

İSTANBUL BİLGİ UNIVERSITY  
INSTITUTE OF SOCIAL SCIENCES  
CLINICAL PSYCHOLOGY MASTER'S DEGREE PROGRAM

A STUDY OF ONLINE DATING: USERS' MOTIVATION TO USE ONLINE  
DATING WITH RESPECT TO ATTACHMENT DIMENSIONS AND  
NARCISSISTIC TENDENCIES

Zeynep Ayşe SUNBAY BİLGİN  
**112629008**

Dr. Öğr. Üyesi Ümit AKIRMAK

İSTANBUL  
2020

A Study of Online Dating: Users' Motivation to Use Online Dating With Respect to  
Attachment Dimensions and Narcissistic Tendencies

Çevrimiçi Flörtleşme: Kullanım Motivasyonunun Bağlanma Boyutları ve Narsistik  
Eğilimlerle İlişkisi

Zeynep Ayşe Sunbay Bilgen  
112629008

Thesis Advisor: Dr. Öğr. Ümit Akırmak .....  
İstanbul Bilgi Üniversitesi  
Jury Member: Dr. Öğr. Üyesi Ryan Macey Wice .....  
İstanbul Bilgi Üniversitesi  
Jury Member: Dr. Öğr. Üyesi Gizem Arıkan .....  
Özyeğin Üniversitesi

Tezin Onaylandığı Tarih : 10.01.2020

Toplam Sayfa Sayısı : 80

Anahtar Kelimeler (Türkçe)

- 1)Çevrimiçi Flörtleşme
- 2)Bağlanma
- 3)Narsisizm
- 4)Kırılgan narsisizm
- 5)Büyüklenmeci narsisizm

Anahtar Kelimeler (İngilizce)

- 1)Online dating
- 2)Attachment
- 3)Narcissism
- 4)Vulnerable narcissism
- 5)Grandiose narcissism



## ACKNOWLEDGEMENTS

First and foremost, I thank Ümit Akirmak, for supporting and guiding me in my long thesis study journey and for his steady presence whenever I needed it. I am also thankful to Sinan Sayıt, for inspiring me to follow my curiosity for this study, as he supported my growth as a psychotherapist. I thank Ryan Wise and Gizem Arıkan for their contributions during the final and most significant stage of this journey.

There are no words to express my gratitude to my dear Aras, for all he is for me, as he stood by me no matter how long I sometimes take. I also thank my parents, for I am grateful for all the support and resources they provided me throughout my life.

I cannot thank enough my friends, for their presence and encouragement, and for all the wonderful things they brought to my life as I moved along this journey, changing and maturing, and sometimes stealing away that precious time we could spend together. Being who they were, they all enriched my life in times of hardship and encouraged me with the love, fun and joy they brought into it. Thank you especially, Birgül Oğuz, Damla Okyay, Emine Ünlü, Cemil Altunbaş, Özge Kunduz, Gülşah Karadayı, Gonca Akkaya, Ayça Taylan, and Esra Keskin.

And I dedicate this effort mostly to Derin. For that special kind of curiosity and joy you brought to my life.

## TABLE OF CONTENTS

Title Page .....	i
Approval Form.....	ii
Acknowledgements .....	iii
Table of Contents .....	ivv
List of Tables .....	vi
List of Figures.....	vii
Abstract.....	viii
Özet.....	x
Chapter 1: Introduction .....	1
1.1. Background: Internet as a new medium of human connections .....	2
1.1.1. A new chapter: Digital natives.....	3
1.1.2 Normalization and increasing popularity of online dating .....	4
1.1.3 Why go online (dating)? .....	5
1.1.4 Who uses online dating/ who meets a partner online? Characteristics of users and users with different motives.....	7
1.2 Attachment Theory and adult romantic attachment.....	10
1.2.1 Attachment and relationships in adulthood .....	11
1.2.2 Attachment and sexuality .....	12
1.2.3 Attachment and online dating .....	14
1.3 Narcissism.....	14
1.3.1 Narcissism and (non)-romantic relationships .....	15
1.3.2 From Narcissistic Personality Disorder to different faces of narcissism: Vulnerability and Grandiosity.....	16
1.3.3 Narcissism and online interactions.....	18
1.4 Current study .....	19
1.4.1 Predictions of the current study .....	21
Chapter 2: Method.....	22
2.1 Participants.....	22
2.2 Measures .....	24
2.2.1 Socio-demographic Form .....	24

2.2.2 Use of Online Dating Descriptive Information.....	24
2.2.3 Experiences in Close Relationships - Revised Questionnaire (ECR-R) ..	25
2.2.4 Pathological Narcissism inventory (PNI).....	25
2.2.5 Narcissistic Personality Inventory Short version (NPI-16).....	26
2.3 Procedure.....	27
2.4 Data analysis.....	28
Chapter 3: Results.....	29
3.1 Descriptive findings .....	29
3.1.1 Online dating applications/websites use .....	29
3.1.2 Motive for using online dating apps/websites: .....	31
3.1.3 Online dating interactions and outcomes .....	32
3.2 Exploratory Factor Analysis of Turkish PNI.....	35
3.3 Correlations .....	38
3.4 Binomial regression analysis: Predicting the aim of online dating use.....	41
3.4 Hierarchical Regression Analyses .....	42
3.4.1 Hierarchical regression predicting the number of romantic outcomes through online dating .....	42
3.4.2 Hierarchical regression predicting the number of casual sexual outcomes through online dating .....	44
3.4.3 Hierarchical regression analysis predicting the reported proportion of online dating outcomes that served romantic purposes .....	45
3.4.4 Hierarchical regression analysis predicting the overall number of interactions people had in online dating .....	46
Chapter 4: Discussion .....	48
4.1 Limitations and future directions.....	56
Chapter 5: Conclusion.....	58
References.....	60

## List of Tables

Table 2.1: Demographic characteristics of the analysis sample	23
Table 3.1: Frequency of use of online dating apps/platforms use	29
Table 3.2: Time spent online dating on a typical day	29
Table 3.3: Since when participants use online dating apps/platforms	30
Table 3.4: How people started online dating	30
Table 3.5: How long do people interact online before meeting someone face-to-face?	31
Table 3.6: Online dating outcomes (Mean, (median, mode), range)	33
Table 3.7: Online dating outcomes by sexual orientation	34
Table 3.8: Number of romantic outcomes through online dating	34
Table 3.9: Casual sex outcomes	35
Table 3.10: Exploratory Factor analysis of Turkish PNI items	37
Table 3.11: Means, Standard Deviations, Reliabilities, and Intercorrelations Among 3 Factors on the 33 Item Turkish PNI ( $N=521$ )	38
Table 3.12: Correlation Matrix showing interrelations among variables	40
Table 3.13: Summary of binomial logistic regression predicting the main motivation to use online dating	42
Table 3.14: Summary of Hierarchical Regression Analysis Predicting the Number of Romantic Relationships	43
Table 3.15: Summary of Hierarchical Regression Analysis Predicting the Number Casual sexual relationships	45
Table 3.16: Predicting the Percentage of Romantic Endeavors	46
Table 3.17: Predicting the Overall Number of Online Interactions	47



## **List of Figures**

Figure 3.1: Applications/Platforms people use for Online Dating	31
---	----

## **Abstract**

Given the basic human need to relate (Deci & Ryan, 1985), it is unsurprising that technology aims to provide new mediums that could facilitate the satisfaction of this need, however how people make use of technology depends on them (Turkle, 1995). Online dating is such a medium that carries the potential of facilitating creation of connections with ever popularity globally (Couch & Liamputtong, 2008). Various personality related variables were studied in the online dating, however characteristics that relate to motivations of use and actual use are understudied (Chin, Edelstein & Vernon, 2018). The focus of this study was attachment dimensions of anxiety and avoidance and narcissistic tendencies of grandiosity and vulnerability with respect to online dating motivation and outcomes. It aimed to study the potential predictive value of attachment anxiety and avoidance, as well as the grandiose and vulnerable narcissism on the choice of motive for using online dating, either at the service of seeking a romantic relationship or a casual sexual interaction. Actual outcomes of online dating in terms of casual sexual and romantic relationship numbers were also examined for the predictive role of these dimensions. Two hundred forty online dating user young adults' data were analyzed mainly using binomial and hierarchical regression analyses. An additional step involving an exploratory factor analysis was undertaken due to weaknesses in the psychometric properties of the existing Turkish version of the Pathological Narcissism Inventory that was used to measure subtypes of narcissistic tendencies (PNI, Buyukgungor, 2016; Pincus et al., 2009). Results of the study showed that, in terms of motives of online dating, in line with attachment literature, higher attachment anxiety predicted higher likelihood of adopting a romance motive whereas higher attachment avoidance predicted the adoption of a casual sex motive of online dating. On the other hand, level of grandiose narcissism was found to negatively predict the number of casual sexual outcomes, in contrast to the predicted direction, and the level of vulnerable narcissism negatively predicted the actual tendency of using online dating for romantic purposes. The emerging narcissistic dimension from the re-adaptation of Turkish PNI of antisocial narcissism was also included in the analysis. Antisocial



narcissism was a predictor of the actual outcome of romantic and casual sexual encounters; with increasing antisocial narcissism, number of outcomes tended to increase. Findings are discussed in the light of attachment and narcissism literature and existing online dating studies.

*Keywords: Online dating, attachment, narcissism, grandiose narcissism, vulnerable narcissism, casual sex, romantic relationships*

## ÖZET

İlişkilenmenin, en basit insani ihtiyaçlardan biri olması sebebiyle (Deci, & Ryan, 1985), teknolojinin bu ihtiyacın tatminine yönelik yeni ortamlar sağlaması şaşırtıcı değildir. Öte yandan kişilerin bu teknolojileri nasıl kullanacakları onlara bağlıdır (Turkle, 1995). Gideren artan popülerliğiyle çevrimiçi flörtleşme araçları da bu amaca hizmet etme potansiyelini taşıyor (Couch & Liamputtong, 2008). Çevrimiçi flörtleşme kullanımıyla bağlantılı olarak pekçok kişilik özelliğinin ilişkisi çalışılmış olsa da, kişilerin hangi motivasyonla buna yaklaştığı ve gerçekleşen kullanımlarıyla bağlantısına dair çalışmalar kısıtlıdır (Chin, Edelstein & Vernon, 2018). Bu çalışmanın odağında online dating motivasyonları ve çıktıları ile bağlanma kaygısı ve bağlanma kaçınmacılığı ile kırılğan ve büyüklenmeci narsisistik eğilimler arası ilişkiler bulunmaktadır. Çalışmanın amacı bağlanmanın kaygı ve kaçınmacı boyutlarının, narsizmin iki boyutunun kişilerin bu uygulamaları romantik bir ilişki kurmak veya bir ilişki beklentisi olmaksızın tek gecelik cinsel ilişki ya da etkileşimler kurmak amaçlı kullanım seçimine dair olası yordayıcı etkisini çalışmaktır. Online dating kullanımının gerçekleşen çıktıları da bu boyutların yordacı etkisi üzerinden incelendi Online dating kullanıcısı 240 genç yetişkinin verisi bu amaçla hiyerarşik ve binomial regresyon analizleriyle incelendi. Ek olarak, narsizmin iki boyutunu ölçmek amacıyla kullanılan Patolojik Narsisizm Envanterinin Türkçe adaptasyonunun (Buyukgungor, 2016; Pincus et al., 2009) psikometrik özellikleri sebebiyle yeniden bir açımlayıcı faktör analizi yapıldı. Çalışmanın sonuçlarına göre, bağlanma literatürünün de desteklediği üzere, bağlanma kaygısının artmasının romantik ilişki kurma amacıyla uygulamaları kullanma seçeneğini yordadığı, bağlanma kaçınmacılığının artmasının ise romantik bir ilişki beklentisi olmaksızın cinsel ilişki etkileşimler kurma amacıyla online dating kullanma motivasyonuna sahip olunmasını yordadığı bulundu. Öte yandan, artan büyüklenmeci narsisizmin, beklenenin aksine, cinsel etkileşimlerin sayısını negatif yönde yordadığı, kırılğan narsisizm seviyesinin arttıkça kişinin uygulamaları kullanma eğiliminin daha fazla romantik amaca yönelmiş olmasını yordadığı bulundu. Türkçe Patolojik Narsisizm Envanterinin yeniden faktör analizi ile elde edilen üçüncü bir boyut olan antisosyal narsisizm de analizlere dahil edildi.

Antisosyal narsisizm seviyesinin gerekleřen romantik iliřki ve cinsel amalı etkileřimlerin pozitif yönde yordayıcısı olduėu bulundu. Bulgular bağlanma ve narsisizm yazını ile onlinde dating üzerine yapılan diėer alıřmalar bağlamında tartıřıldı.

*Anahtar sözcükler: Online dating, çevrimii flörtleşme, bağlanma, narsisizm, büyüklenmeci narsisizm, kırılgan narsisizm, romantik iliřkiler, cinsel amalı iliřkiler*

## CHAPTER 1

### INTRODUCTION

As Aristoteles said “*Man is by nature a social animal*”, and as social animals, one of the deepest fears we have is isolation. As much as one might enjoy being alone, loneliness can at times be experienced as one’s greatest fear, feeling emotionally and socially alone. Lack of meaningful social and/or romantic relationships in one’s life is associated not only with depression and anxiety, but also with other mental health problems including suicide and drug abuse (Evans & Wertheim, 1998; Russell, Cutrona, Rose & Yurko, 1984; Wenz, 1977). Such significant impact of the absence of or problems in intimate relationships in one’s life led to an immense area of research focused on building of close relationships (Grabill & Kerns, 2000). Recent research even established social isolation and loneliness as a major risk factor for early mortality, comparable to obesity, even when significant lifestyle factors are controlled for (Holt-Lunstad, Smith, Baker, et al., 2015). Relatedness and the establishment of a sense of connection to other fellow human beings is a basic psychological need (Baumeister & Leary, 1995; Deci & Ryan, 1985). Search for close relationships is hence tightly related to this basic biopsychosocial human need. Therefore, it is no coincidence that new technologies target social life, since no matter how much technology we develop, we are still in need of socialization. Again, unsurprisingly, use of internet for social connections, including for establishing romantic and/or sexual relationships is one of the major uses it provides (Amichai-Hamburger & Ben-Artzi, 2000).

More and more research is addressing interfaces where technology is at the service of social connection. Turkle (1995) elaborates on how relationships are or can be affected by this technological immersion, arguing that the way technology is used can change the outcome of networked communications as social media usage becomes more and more substantial in our daily lives. Technology provides the means for ends, but its use is still up to people, hence subjective, and it will only turn out to be what people choose to make of it.

How people make use of technology and the individual differences’ effect on outcomes is a flourishing research area that deserves the attention of mental



health professionals and that will contribute to our understanding of computer/internet-mediated experiences people report (Lemma & Caparotta, 2014). The widespread Internet usage and the proliferation of social media platforms directly affected the daily life, thoughts, behaviors, and, consequently, our social relations. The ways that individuals can find a partner have expanded and diversified with developments in technology (Valkenburg & Peter, 2007). A new way of initiating and/or engaging in human contact has become part of some people's lives, namely, online dating, with the most popular channel being the Tinder application, with more than 50 million users who have it installed on their mobile phone as they go about their daily life. Online dating medium in general has gained increasing popularity especially among the young adults and deserves a closer look. This study focused on the use of online dating medium, in such a mostly young adult population and the two major motives users have for engaging in online dating: search for romantic endeavors or casual sexual interactions. It aimed to shed more light on the how narcissistic tendencies and attachment dynamics could play a role in the way young adults make use of online dating, seeking to bond or not.

### **1.1. Background: Internet as a new medium of human connections**

Internet has become an indispensable part of modern life, and the technologies it brought to life are undoubtedly here to stay. As of June 2019, 57% of the world population had access to internet (*InternetWorldStats.com*, 2019). The percentage of internet users among the entire Turkish population was even higher, at 83.3%. In 2018, 97.3% of the Turkish population aged between 16 and 74 used the Internet regularly and 84.1% of these individuals used the Internet for participating in social networking and 69.5% used it for internet-based phone or video communication over the past 3 months at the time of inquiry. As for younger generation, 90.7% and 90.1% of individuals aged 16-24 and aged 25-34 respectively reported using the internet within the last 3 months of inquiry in 2018, as compared to 65.8% and 55.1% respectively in 2011, proving a drastic increase in Internet use among the younger population.

Development of tools and technology has always played a role in human evolution and provided an inexhaustible source of change in our cultures. Internet

and digital technologies made it possible to communicate across the globe, in a way that our ancestors would never have dreamed of. As Cundy (2015) rightly states, such communication technology turned into an almost indispensable mediator not only for information exchange but also for expressions of our feelings, needs and desires.

#### ***1.1.1. A new chapter: Digital natives***

More and more people, majority of whom are "*digital natives*" " who were born into the age of internet and digital technologies and were familiar with the language of computers and internet since childhood, become involved in disembodied contexts that the age of internet makes possible, across time and space (Prensky, 2001, *p. 1*; Trub, 2017). "*Digital immigrants*", on the other hand, were those who were exposed to a prior culture where internet and related technologies were non-existent (Prensky, 2001; *p.2*). So as the new generations are now comprised of digital natives, they are more and more engaged in computer-mediated technologies, including smartphone/tablet-mediated communications marked by the absence of the physical presence of the ones involved in the interaction.

The new generation now consists of mostly digital natives, they own mostly laptops and/or use mobile-based technology as opposed to wired desktop computers. They are frequent users of online social networks and consumers of cyber technologies. The online environments they engage in become an important part of their life, whether it is through Whatsapp groups, Instagram, Snapchat, online gaming or dating platforms, etc. Sabbadini, an influential contemporary psychoanalyst argued that the introduction of such an "*electronic revolution*" (Sabbadini, as cited in Lemma and Caparotta, 2014; *p.24*) made it necessary to make significant changes as some competences were lost and others needed to replace them, such as use and maintenance of e-mail or instant messaging instead of handwriting a letter. In the end, according to Sabbadini (2014), some unconscious defenses including denial, were used by clinicians, including psychoanalysts, in the face of such drastic changes. The speed of development of technology is enormous and incessant, and its availability will be increasing.



Therefore, it is unhealthy to keep our denial of its effects, for better or worse. This study aimed at shedding light on Turkish young adults' use of these technologies for online dating and personality-related predictors of the motives they have in using it.

