INVESTIGATING THE RELATIONSHIP BETWEEN FREEMIUM MOBILE DATING APPLICATIONS AND CONSUMER SELF ESTEEM

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→ **Abstract**

Since they first emerged in the 1980s, mobile apps have been penetrating a wide range of industries, because of their ability to be monetised, and also because of the increasing customer demand for apps that are believed to make facets of an individuals lifestyle easier and more convenient. Whatsmore, the proliferation of smartphones on a global scale and the popularity of social media apps such as Facebook, Instagram and Twitter have driven societies dependence on mobile apps, especially in the lifestyle category.

In recent years, mobile apps have helped to accelerate and aid people's individual's daily life routines by giving them the ability to connect instantly with things such as; nearby restaurants, new music at the touch of a button and the potential for romance with just one swipe of a finger. Mobile entrepreneurs have recognised the business opportunities apps provide and as a result, one of the most successful segments in the app marketplace is mobile dating apps. It is expected that the mobile app market will surpass $8.4 billion (7.2 billion euro) by 2024 and as the popularity of dating apps continue to surge, so does the concern that the obsessive use of these apps is leading to people's self-esteem being impacted in a negative way.

For people who have grown up in the mobile-first era and the generations that follow, dating apps have become the most common way to meet people, giving them quick access to swipe and match with a nearby user. Yet, while these apps provide a helpful solution to a modern day dating problem, by signing up to these types of apps, users become vulnerable to a combination of social rejection and feelings of low self-esteem as the swiping game could affect how we perceive ourselves.

Unreciprocated swipes, interactions with fake profiles, physical comparisons to others, lack of good conversation, ghosting, potential suitors only looking for hook-

ups and dishonesty with misrepresented photos / bios are all factors that can influence a person's self-worth and the sheer quantity of profiles available coupled with time spent on these apps, mean that users are constantly bombarded with these dating app problems.

Tinder, Grindr, Bumble and Hinge are among some of the most popular mobile dating apps, which are free to download and used worldwide, while offering users the ability to make in-app purchases that grants access to premium features, that supposedly enhances the users chances of matching with a suitor. However there is little evidence to support how credible these paid-for features are in helping people achieve their dating-app goals. Additionally, as a lot of these premium features heavily rely on algorithms that promote the platforms most swiped or most physically attractive profiles, they could also negatively impact a person's self-esteem .

This thesis seeks to examine how, if at all, self esteem is impacted in both unpaid and paid dating app users based on the customer experience of Tinder, Grindr, Bumble and Hinge, within an Irish context, in order to add to the literature and research that has already been done on this topic.

This is to understand if 1) the way we communicate on mobile dating apps fosters feelings of rejection or unworthiness and 2) if the types of dating app subscribers that are being examined expose self-esteem differences. To achieve this objective, the researcher used a quantitative approach by administering an online survey that was designed to gauge people's attitudes towards unpaid and paid versions of these four dating apps and levels of self-esteem and body satisfaction.

The survey was administered to 203 respondents aged 18 and above who were, at the time of taking the survey, residing in Ireland. The key results of the survey found that self esteem did not differ by subscriber type (unpaid versus paid) and the majority of the respondents were found to have normal self-esteem levels. The survey pool were

also largely satisfied with their appearance, however gender played a role in subscriber type with men being found to be more likely to become a paid subscriber of dating apps. Majority of the respondents also had previously been in a relationship with someone whom they met on a dating app, yet the consensus from our respondents is that they still find it hard to find someone who is looking for a relationship on dating apps.

→ Dedication

I would like to dedicate this dissertation to all of the people who have ever felt rejected or unworthy, while using dating-applications.

→ Acknowledgements

I would like to express my sincere gratitude and thanks to the following people for all of their help and their guidance, in completing this thesis.

I would like to thank Michael Cleary-Gaffney, my thesis supervisor for all of his help and support throughout this process. His contribution to this thesis has given me life-long skills that I'll forever be thankful for. I would also like to thank my fellow classmates for their encouraging words and helpful advice throughout my time in the college setting and throughout this thesis. Lastly, I would like to thank my college professors, who have always been a wealth of knowledge and offered invaluable experience that will aid me in my professional career in the future.

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1.→ Terms

Dating Apps - Dating apps are software applications designed to generate connections between people who are interested in romance, casual sex, or friendship. Downloaded onto mobile phones, they feature algorithms based on factors like age, gender of user and desired partner, and the distance users will travel to meet one another. Many apps also access information from social media platforms like Facebook to create prospective romantic matches. Dating apps run on Wi-Fi or data and use real-time geo-social information to update user profiles, which distinguishes them from more traditional online dating sites (Orchard, 2019).

Social Comparison Theory - which was first introduced by (Festinger, 1954) who suggested that people have a natural urge to self-evaluate themselves in comparison to others as a function of attraction as a means of self-enhancement.

Body Image - the term body image has been used to mean an internal representation of an individuals' own physical appearance (Garberm & Garfinkel, 1981)

Self-Esteem - has been defined as the degree of correspondence between an individual's ideal and actual concept of himself (Cohen, 1959)

1.1 → Introduction

In 2020, online dating apps continue to be one of the most popular tools that individuals use to help them in their ambition to connect with others, for the purposes

of various romantic or sexual relationships, either short or long term. For Generation Y (millennials) and every other demographic cohort following, the dating game has been fundamentally altered by these ever-evolving dating apps. Just as people use social media compulsively, as a gamified form of socialising, online dating apps have gamified how people used to date, through the compulsion of swiping and matching.

With each new generational cohort being more 'wired' than ever, having access to web based technologies, at their fingertips, and the infinite scroll on most mobile apps, that delivers instant gratification for the user, online dating apps have become less of a taboo and much more normalised. And as dating apps evolve and become more sophisticated, with things like Tinder Passport, a feature that lets you connect with other single people all over the world, the trend of dating via an app has become a globalised phenomenon.

For many years, the business of match-making has been manipulated in various different forms to become a source of income / revenue for the matchmakers. Traditionally, matchmakers would inform prospective brides or husbands about eligible people who they would be introduced to, in the hopes that the two would make a connection, based on the criteria that they gave to the matchmaker, which described their ideal match. While they are more technologically advanced, online dating apps use the same model and offer a similar type of service. The same can be said for a lot of the biggest, most well known high-tech corporations such as Airbnb or Uber, which are at most basic, a matchmaking operation.

This idea of matchmaking is not a new concept. In fact, matchmaking dates back as far as the 1600s, however computer based matchmaking started in the 1960s. This was done through compatibility research and questionnaires, which a computer processes and generates potential compatibility matches. This comes nearly 20 years after one of the best-known motivation theories in consumer behaviour was first introduced, Maslow's Hierarchy of Needs.

Commonly used in marketing tactics and business development, Maslow's 5 hierarchy of needs (psychological, safety, love/belonging, esteem, self-actualization) are pertinent to this study as online dating apps are a business model centred around a person's need for belonging, one of the needs in Maslow's Hierarchy, that includes love and emotional relationships. In his discussion of a hierarchy of human needs, (Abraham Maslow, 1970), pointed out that belonging was an essential and prerequisite human need that had to be met before one could ever achieve a sense of self-worth. As many online dating app users, logon in search of meaningful connections for the purposes of sex, love or friendships, it will be compelling to see what type of affects, if any, dating apps have on its users self-worth, in an Irish context.

Subsequently, when considering Maslow's 5 hierarchy levels, it has been argued that Individuals do not seek the satisfaction of a need at one level until the previous "level of need" is met. If this is correct, it would suggest that people who do not achieve their need to belong, might experience a lack of progression in their development of self-esteem. Ultimately what this suggests is that a person's social needs, such as dating, love, relationships, sex, companionship or friendship, are intrinsically linked with a person's sense of self-worth and overall self-esteem. As online dating apps are platforms for people to be matched with dozens of suitors instantly, there is the potential for the development of the type of relationships that people can derive a sense of self-worth from and receive a self-esteem boost.

However as dating apps evolve and become more gamified, they could potentially be seen as more of an antithesis of self-esteem. As users log on more often for the instant gratification received through matching with someone, the need to be active on these apps, becomes more compulsive. Additionally, the algorithms by which these dating apps work, are predominantly centred around photo stacks that motivate people to concoct the 'perfect profile picture', where they present themselves in what they

consider to be, the most desirable versions of themselves. As we know, body-image is linked to a person's feeling of self-worth. A lack of adequate responses to a person's profile images, is likely to be damaging to their sense of self-worth.

Most modern-day dating apps also use freemium models with advanced features hidden behind paywalls. The assumption is that if a user purchases the premium versions of these dating apps, their likelihood of matching with their ideal suitor increases, or they will at least receive a more suitable pool of candidates to date, which could be paradoxical as the pool of candidates might not have a vested interest in developing a relationship of any kind.

Thus, the purposes of this research is to study how self-esteem corresponds with four of the most popular global dating applications, as well as examine the difference in representation between genders, and paid subscribers. The two dating apps that will be the focus of the study are Tinder and Grindr, as they are widely adopted dating applications among the heterosexual community and the LGBTQA community and offer two different contrasting narratives as Tinder is considered slightly more focused towards dating, whereas Grindr is considered to be driven by hook-ups.

However, Bumble and Hinge will also be mentioned, as they offer a perspective from a pool of people who are legitimately looking for meaningful relationships, as both of these apps move slightly more away from the physical side of online dating and into the psychological side of online dating, through conversation and other means.

2.→ Literature review

2.1 → Increased popularity of dating apps

Since the dawn of the digital revolution, society and culture has experienced massive changes, which is partly due to continuously advancing technologies. We as humans

have become dependent on connectivity, living in an 'always-on, always-connected' world that has created a sub-culture of digital natives, which some refer to as a network society.

This new network society has impacted on various parts of our global culture such as; education - which can now be done anywhere in the world through online e-learning, whereas social media sites such as Facebook, Twitter and Instagram are used as a new form of socialising, through digital apps. The success of these web-based applications has seeped into various other aspects of society, ultimately changing them forever. How we meet others for romantic purposes is another area of society that has been forever changed by these applications.

A couples 'first-date' would have usually insinuated the first time in which two people met each other, however, 'apps' have become the new normal and most common way for people to 'meet' others. 'How did you two meet' is a common question couples are asked and 'online' or "on Tinder' have become the common answers to this question, as the use of dating-apps becomes more normalised.

Dating-apps have changed dating culture enormously over the past decade and are now commonly seen as a socially acceptable and advantageous means of meeting a long-term partner (Smith and Anderson, 2016). While the search for a partner through match-making software is not a new notion to us, digital dating apps are still a relatively new concept and they've proved to be hugely popular, most notably in millennials and the generations that follow.

Mobile-only dating applications such as Tinder have increased in popularity over the years. In the US, a recent study found that 14% of people nationally report being users on the app (Flint, 2018). After the Tinder app launched in 2012, the mobile dating-app marketing experienced more than a 4-fold increase in the number of people using

dating applications, increasing from 5% in 2013 to 22% in 2016 for people ages 18 to 24 years (Smith & Anderson, 2016).
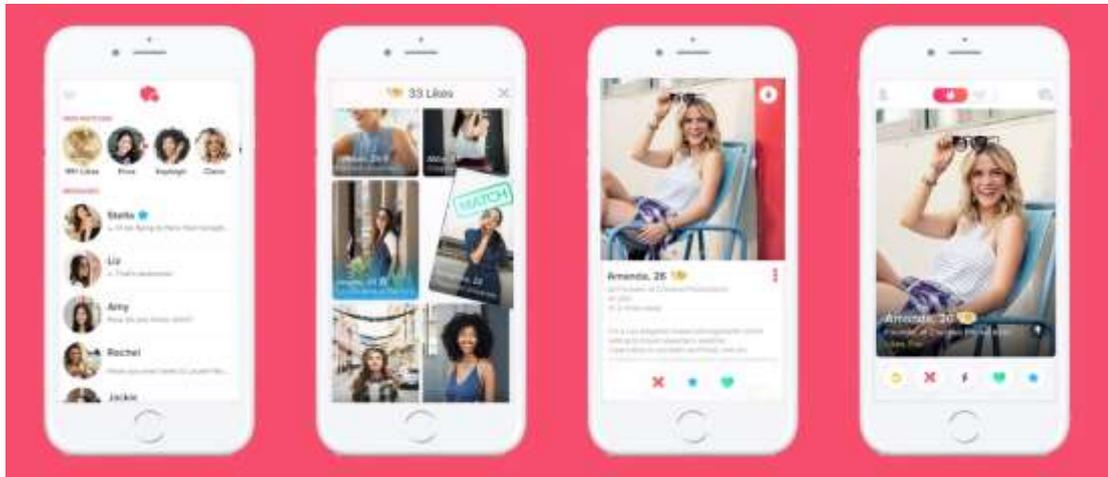

Figure 1 - Tinder Dating App Platform (via mobile marketing magazine ©)

Today, Tinder represents the most successful dating app on the market, penetrating over 190 countries, with an estimated 50 million users, and an estimated worth of around $10 billion (8.4 billion euro) (Iqbal, 2020). Grindr is another geolocation dating app, which is considered the most popular app targeting gay, bisexual, trans and queer men and had somewhere around 3.8 million users worldwide as of 2018 (Grindr user number 2016 | Statista, 2020). What makes these particular apps so popular, is the ever-expanding pool of suitors they harness for younger people and the increasing the number of romantic possibilities for 'thin markets', such as gays, lesbians and middle-aged heterosexuals (Blackwell et al., 2015; Race, 2015; Rosenfeld and Thomas, 2012)

Figure 2 - Grindr Dating App Platform (via pinknews.co.uk ©)

