self-esteem score.

3.3. Self-esteem

All participants were included in this analysis. A two-way between-groups analysis of variance (ANOVA) revealed no significant difference in self-esteem (Rosenberg's Self-Esteem Scale) between Tinder™ Users ($M = 24.17$; $SD = 4.19$), Online Dating Agency Users ($M = 23.69$; $SD = 2.29$), and Non-Users ($M = 24.16$; $SD = 4.32$); $F(2, 69) = 0.13$; $p = 0.88$ (adjusted α level 0.0045). There were no gender differences in self-esteem; $F(2, 69) = 1.18$; $p = 0.28$ (adjusted α level 0.0045). Means and standard deviations are displayed in Table 4.

3.4. Sexual permissiveness

All participants were included in this analysis. A two-way between-groups ANOVA was conducted to explore the differences in sexual permissiveness between groups and genders. Males ($M = 23.28$; $SD = 8.18$) were significantly more sexually permissive than females ($M = 33.46$; $SD = 7.59$), $F(2, 69) = 33.63$; $p < 0.001$; partial $\eta^2 = 0.328$.

There was also a statistically significant main effect for Group, $F(2, 69) = 7.28$; $p = 0.001$; partial $\eta^2 = 0.174$ (adjusted α level 0.0045). Post-hoc comparisons using the Tukey HSD test indicated that the mean sexual permissiveness score for Tinder™ Users ($M = 25.90$; $SD = 7.53$) was significantly different from the mean score for Non-Users ($M = 34.58$; $SD = 10.82$), $p < 0.0001$. Dating Agency Users' scores ($M = 30.00$; $SD = 8.18$) did not differ significantly from those of Tinder Users ($p = 0.37$) nor from Non-Users ($p = 0.10$; adjusted α level 0.0045). However, due to the significant differences in age between groups, age was then included as a covariate in a one-way between-groups analysis of variance. No differences in sexual permissiveness scores between groups remained after controlling for the age of the participants, $F(2, 71) = 2.55$, $p = 0.086$ (adjusted α level 0.0045). Means and standard deviations are displayed in Table 4.

4. Discussion

The purpose of this exploratory study was to examine differences in motivation and individual characteristics between Tinder™ and Online Dating Agency Users. Results revealed that in the current sample, Tinder™ Users were significantly younger than both Online Dating Agency Users and Non-Users. There were no differences between groups in motivations for using the service, suggesting that people may use both Online Dating Agencies and Tinder™ for similar reasons. Overall, men were more likely to use both types of dating to find casual sex partners than women. Men were also more sexually permissive than women. There were no differences in self-esteem or sociability between the groups. Differences in sexual permissiveness between groups disappeared when controlling for age.

In fact, the only difference between groups revealed in this study was that Tinder™ Users were much younger than both Dating Agency Users and Non-Users. This finding mirrors statistics from a much larger sample in the US population (Duggan & Smith, 2014): dating Apps are mostly used by adults in their mid-twenties to mid-thirties, and almost not at all by adults in their mid-forties and over. Users of Online Dating Agencies, however, tend to be in their mid-twenties to mid-forties. Indeed, the age difference between groups in the current study also accounted for differences in sexual permissiveness scores between groups. There is evidence from cross-sectional studies that younger people are more sexually permissive than older people (e.g. Le Gall, Mullet, & Shafighi, 2002; Mercer et al., 2013). Hence, it is unlikely that the greater sexual permissiveness score for Tinder™ Users reveals anything beyond reflection of age differences.

We also found no differences between groups in their motivations for using Online Dating Agencies or Tinder™. This appears to contradict the anecdotal perception of Tinder™ as a casual “hook-up” application (Stein, 2013) that people use mainly for the purpose of finding casual sex partners. Despite this, it can be seen that the lowest mean score (highest mean motivation) for Tinder™ Users is “to find casual sex”, and the lowest mean score (highest mean motivation) for Dating Agency Users is “to find a romantic relationship”. Therefore, it is possible that differences may be found in a larger sample or using different measures. It may be useful to examine these two particular motivations for using these services in further larger scale studies with a more representative sample.

Our analysis also revealed that men were significantly more likely than women to use both types of online dating to find casual sex partners. This finding is consistent with previous studies which found that males are more likely than females to look for casual sex both online (Peter & Valkenburg, 2007) and offline (Grello, Welsh, & Harper, 2006; Manning, Longmore, & Giordano, 2005; Owen, Fincham, & Moore, 2011). Males in this study also scored more highly on the measure of sexual permissiveness than females. This finding is inline with a large body of research confirming a gender difference in sexual permissiveness (e.g. Oliver & Hyde, 1993; Petersen & Hyde, 2010). However, Chrisler and McCreary (2010) suggest that the gender difference could lie more in reporting than in actual attitudes. Women may be more likely to give socially desirable answers, even in an anonymous setting (Alexander & Fisher, 2003). Further research would be necessary to tease out these aspects.