### ***1.1.2 Normalization and increasing popularity of online dating***

Following the rise of everyday internet use and social networking sites, online communication/ technology mediated communication became part of daily social life. Online dating is no longer seen as a marginal way to meet a partner. The attitudes of the society towards online dating worldwide has especially seen a great change over the last 15 years. Not only has the technology become more pervasive, but this was also accompanied with a change towards more accepting attitude towards meeting people online. Early forms of internet dating research involved mostly the study of cyber interactions in chat rooms, regardless of geographical proximity and users never meeting face-to-face, hence a comparison of face-to-face and exclusively computer-mediated relationships was taken on (Cooper & Sportolari, 1997; Sautter, Tippet & Morgan, 2010;).

The evolution of smartphones has had a great impact as it formed the basis for the dating apps to be developed and spread in usage and geographical proximity of users becoming a more pronounced factor in online dating. With the advances in communication technology, traditional methods of meeting new people can now fall behind the new computer technology compared to the pool of potential partners that internet can provide access to (Finkel et. al, 2012). People still meet at a party, at a work place or serendipitously but people also always tried to develop strategies to increase their chances of meeting a potential partner, whether it was through newspaper ads, established matchmakers or just asking to be introduced to someone by a friend or family member. Since 1960's, information technology started to play a role in the pursuit of meeting new partners through the use of questionnaires for matching people in the United States (Hardey, 2002). Today with the advances in technology, people can contact a potential partner in a glimpse, literally using their fingertips, through their smartphone. The convenience and accessibility of use that online dating provides in the context of time pressure due to work, travel or living

conditions added significantly to the popularity it is increasingly gaining (Brym & Lenton, 2001; Couch & Liamputtong, 2008; Chan, 2017)

With such changes, as Finkel and colleagues (2012) rightly summarized, it is no longer assumed that meeting people over the internet is only for those who are “nerds” or are “desperate” (p. 9), even though in the beginning phases of such technology, there might have been a kernel of truth in this stereotype. Popular culture also contributed to changing attitudes towards online dating, amongst all, *You’ve Got Mail* (Ephron, 1998) is best known for its popularity, and as a sweet romantic comedy that ends well as a result of the two online daters being honest with each other from the very beginning. In the same line, a study of Turkish online daters found that intimacy was indeed possible, when the two online dating sides show their true selves, with sincerity (Ozdemir, 2019). In sum, the stigma towards online dating has changed and lessened a great deal and this played a role in the increasing pervasiveness of its use, even though negative attitudes will not entirely cease to exist yet (Doan & Meyers, 2011, as cited in Finkel et al., 2012).

Initiation of relationships in the cyberspace and their possible transfer into offline world is no longer seen as eccentric, or as if it belonged to Hollywood movies, as it might have been a few decades ago (Ranzini & Lutz, 2017). Rosenfeld & Thomas (2012) study investigated changes in the ways people meet partners and showed the increasing role of the internet in the dating scene and how it enables people to meet partners whom they otherwise had no prior social tie. They argued that workplace, neighborhood and school have been partly displaced by the internet as a dating venue.

### ***1.1.3 Why go online (dating)?***

Disembodied contexts such as online dating, blogging, messaging, chat rooms all provide a freedom to exert as much anonymity and/or control over the ongoing interaction. Hence, it is up to the users to modulate how and how much present they will be in such contexts, and how they will express themselves in the interactions they get engaged in (Quian & Scott, 2007; Trub, 2017). Increasing evidence from research shows that this flexibility or control could be a facilitating environment for those individuals who experience anxiety and fear in the relational



world, even though major concerns were voiced and elaborated on the new generation's reliance on computer-mediated communication for their mental health (Sagioglou & Greitemeyer, 2014; Trub, 2017; Turkle, 2012). Mckenna, Green & Gleason (2002) discussed that Internet is used as a medium where new relationships can be formed in a "relatively nonthreatening environment" (p. 30) and individuals who are challenged in face-to-face relationships due to anxiety or shyness can find it to be facilitating for what they coined as "getting past the gates" (p. 10).

In line with this view, Haferkamp and colleagues (2012) also found that especially men found online communication to be facilitating meeting new people. Other research also showed introverted individuals feel they could express themselves more adequately in online communication (Amichai Hamburger, Wainappel & Fox, 2002; Sheeks & Birchmeier, 2007). On the other hand, there is also research supporting the rich-get-richer hypothesis; accordingly, people who are already more outgoing with stronger dating skills in the outside world will use online dating apps more frequently and more easily to make the transition from online to offline relationships (Sumter, Vandenbosch & Ligtenberg, 2017).

People engage in online dating with different intentions, it is usually but not always the case that they want to find a long-term romantic partner (Brym & Lenton, 2001). Search for casual sex partners is another major aim of online dating users (Couch & Liamputtong, 2008). Indeed, Brym and Lenton found that 43% of users intend to find sexual partners online. The most popular mobile online dating app Tinder, where users can quickly swipe through others' profiles, and interact with anyone who "swiped them left" too, could have been perceived as a casual sex application (LeFebvre, 2017), however research showed that seeking a love relationship, was a stronger motivating point for using Tinder compared to the motivation to use it for casual sex, pointing at the emergence of a new way of engaging in intimate, romantic relationships (Sumter, Vandenbosch & Ligtenberg, 2017).

In addition, research has also shown that apart from initiating new relationships in search for love or for casual sex, as in a one night-stand or "hook-up" with no strings attached, online dating can also be used just for online

excitement and fun, such that no offline contact ever happens (Sumter et al., 2017). Cooper and Sportolari (1997) made an excellent analogy between online communication and Winnicott's play space, discussing how online communication can provide " *a heightened sense of the interpersonal space that ideally exists between people, a space that offline can easily collapse given the press of the other person(s)*, (p.10). Just as in the play space, both sides can be free as to how much they will create and co-create in this space, if and when they are able to play and more so, if they play together. On the dark side though, this space can be a ground for relational or sexual abuse too, as a carry-over of the pathological tendencies from offline world into online spaces, for instance, men high on psychopathy who tend to use others for sex (Jonason, Li, Webster & Schmitt, 2009), could adopt the same harmful behavior in the online dating area where hiding true selves is much easier. An increase was shown in online dating related sexual abuse cases, reminding that the internet and all its inventions that made it into daily life, including its online dating scene, has shown its potential to be more than the "liberating space" that it can be (Gillett, 2018). This point underlies the importance of understanding the characteristics of users in their motivations to use online dating and how they make use of this potential play space.

#### ***1.1.4 Who uses online dating/who meets a partner online? Characteristics of users and users with different motives***

Studies of online dating are increasing and shedding more and more light to the characteristics of users even though this is still a new area of research, following on the footsteps of internet usage and social networking site use research. Demographically speaking, men were found to be more likely to use online dating to seek out sexual partners (Clemens, Atkin & Krishnan, 2014; Gatter & Hopkinson, 2016). Abramova and colleagues' review has shown that there is a sex difference in the motivation for online dating which has been consistently shown in studies from 1995 to 2015, and Gatter and Hodkinson found the same difference in their 2016 study. Accordingly, men are more motivated for short-term engagements and lower commitment (e.g. casual sex) as opposed to women who are more into



long-term relationships, a finding in line with evolutionary psychology research on mating (Buss & Schmitt, 1993).

In addition, users of online dating sites were found to be more educated and to have a higher income compared to the general population by one study even though others did not find such a difference (Hitsch, Hortacsu & Ariely, 2010; Gatter & Hodkinson, 2016; Valkenburg & Peter, 2007). Gatter and Hodkinson (2016) even discussed that with more and more people using online dating, the online dating population is becoming similar to the general population not only in terms of demographics but also in terms of personality characteristics, and they underline the need to replicate or disprove their finding with larger studies.

Big Five Personality traits were also studied and found unrelated to online dating use by one of the first studies to investigate dispositional factors involved in online dating behaviors (Blackhart et al., 2014). In contrast, Correa, Hinsley & Zuniga study (2010) found extraversion to be a predictor of social networking sites and instant messaging use. In the same study openness to experience was also found to be a predictor of the use of social networking sites and instant messaging tools whereas emotional stability factor was a negative predictor of such use. Openness to experience of users of online dating sites revealed that they used this medium as a way of socialization, whereas conscientiousness was related to a rationale of use for romantic endeavors (Clemens, Atkin & Chrisnan, 2015).

Using German panel data from three different cohorts, Danielsbacka, Tanskanen, and Billari (2019) also investigated differences in Big Five personality traits among people who met their current partner online and those who met their partner offline. They only found extraversion to be negatively associated with meeting a partner online. Additionally, having a higher number of previous partners, as well as being female and being from an older cohort were positively associated with meeting a partner online.

Mehdizadeh (2010) study showed higher narcissism level and low self-esteem to be related to higher frequency of Facebook use. Loneliness was also found as a factor related to the use of online communication among women (Amichai-Hamburger & Ben-Artzi (2003).

Blackhart et al. (2014) study findings indicated rejection sensitivity to be related to higher use of online dating sites. This finding was further examined in a subsequent research study and it was suggested that people who have high rejection sensitivity might better express their true selves online (Hance, Blackhart & Dew, 2018).

Self-esteem is another personality variable that was studied in the comparison of users and non-users of online dating and no difference was found between the two groups (Blackhart et al., 2014; Kim, Kwon & Lee, 2009). A personal attribute, trust was also studied, in the context of online dating and interestingly it was found to be negatively related to the use of online dating sites; in other words, people who found others trustworthy were less likely to engage in online dating (Kang & Hoffman, 2011). On the other hand, in another study (Chin, Edelstein & Vernon, 2018) among people who reported their reason for NOT using dating apps, the number one reason was that they did not have trust for online others. Such findings emphasize the difference of experiences people manifest in online vs offline interpersonal worlds.

A positive relationship between sensation-seeking (the tendency to search for novel experiences/sensations) and seeking casual sex was established among users of online dating (Peter & Valkenburg, 2007). How people perceive the use of online dating for casual sex and/or romantic endeavors and how their attitude is towards one use or the other is also predictive of how they themselves use it (Chan, 2017); reminding that socially acquired norms and attitudes are nevertheless influential in how one uses this medium, even though the social stigma is not as pronounced as it used to be in the past.

Gatter and Hodgkinson (2016) discussed that there are contradicting findings as to whether sociability or variables that revolve around sociability (such as extraversion/introversion or social anxiety) distinguish users and non-users of online dating. They argued that users are either as sociable as non-users or that they might actually a little bit more sociable, supporting the rich-get richer hypothesis mentioned earlier (Sumter, Vandenbosch & Ligtenberg, 2017).



Despite the rise of online dating research reviewed above, how other personality characteristics that are closely related to interpersonal skills and outcomes are yet to be further studied especially with regards to motivations to use online dating and relational/non-relational outcomes, that either serves the basic need to bond or not. The current study aimed to fill in this gap by examining how another personality-related characteristic, narcissism, as well as attachment characteristics might be determining individuals' use of online dating. In the next section, narcissism and attachment theory will be discussed in the context of interpersonal relationships.

### **1.2 Attachment Theory and adult romantic attachment**

Attachment theory is the product of John Bowlby's and Mary Ainsworth's joint work and it is an original conceptualization of the way children bond with their primary caregiver. It defines all behaviors that an infant engages in to establish and maintain the desired affinity to the primary caregiving figure/mother as attachment behavior and asserts that attachment behaviors aim to protect the baby from danger, when seen from an evolutionary perspective (Bowlby, 1982). Accordingly, it is a universal human need to form and maintain emotional bonds with others, starting in infancy, with parents and later on in adulthood with other adults.

Based on the close observation of mother-infant couples, mainly of how infants react to separation and reuniting with the mother and to the introduction of a stranger in the room, four main types of attachment styles were revealed based on behavioral patterns, namely secure, insecure- anxious/avoidant, insecure anxious/ambivalent and disorganized attachment added later on by Main and Solomon. (Ainsworth, 1979; Ainsworth & Wittig, 1969, as cited in Mikulincer & Shaver, 2007; Main & Solomon, 1986). This initially parent-infant focused theory guided Hazan and Shaver (1987) to theorize that adult romantic relationships are also formed similarly, based on the early mother-infant relationship templates. Individuals' early personal history of relationships is carried forward in this way, into future relationships, in Bowlby's words; "*from cradle to the grave*" (1979, p. 129). Attachment behavior is elicited not only in the mother-infant relationship but also in later encounters with significant others, becoming part of adult life

(Mikulincer & Shaver, 2007). Bowlby discussed that internal working models of attachment are formed and they become even more established with time, becoming resistant to change (Bowlby, 1973, 1980). Internal working models, also supported by neuroscience research, shape how the self and other in relationships are viewed and guide future ways of relating to others, shaping how a person engages in relationships, how they choose a partner, whether they get satisfaction from the relationship and how they perceive the relationship (Bretherton & Munholland, 2008; Collins & Read, 1990; Collins, 1996). Attachment is not only essential in its survival value in infancy, but it is also essential for relating to self and others. Hence attachment theory provides a major framework used in the study of relationships across the lifespan, including adult relationships.

#### ***1.2.1 Attachment and relationships in adulthood***

Security of attachment was later conceptualized in the context of intimate/romantic relationships along two dimensions of avoidance and anxiety (Brennan, Clark & Shaver, 1998). As people grow into adults, their childhood attachment patterns transform into forms of adult attachment that are expressed in these two dimensions. Attachment avoidance refers to the extent to which the individual tends to stay distant emotionally, distrusting the other; avoids conflict in relationships, and tries to stay as much independent as possible from the other (Schachner & Shaver, 2004). Attachment anxiety on the other hand is characterized by fear of abandonment and fear of rejection, an inability to trust that the other will be available if needed (Brennan, Clark & Shaver, 1998; Mikulincer, Florian, Cowan & Cowan, 2002). Attachment anxiety and attachment avoidance fall on a continuum; in other words, individuals may be higher or lower in each dimension (Fraley, Waller & Brennan, 2000; Fraley, Hudson, Heffernan & Segal, 2015). The lower the tendencies along these two dimensions, the more secure an individual is in relationships, meaning they are at ease with intimacy and they can trust the other one in the relationship for being available and close (Hazan & Shaver, 1990). The higher the attachment anxiety and the attachment avoidance, the more insecure one's attachment style is.



Attachment characteristics and social skills related to formation and development of relationships are intertwined. Lack of close relationships, or loneliness can result from difficulties related to attachment, a finding established in research (Deniz, Hamarta & Arı, 2005; DiTommaso, Brannen-Mcnulty, Ross & Burgess, 2003). It is well established that insecure attachment styles, characterised with different combinations of attachment anxiety and/or attachment avoidance are less likely to encompass the interpersonal skills necessary for satisfying, stable relationships as they differ in their ways of thinking, feeling and behaving in relation to others (Collins, 1996; Wei et al., 2005). For instance, Collins (1996) found that relationship-related information can be subject to a perception that is influenced by the individual's attachment security. In other words, how people view themselves and others, their models of self and others is at work when they enter attachment-related situations. This leads to differences in thought, emotion and behavior depending on their attachment dynamics. For example, individuals who are more secure tend to approach attachment-related scenarios in a way that adopts a more trusting attitude towards others, and feeling that they are lovable and valued (Collins, 1996). Such a starting point is a favorable ground for the creation of an intimate relationship.

### ***1.2.2 Attachment and sexuality***

Sexuality is a major aspect of human experience, undoubtedly it is essential as it ensures the survival of the species, from an evolutionary perspective. Sexuality also serves two major purposes of providing physical pleasure and enhancing intimacy in relationships (Foster, Shrira & Campbell, 2006). Attachment and sexuality has been studied with different foci. One major area of focus was on how attachment characteristics influence sexuality within ongoing relationships. High attachment avoidance and anxiety were related to lower sexual satisfaction in marital relationships whereas security was related to being more comfortable with sexuality in close relationships (Butzer & Campbell, 2008; Feeney & Noller, 2004).

Another area of research showed the influence of attachment on individuals' general sexual behaviors and attitudes (i.e Sprecher, 2013). It was shown that attitudes towards casual sex were affected by attachment characteristics; avoidance

was found to be positively related with sociosexuality among men (the extent to which people are unrestrictive in sexuality) and with being more approving of casual sex. An additional finding showed that secure attachment, in the case of women, was negatively related with sociosexuality (Sprecher, 2013). Whereas in another study, it was found that, individuals' security was a factor that was more important than gender in that they preferred for committed romantic relationships over casual sexual ones, as shown by Jonason, Hatfield and Boler (2015).

Attachment avoidance is associated with a tendency towards interactions that involve less emotional intimacy, such as one-night stands (Feeney et al., 1999). In the same study, anxious individuals were found to seek more holding and affectionate touch, underlining how anxiety is related to a heightened need of closeness or proximity-seeking behavior.

What motivates an individual most for seeking sexual experiences outside committed relationships is not independent of their attachment characteristics. Schachner and Shaver (2004) found that college students who scored high on attachment avoidance reported having sex to impress peers, in a casual way, whereas those who scored high on attachment anxiety were having sex in order to feel more intimate and more secure. Also, Feeney, Noller and Patty (1993)'s findings in an adolescent sample showed that avoidant adolescents were more accepting of uncommitted sex. In the same line, it was found that people high on attachment avoidance have higher casual sex frequency compared to those who are secure and those who are anxiously attached (Brennan & Shaver, 1995). In the same vein, avoidant attachment was found to be associated with cybersex addiction (Varfi, Rothen, Jasiowka, Lepers, Bianchi-Demicheli & Khazaa, 2019). Brief sexual encounters can be a way to hinder development of intimacy and deeper bonds when avoidantly attached individuals engage in them. Brumbaugh & Fraley (2010) showed that in the beginning of dating, avoidant people relied more on physical touch. In this way, physical touch may be a more secure ground to engage with someone new for those who have avoidant tendencies. Or else, it might be a substitute for showing emotional closeness, something they themselves fear and avoid. Although sexuality and attachment relationships have been extensively



studied, and some links seem to be established, sexuality and attachment dynamics are fairly complex, and as a literature review showed, associations between attachment dimensions and sexuality remain inconclusive overall (Stefanou & McCabe, 2012).

### ***1.2.3 Attachment and online dating***

Studies of attachment in the context of online dating are sparse. Although Blackhart and colleagues (2014) as well as Torrence (2014) found that attachment style did not have a significant effect on the likelihood of engaging in online dating, there is contradicting evidence too. Individuals with higher attachment anxiety, compared to lower anxiety, reported themselves to be more likely to use online dating (Chin, Edelstein & Vernon, 2018). Also in the same study, higher attachment avoidance was related to lower reported likelihood of online dating app use and actual app use. A very recent study found a difference in attachment security between people who met their partner in the offline world and those who met him/her online, with the latter group members having lower rates of secure attachment (Atkins, 2019).