Two other dating apps which are continuing to grow in popularity, are Bumble and Hinge. Bumble launched in December 2015, and just one year after their initial launch, one million registered users were recorded; by July 2017, the app had more than 18 million (Bumble, 2017; Sola, 2017). Hinge on the other, launched a little earlier, in 2013 and struggled to find its place in the dating-app world, however by 2019, Hinge hit its stride and is now counted among the top 10 most popular dating apps, in the US (U.S. dating apps by audience size 2019 | Statista, 2020).
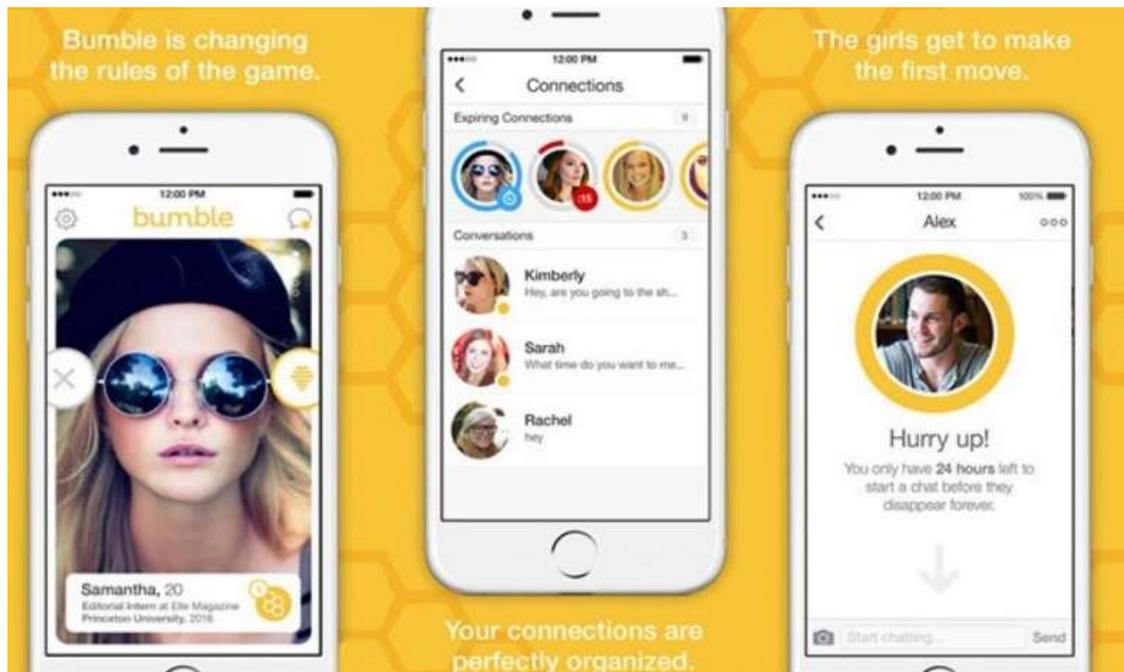
Figure 3 - Bumble Dating App Platform (via ecoconsultancy.com ©)

Both Bumble and Hinge have reimagined the dating-app experience through (CX) that make them both attractive to potential dating-app users. (Sherman & Picker, 2018) suggested that Bumble was a particularly enticing asset to own because of its user growth of nearly 100 percent year on year between 2013 and 2018. (Bumble, 2020) suggest that their success is partly because of how they had "successfully shaken up traditional gender roles in heteronormative dating" making it popular among feminists.

Whatsmore, the phenomenal growth in the popularity of digital dating as viable spaces for initiating romantic relationships has been coupled with increased attention from academic scholars (Ramirez, Bryant Sumner, Fleuriet and Cole, 2014). Given their prevalence, the use of dating apps have been on the radar for many researchers, who are interested in the effects they have on consumer behaviour from a uses and gratification theory perspective and self-presentation perspective (Toma, & Hancock 2011 & Ligtenberg, Sumter, & Vandenbosch, 2016).
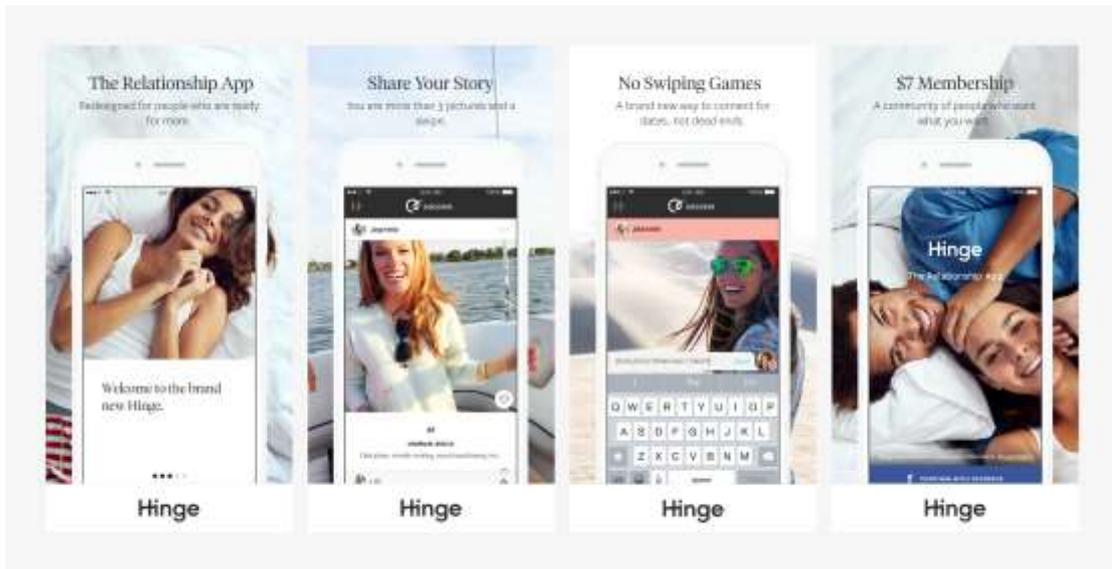
Figure 4 - Hinge Dating App Platform (via fortune.com ©)

2.1.1 → Dating app uses

Lifestyle apps, in general, are seemingly built to offer a cheap, convenient solution to our daily schedules, and convenience is high on the list of why some users download dating-apps as they make it easy to connect with and meet people from different places very easily, alongside boredom, curiosity and loneliness (Cox and Salas, 2020). However, when it comes to the uses of these dating-apps, researchers state that the main reason gay, bisexual, trans and queer men download apps such as Grindr, is to find partners for the purposes of casual sex (Corriero and Tong, 2016; Miller, 2015). However, more often than not, apps like Tinder and Grindr are stigmatised as hook-up apps for all genders and varying sexualities.

Yet, when looking at dating-app uses in a broader sense, among both homosexual and heterosexual demographics, other research reports a wider-variety of uses for apps such as; seeking social approval, looking for relationships, seeking sexual experience, improving flirting/social skills, preparing for travelling, getting over previous relationships, gaining belongingness, responding to peer pressure, socialising, meeting

people with the same sexual orientation, passing time, distracting oneself from work or study, and fulfilling curiosity by (Timmermans and De Caluwe 2017).

Another study by (Ligtenberg, 2015) found ten other motives for the use of dating apps, however, this study was more specific to Tinder and they are; companionship, passing time, intimacy, cool and new trend, boosting self-esteem, surveillance, casual sex, entertainment, excitement and relaxation. However, these motivations are not exclusive to just dating-apps. Social Media apps are oftentimes used in the same way and one possible cause for this is the infinite scroll, that is said to cause addiction behaviours in its users (Schwab, 2020).

2.1.2 → Gamification of dating apps

These addiction behaviours have been recognised in dating-apps and their uses, which are leading to the use of dating apps being compared to augmented reality experiences or 'gamification'. What Gamification refers to, is the use of game design in non-specific gaming contexts for the purpose of creating more engaging and immersive experiences (Zichermann and Cunningham 2011).

The idea of gamification within a dating app context refers to how users log on in order to receive virtual rewards such as erotic images, engage in meaningless chats, being ''starred''/added as someone's favourite list, the self-knowledge and satisfaction of being pursued by many people, and tactile rewards. Users can also ''lose'' or even be punished by getting blocked or rejected (Whitson 2014; Tziallas, 2015). It is thought that the gamification of dating-apps is partly due to the app's algorithm, bringing the infinite scroll to a user's fingertips, offering infinite choice options, that allures in users to use the apps in an addictive way, causing concern for its users, which will be explored further in this study.

2.2 → **Benefits of dating apps**

Previous studies have shown that there are multiple benefits for users of dating-apps, no matter what their goal is for using them. A study by (Timmermans and De Caluwe 2017) states that many users feel safer using dating apps to meet people, in contrast to the conventional way of meeting someone (face-to-face) as they can essentially vet their potential suitor and in many cases, find that they have mutual friends in common. This helps to instill trust in the other person before they choose to meet face-to-face. Other scholars also believe that by creating digital versions of themselves they can attract a different audience, which makes them feel good about themselves (Kennedy, 2010).

Smartphone technology is also largely responsible for some of the benefits attributed to the use of dating-apps. (Chan, 2017) states that mobile technology offers five affordances that discern dating-apps from conventional dating or even online dating websites, such as Match.com or eHarmony. These affordances are; mobility, proximity, immediacy, authenticity, and visual dominance. Mobility refers to how dating apps can be used from anywhere at any time because they run on smartphones (Ling, 2004). Proximity refers to how dating apps connect people within a localised area using geolocation. Immediacy enables users to engage in fast sexual encounters through these dating apps (Licoppe et al., 2016) while authenticity can be attributed to some, not all, of these dating apps requiring users to connect other personal platforms to their profiles, such as Facebook. Lastly (Fitzpatrick et al, 2015) regard the use of profile pictures as visual dominance, as dating-apps are mostly visually driven. This use of face pictures is suggested as a personal disclosure to help people differentiate from who they feel attracted to and those they are not attracted to, to help in their search for alternatives.

In the queer community, dating-apps provide a space for users who are coming to terms with their sexual identity, to converse with other users who have experienced what they are now experiencing. Dating apps have helped to connect queer people

who are living in highly rural areas, with other queer people, widening their support network and enhancing their opportunities to find romance. (Timmermans & Caluweb, 2017; Shimokobe and Anthonette Miranda, 2018) refer to this as the pleasure principle, which increases the user's self-confidence, however only temporarily.

2.2.1 → Perceived problems with dating apps

In contrast to the noted benefits dating-apps can offer, what each user derives from them is solely dependent on the individual's experience on the apps. Each person has a very individualistic experience on each of the dating apps that we are exploring in this study (Tinder, Grindr, Bumble and Hinge) and not all of them are pleasant.

Dating apps have been associated with several risks for users. Stigmatised as convenience shopping for meaningless sexual"hook-ups," dating apps have been linked with sexually transmitted infections and risky connections to others intent on causing physical, psychological, and/or sexual harm Couch (Liamputtong, & Pitts, 2012; David & Cambre, 2016; Sumter et al., 2017; Mayshak et al., 2020) .

Self-presentation can also cause problems among digital daters. As users are trying to entice others into engaging with their profile, much time is spent on choosing profile photos which may have been digitally retouched or enhanced in order to portray them in the best possible way. (Chamorro-Premuzic, 2020) states that application users spend more time uploading their pictures from Instagram, where they can apply many filters, shape the photo, and change the colouring. This doctoring of personal assets might generate a feeling of instant-gratification when a match is made, however, this misrepresentation of one's assets can trigger negative emotional responses in the user and create feelings of doubt when posed with meeting someone Face to Face (FtF).

Studies have shown that digital daters find this type of behaviour from other users to be quite common. A study by the Pew Research Centre reported that dating-app users

say it is very common for people on these platforms to lie about themselves to appear more desirable (The Virtues and Downsides of Online Dating, 2020).

This digital deception is linked to Catfishing, a term used to describe the way in which people utilise digital platforms in order to lure others into a relationship by adopting a fictional online persona, which can be either completely fake or enhancement of physical and emotional attributes and characteristics. While some of these digital misrepresentations - such as ones about height or weight, are relatively innocuous or easily uncovered upon meeting, others can remain hidden for weeks, months, or even years (Manta, 2018).

Other factors that can be problematic while using dating-apps, is the perception that the geo-location function, which most of these apps base their algorithms on, act as gateways to meet other users, when in actuality, for some they can be barriers to making connections as people may perceive the distance between them and their matches to be too far (Licoppe et al, 2016; Albury et al., 2017)

Some other studies cite numerous other problems associated with the use of dating apps, such as; the fear of rejection, the trading of personal information with fake accounts, stigmas attached to certain app usage (mainly men-seeking-men), concerns about location privacy, and dishonesty (Birnholtz et al., 2014).

2.2.2 → Datings apps and self esteem

However, aside from the issues that surround dating apps, noted above, this study aims to research the effects of dating apps on a person's self-esteem. Self-esteem can be **defined** as "the degree of correspondence between an individual's ideal and actual concept of himself" (Cohen, 1959) and has been relatively unexplored by researchers.

The literature provides a multitude of studies from a self-worth perspective in connection with online dating sites, and while this can offer insight into digital dating

culture and its effects on self-esteem, the two types of platforms offer very different experiences, thus there is a need to explore dating-apps further.

As it was previously discussed, studies have shown that personal assets such as images, age, weight and interests are often misrepresented in order to make a connection (Ellison et al., 2006; Toma et al.2008) which are indicators of both low self-esteem and body-satisfaction issues.

The literature states that physical attraction of a partner is of considerable importance, within the dating app sphere and this altering of personal assets is likely to be linked to lower self-esteem issues (Byrant and Sheldon, 2020; Paul, McManus, & Hayes, 2000).