The current study also suggests that all groups showed similar mean levels of sociability. These results are inline with previous research suggesting that those who use Online Dating Agencies are no more or less sociable than those who do not (Aretz et al., 2010; Brym & Lenton, 2003; Kim et al., 2009; Steffek & Loving, 2009; Whitty & Buchanan, 2009). These results do not support the suggestion made by Kim et al. (2009) that online dating agency users report higher levels of sociability than non-users. Firstly, we must note that Kim et al. (2009) actually also found a non-significant difference in sociability but suggested that the difference “approached significance” at $p = 0.06$. Secondly, any difference could possibly be explained by the different ways in which the two studies measured sociability. Whereas Kim et al. (2009) measured sociability by asking about the degree to which people actually engaged in social activities, the current study measured sociability by asking participants about the degree to which they preferred to be with others rather than alone. The current

study used a different scale, because the researchers were unable to obtain the scale used in Kim et al.'s study. Thus, the current study drew conclusions from preferences rather than behavior. Another explanation may be that the difference is related to changes in online dating use over time. Kim et al. used data from the 2004 DDB lifestyle survey. It may be that the characteristics of online dating agency users have changed over the last 11 years. This thesis is supported by studies such as that of Duggan and Smith (2014) and Valkenburg and Peter (2007) which have found that online dating has become increasingly acceptable and more widely used over the past 10 years. Perhaps those who used online dating in 2004 were those who were somewhat more sociable than those who did not, whereas today it is used by a wider group of people who are more representative of the general population (Valkenburg & Peter, 2007). Clearly, further research is necessary to support or refute such conjecture. Furthermore, it is likely that the ethnic makeup of our sample differed from Kim et al.'s. Whereas our study involved a very small group of 75 participants, recruited through Facebook who were most likely predominantly Austrian, the Kim et al. sample consisted of 3,345 participants who represented the US adult population. Overall, however, these data are consistent with other studies, and support the hypothesis that there is no difference in sociability between those who use Online Dating Agencies, those who use Tinder, and those do not use online dating.

Our analysis also revealed no difference in self-esteem between Tinder™, Online Dating Agency Users, and Non-Users. This result is inline with results of other studies (Aretz et al., 2010; Blackhart et al., 2014; Brym & Lenton, 2003; Kim et al., 2009) investigating this relationship. Self-esteem, therefore, is likely not to be a useful indicator of who uses online dating nowadays as it is likely that many different people use different types of online dating services.

In summary, in the current sample, individual characteristics such as sociability, self-esteem, and sexual permissiveness do not seem to be different in those who use Tinder™ and those who use Online Dating Agencies. Nor do these groups differ from Non-Users. Younger people were more likely to use Tinder™, and also to score more highly on sexual permissiveness. Men were more likely than women to use both Tinder™ and Online Dating Agencies to find a casual sex partner, and also scored more highly on sexual permissiveness. The findings of this study provide preliminary evidence to question the myth that most of those who use Social Dating Apps such As Tinder™, do so just to have casual sex or “hook up” with someone. They also provide further support for the hypothesis that users of both Tinder™ and Online Dating Agencies do not differ from the general population—these people are not more or less sociable, not lacking in self-esteem or particularly high in self-esteem, and not more or less sexually permissive than those who do not use online dating. It is likely that many different types of people use different forms online dating for many different reasons. Online Dating Agencies and Apps are likely to simply be different platforms for individuals to do what they would in real life (Moody, 2001; Peter & Valkenburg, 2007; Tyler, 2002; Valkenburg & Peter, 2007).

4.1. Limitations

Clearly, the main limitation of the current study was that it was exploratory with a very small convenience sample which limits both the power to detect differences between groups and the conclusions which can be drawn from the results. The study was mainly shared on Austrians' Facebook profiles. Therefore, it is likely that a majority of participants were from Austria. The sample was limited to people who use social media and ethnic variety was not assessed. Data were collected using self-report measures. As data were not collected regarding other demographic variables, it was not possible to assess the role of other variables of interest such as number of sexual partners, religious beliefs, marital status, and income on choice of Tinder or Online Dating Agency.

4.2. Future directions

Despite the limitations of a small convenience sample and self-report measures, the current preliminary exploratory study contributes to the thus far very limited pool of research on characteristics and motivations of Online Dating Agency users. Furthermore, it is to our knowledge the first peer-reviewed study to investigate characteristics and motivations of Tinder™ users.

The results of this study, combined with findings from other research (e.g. Moody, 2001; Peter & Valkenburg, 2007; Tyler, 2002; Valkenburg & Peter, 2007), suggest that it is unlikely that measuring personality characteristics will reveal overall differences between users of Tinder™, dating agencies, and the general population. However, future research should focus on replicating the current findings in a larger, more representative sample, in order to support or refute this conclusion. Further large-scale investigation of motivations for using the different services would also be of interest, particularly focusing on whether people are seeking a romantic relationship or seeking casual sex. Investigating other variables of interest such as number of sexual partners, religious beliefs, income, and marital status would also be of interest in future studies. The way in which these services are used will change over time, hence any future research should be conducted at more than one time point to begin to further understand these patterns.

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