In terms of motives to use online dating, when people who were more avoidant answered open-ended question as to why they use these apps, they were less likely to report a motivation to meet new people among other reasons like sex, convenience, fun, etc (Chin, Edelstein, & Vernon, 2018). Also, as the authors pointed out, attachment dynamics still remain undiscovered in the online dating sphere.

## **1.3 Narcissism**

Narcissism is a personality construct derived from the myth of Narcissus in Greek mythology. It refers roughly to an inflated focus on self, a self love and lack of or low concern for other people, alluding to Narcissus who fell in love with his own reflection after he turned away from others who showed interest in becoming romantically close to him (Kızıltan, 2011)

Although people who are referred to as narcissists in daily life have always existed, as long as there have been humans with personalities, the appearance and focus on narcissism in the clinic dates back to Freud (1914) who referred to the

narcissist as one for whom love is directed not outwards towards parents and then others but inwards, towards himself, in other words, carrying more self-love and self-regard than love and concern for others. Otto Kernberg and Kohut have been the two other major theoreticians on narcissism and they both contributed to its understanding with different views on its etiology. While Kernberg (1974) underlined the defense against feelings of abandonment due to insensitive parenting in the development of narcissism, Kohut (1977) adopted a different view. According to Kohut, narcissism is a normal part of child's development and through the initial idealisation of the parents, and parental mirroring, this narcissism will fade away. Detailed analysis of these aetiologies is beyond the scope of this study, however, both Kernberg and Kohut emphasised the role narcissism will play in hindering interpersonal relationships, including adult romantic relationships (Schmidt, 2019). The lack of empathy, and constant need for affirmation and love from others leads to difficulty building meaningful connections with them (Kernberg, 1975). With relationships becoming mostly at the service of preservation of self-esteem and self-enhancement, narcissism makes it difficult to attain real intimacy in the realm of relationships (Campbell & Campbell, 2009; Campbell, Rudich, & Sedikides, 2002).

### ***1.3.1 Narcissism and (non)-romantic relationships***

People who are high on narcissistic tendencies were found to do better during the initial stages of relationship formation (Campbell & Campbell, 2009). However, this picture gets reversed as the relationship endures, with more of the interpersonal difficulties surfacing, what Paulhus (1998) coined as "*a mixed blessing*" (p. 1207). The self-centeredness of narcissism makes it hard to maintain a long-term relationship, as entering and staying in the mutuality of the relationship is a path difficult to steer with inflated focus on self, therefore intimacy is harder to achieve for narcissistic individuals in a relationship (Campbell, 1999). Narcissism is also related to lower commitment in the context of romantic relationships or with dating partners, where the individual goes on looking into alternatives rather than focusing on their partner (Campbell & Foster, 2002). It was found that narcissists'



interest in getting involved in non-committed sexual relations was higher (Foster, Shrira & Campbell, 2002 as cited in Campbell, Foster & Finkel, 2012).

### ***1.3.2 From Narcissistic Personality Disorder to different faces of narcissism: Vulnerability and Grandiosity***

It is not uncommon that the term narcissism brings to mind Narcissistic Personality Disorder as was defined for the first time in the Diagnostic and Statistical Manual of Mental Disorders (DSM-III, American Psychiatric Association, 1980). DSM-V (American Psychiatric Association, 2013) is the newest diagnostic manual that refers to a narcissistic personality disorder which comprises a pervasive pattern of grandiosity (in fantasy or behavior), a constant need for admiration, and a lack of empathy and requires the presence of at least 5 out of the 9 defines diagnostic criteria as follows:

- A grandiose sense of self-importance (e.g, the individual exaggerates achievements and talents and expects to be recognized as superior without commensurate achievements)
- A preoccupation with fantasies of unlimited success, power, brilliance, beauty, or ideal love
- A belief that he or she is special and unique and can only be understood by, or should associate with, other special or high-status people or institutions
- A need for excessive admiration
- A sense of entitlement (ie, unreasonable expectations of especially favorable treatment or automatic compliance with his or her expectations)
- Interpersonally exploitive behavior (ie, the individual takes advantage of others to achieve his or her own ends)
- A lack of empathy (unwillingness to recognize or identify with the feelings and needs of others)
- Envy of others or a belief that others are envious of him or her
- A demonstration of arrogant and haughty behaviors or attitudes

A major criticism regarding the NPD criteria has been that they only tap into one aspect of narcissism, namely the grandiose aspect or expression. However,

numerous authors and clinicians have emphasized that narcissism can be seen to have "two faces" (Wink, 1991, p. 590) to it: the grandiose and the vulnerable narcissism as expressed differently in the clinic, overt vs covert narcissism, or oblivious vs hypervigilant narcissism as referred to by earlier authors (Gabbard, 1989; Pincus & Lukowitsky, 2010). This pioneering research opened the way to further study of the dual nature of narcissistic tendencies and it is well established that these two faces or phenotypic expressions of narcissism need to be taken into account for a fuller picture of narcissistic dysfunction (Dickinson & Pincus, 2003, Pincus, Cain & Wright, 2014; Miller & Campbell, 2008, Smolewska & Dion, 2005).

Not all narcissism is blatantly expressed, or exhibited by the individual in an overt manner, hence the approximation to a "covert narcissism" is made in the case of vulnerable narcissism. Vulnerable narcissism is characterized by an anxious defensiveness, introversion to the extent of social withdrawal at times, a sense of inferiority as opposed to grandiosity, even though it shares with grandiose narcissism the self-centeredness and entitlement, as Gabbard emphasized how a shy or vulnerable narcissist, keeps within oneself the "secret wish to exhibit themselves in a grandiose manner" (p.529, 1989) (Jauk et al., 2017; Wink, 1991). The grandiosity on the other hand can manifest on a spectrum ranging from just being a socially charming person with a high self-esteem and extroverted character, to having a highly exaggerated and blatant sense of self-importance, accompanied with anger or envy, that it makes the person disagreeable (Jauk et al., 2017; Pincus, Cain & Wright, 2014).

Grandiose narcissism is linked to a more independent and positive view of self, with lower reported interpersonal distress, and the individuals high on grandiosity tend to see themselves much more positively, dismissing their own shortcomings. On the other hand, vulnerable narcissists lack confidence in and experience overt distress about their interpersonal difficulties, making them prone to withdrawal from relationships (Dickinson & Pincus, 2003; Rohmann, Neumann, Herner & Bierhoff, 2012). A difference in self-efficacy and self-esteem was also found between grandiose and vulnerable narcissists. Vulnerable narcissists feel less



self-efficient and more out of control in their lives, with lower self-esteem, fueling the anxiety they carry over to relationships. On the contrary, grandiosity was related to feeling more in control and to relatively have higher self-esteem (Brown, 2017; Miller et al., 2011). When the attachment characteristics were assessed, higher vulnerability was related to higher attachment anxiety and higher grandiosity was related to lower attachment avoidance (Rohmann, Neumann, Herner & Bierhoff, 2012).

Also, despite the increased need of seeking self-esteem for both those who have grandiose or vulnerable narcissism, it was shown that vulnerable narcissists might especially be in need of pleasing others as opposed to grandiose narcissistic tendency where the individual might be less interested in how much others like him, but more interested in gaining their attention (Zeigler-Hill, Clark & Pickard, 2008). This is an aspect that needs to be considered in the interpersonal world when it comes to different types of narcissistic presentation.

### ***1.3.3 Narcissism and online interactions***

Interactions over the internet, such as in social networking platforms are by nature open to be used as bases for inflating self-esteem, due to the ease of altering one's self-portrayal if not using deception or concealment, or even making complete anonymity possible (Hall, Park, Song & Cody, 2010; Zerach, 2016). Therefore, several studies focused on the aspect of true and false self presentation, authenticity, and different aspects of self-portrayal, all in close relation to narcissism, in the context of online communication and interactions, or computer-mediated communication, let it be Facebook profiles, other social networking sites, personal websites, selfie-postings on social media or email messages (Back et al., 2010; Buffardi & Campbell, 2008; Gill, Oberlander & Austin, 2006; Marcus, Machilek & Schutz, 2006; Marriott & Buchanan, 2014; Weiser, 2015).

When it comes to online dating, Weiser et al (2018) found that sociosexuality (i.e. sexual permissiveness or being open to exploring and interacting with alternatives) a characteristic that is related to narcissism was in turn associated with interacting with an extradyadic partner on Tinder app. It is obvious that sociosexuality is something that online dating applications and websites can



easily facilitate with the conveniences it brings about for interacting with new people with little effort (Orosz et al., 2016). Campbell and Foster referred to the narcissistic tendency of always 'looking for "*a better deal*" in terms of a partner (p. 486, 2002). This search can serve the need for admiration from a potential partner who is more idealized compared to the precedent who is no longer seen as ideal. In the same vein, Orosz and colleagues' work (2016; 2018) found that seeking self-esteem enhancement could be seen related to "problematic Tinder use", what they conceptualized as being similar to an addictive tendency developing through the ease with which "likes" or matches come up serve to provide instant self-esteem enhancement. Deceitful trolling behaviors in the online dating space was also studied and found to be related with antisocial characteristics (March, Grieve, Marrington & Jonason, 2017). In line with this, Sevi (2019) found a relationship between higher narcissism, psychopathic tendencies and Machiavellianism, all of which are referred to as the Dark Triad, and use of Tinder with the aim of short-term mating.

#### **1.4 Current study**

Online dating is already part of daily life and interpersonal relationships for the digital natives, those who were born into the age of internet. However, research in online dating is still flourishing while more and more users are signing up with online dating accounts.

Attachment characteristics and narcissistic tendencies have always been part of the human psyche and the relational world, and hence the focus of countless studies both in the lab and in real life. Yet these two dimensions are still understudied in the context of online dating. Whereas comparisons of online daters and non-users have been one of the major lines of study in the literature, and demographics, and personality-related variables including the Big Five, sensation-seeking, authenticity, trait narcissism have been considered to characterize users of social networking sites and also to some extent online daters, their relationship to motives of use, or how one chooses to use online dating remains an area to be discovered. In addition, in the case of narcissism, the two aspects of phenotypic expressions of vulnerability and grandiosity are evident. Both of these aspects need

to be considered when interpersonal experiences are accounted for, whether online or offline. This distinction has not been made in the up-to-date studies on online dating behaviors and experiences and how they predict motive to use online dating.

Furthermore, interestingly, despite high and ever increasing technology use in Turkey (Turkish Statistical Institute, 2019), especially of mobile technologies, and the increasing popularity of online dating (Statista, 2019), research around the use of this medium is scarce and the few studies that exist revolved around the comparison of online and offline daters, or they examined if intimacy was something online daters could imagine or not (Eren, 2019; Ozdemir, 2019). Online dating is a platform for different motivations as previous studies showed (Brym & Lenton, 2001; Couch & Liamputtong, 2008). Some people may choose to make use of the convenience and/or anonymity the internet can provide and head for occasional sexual encounters much more easily, whereas others may be seeking to meet people in search of romance in the haste of daily life and socioeconomic pressures that barely leave room for creating occasions to meet new people or enter new social circles. Motivation behind gravitating towards online means to either find sexual encounters or deeper connections is yet to be explored in the Turkish population. There are no Turkish studies so far that investigated the psychology of online dating motivations.

The current study aimed to shed light on various aspects of use of online dating in a Turkish sample aged between 18 and 35, most of which are digital natives who were born into the age of internet. The main focus was on distinguishing two different types of motives people have in using online dating applications or websites: pursuing casual sex with no strings attached versus motivation to find a romantic partner. These two motives address the basic distinction behind any social encounter, bonding versus not bonding, potentially determining if this technology is used at the service of facilitating the basic human need of relatedness or not. In the present study these two motives were investigated with respect to attachment characteristics and the two narcissistic tendencies of vulnerability and grandiosity. Along with these, it was aimed to present a descriptive picture regarding the specifics of use of online dating in the young adult

Turkish population. Specifically; applications used, frequency of use and outcomes of usage were addressed.

#### ***1.4.1 Predictions of the current study***

In the light of the literature reviewed, in terms of the adoption of a casual sex motivation or a romance motivation to use online dating and subsequent outcomes, the main hypotheses were as follows:

1) The relationship between attachment and the motives for online dating:

Hypothesis 1a) Attachment anxiety will be a predictor of having as primary motive to use online dating as meeting new people in order to have a long-term romantic relationship, the higher the anxiety, the more likely it will be for the user to adopt this motivation. Attachment anxiety will predict lower number of casual sexual relationships through online dating (Hypothesis 1b)

Attachment avoidance will be a predictor for adopting a casual sexual relationships seeking motive in the online dating arena, the higher the avoidance, the more likely the user will be to seek casual sexual relationships (Hypothesis 1 c). Attachment avoidance will predict higher number of casual sexual relationships (Hypothesis 1d), and lower number of romantic outcomes (Hypothesis 1e).

2) The relationship between narcissistic dimensions and online dating motives:

2a) Grandiose narcissism will be a predictor of adopting a motivation to meet people for casual sex with no strings attached.

2b) Vulnerability will be a predictor of having as primary motive to use online dating as meeting new people in order to have a long-term romantic relationship.

In addition, grandiose narcissistic tendencies and vulnerable narcissistic tendencies will be explored in their predictive role of the outcomes of casual sexual and romantic relationships as well as the overall number of interactions users report to have in the online dating scene.

3) Lastly, with regards to gender of the participants, it was expected to replicate the findings in the literature so that:



3a) Males will be more likely to adopt online dating for purposes of casual sex encounters compared to females.

3b) Males will have higher casual sexual outcomes facilitated through online dating.

## **CHAPTER 2**

### **METHOD**

#### **2.1 Participants**

A total of 881 individuals consented to participate in the online survey, however, 404 did not fill out the questionnaire and thus did not provide any data that can be analyzed. 477 individuals fully completed the online survey; they consisted of 286 females and 191 males, with ages ranging between 18 and 55. Twenty-five participants were excluded since they did not meet the age criterion of 18 to 35. Two hundred and twelve participants were excluded since they were not users of online dating applications as indicated by their response to the screening question.

240 individuals who were users of online dating applications (113 females, 127 males) were included in all of the statistical analyses. The mean age of the participants was 26.52 with a standard deviation of 4.25. Majority of the participants were single (92%). Majority of the sample constituted of heterosexual individuals (87.5%), followed in frequency by bisexual (7%) and gay individuals (4.2%). The majority of the sample (65.4%) consisted of individuals who were currently not in a romantic relationship, but who have been in one in the past.

Majority of the participants were working full-time (46.7%), and 35.8% of the sample were university students. Regarding education level, most of the participants (55%) were bachelors, another 24.6% held graduate degrees. Detailed participant demographics are presented on Table 2.1.

**Table 2.1: Demographic characteristics of the analysis sample**

<b>Age</b>	<b>Mean (SD)</b>	
Range between 18 and 35 according to inclusion criteria	26.52 (4.25)	
	<b>N</b>	<b>% of total</b>
<b>Gender</b>		
Male	127	52.9%
Female	113	47.1%
<b>Education</b>		
High school graduate	49	20.4%
University graduate	132	55.0%
Master's degree and above	59	24.6%
<b>SES</b>		
Low	19	7.9%
Lower-middle SES	96	40.0%
Upper-middle SES	109	45.4%
High SES	16	6.7%
<b>Marital status</b>		
Single	222	92.5%
Married	12	5.0%
Divorced	6	2.5%
<b>Working status</b>		
Student	86	35.8%
Looking for a job	22	9.2%
Part-time	20	8.3%
Full-time	112	46.7%
<b>Living condition</b>		
Living alone	71	29.6%
Living with friend(s)	52	21.7%
With family	100	41.7%
With partner	6	2.5%
With marital partner (and children)	11	4.6%
<b>Relationship status</b>		

Never been in a romantic relationship	21	8.8%
Currently not in a relationship but has been in the past	157	65.4%
Currently involved in a romantic relationship	62	25.8%
<b>Sexual Orientation</b>		
Heterosexual	210	87.5%
Bisexual	17	7.1%
Gay	10	4.2%
Lesbian	3	1.3%

## 2.2 Measures

### *2.2.1 Socio-demographic Form (Appendix I)*

Descriptive information regarding sex, age, education level, socioeconomic status, living status, relationship status and sexual orientation was collected.

### *2.2.2 Use of Online Dating Descriptive Information (Appendix II)*

Participants were asked whether they used online dating applications/platform/websites for establishing romantic relationships and/or for engaging in casual sexual relations. Information regarding the use of online dating websites and applications was collected from those participants who claimed to make use of such applications. Participants were asked to report which applications or platforms they use for purposes of online dating, whether they used such applications for establishing romantic relationships and/or engaging in casual sexual encounters/relationships. A forced-choice question was aimed at the participants for them to choose their main purpose of using these applications as either for establishing romantic relationship or for engaging in casual sex through the use of online dating application/platforms.

Information was collected regarding the estimated number of users interacted with, people they engaged in a romantic relationship that lasted for at least 6 months, the people they engaged in a casual sexual encounter through the use of these applications/platforms.

Information was gathered regarding the time that elapsed since their first use, how they first started to use these applications and the frequency with which they use the applications as well as the amount of time they spend on a typical day



that they use them. The amount of time that usually elapses before they meet someone face-to-face was also among the descriptive data that was collected.

### ***2.2.3 Experiences in Close Relationships - Revised Questionnaire (ECR-R) (Appendix III)***

7-point Likert type self-report questionnaire provides linear measurement of the two adult attachment dimensions of anxiety and avoidance across 36 items (Crowell, Fraley & Shaver, 2008). It was originally developed by Brennan and colleagues in 1998. The questionnaire's 18 items tap into attachment anxiety and the other 18 into attachment avoidance. Participants report the extent to which they agree on the statement made by each item. The mean score on each dimension is computed for each participant where higher scores indicate higher anxiety or avoidance. The Turkish version's reliability and validity has been established and it is a frequently used measure of attachment in Turkish attachment literature (Hisli Şahin & Yaka, 2010; Selçuk et al, 2005). In the current study, Cronbach's alphas for the attachment anxiety and attachment avoidance subscales were found to be .896 and .867 respectively.