Interestingly, a study by (Kim, Kwon, and Lee 2009) discovered that people with low self-esteem were more willing to use online dating/dating apps when romantic relationships weren't as important, whereas those with high-self esteem are more likely to use online dating for the consideration of a long term romantic relationship. This corroborates (Byrant and Sheldon, 2020; Paul, McManus, & Hayes, 2000) suggestion that that people who use dating apps for casual hookups or those just seeking sex, generally have lower self-esteem.

The connection between the dating-app platform and self-esteem is also important as apps like Tinder, Bumble and Hinge use a scroll function with endless user-profiles, whereas Grindr uses a Grid system for users to select a potential mate. It has been previously suggested that users of dating apps with the swiping interface report higher levels of distress on all levels and lower measures of self-esteem (Strubel and Petrie, 2017).

Apps such as Bumble and Hinge have suggested that confidence is a key issue for dating app users. What they have acknowledged is that there is a lack of meaningful

interactions between users once a connection has been made. To combat these lack of confidence factors both of these apps offer a different type of experience, rooted in kindness and equality. The communication and trust contingencies that they invoke have been reported to be self-confidence developers.

2.2.3→ Body Image and Social Comparison

As dating-apps are visual platforms, with user profile pictures being the centre focus of the applications so that others may evaluate their level of attractiveness, the impact on body-image is a concern. Once subscribed, a user is subjected to evaluation by other users on the platform where they make a snap decision to either engage with them or not - often solely based on their appearance. Body-image concerns are further exacerbated by consistent exposure to unrealistic or ideal body types, causing body-dissatisfaction in users, which is defined as a negative subjective evaluation of the weight and shape of one's own body (Edmondson et al., 2011).

A recent study by (Rodgers et al., 2019) explored the relationship between dating app use and body image. The results of the study found that among males, frequent checking of dating apps was positively correlated with body shame, and few associates emerged among females. An earlier study on the correlation between body image and dating app use, this time focusing solely on Tinder, found that users, regardless of gender, reported significantly lower levels of satisfaction with face and body and higher levels of internalization, appearance comparisons, and body shame and surveillance than non-users (Strubel and Petrie, 2017).

In the past, traditional media outlets were often blamed for poor body image and studies suggest that the mass media - from television, magazines, to social media – contributes to body dissatisfaction by perpetuating dominant body image ideals for men and for women (Tylka, 2011; Papa et al., 2013). Yet, in more recent times, speculation has continued to mount over the frequency of dating app use and its connection to body image. Growing evidence is linking the scrutiny of physical

appearance on dating apps to poor levels of body image, idealising social norms for male and female body types.

The issues surrounding body-image and self-esteem can be connected to social comparison. Social comparison consists of comparing oneself with others in order to evaluate or to enhance some aspects of the self (Suls, Martin and Wheeler, 2002). On social networking sites, social comparison represents the theory that users are inclined to compare one's accomplishments, situation and experience to others. As many dating-apps are connected to users social networking accounts, the theory here is transferable, however, social comparison may be greater on dating apps as users may be more likely to make comparisons of photographs of themselves to other users, assigning themselves a level of attractiveness by comparison (Fox and Vendemia, 2016).

2.4 → Gaps in the literature

To date, most of the studies on the topic explore how dating applications contribute to poor body image and low levels of self-esteem, offering invaluable insights into potential dangers dating apps pose to its user mental health and self-worth. Yet, to my knowledge, there has been no research done that explores both the differences in self-esteem and body image of users of both the free version and the paid version of dating apps. Each of these apps harbours enhanced versions that offer a further expanded pool of potential suitors, and more streamlined ways of filtering out the unwanted. However, if you're struggling to make a match on the unpaid versions, these additional features aim to connect you with a match, for a price. What's interesting to note is that previous studies have found that people who use dating-apps compulsively, generally suffer from loneliness and social anxiety (What compulsive dating-app users have in common, 2020). These users may be more likely to become paid subscribers.

Thus leading to the following research objectives:

3 → Research question

Research Objective: To investigate the levels of self esteem in dating application users and how they are impacted by the type of subscriber they become, either unpaid or paid.

RQ: Is there a relationship between the type of dating app subscriber (unpaid or paid) and users' self-esteem?

The following hypotheses are suggested:

(H1) Dating app users who have paid to use premium versions of either of these four dating applications (Tinder, Grindr, Bumble, Hinge) will have lower self-esteem levels.

(H2) Secondly, it is hypothesised that unpaid dating app users are more satisfied with their appearance and desirability to others than paid users and are less likely to catfish or lie on their dating app profile.

(H3) Third, it is expected that males are more likely to become paid users on dating app platforms.

(H4) Fourth, it is hypothesised that unpaid dating app users are more successful with making connections on dating apps than paid users.

4 → Methodology

4.1 Introduction:

This section will discuss and analyse why the research method was chosen to investigate the relationship between the type of dating app subscriber (unpaid versus paid) and the impact on self-esteem levels and overall body satisfaction. Furthermore, this section will also explore the processes and procedures that followed, while discussing the appropriateness of the tactics used, that suited this study

4.1.1 Aims & Objectives

The research put forward endeavours to fill in the gaps existing in the current research on the topic of self-esteem and dating applications and add to the existing knowledge that is available. The objective of this study is to investigate if the freemium models of popular dating applications Tinder, Grindr, Bumble and Hinge impact on their consumers' self-esteem.

Previous literature has supported the idea that mass media such as televisions, magazines and social media, has impacted on how both men and women perceive themselves in terms of overall appearance, leading them to strive for disproportionate body-image ideals that can be harmful to internalised body-image issues and self-esteem (Tylka, 2011; Papa et al., 2013). Dating-apps represent a relatively new and popular platform among various generations, that relies heavily on attractiveness, making them a significant concern for their effects on a person's overall self-esteem and self-worth. Previous studies by (Rodgers et al., 2019; Strubel and Petrie, 2017) confirmed that there is a common thread between dating app users who check dating-app frequently and body-shame and higher levels of distress with users who engage in the swipe-game, accompanied by lower measures of self-esteem across all genders.

Considering the nature of the topic at hand, the most useful way of determining the impact of freemium dating-app models on consumer's self-esteem, is to take a positivist quantitative approach, that will provide credible facts that wouldn't be able to be derived from a qualitative approach.

4.1.2 Consideration of Qualitative Methods

As dating is extremely personal and for most people, very private, the researcher considered the possibility that statistical data would not provide rich, deep insights into the mind of dating-app users and their experiences. Because of the lack of descriptive data which can be derived from quantitative methods, and because quantitative and qualitative can be complementary to one another, a mixed-methods approach was considered to obtain statistical data using an online survey which could be then cross-referenced with user experiences on dating apps, through in-depth interviews using open ended questioning, to provide a deeper perspective on dating app usage. Scholars (Szajnfarber and Gralla, 2017) state that qualitative research methods are valuable in providing rich descriptions of complex phenomena; tracking unique or unexpected events; illuminating the experience and interpretation of events by actors with widely differing stakes and roles; giving voice to those whose views are rarely heard; conducting initial explorations to develop theories and to generate and even test hypotheses; and moving toward explanations. After consideration, the researcher determined two limitations to using qualitative methods for the purposes of this research (1) Sample Size - gaining access to dating app users who have paid for the premium versions of either app. (2) Subject Matter - the topics that are required in the research are areas of concern and might cause the interviewee distress or unwillingness to partake, leaving gaps in the research.

4.2 Research Philosophy

Scholars (Saunders, Lewis and Thornhill, 2012) define research philosophy as the development of knowledge and the nature of that knowledge. This research will take a positivist approach philosophical approach through deductive quantitative methods (sometimes referred to as theory testing) in order to provide a confirmatory factor analysis which is virtually statistically identical, actually tests to determine if the derived factors fit the hypothesised factors Therefore, Confirmatory Factory Analysis begins with the hypothesized factors, collects data, analyzes the data, makes conclusions about the match between the observed and hypothesized factor. This is isomorphic with the intent and procedures of quantitative research (Newman, 2000).

A deductive approach to positivist research approach requires the generation of hypotheses before data is then collected. Standard measures are used to assess the survey respondents, usually a large cohort, and then compared via statistical analysis software, in this case SPSS.

Positivism to academics commonly refers to how conclusions are obtained through direct or indirect experience (Bryman, 2008) claims that positivism takes on an epistemological position in which the application of the methods of natural science are advocated. To simplify positivism, it is based on factual knowledge that was gained through human experience or observation. Positivism generally outputs into statistics and is quantifiable.

As explained previously, this research aims to understand the levels of self-esteem in Irish dating app users and if there are any factors that differ between unpaid dating app users and paid dating app users. The hypotheses this study is based is an expansion of previous research and hypotheses that has already been explored, some in regard to social networking site and self-esteem, however more recent studies by (Strubel and Petrie, 2017) are the basis for this research which hypothesized that:

"female Tinder users would report higher levels of distress than male Tinder users on the constructs of internalization, physical appearance comparison, body surveillance,body shame, body dissatisfaction, and self-esteem; Tinder users were expected to report significantly higher levels of distress across all the constructs than male and female nonusers".

The previous studies on this topic also followed deductive quantitative methods, testing through a series of analyses such as gender (male vs female) and Tinder (user vs not). This study follows the same progression, adding to the literature by further exploring areas such as gender (male vs female) dating app user type (unpaid vs paid).

The main advantage of using this method for this study is due to the possibility to explain causal relationships between concepts and variables.

4.2.1 Quantitative

Quantitative research is defined by (Bryman 2008) by stating that "as a research strategy it is deductivist and objectivist and incorporates a natural science model of the research process". Academics have long debated the use of quantitative methodological approaches when researching gender-based topics. When trying to determine the right approach to gender and studies, which is part of this research (Scott, 2010) states that the appropriate method is the one that is most likely to produce credible evidence that bears directly on the questions being asked, to achieve the research objectives. Creswell and Piano Clark (2007) explain that quantitative data includes closed-ended information such as that found on attitude, behaviour, or performance instruments. The analysis consists of statistically analysing scores collected on instruments, checklists or public documents to answer research questions or test hypotheses. One of the advantages of quantitative research is that it is possible to derive hypotheses from existing theoretical perspectives and see how far the data support or refute these expectations Furthermore, (Scott, 2010) also suggested that one of the best ways of motivating people to use statistical tools appropriately is to

focus on interesting substantive questions that require quantitative analysis. As this research focuses on substantive questions that cross-examine unpaid and paid users with gender and self-esteem scales, the analysis is reliant on quantitative analysis.

In the paper by (Scott, 2010) a study is put forward that had adopted a quantitative approach to its research. The study questioned how men's and women's lives intersect across generations and over time in the changing processes and outcomes associated with production and reproduction with regards to pay penalties. The interpretation of this required carefully comparable measures that a large-scale quantitative analysis was able to provide. The results detailed decreases and increases of pay across gender types. over a period.

This mirrors the data-output that is expected from the quantitative approach which this study will emulate.

4.2.2 Rosenberg Self-Esteem Scale

To compare low, normal and high self-esteem users to unpaid and paid dating app subscribers, the Rosenberg's self-esteem scale (RSES, Rosenberg, 1965) was the comparative tool used to first gauge the survey respondent's self-esteem scores. The scale is composed of five positively worded items and five negatively worded items (Aluja et al, 2007). According to Rosenberg (1965), self-esteem is a unidimensional construct reflecting positive or negative attitudes toward the self.

Numerous studies employ the RSES to examine the etiology of self-esteem and how self-esteem relates to a variety of mental health, academic, or social outcomes (Farruggia, Chen, Greenberger, Demitrieva, & Macek, 2004). Previous research into online dating and self-esteem have used the validity of the RSES however there has been ongoing debate that the scale is bio dimension (having two factors), yet researchers have continued to use the RSES as a unidimensional scale.

4.2.3 Body Satisfaction Scale

The Body Satisfaction Scale by (Slade et al., 1990) measures and assess survey participants' feelings about their body-parts. The 16-item scale, split between the head (above the neck) and body (below the neck), on a 5-point Likert scale ranging from very satisfied = 1 to very unsatisfied = 5. Those who scored higher represented lower body satisfaction and those who scored lower represented a higher body satisfaction.

4.4 Secondary Research

The second research involved the review of the current literature existing on the topics of online dating and self-esteem, digital dating apps and self-esteem. The advantage of this secondary research was the deeper understanding of the evolution of dating culture and the modern digitia; dating world and its implications on self-worth. The contemporary literature informed the hypotheses as it highlighted gaps that researchers have left unexplored with regards to subscription type. Other research has been done within the topic of social media platforms and effects on self-esteem, however as these platforms differ from dating apps because they offer one type of subscription (free) whereas dating apps offer premium versions for a fee, the literature failed to explore how these paid-for subscribers differ in self-esteem, which is the purpose of this study.

4.4.1 Primary Research

Primary data is defined by (Domegan and Flemming, 2007) as data or information collected first-hand by the researcher to solve the specific problem/opportunity on hand. In this case, a statistical data gathering via digital survey was administered. The results of this data is expressed in numeric value and percentages. This method enabled precision in providing answers to specific questions in the survey.

4.4.2 Data Analysis

When considering the quantitative data analysis, first the research process was determined. The author's interest in dating apps from both unpaid and paid perspectives, led to the theory that self-esteem could be impacted by user type. This led to the formulation of the hypothesis and operationalisation of the concept. Using social media, mainly Twitter, Podcasts and WhatsApp groups a selection of respondents was identified, and a survey was administered. Online software (Google Forms) collected the data which was analysed in both Excel and SPSS. The advantage of using SPSS is that it enables the author to score and analyse quantitative data quickly and in many ways, helping to eliminate long hours spent working out scores, carrying out calculations.