### ***2.2.4 Pathological Narcissism inventory (PNI) (Appendix IV)***

Pathological Narcissism Inventory (PNI; Pincus, Ansell, Pimentel, Cain, Wright, & Levy, 2009) is a 52-item, 6-point Likert type self-report questionnaire that was developed for the measurement of different facets of narcissism based on the theoretical literature and clinical observations. It includes items such as "*It's hard to show others the weaknesses I feel inside*" (an item for vulnerable narcissism), "*I often fantasize about being admired and respected*" (an item for grandiose narcissism). For each item, the respondent indicates on the 6-point scale ranging from '*not at all like me*' to '*very much like me*'.

The original validation study of PNI has showed that it possesses a multi-scale structure, with 7 subscales that measures different aspects of narcissism, as follows: Contingent self-esteem, Self-sacrificing self-enhancement, Hiding the self, Devaluing, Grandiose fantasy, Exploitativeness, and Entitlement rage. Of these 7 subscales, the former 4 make up the higher-order grandiose narcissism factor, whereas the latter 3 make up the vulnerable narcissism higher-order factor (Pincus

et al., 2009). However, a better fit of the data was captured in a later study of the structure of this scale when the Entitlement Rage aspect was included under the vulnerable narcissism factor and Self-sacrificing self-enhancement subscale under grandiose narcissism (Wright, Lukowitsky, Pincus, & Conroy, 2010). The measure's convergent and discriminant validity have been proven to be good and the Cronbach alpha level was 0.92 (Pincus et al., 2009; 2013).

A major advantage of PNI among other measures of narcissism is that it does not only provide a global narcissism score but it can also differentiate between and give two separate scores on the two dimensions of narcissism, grandiose narcissistic tendencies and vulnerable narcissistic tendencies (Cain, Pincus & Ansell, 2008). Even though the reliability and validity had been evaluated in a Turkish sample in a study by Buyukgungor (2016), major psychometric flaws were detected upon close examination in the utilization of the factor analytic strategy. It was seen that for the Turkish adaptation, a principal component analysis (PCA) was conducted. However, PCA itself is not a factor analysis method, even though it is related to factor analysis (Verma, 2013) and it is not suitable when the original scale items are being factor analyzed for adaptation. The existing Turkish adaptation of the PNI was based on the outcome of a PCA and the resulting Turkish inventory unfortunately did not include all 52 of the original items of the English inventory. Therefore, in the present study, exploratory factor analysis was conducted on the 40 PNI items to re-evaluate the factor structure of the inventory. The analysis yielded a 33-item scale with three subscales, corresponding to grandiose narcissism, vulnerable narcissism and antisocial/psychopathic narcissism. The details of this analysis are presented in the results section.

#### ***2.2.5 Narcissistic Personality Inventory Short version (NPI-16) (Appendix***

***V)***

NPI-16 is a widely used measure of trait narcissism. It is the short version of the inventory that was developed by Raskin and Hall originally in 1979, with 54 items being conceptually based on DSM criteria of NPD and therefore tapping mostly into grandiose tendencies (Raskin & Hall, 1988). The short version of the inventory was developed by Ames, Rose and Anderson in 2006 with established



validity and reliability. Participants choose the attitude that better represents them across the 16 pairs of statements. Each pair of statements present one that is scored for a narcissistic tendency and the other for non-narcissistic tendency. Participants scores are calculated as the average of narcissistic statement choices across the 16 items. Higher scores indicate higher level of narcissism. Atay (2009) adapted the inventory to Turkish and its validity and reliability have also been established in Turkish, with a Cronbach alpha value of .63. In the current study, the Cronbach's alpha was found to be 0.739. This measure was used in data collection but later it was omitted from data analyses due to its significantly higher correlation with the antisocial narcissism than with grandiose narcissism scores derived from the the PNI.

### **2.3 Procedure**

First, the research proposal and instruments were submitted to Istanbul Bilgi University internal Ethics Committee. After ethical approval, data collection process started in December 2018 and ended in January 2019. All data collection was completed online through SurveyMonkey. The order of the presentation of the self-report scales was randomized. This method of online data collection is preferred not only for convenience, but also it can actually facilitate respondents to be less inhibited and remove some of the social desirability issues in comparison with face-to-face interviews (see Tatano Beck, 2005).

Snowball and convenience sampling was used for data collection. A short message regarding the research study was posted online on social media to notify a larger body of people of the research and more participants were attained through the link to the survey study. University student bodies were notified of the research study via online postings and ads, as well as through announcements in undergraduate classes whereby students were recruited for participation in exchange for extra course credit too.

Informed consent of participants (See Appendix VI) was received before they proceeded to fill in the questionnaires and they were notified of the anonymity of data collection, also that participation was completely voluntary and and they could withdraw from answering the survey at any time.



## 2.4 Data analysis

Data analysis was divided into several stages and Jamovi (v. 1.1.9; 2019) statistical software was used for all analyses. First, data was examined for presence of outliers. Mahalanobis distance was calculated and 5 outliers were detected, however, it was observed that removal of outliers did not affect the outcome of the analyses. Then, descriptive statistics, frequencies, chi square analyses and Mann-Whitney *U* tests were used to summarize demographic characteristics of the analysis sample, to test hypotheses 3a and 3b regarding gender, and to explore the information on the online dating applications/platforms usage of the analysis sample. Pearson product-moment correlation analyses were performed to examine the intercorrelations between the demographics, online dating use outcome variables and personality related variables of attachment and narcissistic tendencies before running regression analyses.

Next, an exploratory factor analysis (EFA) was performed on the Turkish version of the PNI, due to problems that were detected in the psychometric validation of the in Turkish. The details of the EFA are presented in the results section.

In the next stage of analyses, a binomial regression was conducted to test whether attachment avoidance and/or anxiety and narcissistic tendencies predict which of the two major motives people adopt in using online dating applications (hypotheses 1a, 1c, 2a and 2b). Lastly, to test hypotheses 1b, 1d and 1e hierarchical linear regression analyses were performed to examine if the outputs of online dating usage, such as the number of romantic relationships, number of casual sexual relationships or the number of interactions as well as the reported proportion of overall actual use with romantic purposes could be predicted by the attachment variables or the two narcissistic tendencies.

## CHAPTER 3

### RESULTS

#### 3.1 Descriptive findings

Descriptive data regarding individuals' usage of online dating applications and/or websites provide insight as to how Turkish young adults and adults aged between 18 and 35 use these platforms.

##### *3.1.1 Online dating applications/websites use*

It was found that majority of the participants used these websites with a frequency somewhere between once a week to everyday (Table 3.1).

**Table 3.1: Frequency of use of online dating apps/platforms use**

	Frequency	% of total
Several times a year	50	20.8
Once a month	46	19.2
Once a week	88	36.7
Everyday	56	23.3
Total	240	100.0

When people used these platforms, on a typical usage day, majority of users spend less than 30 minutes, followed by those who spend up to an hour (Table 3.2).

**Table 3.2 : Time spent online dating on a typical day**

	Frequency	%of total
Less than 30 minutes	101	42.1
30 minutes-1 hour	65	27.1
1-2 hours	51	21.3
2-3 hours	15	6.3
More than 3 hours	8	3.3
Total	240	100.0

Most of the participants reported using online dating platforms for more than 2 years (Table 3.3).

**Table 3.3: Since when participants use online dating apps/platforms**

	Frequency	% of total
Less than 3 months	32	13.3
3-6 months	18	7.5
More than 6 months	29	12.1
More than 1 year less than 2 years	47	19.6
More than 2 years	114	47.5
Total	240	100.0

It was seen that most users started using these apps/websites after a friend recommended it. The second most frequent way of starting to use these platforms was after hearing/reading about it on the media or internet (Table 3.4)

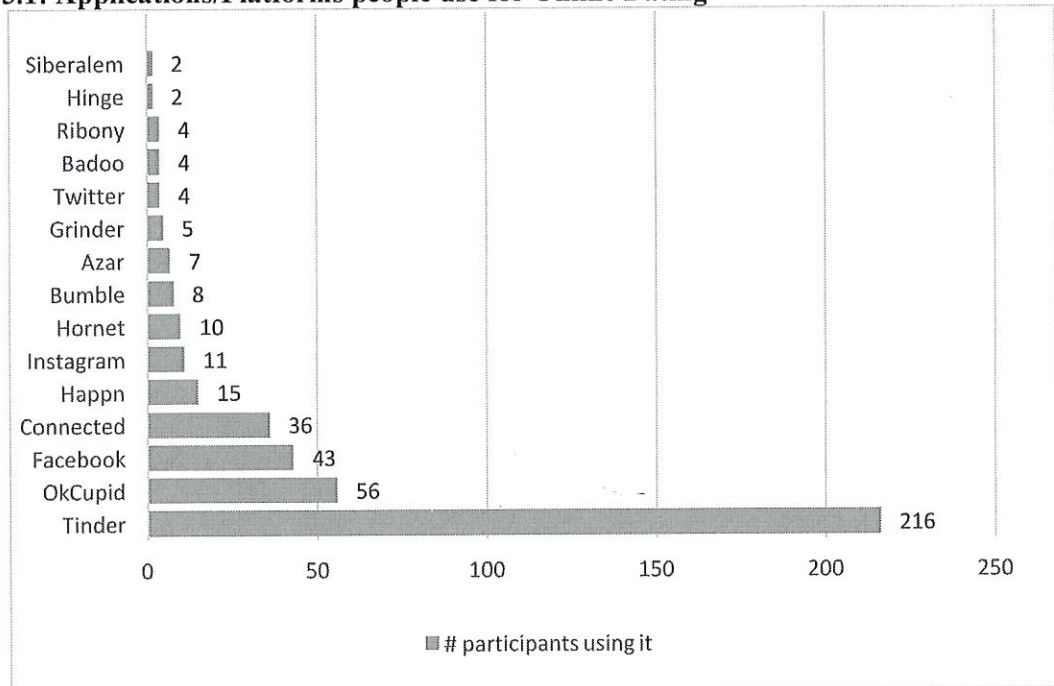
**Table 3.4: How people started online dating**

	Frequency	% of total
A friend's advice	120	50.0
Heard from someone	48	20.0
Heard from the media or internet	66	27.5
Other	6	2.5
Total	240	100.0

It was observed that majority of the respondents were users of the mobile application Tinder; more specifically 216 out of 240 participants reported using Tinder, equivalent to 90% of the analysis sample. This was followed by the use of OkCupid and Facebook in order to meet new people online. Figure 3.1 shows the numbers of users of each application that was reported to be used for online dating purposes.



**Figure 3.1: Applications/Platforms people use for Online Dating**



When people were asked to report how long it usually takes them to meet someone face-to-face, how long they first hang online, majority of them (43.3%) reported that it took up to a week, followed by another 34% of the participants who took somewhere between a week and a month before they met face-to-face. On the other hand, 11.7% of individuals took less than a day before they met face-to-face. (Table 3.5)

**Table 3.5: How long do people interact online before meeting someone face-to-face?**

	Frequency	% of total
Less than 24 hours	28	11.7
1-7 days	104	43.3
1 week-1 month	82	34.2
1 month-6 months	20	8.3
More than six months	6	2.5
Total	240	100.0

### **3.1.2 Motive for using online dating apps/websites:**

52.9% of participants reported that they were using online dating apps or websites aiming to have sexual relationships or interactions with no romantic

involvement (for casual sex) while a close 47.1% reported that their aim for using online dating was closer to meeting people in order to have a romantic relationship. There was no statistical difference between the two major motives of using online dating apps/websites ( $t(238) = 0.90, p = 0.36$ ). However, a chi-square test of independence showed that there is a significant association between sex and motive for using online dating apps/websites,  $\chi^2(1, N = 240) = 34.9, p < .001$ . Males are 5 times more likely than females to use online dating apps more with the aim of meeting new people in order to have casual sexual relationships (95%CI= 2.89 to 8.65), confirming hypothesis 3a. None of the other categorical demographic variables significantly affected the likelihood of one motive over another. However, even though a statistically non-significant effect was observed ( $p = 0.07$ ), there was a tendency of gay participants to be more interested in search for romantic relationship and a tendency of bisexual participants to seek casual sexual relationships through their use of online dating.

### ***3.1.3 Online dating interactions and outcomes***

Participants interacted with an average of 36 people through online dating applications/websites. Interestingly, the range of the number of people users interacted with was between 0 to 200. Some individuals interacted with no one, whereas others interacted with approximately 200 people online. In terms of the number of people users met face-to-face, the average was down to 9.9. The average number of romantic relationships people had out of their online dating interactions was found to be less than 1. The averages distributed across sex are displayed on Table 3.6.

**Table 3.6: Online dating outcomes (Mean, (median, mode), range)**

Sex	Number of interactions	Number of face-to-face meetings	Number of romantic relationships	Number of casual sexual relationships	% of Romantic overall
Female	29.37 (15, 10) 0 to 200	8.22 (4,2) 0 to 200	0.75 (1, 0) 0 to 4	3.01 (1, 0) 0 to 30	44.72 (38, 10) 0 to 100
Male	41.91 (17, 10) 0 to 200	11.44(5,1) 0 to 200	0.52 (0, 0) 0 to 15	7.25 (2, 0) 0 to 100	29.21 (20, 0) 0 to 100
Total	36.01 (15, 10) 0 to 200	9.92 (5, 2) 0 to 100	0.63 (0, 0) 0 to 15	5.26 (1, 0) 0 to 100	36.51 (36.5, 0) 0 to 100

While the number of total interactions ( $U=6360$ ,  $p=.13$ ) or the number of people that users meet face-to-face ( $U=6591$ ,  $p=.32$ ) did not significantly differ between females and males, Mann-Whitney  $U$  tests indicated that the number of romantic relationships females had through online dating was significantly greater ( $Mdn=1$ ) than for males ( $Mdn = 0$ ),  $U = 5428$ ,  $p = <.001$ . In other words, with the very small numbers of romantic relationships in mind, women were more likely to have had a romantic involvement with someone they met through online dating. On the other hand, males had significantly more non-romantic, sexual interactions ( $Mdn=2$ ) than females ( $Mdn=1$ ), supporting hypothesis 3b,  $U= 5316$ ,  $p = <.001$ . In the same line, the percentage of online dating interactions that resulted in sexual interactions was higher for males ( $Mdn=80\%$ ) than females ( $Mdn=62\%$ ),  $U= 4957$ ,  $p<0.001$ . For both sexes, the most frequent number of casual and romantic outcomes was equal to zero ( $Mode=0$ ). Averages across different sexual orientations are also displayed on Table 3.7 for further exploration.



**Table 3.7: Online dating outcomes by sexual orientation**

Orientation	Number of interactions	Number of face-to-face meetings	Number of romantic relationships	Number of casual sexual relationships	%of Romantic overall
hetero	34.09	9	0.59	4.61	36.28
gay	74.5	19.8	0.78	12.22	50
bisexual	38.35	16	1	10.18	28.35
lesbian	29	6.33	1	2.33	54.33
Total	36.01	9.92	0.63	5.26	36.51

Looking closer to the data, the distribution of the number of romantic outcomes people got out of online dating shows that majority of them (62%) had not had a romantic relationship through online dating interactions, whereas a cumulative 33% had 1 to 2 romantic relationships (Table 3.8)

**Table 3.8: Number of romantic outcomes through online dating**

Number of romantic outcomes	Frequency	% of total (N=239)
0	149	62.3%
1	54	22.6%
2	29	12.1%
3	2	0.8%
4	3	1.3%
5	1	0.4%
15	1	0.4%

On the other hand, in terms of casual sex relationships, only 36.8% of participants reported having no casual sexual relationship through online dating interactions, 19.2% had a single casual sex interaction (Table 3.9)

**Table 3.9: Casual sex outcomes**

Number of casual sexual relationships	Frequency	%of total (N=239)
None	88	36.8%
1	46	19.2%
2	15	6.3%
3	14	5.9%
4	10	4.2%
5	14	5.9%
6-10	18	7.5%
11-20	17	7%
21-50	15	6.2%
More than 50	2	0.8%

### 3.2 Exploratory Factor Analysis of Turkish PNI

As stated before, due to psychometric weaknesses that were spotted in the adaptation of the PNI to Turkish, an exploratory factor analysis was undertaken again before this measure could be used for analysis of different aspects of narcissistic tendencies. Exploratory factor analysis of the 40-item PNI was undertaken with 521 participants' PNI data from the larger pool of respondents in order to uncover the factor structure. These participants included the 477 participants who made up the analysis sample of the study and an additional 44 participants who were excluded from the analysis sample since they had not fully completed the overall survey but did provide complete PNI data.

The analysis was conducted in several steps. First, eigen values were examined and 3 factors were found to have eigen values greater than 1. This was confirmed with parallel analysis method (Horn, 1965). In the next step, items with factor loadings greater than 0.40 and with double items were omitted. These items were item 1, 2, 17, 18, 19, 29 and 40 (See Appendix V for the complete list of items)

After the removal of these items, factor analysis was repeated using a maximum likelihood factor extraction to determine the factor structure. For interpretation of the factors, oblimin rotation was used. The rotation had sums of squared loadings ranging from 2.30 to 7.62. The scree plot also indicated a three-factor solution. The finalized factor structure had a percentage of total variance

explained at 39,4%. Bartlett's test of sphericity, tested the overall significance of all the correlations within the correlation matrix and it was found significant ( $\chi^2(528) = 7340, p < 0.001$ ). The Kaiser-Meyer-Olkin measure of sampling adequacy showed that the strength of the relationships among the variables was high ( $KMO = .91$ ).

A close examination of the item loadings (Table 3.10) indicated that the first factor was comprised of 21 items, that explained 23% of the variance with factor loadings ranging from 0.450 to 0.787. These items were associated with grandiose sense of self, self-centeredness, compensatory fantasies of admiration and success, and reliance on others, sometimes through over-nurturing for the confirmation of self-worth and self-esteem. The second factor explained 9.48% of the variance and it was comprised of 8 items, with factor loadings ranging from 0.476 to 0.690. Factor 2 is characterized by items that tap onto an increased sensitivity in relational arena, feelings of worthlessness, and use of social withdrawal. Factor 3 is comprised of 4 items, and explained 6.96% of the variance. Its item loadings varied between 0.485 to 0.819. The items that loaded onto the third factor tapped onto relational exploitativeness or an antisocial tendency. The first two factors were labeled as Grandiose Narcissism and Vulnerable Narcissism respectively, following up on previous literature on bidimensional narcissism construct. The items on the Vulnerable dimensions when closely examined, were all items that loaded in the Pincus study (2009) onto the vulnerable dimension. However, some items that loaded in the current study on the first factor labeled as grandiose narcissism, loaded on the vulnerable dimension in Pincus study and a close examination showed that these were all contingent self-esteem related items. Lastly, in line with the study of the "*three faces of narcissism*" by Houlcroft, Bore and Munro, (2012, p. 274), the third factor was labeled as antisocial/psychopathic narcissism and a close examination showed that all the items on this factor were items that Pincus factor analysis had grouped and labeled as exploitative tendencies, that loaded onto grandiose narcissism dimension. In sum, a different factorial structure was obtained, given some items from the original inventory were missing due to their exclusion from the previous Turkish adaptation study.



**Table 3.10: Exploratory Factor analysis of Turkish PNI items**

Turkish PNI Item Number	Factor loading	Item
<b>Factor 1: Grandiose Narcissism</b>		
PNE31	0.787	I am disappointed when people don't notice me.
PNE11	0.714	When others don't notice me, I start to feel worthless.
PNE27	0.706	It's hard for me to feel good about myself unless I know other people like me.
PNE28	0.687	It irritates me when people don't notice how good a person I am.
PNE36	0.664	I need others to acknowledge me.
PNE14	0.626	I sometimes need important others in my life to reassure me of my self-worth.
PNE22	0.595	It's hard to feel good about myself unless I know other people admire me.
PNE15	0.589	I feel important when others rely on me.
PNE5	0.572	When people don't notice me, I start to feel bad about myself.
PNE24	0.566	I am preoccupied with thoughts and concerns that most people are not interested in me.
PNE30	0.560	I try to show what a good person I am through my sacrifices.
PNE25	0.560	I like to have friends who rely on me because it makes me feel important.
PNE9	0.535	I get annoyed by people who are not interested in what I say or do
PNE37	0.532	I want to amount to something in the eyes of the world.
PNE8	0.531	I get mad when people don't notice all that I do for them
PNE13	0.519	I typically get very angry when I'm unable to get what I want from others.
PNE33	0.491	I help others in order to prove I'm a good person.
PNE23	0.462	I often fantasize about being rewarded for my efforts.
PNE32	0.458	I often fantasize about performing heroic deeds.
PNE34	0.456	I often fantasize about being recognized for my accomplishments.
PNE3	0.449	It's hard to feel good about myself when I'm alone.
<b>Factor 2: Vulnerable Narcissism</b>		
PNE4	0.689	I hate asking for help.
PNE6	0.674	I sometimes need important others in my life to reassure me of my self-worth.

PNE39	0.574	Sometimes it's easier to be alone than to face not getting everything I want from other people.
PNE38	0.553	When others get a glimpse of my needs, I feel anxious and ashamed.
PNE12	0.542	Sometimes I avoid people because I'm concerned that they'll disappoint me.
PNE21	0.523	It's hard to show others the weaknesses I feel inside.
PNE35	0.515	I can't stand relying on other people because it makes me feel weak.
PNE20	0.475	Sometimes I avoid people because I'm afraid they won't do what I want them to.
Factor 3: Antisocial/Psychopathic Narcissism		
PNE10	0.820	I find it easy to manipulate people.
PNE7	0.780	I can make anyone believe anything I want them to.
PNE26	0.493	Everybody likes to hear my stories.
PNE16	0.483	I can read people like a book.

Finally, the the reliability of all three factors were examined. The results indicated that all them had good reliability scores and the related Cronbach Alpha values were as follows: Grandiose Narcissism: 0.918, Vulnerable narcissism 0.830 and Psychopathic/antisocial narcissism 0.756. Means, standard deviations, reliabilities and intercorrelations for the 3 factors are presented in Table 3.11.

**Table 3.11 Means, Standard Deviations, Reliabilities, and Intercorrelations Among 3 Factors on the 33 Item Turkish PNI (N=521)**

	<i>Mean</i>	<i>SD</i>	1	2	
Grandiose Narcissism	2.53	0.987	-	-	(.918)
Vulnerable Narcissism	2.51	1.16	0.511**	-	(.830)
Antisocial/Psychopathic Narcissism	2.81	1.14	0.224**	0.240**	(.756)

Note. \*\*. Correlation is significant at the 0.01 level (2-tailed).

Cronbach Alpha reliability scores are indicated in parentheses

### 3.3 Correlations

Pearson product-moment correlations showed the associations between online dating use variables and personality related variables. A significant negative correlation between attachment anxiety and the number of casual sexual relationships was found ( $r = 0.130$ ;  $p = 0.045$ ). Grandiose narcissism scores were

also found to be significantly and negatively correlated with the number of sexual relationships ( $r=-0.213, p<0.001$ ) and the overall sexual outcomes percentage ( $r=-0.143, p=0.027$ ). Vulnerable narcissism scores were positively related with the number of romantic relationships ( $r=0.131, p=0.043$ ). The number of romantic relationships was negatively correlated with grandiose narcissism scores, ( $r=-0.129, p=0.047$ ). All of these associations were statistically significant but they were all weak, according to Cohen's (1988) conventions on effect size. (Other associations can be seen on the correlation matrix (Table 3.12).



**Table 3.12: Correlation Matrix showing interrelations among variables**

#interactions	#interactions	#face-to-face	# of romantic	# of sexual only	%Romantic	Attachment Avoidance	Attachment Anxiety	NPI-16	PNI total	Antisocial Narcissism	Vulnerable Narcissism
#interactions	Pearson's r	—									
#face-to-face	Pearson's r	0.646 ***	—								
# of romantic	Pearson's r	0.273 ***	0.192 **	—							
# of sexual only	Pearson's r	0.437 ***	0.128 *	0.179 **	—						
%Romantic	Pearson's r	0.040	0.032	0.008	-0.080	—					
Attachment Avoidance	Pearson's r	0.013	0.015	0.032	0.073	0.414 ***	—				
Attachment Anxiety	Pearson's r	0.074	0.032	0.029	0.051	0.052	0.034	—			
NPI-16	Pearson's r	0.095	0.124	0.164 *	0.061	0.291 ***	0.570 ***	0.337 ***	—		
PNI total	Pearson's r	0.083	0.081	0.092	-0.045	0.032	0.061	0.527 ***	0.368 ***	—	
Antisocial Narcissism	Pearson's r	0.132 *	0.131 *	0.067	-0.117	0.408 ***	0.407 ***	0.154 *	0.765 ***	0.258 ***	—
Vulnerable Narcissism	Pearson's r	0.063	0.129 *	0.213 ***	0.142 *	0.224 ***	0.607 ***	0.279 ***	0.943 ***	0.177 **	0.549 ***
Grandiose Narcissism	Pearson's r	0.112									

Note. NPI-16= Narcissistic Personality Inventory Short version, PNI= Pathological Narcissism Inventory. #interactions= number of total interactions. #face-to-face=number of face-to-face meetings #of romantic=number of romantic relationships that lasted more than 6 months. #of sexual only=number of casual sexual relationships. %Romantic=percentage of interactions that ended up being in the service of romantic endeavors, \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Based on the correlational findings, some decisions were made regarding the regression analyses that would be undertaken. First of all, the high correlations between the PNI total score and the subscores of vulnerable and grandiose narcissism made it necessary to exclude the total score from further analyses, a decision that was made in line with the aim of this study to distinguish between the two types of narcissism. Also, it was observed that the total scores on NPI-16 showed some unexpected correlations with the PNI scores, such that, it was correlated positively with all subscores but the correlation with Antisocial/Psychopathic narcissism was the strongest, at a Pearson's  $r$  value of .527.  $p < 0.001$ , higher than its correlation with total PNI score. NPI-16 is a short version of the longer measure (NPI) which is documented to be a measure that taps into trait narcissism, or healthier aspects of narcissism leaning more towards grandiose aspects. In the present study, NPI-16's validity was questionable especially due to high positive relationship with antisocial aspects, and a decision was made to exclude it from further analysis.

### **3.4 Binomial regression analysis: Predicting the aim of online dating use**

Binomial logistic regression analysis showed that gender of the users was the most significant predictor of their primary motivation to use online dating apps, such that being male significantly increases the odds of using online dating for sexual relationships with no romantic involvement ( $p < 0.001$ ,  $OR = 4.970$ , 95%  $CI = 2.736$  to  $9.028$ ). Also, when sex, SES and age are controlled for, attachment anxiety and avoidance still contribute to the prediction of users' motivation to use these apps. More specifically, attachment avoidance was found to be a significant factor that increases the likelihood of having the major motivation to use online dating for purposes of sexual relationships, confirming hypothesis 1c ( $p = 0.04$ ,  $OR = 1.494$ , 95%  $CI = 1.027$  to  $2.172$ ). On the other hand, attachment anxiety contributed to the prediction of usage aim in the opposite manner, such that higher levels of attachment anxiety decrease the likelihood of using online dating for sexual relationships with no strings attached, confirming hypothesis 1a ( $p = 0.03$ ,  $OR = 0.676$ , 95%  $CI = 0.471$  to  $0.969$ ). None of the different aspects of narcissism

significantly contributed to prediction of the aim with which participants used online dating. Therefore, present findings did not support hypotheses 2a and 2b. However, participants with higher grandiose narcissism level can be said to show a tendency to be less likely to use online dating for sexual relationships/interactions without romantic involvement ( $p=0.10$ ,  $OR=0.711$ ,  $95\%CI$  0.473 to 1.070)

**Table 3.13: Summary of binomial logistic regression predicting the main motivation to use online dating**

	<i>Unstandardized coefficient</i>					
Variable	<i>B</i>	<i>SE</i>	<i>Z</i>	<i>p</i>	<i>OR</i>	<i>95% CI</i>
<b>Model 1</b>						
Age	-0.04	0.03	0.97	0.248	0.96	0.90 to 1.03
Sex	1.68			<0.001	5.35	3.03 to 9.43
SES	-0.14	0.29	5.8	0.46	0.86	0.59 to 1.27
<b>Model 2</b>						
Age	-0.05	0.04	1.4	0.16	0.95	0.89 to 1.02
Sex	1.6	0.3	5.27	<0.001	4.98	2.74 to 9.03
SES	-0.23	0.21	-1.1	0.27	0.79	0.52 to 1.20
Attachment Anxiety	-0.39*	0.18	-2.13	0.03	0.68	0.47 to 0.97
Attachment Avoidance	0.40*	0.19	2.10	0.04	1.49	1.03 to 2.17
Grandiose Narcissism	-0.34	0.21	-1.63	0.10	0.71	0.47 to 1.07
Vulnerable Narcissism	0.19	0.17	1.10	0.27	1.21	0.86 to 1.69
Antisocial Narcissism	0.04	0.14	0.29	0.78	1.04	0.79 to 1.38

Note. OR= Odds ratio, 95%CI= 95% Confidence interval

### 3.4 Hierarchical Regression Analyses

#### 3.4.1 Hierarchical regression predicting the number of romantic outcomes through online dating

A two-step hierarchical linear regression analysis was conducted to evaluate whether the two dimensions of attachment and the narcissistic tendencies predict the number of romantic relationships participants had through online dating. In step one, the variables of age, SES, sex and the length of time the person has been using online dating were entered and the model was significant,  $F(4, 233)= 4.79$ ,  $p<0.001$ . Specifically, the latter two turned out to be significant predictors of the number of romantic relationships that one had through online dating. Being male was a predictor of lower number of romantic outcomes.  $\beta = -0.35$ ,  $t = -3.09$ ,  $p =$



0.002. Also, the longer the time that elapsed since beginning to use online dating, the more people had romantic outcomes,  $\beta = .11$ ,  $t = 2.95$ ,  $p = 0.003$ . When attachment anxiety, avoidance, grandiose narcissism, vulnerable narcissism and antisocial narcissism scores were included in the second step of the analysis, the model's predictive strength did not significantly increase. Hypothesis 1e, with respect to attachment avoidance remained unsupported. Only a 3% increase in the explanation of the variability was observed, according to the change in  $R^2$ . In this second model, only antisocial narcissism was a significant predictor of the number of romantic outcomes over and beyond the first step variables,  $\beta = .11$ ,  $t = 2.02$ ,  $p = 0.045$ . (See Table 3.14 for summary).

**Table 3.14: Summary of Hierarchical Regression Analysis Predicting the Number of Romantic Relationships**

Variable	<i>Unstandardized coefficient</i>		$\beta$	$R$	$R^2$	$\Delta R^2$	$F$
	$B$	$SE$					
<b>Step One</b>				0.28	0.08		4.79
Age	-0.00	0.01	-0.01				
Sex	-0.35	0.11	-0.20*				
SES	0.04	0.08	0.03				
Using since	0.12	0.04	0.19*				
<b>Step Two</b>				0.33	0.10		3.05
Age	0.00	0.01	0.00				
Sex	-0.39	0.11	-0.22*				
SES	0.03	0.08	0.03				
Using since	0.12	0.04	0.20				
Attachment anxiety	0.08	0.07	0.10				
Attachment avoidance	-0.01	0.07	-0.01				
Grandiose Narcissism	-0.13	0.08	-0.15				
Vulnerable Narcissism	-0.07	0.06	-0.09				
Antisocial Narcissism	0.11	0.05	0.14*				
Overall model comparison					0.03		1.61

Note.  $B$  = Unstandardized Estimate  $SE$  = Standard Error  $\beta$  = Standardized Estimate  $\Delta R^2$  = Change in  $R$  squared.  $p$  = Significance  $p$ -value,  $p < 0.05^*$ ,  $p < 0.001^{**}$   
For sex, 0 = female, 1 = male

### ***3.4.2 Hierarchical regression predicting the number of casual sexual outcomes through online dating***

Another two-step hierarchical linear regression analysis was conducted to test whether the two dimensions of attachment and the narcissistic tendencies predict the number of sexual relationships participants had through online dating. In step one, the variables of age, SES, sex and the length of time the person has been using online dating were entered and the model was significant, and explained 23% of the variance in  $F(4, 233) = 3.36, p = 0.01$ . Specifically, the latter two variables again turned out to be significant predictors of the number of sexual relationships that one had through online dating. This time, being male was a predictor of higher number of casual sexual outcomes,  $\beta = 3.36, t = 2.35, p = 0.02$ . Also, the longer the time that elapsed since beginning to use online dating, the more people had casual sex outcomes,  $\beta = 1.27, t = 2.56, p = 0.01$ . When attachment anxiety, avoidance, grandiose narcissism, vulnerable narcissism and antisocial narcissism scores were included in the second step of the analysis, the model's strength increased slightly and explained 11% of the variance in  $F(9, 228) = 305, p = 0.002$ . The change in  $R^2$  showed that a 6% increase in explained the variability was reached. Hypothesis 1b, regarding predictive role of attachment anxiety was not supported. Antisocial narcissism was again a significant predictor, this time for the number of sexual outcomes over and beyond the first step variables,  $\beta = 1.35, t = 2.05, p = 0.043$ . Higher antisocial narcissism predicted higher number of sexual outcomes. In addition, grandiose narcissism was a significant predictor of the number of casual sex outcomes, though in the negative direction, as grandiosity increased, the number of casual sexual interactions decreased.  $\beta = -2.65, t = -2.74, p = 0.007$ . (See Table 3.15 for summary).

**Table 3.15: Summary of Hierarchical Regression Analysis Predicting the Number of Casual sexual relationships**

Variable	<i>Unstandardized coefficient</i>		$\beta$	$R$	$R^2$	$\Delta R^2$	$F$
	$B$	$SE$					
<b>Step One</b>				0.23	0.05		3.36
Age	-0.10	0.18	-0.04				
Sex	4.24	1.42	<b>0.19*</b>				
SES	0.42	0.96	0.03				
Using since	1.07	0.50	<b>0.14*</b>				
<b>Step Two</b>				0.33	0.11		3.14
Age	-0.10	0.17	-0.04				
Sex	3.36	1.43	<b>0.15*</b>				
SES	0.30	0.96	0.02				
Using since	1.27	0.96	<b>0.17*</b>				
Attachment anxiety	0.12	0.85	0.01				
Attachment avoidance	0.87	0.90	0.07				
Grandiose Narcissism	-2.65	0.97	<b>-0.25*</b>				
Vulnerable Narcissism	0.26	0.79	0.03				
Antisocial Narcissism	1.35	0.66	<b>0.14*</b>				
Overall model comparison						0.06	2.86

Note.  $B$  = Unstandardized Estimate  $SE$ =Standard Error  $\beta$  = Standardized Estimate  $\Delta R^2$  = Change in R squared.  $p$  = Significance  $p$ -value,  $p < 0.05^*$ ,  $p < 0.001^{**}$   
For sex, 0= female, 1=male

### ***3.4.3 Hierarchical regression analysis predicting the reported proportion of online dating outcomes that served romantic purposes***

In the next step, hierarchical regression analysis tested whether the reported proportion of online dating outcomes that resulted in romantic engagement could be predicted by the personality variables. Similar to the previous regressions, the sex, age and SES were entered in the first step as control variables. This first model was found to be significant in predicting the variance in the outcome variable,  $F(3, 235) = 5.14, p = 0.02$ . Being male predicted a lower reported proportion of outcomes that served romantic purposes,  $\beta = -0.16, t = -3.82, p < 0.001$ . When the personality variables were entered in the model in the second step, the explained variance increased from 6% to 13% and this second model was also significant  $F(8, 230) = 4.15, p < 0.001$ . The scores of vulnerable narcissism and grandiose narcissism



predicted the outcome of romantic percentage, with the former being negatively related  $\beta = -7.06$ ,  $t = 3.05$ ,  $p = 0.003$ ; whereas the latter was positively related,  $\beta = 7.80$ ,  $t = 2.75$ ,  $p = 0.007$  (See Table 3.16 for summary).