A chi-square test was used to compare the observed frequencies of cases with those expected in a variable that had more than two categories, these were unpaid/paid + male/female, unpaid/paid + lied on profile (yes/no), unpaid/paid + found dating app success (yes/no).

It should be noted that there is a restriction on using chi-square when the expected frequencies are small. With only two categories (or one degree of freedom), the number of cases expected to fall in these categories should be at least five before the chi-square test can be applied (Bryman and Cramer, 2005).

A t-test was also used in the quantitative data analysis. T-tests were able to inform how significant the differences between groups are. An independent sample t-test compared the unpaid/paid groups with the self-esteem scores of our total survey respondents $N = 203$. An independent sample t-test was also done to compare the groups (unpaid/paid) and the total survey respondents body satisfaction levels.

4.4.3 Participants

A total of *N=* 203 participants were recruited to complete the digital dating app survey. Both male and female's living in Ireland, aged 18 and over were targeted through What's app groups, social media platforms Twitter & LinkedIn and through a popular podcast with a cult LGBTQIA following that discusses society and culture, hosted by two Irish nightlife public figures. Of the survey respondents' males were *N = 115* and females were *N = 88.*

4.5 Digital Survey Design

The rationale behind using a digital survey is because of its ability to reach a wide, targeted audience, offering real-time results. Using a digital survey had a number of other advantages to this study such as; immediacy, effectiveness, honesty, low cost, direct data entry and wide reaching. Immediacy refers to how data was collected quickly delivering real-time results informing the data output with every entry. Effectiveness refers to how the data-collection was effectively managed within a specific time frame as digital surveys can essentially 'always-on'. Honesty was a concern for this study - however a fully anonymous digital survey helped to inspire respondents to answer truthfully. Google offers a completely free platform for conducting surveys known as Google Forms which not only allows you to design a survey, but also collect results and analyse the data in one secure place. Digital surveys also cut out lengthy transcribing processes with direct data entry that quantifies results. Finally, digital surveys are also easy to share. With just a link the survey can be shared almost anywhere both online and offline (using SMS).

Using Google Forms, a five-section survey was developed for data collection. Google Forms allowed for multiple methods throughout the survey design, enabled unlimited responses and provided rich, in-depth statistics in real-time. Google Forms also allowed for email and link sharing, for easy dissemination of the survey.

Section one of the survey required participants to read an eligibility requirement and possible risks/discomforts involved in partaking. They were then asked to provide consent in order to continue. Those who did not provide consent were redirected to the end of the survey and deleted from the analysis. The rest of the survey consisted of four sections:

Section two collected demographic data such as; gender, age, countries of residency, urbanity, employment status, occupation (if any), relationship status and education level.

Section three used multiple-choice/multiple-option questions to gauge respondents' attitudes towards the use of dating apps. Participants were given a choice of four dating apps (Tinder, Grindr, Bumble and Hinge) and asked to select which apps they have used before. They were also asked; what are your dating app goals? What are your most important considerations when selecting someone on a dating app? This section went on to ask if they have ever paid for a premium subscription and how helpful they considered some of the premium account features to be. Furthermore, they were asked about some of the problems they have encountered, if they have ever felt rejected by other users and if they felt the pool of candidates available were either attainable or unattainable.

Section four analysed participants' overall body satisfaction and self-worth, using scales. Question 1 showed an image of seven various female figures ranging from slim/toned to heavy/overweight and using a linear scale asked the respondents to select which of the seven figures resembles the type of physique that people are most attracted to. Question 2 showed an image of seven various male figures and asked respondents to select the physique that resembles what they believe people are most attracted to.

Participants were then asked to complete a body-satisfaction scale using a sixteen-question multiple-choice grid. The grid listed seven body parts above the shoulder and nine body parts below the shoulder. Respondents were then asked to rate each body part on a five-point Likert scale ranging from very satisfied to very unsatisfied.

Lastly, respondents were asked to complete a ten-question multiple choice grid in order to detail their feelings about themselves. The questions which are from the Rosenberg self-esteem scale (RSE), list a series of statements which are ranked using a 4-point Likert scale (1= strongly agree; 4 = strongly disagree) in order to measure global self-esteem.

Using the data collected, the (RSE) can then offer a number rating, which determines if the individual's response represents a low, normal or high self-esteem rating.

Section five aimed to determine respondents' overall attitude and opinions towards paid-for premium dating apps. Participants were asked to respond to a series of argumentative statements intended to get a sense of their individual agreement or disagreement toward premium dating app use being a positive or negative experience.

5 → Analysis of Findings

5.1 Introduction

The following data put forward was conducted for the purpose of this research and was gathered through the means of a digital survey. In total, there were 204 respondents to the digital survey, however, 1 respondent did not give consent and was subsequently deleted from the data analysis. This leaves 203 respondents *N = 203* who consented and were viable for analysis. Of these 203 respondents, 115 (56.7%) of which were male *N = 115*, while the 88 (43.3%) remaining were female *N = 88*. Most of the respondents reported being residents in Ireland 192 (94.6%) while a small

number 11 (5.4%) reported being outside of Ireland. The median age of those surveyed was 30. 45 (22.17%) were aged between 18-25, 77 (37.93%) were 26-31 and 81 (39.9%) were 31 and above.

Part two of the survey aimed to understand people's attitudes towards the use of dating apps in general. For context, before the data is put forward it is interesting to note our respondent's use of the app choices available. Out of four multiple-choice dating app options, in which the people were asked if they used any or all of the apps - Tinder had the highest number of users from the survey pool with 189 (93.1%) saying they have used the dating app. 98 (48.3%) were Grindr users, while 74 (36.5%) used Bumble and 37 (18.2%) used Hinge.

Most people, 63 (31.3%) used a combination of both Tinder and Grindr, while 30 (14.7%) used Tinder and Bumble. 25 (12.3%) people used three out four apps which were Tinder, Bumble and Hinge, whereas 13 (6.4%) used Tinder, Grindr and Hinge. Just 6 people (2.9%) out of 203 respondents recorded using all four apps.

5.1.2 Research Hypothesis 1:

(H1) Dating app users who have paid to use premium versions of either of these four dating applications (Tinder, Grindr, Bumble, Hinge) will have lower self-esteem levels.

Part of this research is to determine whether self-esteem levels differ between unpaid dating app users and paid dating app user counterparts. The theory is that the overall dating app experience on free dating apps and paid-for dating apps differs, with a higher level of self-esteem in unpaid users and lower self-esteem in paid users.

For the purposes of this study, it is considered that users on the unpaid versions of dating apps are less serious with their dating app goals and logon for; quick ego-

boosts, conversations with others and entertainment, and as a result, experience less rejection than users who are using dating apps with more serious views on dating. For this reason, paid dating-app users are the comparison group because of their decision to trade money for access to advanced features which are meant to enhance the digital dating experience and give you users a better chance at meeting someone for the purposes of romance, which could potentially lead to higher feelings of rejection and more social comparison to others. This could be due to advanced features being reliant on physicality and the promotion of higher-ranking profiles rather than match-making individuals through compatibility.

In order to compare both the unpaid and paid dating app users, firstly a total self-esteem score was required for the respondent group. Each respondent was scored on the Rosenberg Self-Esteem Scale that consisted of ten statements which they were asked to rate on how much they agree with each. To score each of the ten statements, a value was assigned to each of them.

- Items 1, 3, 4, 7 and 10 were marked with the following valuations: Strongly agree = 3, agree = 2, disagree = 1 and strong disagree = 0.
- Items 2, 5, 6, 8 and 10 were marked in reverse, as follows: Strongly agree = 0, agree = 1, disagree = 2, strongly disagree = 3.

The Likert scale delivers a range of 0 - 30, with 30 indicating the highest score. The higher the score, the higher the level of self-esteem. Scores between 0 - 15 indicate low self-esteem while scores of 15 - 25 indicate normal self-esteem, and scores of 25 - 30 suggest high self-esteem.

To answer the question of differing self-esteem levels between unpaid and paid dating app users, an independent sample t-test was conducted to compare levels of Self-Esteem between unpaid dating app users and paid dating app users on Tinder, Grindr, Bumble and Hinge.

The t-test found that there was no significant difference in scores (t(201) = 1.16, p = .24 with unpaid users (M = 19.42, SD 5.40) scoring higher than paid users (M = 18.4, SD = 5.17). The magnitude of the differences in the means (mean difference = 1.02, 95% CI: -.68 - 2.65) was small (Cohen's d = .18)
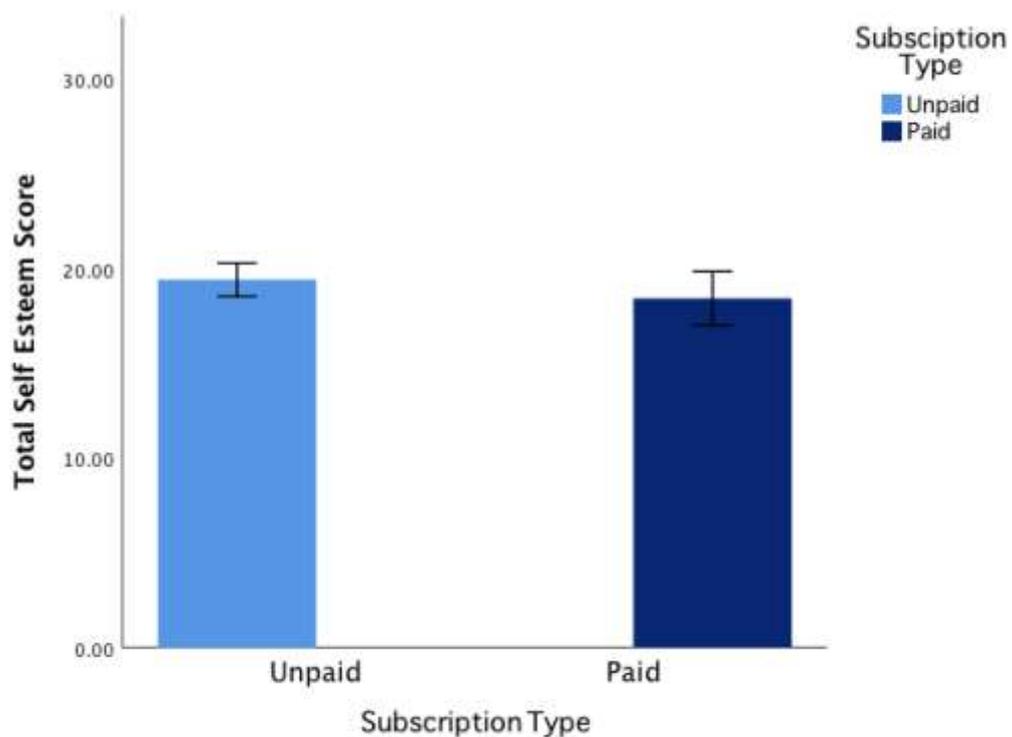

Figure 5. Mean total self-esteem score of unpaid dating and paid dating app users (error bars represent 95% confidence intervals).

Interpretation of this data suggests that self-esteem levels among this group of respondents do not differ enough to be significant or to represent any type of theme or cohesive reason as to why some users report low, normal or high levels of self-esteem. Whether the respondents have used the unpaid version or the paid versions of these popular dating apps, the results suggest that self-esteem is not a factor in the type of user.

Looking at the Rosenberg Self-Esteem scale, which states that normal self-esteem levels are scored between 15 - 25, the t-test mean score of unpaid users, noted above was (M = 19.42) and mean score of paid users was (M = 18.4) which determined that overall most of the unpaid and paid users of these four dating apps, reported having normal self-esteem levels. This would disprove the hypothesis that paid dating app users are lower in self-esteem.

It could be perceived that both unpaid dating app users and paid dating app users experience dating app success, based on their own personal dating apps goals thereby unaffecting their overall self-esteem levels. The survey found that 148 (72.9%) of respondent's had already been in a romantic relationship with someone who they met online, and overall the respondents reported finding other users to be mostly somewhat attainable shown in the figure below, leading presumably leads to higher levels of satisfaction with the use of dating apps.

When using the following dating apps, how attainable do you consider other users to be?
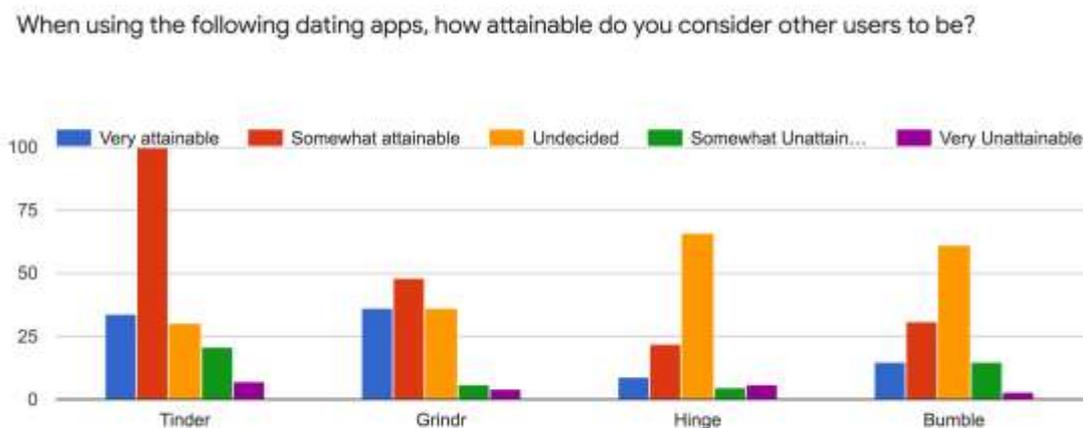
Figure 6 -graph of how attainable survey respondents felt users were on each of the four dating apps Tinder, Grindr, Hinge, Bumble

Although the t-test determined no difference in self-esteem levels of unpaid and paid users, many users are likely to have variations in their experiences of these apps, such

as how they perceive themselves and their desirability to others, as some may experience higher levels of engagement on these apps than others. Because of this, it is likely that those with lower levels of engagement when using dating apps could have different perceptions of themselves and how desirable they consider themselves to be to others, which could result in lower self-esteem.