**Table 3.16: Predicting the Percentage of Romantic Endeavors**

Variable	<i>Unstandardized</i> <i>coefficient</i>		$\beta$	$R$	$R^2$	$\Delta R^2$	$F$
	$B$	$SE$					
Step One				0.25	0.06		5.14
Age	0.31	0.50	0.04				
Sex	-16.06	4.20	-0.24*				
SES	2.58	2.85	0.06				
Step Two				0.36	0.13		4.15
Age	0.24	0.50	0.03				
Sex	-14.75	4.21	-0.22				
SES	2.04	2.84	0.05				
Attachment anxiety	3.00	2.50	0.01				
Attachment avoidance	-1.96	2.62	-0.05				
Grandiose Narcissism	7.79	2.83	0.24*				
Vulnerable Narcissism	-7.06	2.31	-0.25*				
Antisocial Narcissism	-0.64	1.95	-0.02				
Overall model comparison						0.06	3.40

Note.  $B$  = Unstandardized Estimate  $SE$  = Standard Error  $\beta$  = Standardized Estimate  $\Delta R^2$  = Change in R squared.  $p$  = Significance  $p$ -value,  $p < 0.05^*$ ,  $p < 0.001^{**}$   
For sex, 0 = female, 1 = male

#### ***3.4.4 Hierarchical regression analysis predicting the overall number of interactions people had in online dating***

Another series of hierarchical regression analyses tested the hypotheses that related to the prediction of the number of online interactions people reported to have had through online dating. In the first step age, sex, SES and the time that elapsed since beginning to use online dating were entered. The model was significant with  $F(4,234) = 3.99$ ,  $p = 0.004$ , explaining the 6% of the variance. Age, sex and the time since starting to use online dating turned out to be significant predictors of the number of interactions participants had. The younger the users, the higher the number of total interactions is,  $\beta = -1.73$ ,  $t = -2.25$ ,  $p = 0.02$ . Being male predicts higher number of online interactions,  $\beta = 13.34$ ,  $t = 2.13$ ,  $p = 0.03$ . And finally, the

more time has passed since beginning to use online dating, the more interactions people had, confirming the logic of using this variable as a control. When a second model was tested with the inclusion of personality variables, the model did not prove to increase in predictive value, and none of the personality variables added to the prediction of the number of total interactions users had online (See Table 3.17)

**Table 3.17: Predicting the Overall Number of Online Interactions**

Variable	<i>Unstandardized coefficient</i>		$\beta$	$R$	$R^2$	$\Delta R^2$	$F$
	$B$	$SE$					
Step One				0.25	0.06		3.99
Age	-1.73	0.77	-0.15*				
Sex	13.34	6.26	0.14*				
SES	0.29	4.25	0.00				
Using since	7.10	2.21	0.21*				
Step Two				0.28	0.08		2.19
Age	-1.60	0.78	-0.14				
Sex	12.83	6.44	0.13				
SES	0.05	4.35	0.00				
Using since	7.55	2.24	0.22				
Attachment anxiety	0.01	3.84	0.00				
Attachment avoidance	4.80	4.03	0.09				
Grandiose Narcissism	-3.47	4.35	-0.07				
Vulnerable Narcissism	1.47	3.54	0.03				
Antisocial Narcissism	3.22	2.99	0.07				
Overall model comparison						0.02	0.77

Note.  $B$  = Unstandardized Estimate  $SE$  = Standard Error  $\beta$  = Standardized Estimate  $\Delta R^2$  = Change in  $R$  squared.  $p$  = Significance p-value,  $p < 0.05^*$ ,  $p < 0.001^{**}$   
For sex, 0= female, 1=male

## **CHAPTER 4**

### **DISCUSSION**

With advances in technology and the conveniences afforded by the widespread and increasingly mobile use of Internet, and mobile phones, computer-mediated communications are now within reach of one's fingertips, no matter where people are. As a result, online dating has become part of the daily jargon of relationships and it started to occupy a considerable place within the dating scene. Increasing numbers of people of all ages around the world are becoming acquainted with this medium every day and using it mainly for meeting new people to connect with, although this does not necessarily mean that their use will address the basic human need of relatedness (Deci & Ryan, 1985). A portion of those who choose to interact with other users, are seeking romantic involvement whereas others are not after relatedness, they are looking for short-term encounters like casual sexual relationships, with no strings attached. This study aimed to study personal characteristics that could potentially predict how one chooses to make use of online dating technology, what their motivation would be. Several outcome variables were analyzed around the main question of the current study that focused on the individual differences that exist between users. Not only did we ask the participants to indicate which main motivation they have in using online dating, but also the actual outcomes they had so far in terms of the numbers of casual sexual encounters and romantic relationships. They also reported the proportion of the online dating use that resulted in romantic endeavors, an indicator that shows the tendency of their actualized online dating outcomes. Other online dating use related information was also collected. As a result, in addition to shedding light on psychological dynamics that might underlie how individuals choose to use online dating, this study also provided an overlook of the Turkish young adult/adult online dating scene. Despite the presence of studies in social media use, very few studies have undertaken the investigation of online dating use in Turkey, therefore the current study was a contribution to the Turkish online dating literature that is only at its emerging stage.

With regards to psychological variables, the only two factors that emerged as significant predictors of the adoption of casual sex or romantic motivation of



online dating use, over and beyond the predictive value of gender, were attachment avoidance and attachment anxiety. As a user's attachment avoidance increased, it became more likely for them to adopt casual sex motive rather than romance motive in their use of online dating. This is an unsurprising finding in the light of attachment literature that documented the difficulty of avoidant people in initiating and creating intimate relationships and hence their tendency towards and higher acceptance of casual sex, as they move away from potential intimate aspects it could engender (Torrence, 2014; Feeney et al., 1993; 1999; Sprecher, 2013). The online experience here is hence similar to the one in the offline world in this aspect. This is in line with research that shows people's social behaviors and interactions are similar in the virtual and physical world (Yee, Bailenson & Urbanek, Chang & Merget, 2007).

Avoidantly attached individuals can more easily hide behind the physicality of a casual sexual encounter in beginning phases of a relationship, without risking too much closeness, or emotional intimacy (Brumbaugh & Fraley, 2010). Their difficulty in initiating and maintaining a relationship can be easily hidden when they ask themselves or the other person nothing but casual sex. The online dating medium provides a platform where the reciprocal spontaneity of relational interactions can, in a way, be minimized. In this disembodied context, the people involved are not in the same place, and do not have to act and respond right away, they can delay and time their responses (Suler, 2004). Therefore, one potential explanation could be that, the more avoidant people are, the more they would want to feel more in control of what they get from online dating, and hence set their no-intimacy rule from the beginning and aim for casual sex, what might have been the case in the present sample.

As for attachment anxiety, again, the results confirmed the expectation that the higher the anxiety, the lower the likelihood would be of having as the primary motive, meeting people for casual sex in online dating. In other words, as for the current study, higher attachment anxiety predicted increased likelihood of adoption of a romance motive. With higher attachment anxiety, higher fear of rejection and abandonment is at hand, and casual sexual interactions can be just the ground to

heighten these two fears as there are no promises of subsequent relationship, or continuity. So highly anxious people might be motivated, from the beginning, to seek more committed relationships when they approach online dating, as confirmed by the findings. This is inline with attachment literature showing that people with high attachment anxiety are seeking connection and relationship and therefore online dating could be seen as a medium to increase the odds of meeting their desired long-term partner (Mikulincer & Shaver, 2007; Chin et al., 2018).

Interestingly, when the actual outcomes, in terms of the numbers of casual sexual interactions and romantic relationships were considered, attachment dimensions were not significant predictors whereas narcissistic tendencies came up as predictors in interesting and different ways. In other words, attachment characteristics were predictors of the motivation people adopt but not of the actual outcomes. One explanation could be the failure to find statistical significance due to low number of outcomes. Alternatively, there might be a more complex process involved. When people approach online dating, their attachment characteristics might be having a more direct influence when they report their main motivation to use online dating, since, online dating medium is nevertheless a context that has interpersonal meanings, where the individual will choose how committed or uncommitted he wants to be. Interestingly, Chin et al. (2018) study also reported a discrepancy between reported likelihood of using online dating and actual use itself in relation to attachment dynamics. Anxious attachment was a predictor of higher likelihood of using online dating applications but this relationship was lost in translation to actual behavior of using online dating, no relationship was found between attachment anxiety and actual use of online dating. Similarly, in the current study, while the avoidant or anxious attachment tendencies informed the motivation people have in using online dating applications in predicted directions, the actual outcomes in terms of numbers of relationships did not support the predictions that attachment avoidance would predict lower romantic and higher casual sexual interactions and that attachment anxiety would predict lower casual sexual interactions. This can be explained by the involvement of additional factors when the motivation is being acted upon (or not) and carried forward to the actual



behavior, whether it involves just casual sex or a romantic longer-term commitment. Intentions do not always translate in behaviors, what is called as the "*intention-behavior gap*" (Sheeran, 2002). If intentions or motivations and behaviors do not always match, then, it can be argued that intentions and behaviors can be influenced differently by a certain set of variables. People's attitudes have an influence on the translation of intentions into behaviors (Ajzen, 1991). The current study did not involve information on online dating attitudes of users, which could have potentially provided a clearer picture on the dynamics on online dating motivations and behaviors, and explain the gap between intention and behavior. The current findings suggest that when the individual enters the interpersonal context of online dating, their extent of attachment avoidance and anxiety are not enough to predict the intensity of actual relationship outcomes.

When different aspects of narcissism in relation to online dating outcomes were studied, grandiose narcissistic tendencies came up as a significant factor for predicting the number of casual sexual encounters through online dating. Interestingly, grandiosity predicted a lower number of casual sex outcomes, as opposed to the direction that was hypothesized. In addition, when people reported the overall proportion of their use that resulted in romantic outcomes, it was found that higher grandiosity predicted higher overall use that served romantic purposes. This might reflect the tendency of devaluing casual sex through online dating. It is possible to speculate that people who think highly of themselves would think of casual sex through online encounters as an injury to self-esteem. This is in line with the finding that grandiosity is related with a higher self-esteem (Miller et al., 2011); so that if they have a negative attitude towards casual sex through online dating, this could interact to bring up a lower likelihood of engaging in casual sexual interactions in online dating.

Vulnerable narcissistic tendencies only emerged as a significant predictor of the reported overall proportion of the use resulting in romantic outcomes, with higher vulnerability predicting lower overall use at the service of romance. As mentioned before, the hypothesis that vulnerability would predict a likelihood to adopt romance seeking motivation was unsupported. However, with regards to the



overall tendency of actual outcomes, the role of vulnerability was found in the opposite direction. This suggest that as the user's vulnerability increased, the proportion of actual use tending towards romantic endeavors decreased. The defensiveness or avoidance against the sensitivity in the relational arena might be involved in directing user's actual behavior away from the need to establish intimate bonds through online dating. This is in line with findings that there is interpersonal coldness involved in the case of vulnerable narcissists (Dickinson & Pincus, 2003). In the face of the narcissistic vulnerabilities, online medium could have been used differently, facilitating search for intimacy, with less salient social cues involved, lifting the heavy weight of paying attention to the other party's responses and reactions (Chin, Edelstein & Vernon, 2018; Suler, 2004). This potential does not seem to be put to use in the present study sample. On contrary, with increasing vulnerability the users might be denying their needs of relatedness even more.

Interestingly, despite a bidimensional conceptual framework of narcissism that was undertaken at the beginning of this study, a third aspect of narcissism that involves antisocial tendencies has come up from the factor analysis of the Turkish PNI. This part of the study was necessitated by the flaws detected in the existing Turkish version of the PNI. The analysis had to rely on the inventory items that were already on the Turkish version, and not the entire list of items on the original scale designed by Pincus and colleagues (2009). Despite this weakness, the current factor analysis used statistically more robust techniques than the one used to come up with the previous Turkish version. The emergence of this third factor is not unprecedented in the literature on the conceptualization and measurement of narcissism as a multidimensional complex construct. There are a few studies that suggested a three-dimensional conceptualization of narcissism, naming the third aspect as grandiose/malignant narcissism and aggressive/antisocial narcissism in addition to the two much more established dimensions of grandiosity and vulnerability (Houlcroft, Bore & Munro, 2012; Russ, Shedler, Bradley & Westen, 2008; Millet et al., 2011).

The inclusion of the dimension that was labeled as antisocial narcissistic tendencies in the analyses brought it up as a significant predictor both in the number

of casual sex outcomes and the number of romantic outcomes. What is interesting is that antisocial narcissistic tendencies predicted both higher casual sex outcomes and higher romantic outcomes. This is evocative of the Dark Triad (or Dark Tetrad) of personality findings in the context of online activities. Dark Triad refers to three personality characteristics of Machiavellianism, narcissism, and psychopathy that are interrelated (Furnham, Richards & Paulhus, 2013). The finding that antisocial narcissistic tendencies predicts higher casual sex outcomes is in line with previous findings in the literature where Dark Triad traits were related with the likelihood of short-term mating (Sevi, 2019).

However, the prediction of both casual sex and romantic outcome numbers by antisocial narcissistic tendencies suggests that the manipulateness involved in antisocial tendencies is being used at the service of making sure the individuals gets what they want from online dating, let it be romance or casual sex. In the same vein, it was found that Dark triad traits were related to pragmatic love styles, in other words, these individuals focus on how a relationship will benefit them, for instance, how it will appear to the others or bring them a business opportunity etc (Jonason & Kavanagh, 2010). It is likely that antisocially narcissistic users deceive the other party by faking their real intention hiding behind the conveniences afforded by the online environment and manipulate their target to get just what they want.

For all the findings regarding the prediction of numbers of casual and romantic outcomes in this study, it is necessary to point out once again that the actual numbers were quite small. So the predictions are based upon very infrequent actual casual sexual or romantic outcomes. Majority of the users, regardless of their reported motivation to use online dating, did not achieve their goal of casual sex or romance. One downside of the current study was the definition of romantic relationship as lasting a minimum of 6 months. This criterion might have adversely affected the generalizability of the data as it missed a portion of the romantic interactions.

Gender was found to be a significant factor in predicting which of the two motivations people would adopt in their use of online dating, as well as in the prediction of the number of outcomes and the reported proportion of casual sex vs



romance outcomes. Males were almost five times more likely than females to be using online dating for purposes of casual sex. Also, gender predicted the number of casual sexual interactions as well as the romantic relationships users got from online dating, with males reporting higher numbers of casual sexual interactions and a lower outcome of romantic relationships as a result of online dating. Males indeed reported a lower percentage of overall use that resulted in romantic endeavors too.

These are not surprising findings given previous literature, yet it is a replication in the Turkish online dating context. It is necessary to qualify the significant predictive value of sex by a potential factor that might underlie the sex difference. Two recent studies discussed sex difference as being "*overrated*" in terms of the preferences of casual sex over romantic relationship (Grontvedt, Bendixen, Botnen, & Kennair, 2019; Hallam, DeBacker, Fisher & Walrave, 2018; (p.456)). They showed that the extent to which a person holds unrestricted sexual attitudes determines their motivation. This variable was beyond the scope of the present study, however, for future studies that might want to move away from the gender/sex binary, it should be included in the analyses.

It was observed that, the young adult sample of this study comprised of online dating users of mostly Tinder, and half of them had been using online dating for more than 2 years. Interestingly, some people interacted with noone in the online dating context. These people might just be browsing, or considering future interactions, romantic or casual; or else they may be using these apps or platforms just for fun and excitement in the beginning (Chin, et al., 2018; Sumter et al., 2017), or satisfying voyeuristic desires, by looking through others profiles, who might be inaccessible to otherwise in the offline world, a tendency confirmed in social media (e.g. Facebook, Instagram) research (Mantymaki & Islam, 2014). Motivations people have might not be static, and they might change throughout their usage. Actually, an ethnographic study of Tinder use showed that users transition from being more passive users to more active participants in their use (Braziel, 2015). The metaphor of being a "*Tinder tourist*" (p.27) and then becoming "*a local*" (p.55) was used by Braziel (2015) to describe this transition. According to the findings of



that study, users start off in a more self-distancing manner, and then start to become more engaged. This might be the case for the current study sample, in that there is still a transition that awaits the majority of the users, into getting in touch and interacting with other users.

Similarly, another interesting and related observation was the low number of face-to-face meetings as well as of actual outcomes of casual sex and romantic outcomes that were reported by users, even if they had interacted with mostly around 10 people when they did. This might again be a point where the user is hesitant about making the transition from online encounters to the offline world. A potential underlying explanation could be shame or bias around meeting someone on an app or on the Internet, as discussed before (Doan & Meyers, 2011, as cited in Finkel et al., 2012). In other word, the presence of prejudice or judgment against this medium, or shame around accepting being a user of online dating app, might hinder the transition from online to offline, when the interaction is about to become more real, not only in the eyes of the users herself but also in the eyes of the others who are part of the user's social circle. In Turkish context, attitudes towards online dating remain unexplored, to date, no study explored how Turkish people view online dating use, what kind of opinions or reservations they might have is a question that needs answering. The lack of studies itself could be a sign that online dating is subject to social stigma, hence, understudied so far.

As mentioned before, relatedness is a basic, universal, human need that needs to be satisfied to achieve a psychological well-being state (Ryan & Deci, 2000). However, to what extent a person will be motivated towards satisfying that need is another question. Technological developments like online dating applications or platforms can be used to facilitate this need. On the other hand, they might be used to hinder it too, for all parties involved, which would be the case when someone who is carrying high antisocially narcissistic tendencies behaves in manipulative and egocentric ways towards someone who is seeking to establish an intimate bond. So how individual characteristics shape people's use of these interactive technologies is in a way a question of public health in terms of its psychological consequences. When psychotherapy clients talk more and more

frequently about online dating, clinicians need to have an informed point of view on how these mediums are being used by people with different character typologies and tendencies.

#### **4.1 Limitations and future directions**

A major weakness of the current study was the psychometric properties of the PNI scale. Despite our best efforts to make use of the Turkish PNI version by conducting a factor analysis to come up with dimensional scores, the resulting measurements of the different narcissistic tendencies is open to discussion since it did not include all of the original scale items. The factorial structure is not mapping exactly as the original study of PNI revealed. Therefore, current study's findings are to be taken as preliminary, rather than conclusive. It is only after data collection and analysis that a more thorough adaptation study of the PNI to Turkish was published by Şen (2019). Future studies in Turkish can use this latest measure to account for the different dimensions of narcissistic tendencies. Apart from this psychometric adaptation problem, measurement of narcissism has always been complicated and entailed theoretical question marks that were inevitable. Different attempts at creating measurement instruments have always been under debate. This should be kept in mind whenever measurement of narcissistic tendencies is undertaken.

The generalizability of the results to online dating users is limited, since more and more users of middle age and beyond as well as users with all socioeconomic and educational backgrounds are becoming acquainted with online dating technologies.