5.2 Research Hypothesis 2:

(H2) Secondly, it is hypothesised that unpaid dating app users are more satisfied with their appearance and desirability to others than paid users and are less likely to catfish or lie on their dating app profile.

Using Slade's Body Satisfaction Scale (BSS) the survey respondents were presented with a list of 16 body-parts, half involving the head (above the neck) and half involving the body (below the neck) and were asked to rate each item using a 5-point Likert scale. The respondents rated their overall satisfaction/dissatisfaction for each of the items on the five-point scale as follows: (1) very satisfied (2) slightly satisfied (3) undecided (4) slightly unsatisfied (5) very unsatisfied. The higher the respondent rated each item, which is noted as (4) & (5) the more dissatisfied the individual feels with the body-part. The lower they rate each item on the scale, which is (1) & (2) the more satisfied they feel.

The study sought to compare and contrast the levels of body satisfaction among both unpaid dating app users and paid users, using the BSS to determine if there are differing levels of overall body satisfaction among these two groups. The theory for pursuing this data is based on the consideration that unpaid dating app users are satisfied with their overall appearance and receive positive engagements on unpaid versions of these apps, whereas paid users might be unsatisfied with their appearance, receive less engagement on unpaid dating apps, and subscribe to paid versions of

dating apps in order to increase the likelihood of meeting another person with the aims of pursuing a romantic relationship.

Overall, out of 203 survey respondents, the most common response to each item on the scale with 95 (46%) of people, was (2) slightly satisfied. The second most common response to each item with 74 people (34%) was (1) very satisfied. This suggests that the biggest cohort in this group of respondents (83%) of people were generally satisfied with their body/appearance.

However, to determine if any differing body satisfaction levels existed between unpaid and paid dating app users, an independent sample t-test was conducted to compare the levels of body satisfaction between these two types of users.

The results found that there was no significant difference in scores ($t(201) = .83$, $p = .40$) with unpaid dating app users ($M = 1.89$, $SD = 1.01$) scoring lower than paid users ($M = 2.02$, $SD = .94$). The magnitude of the difference in the means (mean difference $= 0.13$, 95% CI: -.44 - .18) was large (Cohen's $d = .13$).

The non-significant difference is illustrated in the below bar graph. Subscription type (unpaid / paid users) is represented on the x-axis, whereas the body satisfaction score is represented on the y-axis with a range of (1 low) = very satisfied to (5 high) = very unsatisfied. The error bars represent 95% confidence intervals.
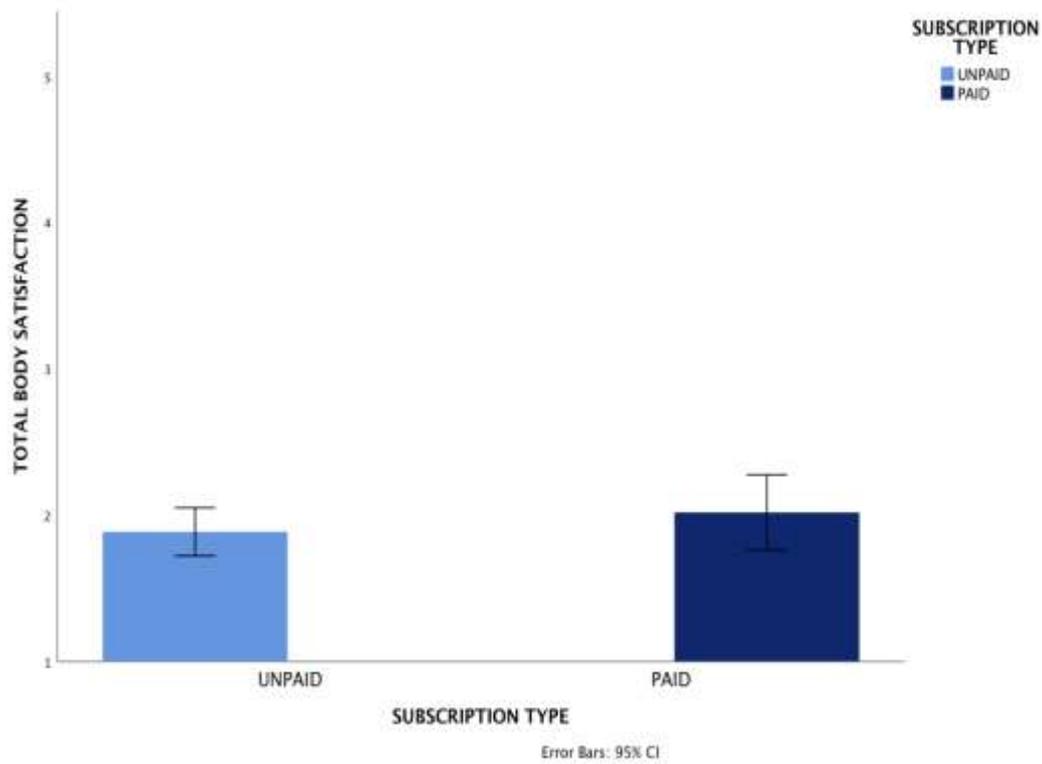
Figure 7. Comparison graph of body satisfaction levels between unpaid and paid dating app users

What this data confirms is that, when it comes to body satisfaction, both of these groups (unpaid and paid dating app users) rank low on the BSS, between (1) very satisfied and (2) slightly satisfied. However, the data does suggest that unpaid users are somewhat more satisfied with themselves as they show to score lower on the scale. Most of the unpaid user group scored (1) very satisfied, whereas most of the paid user group scored (2) slightly satisfied. It is interesting to note that while both groups are considered to be satisfied overall with their body-image, the paid user group is not as satisfied with their body image, as the unpaid user group. However, the findings do not suggest that overall body satisfaction varies depending on the type of subscriber you are.

In order to gain a deeper understanding of our survey respondent's body satisfaction, it was important to note what they believe others consider as most attractive when it comes to appearance. This began with the image of 7 female body figures and 7 male body figures. Each physique varies by weight categories which are, for the purposes of this research, listed as; underweight, moderately underweight, healthy weight, moderately overweight, overweight and obese.
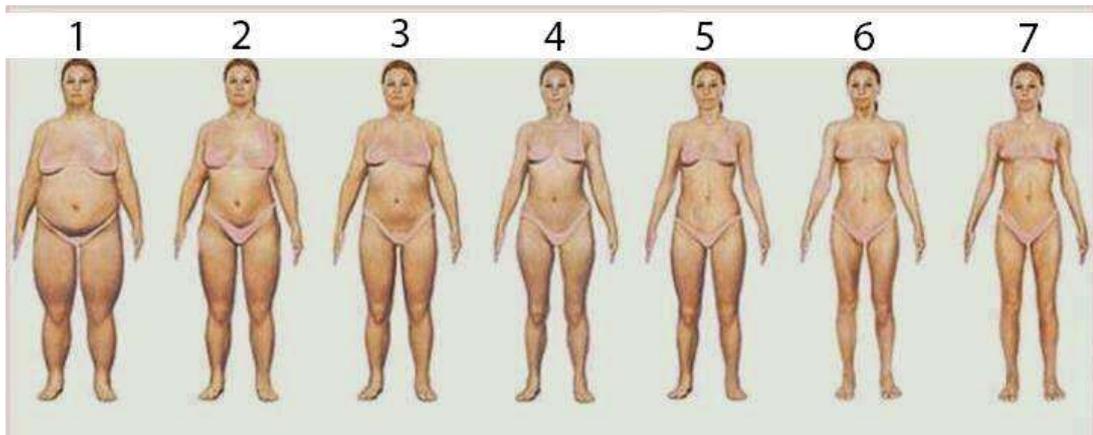
Figure 8 - Female Body Fat Categories

In figure 29 seen above, each respondent was asked to select the physique that they think people are most attracted to. Overall, most of the respondents, 75 (36.9%) selected physique number 6 as the female physique which they considered people to be most attracted to. Further analysis revealed that selection number six was unanimous across both male and female respondents. The following formula represents each individual female and male physiques; *Physique 1=Obese, Physique 2=Overweight, Physique 3=Moderately Overweight, Physique 4=Healthy, Physique 5=Healthy, Physique 6=Moderately Underweight, Physique 7=Underweight.*

According to a BMI calculator, physique 6 represents a moderately underweight female physique for the age demographic of the surveyed audience 18 - 40 years.

Which of these 7 female body figures do you think resembles the type of physique that people are most attracted to?

203 responses
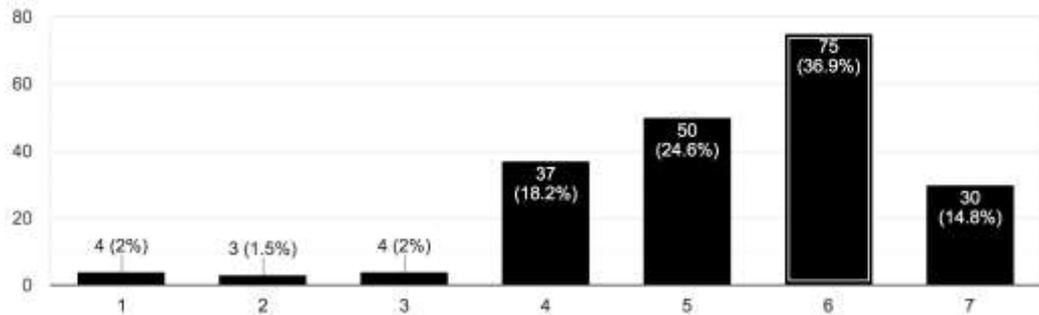
Figure 9 - Female Body Figure Results

An independent sample t-test was conducted to compare if our unpaid and paid users had differing opinions on which female figure they considered others found to be most attractive. The t-test found no significant difference in scores (t(201) = .53, p = .58) with unpaid dating app users scoring (M = 5.35, SD = 1.17) and paid users scoring (M = 5.24, SD = 1.46). The magnitude of the difference in the means (mean difference = 0.11, 95% CI: -.28 - .50) was large (Cohen's d = .08).

This data suggests that the female figure type, which the general survey audience and the unpaid / paid dating app cohorts believe others to see as most attractive, to be between figure 5 and figure 6. On the basis of this, it could be perceived that the female respondents who scored between 1 - 2 on the BSS scale self-identify with a female figure between options 5 and 6.
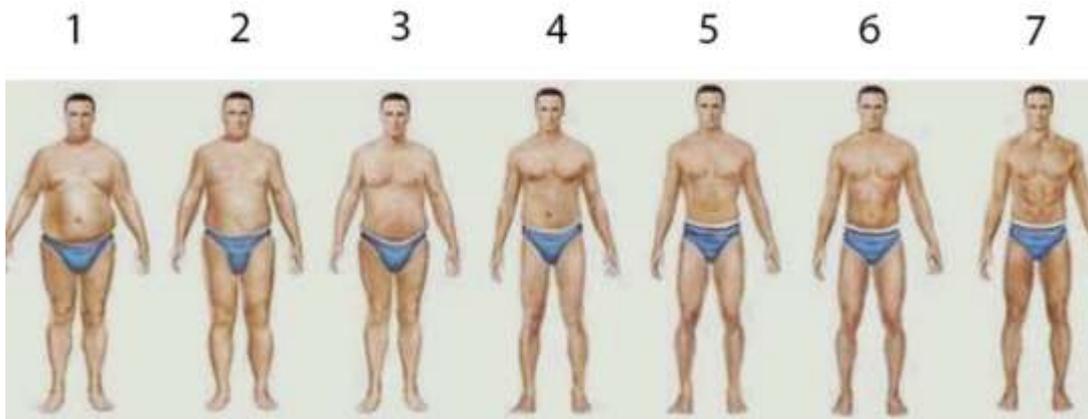
Figure 10 - Male Body Fat Categories

When it came to the male form, each respondent was again posed with the same proposition, to select the physique that they consider others to be most attracted to. 69 of the respondents (34%) decided that they considered physique 5 to be the type of physique that people are

most attracted to. Further analysis also revealed that selection number 5 was unanimous across both our male and female respondents, again.

Again, according to a BMI calculator, this physique suggests that the respondents feel that a healthy-looking body type is most attractive to others.

Figure 11 - Male Body Figure Results

An independent sample t-test was conducted to compare if our unpaid and paid users had differing opinions on which male figure they considered others found to be most attractive. The t-test found no significant difference in scores ($t(201) = .53$, $p = .64$) with unpaid dating app users scoring ($M = 5.40$, $SD = 1.13$) and paid users scoring ($M = 5.28$, $SD = 1.40$). The magnitude of the difference in the means (mean difference = 0.12, 95% CI: -.25 - .50) was large (Cohen's $d = .09$).

Again, there was no difference found between the general survey audience and unpaid / paid for cohorts. Ultimately, all groups found that the male figure which they consider others to find attractive is somewhere between figure 5 and 6. This also suggests that the male respondents who had a body satisfaction score of between 1 and 2, potentially identify themselves somewhere close to figure 5 or 6.

One of the most significant problems found when using dating apps, is fake accounts or users falsifying details about themselves. This can be done through misrepresentation of their personal assets i.e. (profile photos) whereby users use digital tools to alter their appearance, to appear more desirable to others. Some users are also found to have lied on their bio and interests, with the aims of being perceived a certain way that may represent their ideal self and not their actual self. This deceptive use of impression management on dating apps occurs often, however the aims of this study is to understand if there is any relationship between the unpaid or paid dating app user and the motivation to lie about one's personal assets, in the hopes to appear more desirable to others. Engaging in this type of digital deception may give the user an increased perceived value, which may represent a lack of self-esteem or self-worth.

To determine if any relationship exists between the type of dating app user and falsifying of personal assets, the study posed two questions (1) when using dating

apps, have you ever altered a photo to appear more desirable? And (2) have you ever lied on your profile bio/interests to appear more desirable?

A chi-square test for independence (with Yates Continuity Correction) was conducted to determine if there was a relationship between dating app user type (unpaid / paid) and catfishing through altering profile photos. Results indicated that there was a significant relationship: $\chi2$ (1, n = 203) = .201, p = .007, phi = -.004.

This indicates that there was a significant difference between our unpaid and paid users, with unpaid dating app users being less likely to catfish / alter photos than paid-users who reported to alter images of themselves at equal levels.
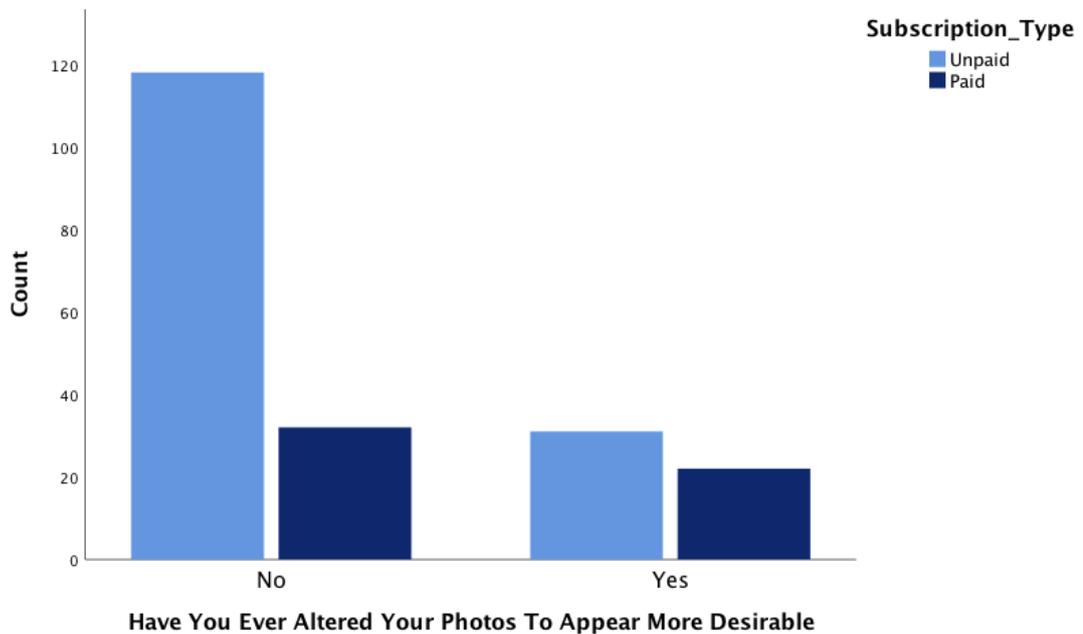

Figure 12 - chi-square result showing significant difference between unpaid and paid users likelihood to alter photos on their dating app profile with unpaid users being less likely

A second chi-square test for independence (with Yates Continuity Correction) was also conducted to determine if there was a relationship between dating app user type (unpaid / paid) and lying about interests and hobbies. Results indicated that there was a significant difference between both groups: $\chi 2$ (1, n = 203) = .168, p = .030, phi = -.03.

In this case, unpaid dating app users are again less likely to lie about themselves on their dating app bio and in their interests with the aim to appear more desirable to other users. This data is demonstrated in the bar-graph below.
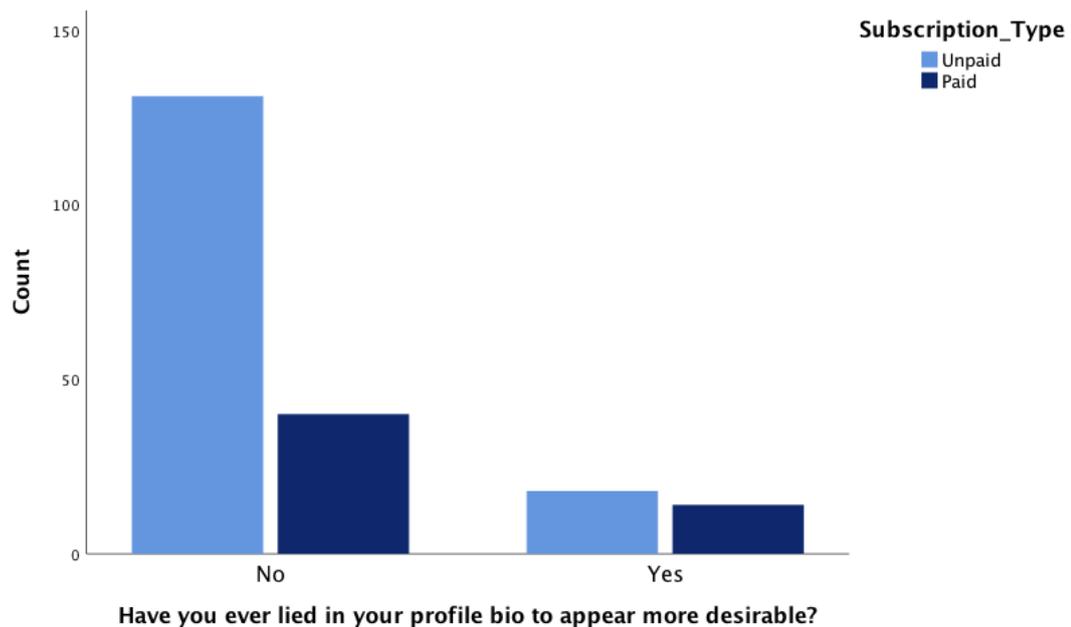
Figure 13 - chi-square result showing significant difference between unpaid and paid users likelihood to alter bio/interests on their dating app profile with unpaid users being less likely

Research Hypothesis 3:

(H3) Third, it is expected that males are more likely to become paid users on dating app platforms.

Out of 203 survey respondents, 88 were female (43%) and 115 were male (57%). This study seeks to understand if any connection between gender and the type of dating app subscriber (unpaid versus paid) exists. To do this, a chi-square test of independence was performed to examine the relation between gender and the subscriber type. The relationship between these variables was significant, X^2 (1, N = 203) = 9.0, p = .0025.

Thus, the data tells us that a relationship between gender and the type of dating app subscriber does exist. To interpret the data, the chi-square results tell us that males were more likely to use paid dating apps than their female counterparts.

The association between gender and dating app user type (unpaid versus paid) is accepted However, as males were overrepresented with 115 respondents (57%) of the study, further testing is suggested. The results from this chi-test are noted below.

Research Hypothesis 4:

(H4) Fourth, it is hypothesised that unpaid dating app users are more successful with making connections on dating apps than paid users.

To determine if there is a connection between unpaid and paid dating app users experiencing success in finding a romantic partner, two chi-tests were performed. The first compared how difficult/easy users found finding someone whose goal was to meet in person. The second compared how difficult/easy users found finding someone who is looking for some form of a relationship.

The result of the first chi-test, which compared unpaid/paid people's goals to meet in person and was X^2 **(1, N = 203) = .14, p = .01.** Which determined that the difference

was not significant. The data presented in the graph below, highlights how both groups find this both equally difficult and easy. Further analysis is suggested here to uncover the factors influencing this.
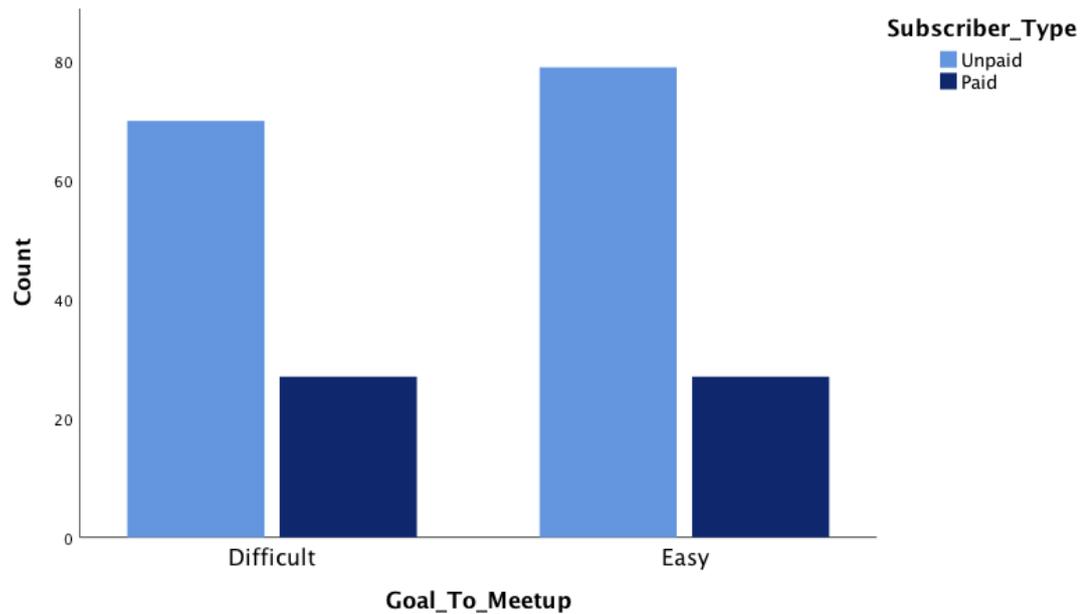

Figure 15 - chi-square result showing insignificant difference between unpaid and paid users and finding it easy to match with someone with the intention to meet in person.

The result of the second chi-test, which compared unpaid/paid dating users and people's goal to find someone looking for some form of relationship and was X^2 **(1, *N* = 203) = .75, *p* = .05.** which determined that the difference again, was not significant. The data presented in the graph below, highlights how both subscription type groups (unpaid / paid) report it being difficult in trying to find someone who is looking for some form of relationship.
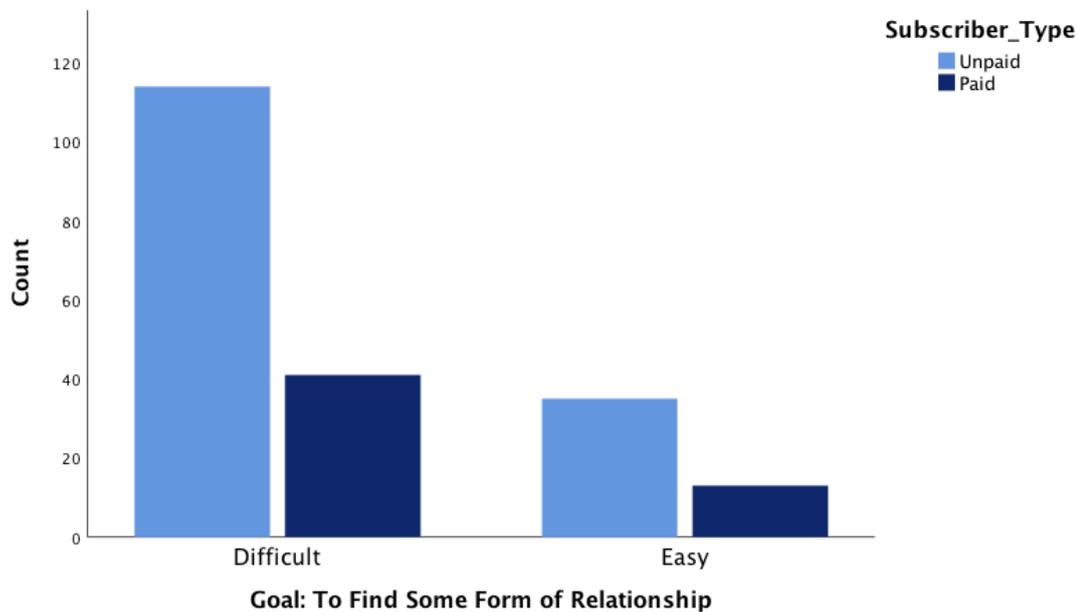
Figure 16 - chi-square result showing insignificant difference between unpaid and paid users and finding it easy to match with someone with the intention to pursue some form of relationship.

The data from both chi-tests suggests that no relationship exists between the type of dating app subscriber (unpaid / paid) and the success rates of meeting a romantic partner. Both user types find it equally as difficult to find someone with romantic interest on the unpaid and paid versions of these four dating apps. On the purposes of the data above the association between dating app users and success rates is rejected.

Lastly, a third chi-square test of independence was performed to examine the relationship between dating app success and the subscriber type, which compared our survey respondents were ever in a romantic relationship with someone they met on a dating app and if so, were they more likely in unpaid or paid users.

The result of this chi-square test found that X^2 **(1, *N* = 203) = .04, *p* = .05.** was significant. Thus, the data here tells us the relationship with dating app success and subscriber type is accepted. The data highlights that most unpaid users were more likely to have had a romantic relationship with someone whom they met on a dating app.
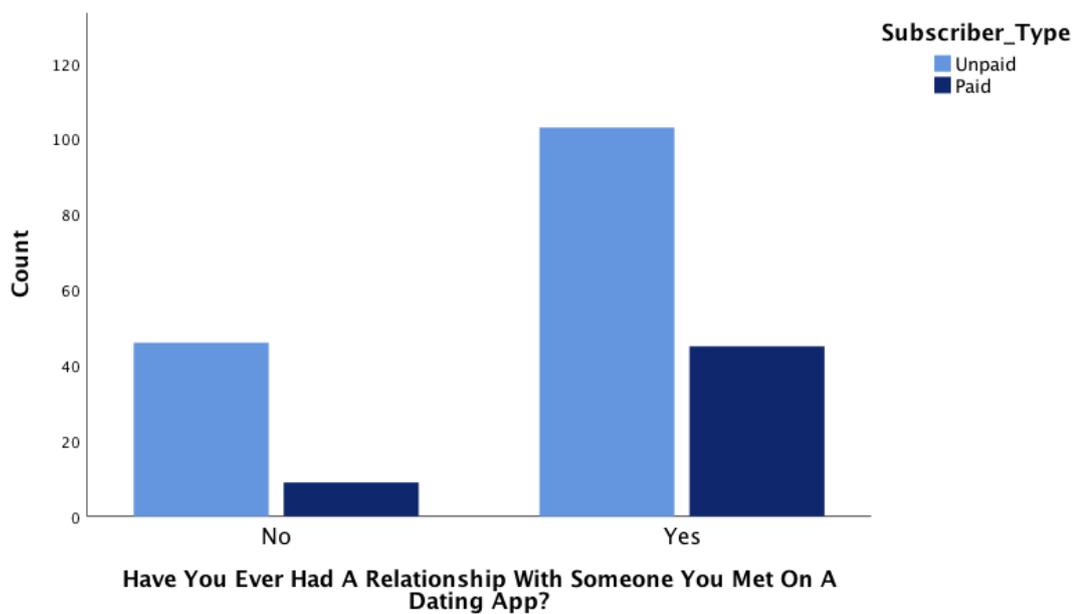

Figure 15 - chi-square result showing significant difference between unpaid and paid users and having already had a relationship with someone they met online, with unpaid users being more likely to have had a relationship with someone they met online.

To conclude, what could be interpreted from the above data, is that dating app users, while they do not find it easy to meet someone for romantic purposes on dating apps Tinder, Grindr, Bumble and Hinge, they do not find it impossible as most of the respondents have at one time or another been in a romantic relationship with someone they met through a dating app. However, the type of subscription they hold (unpaid or paid) does not seem to be a factor in our respondent's matching with people whom

they can build a romantic relationship with, this can be achieved equally on both the unpaid and paid versions of these dating apps.

6. → Discussion

The following discussion will connect the statistical data from the data analysis and findings to the previous literature that has explored this topic and the research objectives/hypotheses put forward in this study, to highlight key points found.

6.1 Subscriber type self esteem

It had been discovered in some of the earliest studies of dating digitally, noted in the review of the literature, that self-esteem varied based on the goals of the subscriber. People with low self-esteem were generally not looking for a romantic relationship, whereas those with high self-esteem were more likely to be looking to use online dating for the consideration of a long term romantic relationship. It was also found that users with low self-esteem were more likely to be looking for casual hook-ups only (Kim, Kwon, and Lee 2009; Byrant and Sheldon, 2020; Paul, McManus, & Hayes, 2000). However, in the researcher's findings self-esteem did not appear to vary whatsoever between dating app users whether they be unpaid or paid. It is suggested that dating apps have become more commonplace in society and more widely adopted as a tool for connecting people for multiple purposes, not necessarily just dating. Smartphone users are living in a connected world whereby apps open them up to a new network, giving them social freedom online from their offline connections. Yet, another study which was more recent by (Strubel and Petrie, 2017) reported that Tinder users were found to have higher levels of distress on all levels and low measures of self-esteem. Surprisingly, the findings of this study reported normal levels of self-esteem in our sample survey audience who used either all or some of the apps (Tinder, Grindr, Bumble, Hinge). Thus, no differences were found in the type of users (unpaid / pad) on dating apps in our survey, despite the high likelihood of social comparison due to the nature of dating apps being connected

highly to attractiveness. Further analysis of the respondents' social value / status and dating app goals may be able to offer deeper insights into the effects of dating apps on self esteem. Perhaps the gamification of dating apps is placing more of an entertainment value on the typical use of the platforms, removing users distress levels associated with looking a certain way that is deemed attractive in the modern dating world, in favour of just logging on for the fun of it and the potential to meet someone of interest along way. Essentially removing the pressure to logon to find a perfect partner for romantic purposes.

6.1.2 Subscriber type body satisfaction / desirability

As stated earlier, body image was a concern were dating apps had been used, as they heavily rely on photographs of users to be scrutinised by others based on their perceived level of attractiveness. A study by (Rodgers et al., 2019) found that the frequency by which men checked their chosen dating app, positively correlated with higher levels of body shame. Furthermore, (Strubel and Petrie, 2017) found that Tinder dating app users were significantly less satisfied with their face, body and overall appearance than people who did not use the app. This study did not compare dating app users to non-users, however, the researchers did find that when comparing unpaid app users to paid users, there didn't appear to be a difference in body satisfaction levels between these groups. Moreover, the study discovered that the respondents reported to have normal levels of body satisfaction overall, reporting to be either very satisfied or satisfied with the listed body parts in the survey. This could indicate that our respondents identify with the type of physique they consider to be most attractive to others, which posits the notion that social comparison is a driving force for people to adjust their appearance IRL (in real life) according to what is considered attractive on dating apps either through a healthy/active lifestyle or through surgical methods to enhance their overall appearance. More research is needed here to determine what makes people feel most-attractive to others when using dating apps and how adaption of a look can affect self-worth. (Fox and Vendemia, 2016) suggested that dating app users may be assigning themselves a level of

attractiveness after they make comparisons to themselves to other users on dating apps. As it is human nature to want to fix imperfections in order to look good in order to attract the attention from the people we want, it makes sense that uses of these dating apps could be altering their appearance to match in with the social norms dating apps perpetuate. This type of behaviour online can be attributed to social media sites such as Snapchat, Instagram and TikTok which enable users to filter their facial features. Some of these filters are just for fun with users changing their face to puppy dogs, cats or inanimate objects, yet other filters act as a type of digital cosmetic surgery, enhancing skin tone, facial shape resulting in a you-but-better-version staring back. Dating app users regularly upload profile pictures that have been altered by these filters, to portray themselves in a certain way. The problem surrounding this is that people may develop a distorted view of their attractiveness and want to convert these computer generated alterations to their appearance in real life.

6.2 Subscriber type gender difference

Gender differences were evaluated in the (Strubel and Petrie, 2017) study examining the interaction of gender and Tinder use with regards to self-esteem and body-image concerns. Interestingly, this study found that men overall reported to have lower self-esteem levels than females. Their findings were equally consistent with research on body image concerns and social networking sites, which was previously explored and discussed in terms of user desirability and social comparison. The results from this researcher's study compared the difference in gender and subscriber type (unpaid versus paid) and found that males were more likely to become a paid user than their female counterparts. The connection made between men being more likely to become paid users is an important, as it is considered paid-users are more likely to be driven by the goal to find a romantic partner for a form of relationship. Previous research states by (Kim, Kwon, and Lee 2009; Byrant and Sheldon, 2020; Paul, McManus, & Hayes, 2000) determined that people with low self-esteem were less interested in romantic relationships whereas those with high levels of self-esteem were more likely to use online dating for the consideration of a long-term romantic relationship. Taking

this into consideration, it could be said that male's who pay to use a dating app service, are more likely to be driven by the goal to meet a romantic partner for some form of relationship. If this were to be true, in this circumstance, males would report to have higher levels of self-esteem, as per the findings in this study, which contests the findings by (Strubel and Petrie, 2017) with readers to men and low self-esteem.

Another explanation as to why men are more likely to become paid users is because they feel less satisfied with the number of engagements, they have on the unpaid versions of dating apps they use. Previous research has found that men report being significantly less satisfied with the amount of attention they receive on dating apps compared to female swipers (The Virtues and Downsides of Online Dating, 2020). This would corroborate the study by (Strubel and Petrie, 2017) outlining men's dissatisfaction with dating-apps and explain their feelings of lower self-esteem. Yet, the researchers found that overall, the respondents of this survey reported to be generally satisfied with their experience on dating apps. This suggests that more research is needed to understand the relationship between dating app experiences of the genders and reasons why they subscribed to a paid platform.

6.2.1 Subscriber type dating app success rates

According to (Licoppe et al, 2016; Albury et al., 2017) some of the perceived problems with dating apps lead to unsuccessful connections. This can be because of factors such as; proximity (the distance is too far to travel in order to meet FtF), people have a fear of rejection in person, others encounter fake accounts more often than others and are put off the idea of dating apps as a result. There are numerous reasons why people might find their experience on dating apps unsuccessful, thus resulting in lower measures of their self-esteem. It appears that the most common problems people encounter on dating apps, which were outlined in the previous literature, can also be considered relevant for both unpaid dating app users and paid dating app users. As the researcher's study found no significant difference between the success rates of either group, it would appear that by becoming a paid user, the

types of issues surrounding success as mirrored here in that of the unpaid. The data suggested that both groups (unpaid versus paid) found it difficult to find someone for the purposes of engaging in a romantic relationship and also to find someone who was willing to meet in person. Again, the gamification of dating-apps might have a part to play in users being unsuccessful to find someone for these two purposes. Gamification of dating apps may be causing people who are interested in some relationships to connect with others who are logging on for entertainment value over meaningful connections. It is suggested that there is a need to research the gamification of the dating app experience, to explore the relationship between subscribers who are dating seriously and those who see it less seriously.

What was interesting when researching dating app user success rates, was the finding that most of our respondents had actually been in some form of relationship with someone whom they had met on a dating app. While our respondents had actually previously found success on dating apps, they reported that they find it hard to find someone for this purpose or to simply meet in person. The researcher considers two factors as the possible cause for this. (1) Again, gamification of dating apps is increasing and leading to more unsuccessful matches then they once would have, before society became somewhat addicted to the use of dating apps as a social tool. The increasing reliance on society to be connected at all times, known as 'always-on' has grown over the years, which could explain how people are logging on to dating apps more frequently and less seriously. (2) Success rates are also being expressed in the failure of a relationship. While most of the respondents reported to have had a relationship with someone they met online, the results of the survey highlighted how some may have lasted between 3 months and 2 years. It is possible that a doomed relationship has caused dating app users to negatively associate their failed relationship with their perceived success rate on dating apps as they had met their partner via these platforms. This question is not new one - in the early days of online dating, it had been discussed at length, whether meeting someone online can develop into a meaningful relationship leading to marriage and a family. Hinge for instance

uses its statistics for the rate of matches they made which led to their users getting married, as a means of publicity for what they would like the app to represent "a dating app to get you off dating apps".

7. → Conclusion

The overall objective and aims of this study was to investigate the relationship between dating app use and self esteem in Irish users from an unpaid and paid user perspective, to determine if self esteem varies based on the dating app subscriber type. In order to successfully achieve the aims of the study, the researcher outlined four hypotheses and research question. After conducting a statistical analysis using SPSS of the data derived from an online survey, it was felt that the aims of the study were satisfied.

Upon initial research of the existing literature, the researcher determined that gaps existed on the topic of online dating, dating apps and self esteem, from a subscriber type perspective. This unexplored area of dating apps and self esteem had the potential to add to the existing literature by further analysing the self esteem levels of unpaid and paid users. The topic of dating apps and self esteem has been of interest to researchers for years, and low self esteem has been found to be a known factor for some of its users, mostly males, yet no prior research had considered the trading of mone, in the search for some form of relationship on dating apps, to impact on self esteem and self worth. Social comparison and the gamification of dating apps are two known problems with the use of dating apps causing dissatisfaction. It was considered by the researcher that users of dating apps who purchase a premium subscription may experience an increase in dissatisfaction with the product if they are unsuccessful in their dating endeavours, impacting their overall self esteem.

It was felt by the researcher that a quantitative research method would be best suited for the study because previous studies used this method for their findings and

quantitative methods provided statistical data that enabled the comparison of various groups, which was the overall aim of this study, to compare unpaid dating app subscriber types with paid subscriber types against different variables such as dating app success rates, self esteem levels, overall body satisfaction and gender difference. In order to fulfil the aims and objectives the researcher conducted 203 digital surveys using online software. The survey gauged the respondent's demographic data, their attitudes towards dating apps both unpaid and paid, while also scoring their self esteem levels and body satisfaction levels.

The researcher encountered some limitations with the chosen methodology. For example, gaining access to a large enough pool of paid dating app users proved to be difficult, which meant the unpaid dating app respondents were mostly overrepresented in the survey.

The survey, which is set out in the appendix, used a mix of direct answer 'closed ended' questions alongside Likert scales. The data from this formed the basis for the statistical analysis using SPSS that compared the means of each data set.

The data provided interesting results, offering a deeper insight into dating app usage among people in Ireland and their considerations towards paying to use the premium version versus using the unpaid version. It became obvious from the real-time results of the survey that most of our respondents reported to have normal self esteem levels and attributed entertainment / casual dating to the use of dating apps, which highlights why they are less likely to pay for the premium versions, as it shows they do not take dating apps too seriously.

It was noted that self esteem did not vary in dating app subscriber type. Body satisfaction did also not vary by subscriber type. Yet, men were more likely to become paid dating app subscribers and paid subscribers were more likely to be dishonest (Catfish) to some extent, than unpaid users. It was also noted that unpaid

users had more success on dating apps. Perhaps this does suggest that unpaid users are bound less by social comparison than unpaid users, or perhaps 'hook-up' culture is driving men to become paid users, and alter their profiles (lie) to entice more prospects for the goal of casual sex, or just an ego boost which could explain why women do not pay to use dating apps as their goals do not align with that of other users.

8. → Recommendations

The findings from this digital survey of dating app users in Ireland, from an unpaid and paid perspective, has brought to light some other areas that warrant further research. Firstly, it would be interesting to survey a larger pool of paid dating app users to note what the main goals are of this dating app cohort and if the goals vary across gender types. Secondly, it may be beneficial to introduce some qualitative methods to conduct in depth interviews with unpaid and paid dating app users to understand the factors that lead some users to lie about their hobbies/interests and alter profile photos of themselves on their dating app profiles. This would be further helped by comparing the use of image filters on social media sites and how they measure toward the impact on self-esteem in a social-comparison context. A qualitative analysis could help uncover if dating app users favour filter social media photos of themselves over natural unedited photos. This could further link the addictive use of social media to dating apps.

Lastly, future research should consider the comparison of heterosexual dating app users to gay, bi-sexual or transgerder dating app users, as little is known about the differences of self esteem in these varying groups. This could be also said for generational differences. More data would be beneficial to understand how dating apps use impacts on younger generations who are being born into the mobile-first era, versus the older generation who are new to technology and newly single and use dating apps to find companionship. Thus, the researcher suggests a mixed methods

approach to future research on the topic of dating app and self esteem, within these areas.

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10 → Appendices

National College of Ireland

Section 1 of 5

Digital Dating App Survey

Aims of this study

The aim of this study is to learn about attitudes, emotions and beliefs about one's self that are connected to the use of digital dating apps, specifically looking at Tinder, Grindr, Bumble, Hinge and their freemium offerings. This study is being conducted by a masters student in the National College of Ireland, for a final year dissertation and has been approved by the National College of Ireland and the Research Ethics Committee. All respondents in this survey are completely anonymous. The data from this survey will be used to inform a statistical analysis and does not permit the identification of any individuals who partake, as per European GDPR standards.

Eligibility Requirements

You were welcome to take part in this study if you are over 18

What you will need to do and time commitment

This study will take around 10 - 15 minutes. You will be asked a series of questions about your experience with dating apps and your behaviours. There are no right or wrong answers here. Please try to be as honest as your possibly can.

Risks/Discomforts involved in partaking

The study will ask you questions about your experiences with dating apps, which may trigger an emotional response, therefore, you might experience some level of discomfort.

I agree *

◯ Yes

◯ No

After section 1   Continue to next section   ▾

Part 1 of 4 - Demographic Data

Description (optional)

What is your gender? *

○ Male

○ Female

○ Prefer not to say

Are you currently living in Ireland? *

○ Yes

○ No

What is your age? *

Short answer text

Where do you usually reside? *

Urban City = e.g populations greater than 50,000 ||
Urban Town = e.g populations between 1500 - 49,999 ||
Rural area with urban influence = e.g population with less than 1500 ||
Highly rural area - e.g. remote / isolated from community

○ Urban City

○ Urban Town

○ Rural area with urban influence

○ Highly Rural Area/Remote

Which of the following best describes your employment status *

○ Employed, working full time

○ Employed, working part-time

○ Not employed, looking for work

○ Not employed, not looking for work

○ Disabled, unable to work

Of which of the following broad sectors does your current occupation fit into *

1. Non-manual works (cooks, barstaff, clerical, receptionists etc)

2. Semi-skilled manual workers (security guards, hotel porters, caretakers etc)

3. Unskilled manual workers (general operatives, cleaners, labourers etc)

4. Manual Skilled (Plumbers, plasterers, bus drivers etc)

5. Agricultural workers (farm workers, forestry workers etc)

6. State labour intervention schemes (FAS, TUS, community employment etc)

7. Employers and Managers (Company directors, IT managers, business owners etc)

8. Higher Professionals (Engineers, solicitors, medical doctors etc)

9. Lower Professionals (Nurses, teachers, financial consultants etc)

10. Clerical/Admin

11. Own account workers (Self employed, taxi drivers etc)

12. Student

13. Never worked / permanently ill

14. All others

What is your current relationship status *

1. Single

2. In a relationship

3. In an open relationship

4. Engaged

5. Civil Partnership

6. Married

7. Seperated

8. Divorced

9. Widowed

What is your highest qualification to date *

1. Junior Certiicate or equivelant

2. Leaving Certificate of equivelant

3. Bachelor's Degree (e.g BA / BS)

4. Master's Degree (e.g MA, MS, MEd)

5. Doctorate (e.g. PhD, EdD)

After section 2   Continue to next section

Part 2 of 4 – Your attitudes towards the use of dating apps

Description (optional)

Have you used any or all of the following? *

Please tick all that are relevant

☐ Tinder

☐ Grindr

☐ Bumble

☐ Hinge

How often would you logon? *

◯ Once a month

◯ Once a week

◯ Two or more times a week

◯ Everyday

What are your dating app goals? *

☐ To find friends

☐ Casual dating (looking for a relationship)

☐ Casual dating (not looking for a relationship)

☐ Entertainment

☐ Ego boost

☐ Love

☐ Hook-ups

☐ Nudes

What are the three most important considerations for selecting someone on a dating app? *

☐ Photos

☐ Hobbies

☐ Common Interests

☐ Bio Description

☐ Use of humour

☐ Age

☐ Distance / proximity

☐ Music Preferences

Have you ever been in a romantic relationship with some who you met on online? *

◯ Yes

◯ No

If Yes, how long did that relationship last

◯ Less than 3 months

◯ 3 - 6 months

◯ 6 months to 1 year

◯ 1 - 2 years

◯ 2 years +

Have you ever felt rejected by others when using dating apps? *

◯ Yes

◯ No

When using dating apps do you find it difficult or easy to find someone you're physically attracted to *

◯ Difficult

◯ Easy

When using dating apps do you find it difficult or easy to find someone who shares your interests/hobbies? *

◯ Difficult

◯ Easy

When using dating apps do you find it difficult or easy to find someone who's goal is to meet in person *

◯ Difficult

◯ Easy

When using dating apps do you find it difficult or easy to find someone who is looking for some form of relationship *

◯ Difficult

◯ Easy

When using dating apps do you find it difficult or easy to find someone who wants to hook-up *

◯ Difficult

◯ Easy

When using dating apps, have you ever altered a photo to appear more desirable? *

◯ Yes

◯ No

Have you ever lied on your profile bio/interests to appear more desirable? *

○ Yes

○ No

Have you ever lied to a potential match to appear more desirable? *

○ Yes

○ No

Have you ever deleted and redownloaded any of the listed dating apps out of frustration? *

○ Yes

○ No

What are some of the problems encountered with using dating apps? *

☐ Fake profiles

☐ Non secure trading of personal information (e.g personal photos)

☐ Lack of communication

☐ Too many cadidates

☐ Too few candidates

When using the following dating apps, how attainable do you consider other users to be?

	Very attainable	Somewhat atta...	Undecided	Somewhat Una...	Very Unattaina...
Tinder	○	○	○	○	○
Grindr	○	○	○	○	○
Hinge	○	○	○	○	○
Bumble	○	○	○	○	○

Have you ever paid to use a dating app? *

○ Yes

○ No

How helpful to the dating app experience, would you consider these premium account-features * to be

	Very Helpful	Helpful	Undecided	Unhelpful	Very Unhelpful
Ability to see w…	○	○	○	○	○
Top 10 Candida…	○	○	○	○	○
Profile Boost 'in…	○	○	○	○	○
Unlimited Swipes	○	○	○	○	○
Change Your Lo…	○	○	○	○	○
Rewind – unlim…	○	○	○	○	○
Viewed Me: see…	○	○	○	○	○
Unlimited Profil…	○	○	○	○	○
Online-only vie…	○	○	○	○	○
Additional Filter…	○	○	○	○	○
Rematch with e…	○	○	○	○	○
Extend matche…	○	○	○	○	○

How likely are you to make physical comparisons to other dating app user profiles? *

1. Very Likely

2. Somewhat Likely

3. Likely

4. Somewhat Unlikely

5. Very Unlikely

Overall, how satisfied were you with the dating app experience? *

○ Completely satisfied

○ Very Satisfied

○ Somewhat Satisfied

○ Not too satisfied

After section 3   Continue to next section   ▼

Part 3 of 4 - Body Satisfaction & Self-Worth Analysis

Description (optional)

Which of these 7 female body figures do you think resembles the type of physique that people *
are most attracted to?
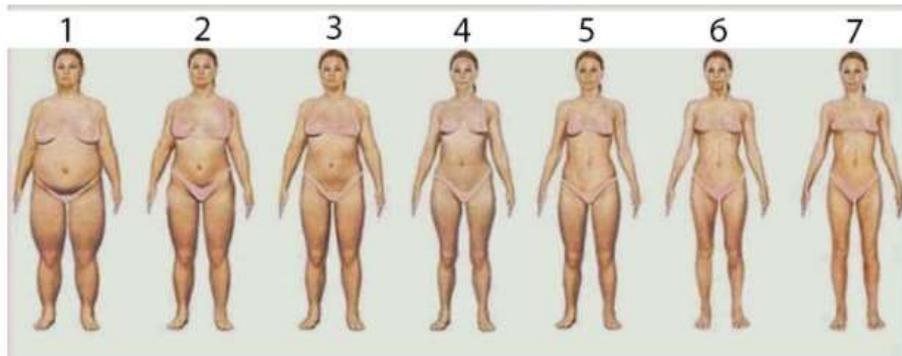
	1	2	3	4	5	6	7
	○	○	○	○	○	○	○

Which of these 7 male body figures do you think resembles the type of physique that people are *
most attracted to?
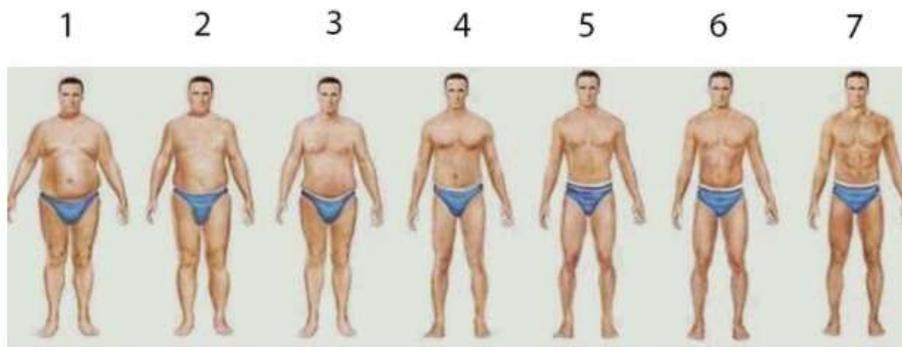
	1	2	3	4	5	6	7
	○	○	○	○	○	○	○

How do you feel about the following parts of your body? *

	Very Satisfied	Slightly Satisfied	Undecided	Slightly Unsatis...	Very Unsatisfied
Hair	○	○	○	○	○
Head	○	○	○	○	○
Eyes	○	○	○	○	○
Ears	○	○	○	○	○
Nose	○	○	○	○	○
Teeth	○	○	○	○	○
Neck	○	○	○	○	○
Shoulders	○	○	○	○	○
Arms	○	○	○	○	○
Chest	○	○	○	○	○
Stomach	○	○	○	○	○
Buttocks	○	○	○	○	○
Hips	○	○	○	○	○
Legs	○	○	○	○	○
Calves	○	○	○	○	○
feet	○	○	○	○	○

Below is a list of statements dealing with your general feelings about yourself. Please indicate *
how strongly you agree or disagree with each statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree
On the whole, I am ...	○	○	○	○
At times I think I a...	○	○	○	○
I feel that I have a n...	○	○	○	○
I am able to do thin...	○	○	○	○
I feel I do not have ...	○	○	○	○
I certainly feel usel...	○	○	○	○
I feel that I'm a per...	○	○	○	○
I wish I could have ...	○	○	○	○
All in all, I am inclin...	○	○	○	○
I take a positive atti...	○	○	○	○

After section 4   Continue to next section   ▼

Part 4 of 4 - Please indicate if you agree or disagree with the following statements

Description (optional)

"I do not care if my body looks like the body of people who are on dating apps" *

○ Agree

○ Disagree

"If I become a paid user of a dating app I am likely to receive more suitable candidates" *

○ Agree

○ Disagree

"I think that paying for premium dating app features is embarrassing" *

○ Agree

○ Disagree

"I don't think I am good enough to be a user of a paid-for dating app" *

○ Agree

○ Disagree

"I think Tinder, Grindr, Bumble and Hinge users are more attractive than I am" *

○ Agree

○ Disagree

"I think I have a greater chance of finding love if I pay for a premium dating app service" *

○ Agree

○ Disagree

"I believe that most users see dating apps as a game" *

○ Agree

○ Disagree

"I would pay to use a dating app if I thought it would guarantee more conversations or casual hook-ups" *

○ Agree

○ Disagree

"I would pay to use a dating app if I thought I would meet 'the one'" *

○ Agree

○ Disagree

"If I paid to use a dating app, I would keep it a secret" *

○ Agree

○ Disagree

"I would find it embarrassing if I didn't make a match after paying for a dating app" *

○ Agree

○ Disagree

"I think that paying for premium features, on a free app, is a waste of money" *

○ Agree

○ Disagree

"Receiving compliments from other users on my appearance gives me a confidence boost" *

○ Agree

○ Disagree

"Temporary free access to premium features makes me like dating apps more" *

○ Agree

○ Disagree

"Having access to advanced dating app features make them more fun to use" *

○ Agree

○ Disagree

"I wouldn't consider talking to someone on a dating app if I found them to be less attractive than me" *

○ Agree

○ Disagree