Outcomes people get from online dating can be more exhaustive than what they intended for initially. This study is limited in the sense it misses the nuances that what people are motivated for in the beginning might change as they progress in the contact with an online partner. Someone who reports using online dating for a hookup might do otherwise with an online partner. Or some of the casual sexual encounters might end up with committed intimate relationships. As Schmitt and Jonason emphasized (2015), casual sexual encounters should not be seen as a uniform entity. When people engage in such short-term mating, it does not



necessarily mean that they are exclusively into them. A person can have casual sex and still be involved in a committed relationship or s/he can be solely into non-committed interactions. So the picture is much more complex than can be captured in this study. Also, a preference for casual sexual endeavors online does not mean one can't establish a committed relationship through online dating. These potential dynamics were beyond the scope of this study.

It was seen that some users in this study sample did not have any face-to-face interactions with other users, in other words, they did not carry online interaction to offline world. Such cyber-relationships are another niche of study and it requires further investigation in the context of online dating use. Also, what it takes for people to transition from being passive users to more engaged active users who carry the online interaction into offline world could be another subject of study in Turkish culture.

Furthermore, information about users' offline relationships or the presence or lack of search for casual sexual/ romantic relationships could have enriched the explanatory power of the current study. No information was collected regarding quality of the romantic relationships that emerged from users' online dating activities. Further studies are needed to capture how different narcissistic tendencies influence online and offline interpersonal activities users engage in.

Furthermore, regarding the intention-behavior gap in seeking a partner and not engaging in any offline contact, let it be romantic or casual sexual, the dyadic aspect of the online dating also needs to be considered in future studies. While this study accounted for individuals' personal experiences of online dating, the dyadic aspect of the interactions, in other words, how the online interactions went by was not accounted for. In future studies, information regarding the dyadic online interaction might be collected to shed light on, for instance, which party did attempt to initiate an offline contact and which party refused to carry the interaction offline.

In addition, regarding the intention-behavior gap in seeking a partner and not engaging in any offline contact, let it be romantic or casual sexual, the dyadic aspect of the online dating also needs to be considered in future studies. While this study accounted for individuals' personal experiences of online dating, the dyadic



aspect of the interactions, in other words, how the online interactions went by was not accounted for. In future studies, information regarding the dyadic online interaction might be collected to shed light on, for instance, which party did attempt to initiate an offline contact and which party refused to carry the interaction offline.

The emergence of antisocial narcissistic tendencies from the measurement instrument led to findings that showed the notable role they play in the way people use online dating. Even though there are a few studies considering the role of Dark Triad traits in online dating, more research is needed to investigate how they influence online dating use, and whether they have potentially abusive consequences that might harm those who interact with people who these traits.

Lastly, it is important to note that this study did not involve a comparison of groups of individuals based on psychological variables but, rather it involved an individual differences approach, and not differences between categories of individuals based on these variables. A different approach could be undertaken in further studies to confirm findings.

## **CHAPTER 5**

### **CONCLUSION**

The pervasiveness of internet-mediated technologies seems to have brought about what Corbett (2013) calls a new social order where people surrounded by all kinds of technologies meet online now, and not necessarily in person, in social outings or bars, not through friends or colleagues. It would be cautious on the side of clinicians not to anxiously jump into diagnostic conclusions such as of internet addiction or dissociation, but to rather keep making the effort to continue to understand how patients live their lives surrounded by technologies, without the danger of underestimating the relationality people build through them.

This study showed that in Turkey too, those young people who use online dating technology, make it part of their daily life, and their interpersonal world. People are seeking to find romance or casual sexual encounters and some of these intentions are actualized in behavior too. Attachment dynamics and narcissistic tendencies were found to have predictive value in different aspects of online dating

motivation and/or outcomes, although the effects were small. Attachment anxiety predicted use of online dating for meeting new people in with the aim of establishing a long-term romantic relationship whereas attachment avoidance predicted a casual sex seeking motive. Narcissistic tendencies were measured with a re-adapted version of Turkish PNI, with some weaknesses that were discussed in relation to its adaptation. The Turkish version of the PNI that was used brought up a three-dimensional picture that involved the antisocial narcissism aspect in addition to grandiose and vulnerable narcissistic dimensions. Higher grandiose narcissistic tendencies predicted lower casual sexual interactions, whereas higher vulnerable narcissistic tendencies predicted a lower tendency towards romantic use. The antisocial dimension was a predictor of the actual outcome of romantic and casual sexual encounters; with increasing antisocial narcissism, number of outcomes tended to increase, suggesting that the manipulateness and self-centeredness of antisocial tendencies should be further studied for potential risks it involves for users of online dating. More studies are needed for a clearer picture. Especially the addition of attitudes towards online dating and towards relationships formed through online dating can be informative in the explanation of how people use online dating, and whether these moderate the effect of personality characteristics on use and outcomes. It is also necessary to shed light into cultural aspects that might have influenced the translation of online dating use into actual interactions and/or relationships.

## References

- Abramova, O., Baumann, A., Krasnova, H., & Buxmann, P. (2016, January). Gender differences in online dating: what do we know so far? A systematic literature review. In 2016 49th *Hawaii International Conference on System Sciences* (HICSS) (pp. 3858-3867). IEEE.
- Ainsworth, M. S. (1979). Infant–mother attachment. *American Psychologist*, 34, 932.
- Ajzen, I. (1991). The theory of planned behavior. *Organization Behavior and Human Decision Processes*, 50, 179-211.
- American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.). Washington, DC.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA.
- Ames, D. R., Rose, P. & Anderson, P.C. (2006). The NPI-16 as a Short Measure of Narcissism, *Journal of Research in Personality*, 40, pp. 440-450.
- Amichai- Hamburger, Y. A., & Ben-Artzi, E. (2000). The relationship between extraversion and neuroticism and the different uses of the Internet. *Computers in Human Behavior*, 16, 441–449.
- Amichai-Hamburger, Y., & Ben-Artzi, E. (2003). Loneliness and Internet use. *Computers in Human Behavior*, 19, 71–80.
- Amichai-Hamburger, Y., Wainapel, G., & Fox, S. (2002). ‘On the Internet no one knows I’m an introvert’: Extroversion, neuroticism, and Internet interaction. *CyberPsychology and Behavior*, 5, 125–128.
- Atay, S. (2009). Narsistik Kişilik Envanteri’nin Türkçe’ye standardizasyonu. *Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 11, pp. 181-196.
- Atkins, S. (2019). *Online Dating Versus Face-to-Face Dating: A Comparison of Attachment Style and Relationship Success*, Unpublished PhD thesis, The California School of Professional Psychology.



- Back, M. D., Schmukle, S. C., & Egloff, B. (2010). Why are narcissists so charming at first sight? Decoding the narcissism–popularity link at zero acquaintance. *Journal of Personality and Social Psychology*, 98, 132–145.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497.
- Beck, C. T. (2005). Benefits of participating in Internet interviews: Women helping women. *Qualitative Health Research*, 15, 411–422.
- Blackhart, G., Fitzpatrick, J. & Williamson, J. (2014). Dispositional factors predicting use of online dating sites and behaviors related to online dating. *Computers in Human Behavior*, 33, 113–118.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. London: Tavistock.
- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.
- Bowlby, J. (1982). *Attachment and loss: retrospect and prospect*. *American Journal of Orthopsychiatry*, 52(4), 664.
- Brazier, S. (2015). Why Swipe Right? An ethnographic exploration of how college students use Tinder. Unpublished thesis study, Swarthmore College.
- Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin*, 21, 267–283.
- Brennan, K., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult romantic attachment: An integrative overview. In J. Simpson & S. Rholes (Eds.), *Attachment theory and close relationships* (p. 46–76). New York: Guilford Press.
- Bretherton, I., & Munholland, K. A. (2008). Internal working models in attachment relationships: Elaborating a central construct in attachment theory. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment:*

- Theory, research, and clinical applications* (pp. 102–127). New York, NY: Guilford Press.
- Brown, A. A. (2017). Grandiose and Vulnerable Narcissists in Relationships: A Perceived Control Perspective. Unpublished PhD dissertation. Ohio State University.
- Brumbaugh, C. C., & Fraley, R. C. (2010). Adult attachment and dating strategies: How do insecure people attract mates? *Personal Relationships, 17*(4), 599-614.
- Brym, R. J., & Lenton, R. L. (2001). Love online: A report on digital dating in Canada. Retrieved from <http://projects.chass.utoronto.ca/brym/loveonline.pdf>
- Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and social networking websites. *Personality and Social Psychology Bulletin, 34*(10), 1303-1314.
- Buss, D.M., & Schmitt, D.P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review, 100*, 204-232.
- Butzer, B., & Campbell, L. (2008). Adult attachment, sexual satisfaction, and relationship satisfaction: A study of married couples. *Personal Relationships, 15*, 141–154.
- Buyukgungor, A. (2016). The Turkish adaptation of the Pathological Narcissism Inventory. Unpublished Master's Thesis. Bahcesehir University, Istanbul.
- Cain, N. M., Pincus, A. L., & Ansell, E. B. (2008). Narcissism at the crossroads: phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review, 28*, 638-656.
- Campbell, W. K. (1999). Narcissism and romantic attraction. *Journal of Personality and Social Psychology, 77*, 1254-1270.
- Campbell, W. K., & Campbell, S. M. (2009). On the self-regulatory dynamics created by the particular benefits and costs of narcissism: A contextual reinforcement model and examination of leadership. *Self and Identity, 8*, 214-232.

- Campbell, W. K., & Foster, C. A. (2002). Narcissism and commitment in romantic relationships: An investment model analysis. *Personality and Social Psychology Bulletin*, 28, 484-495.
- Campbell, W. K., Foster, C. A., & Finkel, E. J. (2002). Does self-love lead to love for others? A story of narcissistic game playing. *Journal of Personality and Social Psychology*, 83, 340.
- Campbell, W. K., Rudich, E. A., & Sedikides, C. (2002). Narcissism, self-esteem, and the positivity of self-views: Two portraits of self-love. *Personality and Social Psychology Bulletin*, 28, 358-368.
- Chan, L. S. (2017). Who uses dating apps? Exploring the relationships among trust, sensation-seeking, smartphone use, and the intent to use dating apps based on the Integrative Model. *Computers in Human Behavior*, 72, 246–258.
- Chin, K., Edelstein, R. S., & Vernon, P. A. (2018). Attached to dating apps: Attachment orientations and preferences for dating apps. *Mobile Media & Communication*, 7(1), 41-59.
- Clemens, C., Atkin, D., & Krishnan, A. (2015). The influence of biological and personality traits on gratifications obtained through online dating websites. *Computers in Human Behavior*, 49, 120–129.
- Cohen, J. (1988), *Statistical Power Analysis for the Behavioral Sciences*, 2nd Edition. Hillsdale, N.J.: Lawrence Erlbaum.
- Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, 71, 810-832.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644-663.
- Cooper, A, Sportolari, L. (1997). Romance in Cyberspace: Understanding Online Attraction. *Journal of Sex Education and Therapy* 22, 7–14.
- Corbett, K. (2013). Shifting sexual cultures, the potential space of online relations, and the promise of psychoanalytic listening. *Journal of the*



*American Psychoanalytic Association*, 61, 25-44.

- Correa, T., Hinsley, A. W., & De Zuniga, H. G. (2010). Who interacts on the Web? The intersection of users' personality and social media use. *Computers in human behavior*, 26, 247-253.
- Couch, D., & Liamputtong, P. (2008). Online dating and mating: The use of the internet to meet sexual partners. *Qualitative Health Research*, 18, 268-279.
- Crowell, J. A., Fraley, R. C., & Shaver, P. R. (2008). Measurement of individual differences in adolescent and adult attachment. In J. Cassidy & Shaver (Eds), *Handbook of attachment: Theory, research, and clinical applications*. (2nd ed., pp 599-634.) New York: Guilford Press.
- Cundy, L. (2015). *Love in the Age of the Internet: Attachment in the Digital Era*. Routledge.
- Danielsbacka, M., Tanskanen, A. O., & Billari, F. C. (2019). Who meets online? Personality traits and sociodemographic characteristics associated with online partnering in Germany. *Personality and Individual Differences*, 143, 139-144.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19, 109-134.
- Deniz, M. E., Hamarta, E., & Ari, R. (2005). An investigation of social skills and loneliness levels of university students with respect to their attachment styles in a sample of Turkish students. *Social Behavior and Personality: An international Journal*, 33, 19-32.
- Dickinson, K. A., & Pincus, A. L. (2003). Interpersonal analysis of grandiose and vulnerable narcissism. *Journal of Personality Disorders*, 17, 188-207.
- DiTommaso, E. C. Brannen-McNulty, L. Ross, M. Burgess. (2003). Attachment styles, social skills and loneliness in young adults. *Personality and Individual Differences*, 35, 303-312
- Ephron, N. (1998). *You've Got Mail*. [Motion Picture]. United States: Warner Bros.

- Eren, D. E. (2019). Comparison of online vs offline dating in terms of romantic beliefs commitment, relationship maintenance and relationship satisfaction. Unpublished master's thesis, Ozyegin University, Istanbul.
- Evans, L., & Wertheim, E. H. (1998). Intimacy patterns and relationship satisfaction of women with eating problems and the mediating effects of depression, trait anxiety and social anxiety. *Journal of Psychosomatic Research*, 44, 355-365.
- Feeney, J. A., & Noller, P. (2004). Attachment and sexuality in close relationships. In J. H. Harvey, A. Wenzel, & S. Sprecher (Eds.), *The handbook of sexuality in close relationships* (pp. 183–201). Mahwah, NJ: Erlbaum Associates.
- Feeney, J. A., Kelly, L., Gallois, C., Peterson, C., & Terry, D. J. (1999). Attachment style, assertive communication, and safer- sex behavior. *Journal of Applied Social Psychology*, 29, 1964-1983.
- Feeney, J. A., Noller, P., & Patty, J. (1993). Adolescents' interactions with the opposite sex: Influence of attachment style and gender. *Journal of Adolescence*, 16, 169–186.
- Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2012). Online dating: A critical analysis from the perspective of psychological science. *Psychological Science in the Public interest*, 13(1), 3-66.
- Foster, J. D., Shrira, I., & Campbell, W. K. (2006). Theoretical models of narcissism, sexuality, and relationship commitment. *Journal of Social and Personal Relationships*, 23(3), 367-386.
- Fraley, R. C., Hudson, N. W., Heffernan, M. E., & Segal, N. (2015). Are adult attachment styles categorical or dimensional? A taxometric analysis of general and relationship-specific attachment orientations. *Journal of Personality and Social Psychology*, 109(2), 354–368.
- Fraley, R. C., Waller, N. G., & K.A. Brennan. (2000). An item-response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78: pp. 350–365.

- Freud, S. (1914). On Narcissism. *The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XIV (1914-1916): On the History of the Psycho-Analytic Movement, Papers on Metapsychology and Other Works*, 67-102.
- Furnham, A., Richards, S. C., & Paulhus, D. L. (2013). The dark triad of personality: A 10-year review. *Social and Personality Psychology Compass*, 7, 199–216.
- Gabbard, G. O. (1989). Two subtypes of narcissistic personality disorder. *Bulletin of the Menninger Clinic*, 53, 527–532.
- Gatter, K., & Hodkinson, K. (2016). On the differences between Tinder versus online dating agencies: Questioning a myth. An exploratory study. *Cogent Psychology*, 3, 1-12.
- Gill, A. J., Oberlander, J., & Austin, E. (2006). Rating e-mail personality at zero acquaintance. *Personality and Individual Differences*, 40, 497-507.
- Gillett, R. (2018). Intimate intrusions online: Studying the normalisation of abuse in dating apps. *Women's Studies International Forum*, 69, 212–219.
- Grabill, C. M., & Kerns, K. A. (2000). Attachment style and intimacy in friendship. *Personal Relationships*, 7(4), 363–378.
- Grontvedt, T.V., Bendixen, M., Botnen, E.O. & Kennair, L. E. (2019). Hook, Line and Sinker: Do Tinder Matches and Meet Ups Lead to One-Night Stands?
- Haferkamp, N., Eimler, S. C., Papadakis, A., & Kruck, J. V. (2012). Men are from Mars, women are from Venus? examining gender differences in self-presentation on social networking sites. *Cyberpsychology, Behavior, and Social Networking*, 15, 91-98.
- Hall, J. A., Park, N., Song, H., & Cody, M. J. (2010). Strategic misrepresentation in online dating: the effects of gender, self-monitoring, and personality traits. *Journal of Social and Personal Relationships*, 27, 117-135.
- Hallam, L., De Backer, C. J. S., Fisher, M. L., & Walrave, M. (2018). Are sex differences in mating strategies overrated? Sociosexual orientation as a dominant predictor in online dating strategies. *Evolutionary Psychology Science*, 4, 456–465.



- Hance, M., Blackhart, G. & Dew, M. (2018). Free to be me: The relationship between the true self, rejection sensitivity, and use of online dating sites, *The Journal of Social Psychology*, 158, 421-429,
- Hardey, M. (2002). Life beyond the screen: Embodiment and identity through the Internet. *The Sociological Review*, 50(4), 570-584.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Hazan, C., & Shaver, P. R. (1990). Love and work: An attachment- theoretical perspective. *Journal of Personality and Social Psychology*, 59, 270-280.
- Hitsch, G. J., Hortaçsu, A., & Ariely, D. (2010). Matching and sorting in online dating. *American Economic Review*, 100, 130-163.
- Holt-Lunstad, J., Smith, T. B., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: a meta-analytic review. *Perspectives on psychological science*, 10, 227-237.
- Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, 30, 179-185.
- Houlcroft, L., Bore, M., & Munro, D. (2012). Three faces of narcissism. *Personality and Individual Differences*, 53, 274-278.
- Internetworldstats.com. (2019). World Internet Users Statistics and 2019 World Population Stats. [online] Available at: <https://www.internetworldstats.com/stats.htm>. Accessed 14 September 2019.
- Jauk, E., Weigle, E., Lehmann, K., Benedek, M., & Neubauer, A. C. (2017). The Relationship between grandiose and vulnerable (hypersensitive) narcissism. *Frontiers in Psychology*, 8, 1600.
- Jonason, P. K., & Kavanagh, P. (2010). The dark side of love: The Dark Triad and love styles. *Personality and Individual Differences*, 49, 611-615.
- Jonason, P. K., Hatfield, E., & Boler, V. M. (2015). Who engages in serious and casual sex relationships? An individual differences perspective. *Personality and Individual Differences*, 75, 205-209.

- Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. P. (2009). The dark triad: Facilitating a short-term mating strategy in men. *European Journal of Personality, 23*, 5-18.
- Kang, T., & Hoffman, L. H. (2011). Why would you decide to use an online dating site? Factors that lead to online dating. *Communication Research Reports, 28*, 205-213.
- Kernberg, O. (1974). Barriers to falling and remaining in love. *Journal of the American Psychoanalytic Association, 22*, 486-511.
- Kernberg, O. F. (1975). *Borderline conditions and pathological narcissism*. New York: Jason Aronson.
- Kim, M., Kwon, K. & Lee, M. (2009). Psychological characteristics of internet dating service users: The effect of self-esteem, involvement, and sociability on the use of Internet dating services. *Cyberpsychology & Behavior, 12*, 445-449.
- Kızıltan, H. (2011). Narsisizm ya da ruhsallığın ontolojisi. *Doğu Batı Düşünce Dergisi, 56*, 55- 83.
- Kohut, H. (1977). *The restoration of the self*. New York: International Universities Press.
- LeFebvre, L. E. (2018). Swiping me off my feet: Explicating relationship initiation on Tinder. *Journal of Social and Personal Relationships, 35*(9), 1205-1229.
- Mantymaki, M., & Islam, A. K. M. (2014). Voyeurism and exhibitionism as gratifications from prosuming social networking sites. In Proceeding of the 22nd European Conference on Information Systems (ECIS2014). Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.665.8938&rep=rep1&type=pdf>
- March, E., Grieve, R., Marrington, J., & Jonason, P. K. (2017). Trolling on Tinder®(and other dating apps): Examining the role of the Dark Tetrad and impulsivity. *Personality and Individual Differences, 110*, 139-143.

- Marcus, B., Machilek, F., & Schutz, A. (2006). Personality in cyberspace: personal web sites as media for personality expressions and impressions. *Journal of Personality and Social Psychology*, 90, 1014-1031.
- Main, M., & Solomon, J. (1986). Discovery of a new, insecure disorganized/disoriented attachment pattern. In Yogman & Brazelton (Eds.), *Affective development in infancy* (pp. 95–124). Norwood, NJ: Ablex.
- Marriott, T. C., & Buchanan, T. (2014). The true self online: Personality correlates of preference for self-expression online, and observer ratings of personality online and offline. *Computers in Human Behavior*, 32, 171-177.
- McKenna, K. Y., Green, A. S., & Gleason, M. E. (2002). Relationship formation on the Internet: What's the big attraction? *Journal of Social issues*, 58, 9-31.
- Mehdizadeh, S. (2010). Self-presentation 2.0: Narcissism and self-esteem on Facebook. *CyberPsychology, Behavior, and Social Networking*, 13, 357–364.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood*. New York, NY: Guilford Press.
- Mikulincer, M., Florian, F., Cowan, P. A., & Cowan, C. P. (2002). Attachment security in couple relationships: A systemic model and its implications for family dynamics. *Family Process*, 41, 405-434.
- Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality*, 76, 449–476.
- Miller, J. D., Hoffman, B. J., Gaughan, E. T., Gentile, B., Maples, J., & Campbell, W. K. (2011). Grandiose and vulnerable narcissism: A nomological network analysis. *Journal of Personality*, 79, 1013-1042.
- Orosz, G., Benyó, M., Berkes, B., Nikoletti, E., Gál, É., Tóth-Király, I., & Bőthe, B. (2018). The personality, motivational, and need-based background of problematic Tinder use. *Journal of Behavioral Addictions*, 7, 301–312.



- Orosz, G., Tóth-Király, I., Bőthe, B., & Melher, D. (2016). Too many swipes for today: The development of the Problematic Tinder Use Scale (PTUS). *Journal of Behavioral Addictions*, 5, 518–523.
- Ozdemir, D. (2019). Searching for love and intimacy as an everyday practice: observations on dating and online dating. Unpublished master's thesis, Istanbul Bilgi University.
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74, 1197.
- Peter, J., & Valkenburg, P. M. (2007). Who looks for casual dates on the internet? A test of the compensation and the recreation hypotheses. *New Media & Society*, 9, 455–474.
- Pincus, A. L., & Lukowitsky, M. R. (2010). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology*, 6, pp. 421-446.
- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A. G. C., & Levy, K. N. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment*, 21, pp. 365–379.
- Pincus, A. L., Cain, N. M., & Wright, A. G. (2014). Narcissistic grandiosity and narcissistic vulnerability in psychotherapy. *Personality Disorders: Theory, Research, and Treatment*, 5, 439.
- Pincus, A.L. (2013). The Pathological Narcissism Inventory. In J. Ogrudniczuk (Ed.), *Understanding and treating pathological narcissism*, 93-110. Washington, DC: American Psychological Association.
- Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon*, 9, 1-6.
- Quian, H. & Scott, C. (2007). Anonymity and self-disclosure on weblogs. *Journal of Computer-Mediated Communication*, 12, 1428 - 1451.
- Ranzini, G., & Lutz, C. (2017). Love at first swipe? Explaining Tinder self-presentation and motives. *Mobile Media & Communication*, 5, 80-101.

- Raskin, R. N. & Terry, H. (1988). A principal components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54, pp. 890-902.
- Raskin, R.N., & Hall, C.S. (1979). A Narcissistic Personality Inventory. *Psychological Reports*, 45, pp. 590.
- Rohmann, E., Neumann, E., Herner, M., & Bierhoff, H. (2012). Grandiose and vulnerable narcissism: Self-construal, attachment, and love in romantic relationships. *European Psychologist*, 17, 279 –290.
- Rosenfeld, M. J., & Thomas, R. J. (2012). Searching for a mate: The rise of the Internet as a social intermediary. *American Sociological Review*, 77, 523-547.
- Russ, E., Shedler, J., Bradley, R., & Westen, D. (2008). Refining the construct of Narcissistic Personality Disorder: Diagnostic criteria and subtypes. *The American Journal of Psychiatry*, 165, 1473–1481.
- Russell, D., Cutrona, C. E., Rose, J., & Yurko, K. (1984). Social and emotional loneliness: an examination of Weiss's typology of loneliness. *Journal of personality and social psychology*, 46, 1313.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Sabbadini, A. (2014). New technologies and the psychoanalytic setting. In A. Lemma & L. Caparrotta (Eds.), *Psychoanalysis in the technoculture era* (pp. 23–33). New York, NY: Routledge.
- Sagioglou, C., & Greitemeyer, T. (2014). Facebook's emotional consequences: Why Facebook causes a decrease in mood and why people still use it. *Computers in Human Behavior*, 35, 359-363.
- Şahin, N. H., & Yaka, A. İ. (2010). Yakın İlişkilerde Yaşantılar Envanteri'nin (YIYE-I), kendilik algısı, olumsuz otomatik düşünceler ve psikopatolojik belirtiler bağlamında incelenmesi. *Türk Psikoloji Yazıları*, 13, 64-76.
- Sautter, J. M., Tippet, R. M., & Morgan, S. P. (2010). The social demography of Internet dating in the United States. *Social Science Quarterly*, 91, 554-

- Schachner, D. A., & Shaver, P. R. (2004). Attachment dimensions and sexual motives. *Personal relationships*, 11, 179-195.
- Schmidt, A. (2019). Comparison of Kernberg's and Kohut's Theory of Narcissistic Personality. *Türk Psikiyatri Dergisi*, 30, 137-141.
- Schmitt, D. P., & Jonason, P. K. (2015). Attachment and sexual permissiveness: Exploring differential associations across sexes, cultures, and facets of short-term mating. *Journal of Cross-Cultural Psychology*, 46, 119-133.
- Selçuk, E., Günaydın, G., Sümer, N. ve Uysal, A. (2005). Yetişkin bağlanma boyutları için yeni bir ölçüm: Yakın İlişkilerde Yaşantılar Envanteri-II'nin Türk örnekleminde psikometrik açıdan değerlendirilmesi. *Türk Psikoloji Yazıları*, 8, 1-11.
- Şen, G. (2019). *Narsistik Örüntüler Ve Zorlayıcı Kişilerarası Deneyimlere Verilen Tepkiler: Bilişsel Kişilerarası Kuram Çerçevesinde Üniversite Öğrencileri Örnekleminde Bir İnceleme*, Doktora tezi, Ankara.
- Sevi, B. (2019). The dark side of Tinder: The Dark Triad of personality as correlates of Tinder use. *Journal of Individual Differences*.
- Sheeks, M. S., & Birchmeier, Z. P. (2007). Shyness, sociability, and the use of computer-mediated communication in relationship development. *Cyber Psychology and Behavior*, 10, 64-70.
- Sheeran, P. (2002). Intention-behaviour relations: A conceptual and empirical review. *European Review of Social Psychology*, 12, 1-36.
- Smolewska, K., & Dion, K. L. (2005). Narcissism and adult attachment: A multivariate approach. *Self and Identity*, 4, 59- 68.
- Sprecher, S. (2013). Attachment style and sexual permissiveness: The moderating role of gender. *Personality and Individual Differences*, 55, 428-432.
- Statista. (2019). Online Dating - Turkey Statista Market Forecast. Retrieved from <https://www.statista.com/outlook/372/113/online-dating/turkey> on 15 December 2019
- Stefanou, C., & McCabe, M. P. (2012). Adult attachment and sexual functioning: A review of past research. *The Journal of Sexual Medicine*, 9, 2499-2507.



- Suler, J. (2005). The online disinhibition effect. *International Journal of Applied Psychoanalytic Studies*, 2, 184-188.
- Sumter S R., Vandenbosch L, & Ligtenberg L.(2017). Love me Tinder : untangling emerging adults' motivations for using the dating application Tinder. *Telematics and informatics*, 34, 67-78.
- Tatano Beck, C. (2005). Benefits of participating in Internet interviews: Women helping women. *Qualitative Health Research*, 15, 411-422.
- The jamovi project (2019). *jamovi* (Version 0.9) [Computer Software]. Retrieved from <https://www.jamovi.org>
- Torrence, N. S. (2014). Effect of Attachment Style on Seeking a Romantic Partner in Online Dating. Unpublished Phd dissertation. California School of Professional Psychology.
- Trub, L. (2017). A portrait of the self in the digital age: Attachment, splitting, and self- concealment in online and offline self-presentation. *Psychoanalytic Psychology*, 34, 78–86.
- Turkish Statistical Institute (2019, August). Hanehalkı Bilişim Teknolojileri Kullanım Araştırması, 2016. Retrieved, from <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=30574> September 30, 2019
- Turkle, S. (1995). Life on the screen: Identity in the age of the Internet. New York: Simon & Schuster.
- Valkenburg, P., & Peter, J. (2007). Who visits online dating sites? Exploring some characteristics of online daters. *Cyberpsychology & Behavior*, 10, 849–852.
- Varfi, N., Rothen, S., Jasiowka, K., Lepers, T., Bianchi-Demicheli, F., & Khazaal, Y. (2019). Sexual desire, mood, attachment style, impulsivity, and self-esteem as predictive factors for addictive cybersex. *JMIR Mental Health*, 6, 99-78.
- Verma, J. P. (2013). *Data Analysis in Management with SPSS Software*. Springer, New York.

- Wei, M., Vogel, D. L., Ku, T., & Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood, and interpersonal problems: The mediating roles of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology, 52*, 14–24.
- Weiser, D. A., Niehuis, S., Flora, J., Punyanunt-Carter, N. M., Arias, V. S., & Baird, R. H. (2018). Swiping right: Sociosexuality, intentions to engage in infidelity, and infidelity experiences on Tinder. *Personality and Individual Differences, 133*, 29-33.
- Weiser, E. B. (2015). Me: Narcissism and its facets as predictors of selfie-posting frequency. *Personality and Individual Differences, 86*, 477-481.
- Wenz, F. V. (1977). Seasonal suicide attempts and forms of loneliness. *Psychological Reports, 40*, 807-810.
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology, 61*, 590-597.
- Wright, A. G. C., Lukowitsky, M. R., Pincus, A. L., & Conroy, D. E. (2010). The higher order factor structure and gender invariance of the Pathological Narcissism Inventory. *Assessment, 17*, 467-483.
- Yee, N., Bailenson, J. N., Urbanek, M., Chang, F., & Merget, D. (2007). The unbearable likeness of being digital: The persistence of nonverbal social norms in online virtual environments. *Cyberpsychology & Behavior, 10*, 115-121.
- Zeigler- Hill, V., Clark, C. B., & Pickard, J. D. (2008). Narcissistic subtypes and contingent self- esteem: Do all narcissists base their self- esteem on the same domains? *Journal of Personality, 76*, 753-774.
- Zerach, G. (2016). Pathological narcissism, cyberbullying victimization and offending among homosexual and heterosexual participants in online dating websites. *Computers in Human Behavior, 57*, 292-299.

## APPENDIX I

### **Demografik Form**

**Yaş:** \_\_\_\_\_

**Biyolojik cinsiyet:** Kadın ( ) Erkek ( ) Diğer ( )

**Cinsel yöneliminiz:**

Heteroseksüel ( ) Gay ( ) Lezbiyen ( ) Biseksüel ( )

**Medeni durum:**

Bekar ( ) Evli ( ) Boşanmış ( ) Dul ( )

**İlişki durumunuz:**

- a) Şu anda romantik bir ilişki içindeyim
- b) Şu anda romantik bir ilişkim yok, ama daha önce oldu
- c) Daha önce romantik ilişkim olmadı

**Eğitim durumunuz:**

İlkokul ( ) Ortaokul ( ) Lise ( ) Üniversite ( ) Yüksek Lisans ( ) Doktora ( )  
Doktora sonrası ( )

**Ekonomik düzeyiniz nedir?**

Alt ( ) Orta alt ( ) Orta ( ) Orta-üst ( ) Üst ( )

**Şu anda kimlerle yaşıyorsunuz:**

Yalnız ( ) Arkadaş ( ) Aile/akraba ( ) Sevgili ( ) Eş/çocuklar ( ) Yurt ( ) Diğer ( )

**Çalışma durumunuz:**

Öğrenci ( ) Çalışmıyor ( ) Yarı zamanlı çalışıyor ( ) Tam zamanlı çalışıyor ( )



## APPENDIX II

### ÇEVİRİMİÇİ FLÖRTLEŞME/ PARTNER BULMA / ÇÖPÇATANLIK UYGULAMALARI KULLANIMI

*Lütfen çevrimiçi flörtleşme, tanışma, çöpçatanlık, partner/eş bulma programları, platformları kullanımı ile ilgili olarak aşağıdaki soruları size en uygun olacak şekilde cevaplandırınız.*

Romantik bir ilişki kurma amacıyla ve veya cinsel ilişki kurma amacıyla internet üzerindeki (online) flörtleşme, partner/eş bulma, ve/veya çöpçatanlık uygulamalarını, websitelerini kullanıyor musunuz?

EVET / HAYIR

**Cevabınız HAYIR ise lütfen bu bölümün sonuna geçiniz ve sonraki anketi doldurmaya devam ediniz.**

Yukarıdaki soruya yanıtınız EVET ise romantik ilişki kurma ve veya cinsel ilişki kurma amacıyla kullandığınız online (çevrimiçi) flörtleşme, tanışma, çöpçatanlık uygulamalarını, platformları ve /veya websitelerini belirtiniz:

- a) Tinder
- b) Hornet
- c) OkCupid
- d) Grindr
- e) Hinge
- f) Connected
- g) Azar
- h) Facebook
- i) Siberalem
- o) Diğer (belirtiniz): \_\_\_\_\_

Bu uygulamaları, websitelerini romantik ilişki ve veya cinsel ilişki kurma amaçlı partner bulmak için ilk kullanımınızdan bu yana ne kadar zaman geçti?

- a) 3 ay veya daha kısa
- b) 3 ay ila 6 ay arası
- c) 6 ay ila 12 ay arası
- d) 1 ila 2 yıl arası
- e) 2 yıl veya daha fazla

Bu uygulamaları kullanmaya başlamanız açısından aşağıdakilerden hangisi sizin için daha doğrudur?

- a) Kullanan bir arkadaşım/tanıdığım tavsiyesi ile kullanmaya başladım
- b) Birebir tanıdığım bir kişi kullanmasa da kullanıldığını başkalarından duyarak kullanmaya başladım
- c) İnternette ve veya medyada okuduğum, gördüğüm, veya duyduğum bir ilan, bir haber, bir reklam aracılığıyla kullanmaya başladım
- d) Diğer (belirtiniz): \_\_\_\_\_

Güncel olarak bu uygulamaları ve veya websitelerini ne sıklıkla kullandığınızı belirtiniz:

- ( ) Her gün
- ( ) Haftada birkaç kez
- ( ) Ayda birkaç kez
- ( ) Yılda birkaç kez veya daha az

Bu uygulamaları, websitelerini kullandığınız günleri düşündüğünüzde, o gün içinde yaklaşık olarak ne kadar vaktinizi bu kullanıma ayırdığınızı belirtiniz:

- a) 30 dakikadan az
- b) 30 dakika-1 saat arası
- c) 1-2 saat arası
- d) 2-3 saatten
- e) 3 saatten fazla

Bu uygulamaları/websitelerini kullanarak bugüne kadar tanıştığınız ve etkileşime girdiğiniz (online (çevrimiçi) veya offline (çevrimdışı) karşılıklı mesajlaşma, telefonlaşma, konuşma veya görüşme yollarından biri veya birkaçıyla) kişi sayısını rakamla belirtiniz:

\_\_\_\_\_

Bu yolla etkileşime girdiğiniz kişilerden kaçıyla dışarıda yüzyüze buluştuğunuzu rakamla belirtiniz:

\_\_\_\_\_

Bu uygulamalar/ websitelerini kullanarak tanıştığınız kişileri düşündüğünüzde, 6 ay veya daha uzun süren romantik bir ilişki yaşadığınız kişi sayısını rakamla belirtiniz:

\_\_\_\_\_

Bu uygulamalar/ websitelerini kullanarak tanıştığınız kişileri düşündüğünüzde, romantik bir yaklaşma beklentisi olmaksızın cinsel birliktelik yaşadığınız kişi sayısını rakamla belirtiniz:

\_\_\_\_\_

**İnsanlar internet üzerindeki flörtleşme, partner/eş bulma, çöpçatanlık uygulamalarını, websitelerini aynı anda farklı amaçlarla kullanabiliyorlar. Sizin açınızdan, bu uygulamaları ve/veya programları kullanım amacınızı düşündüğünüzde, aşağıdaki iki seçenektan hangisi size DAHA YAKINDIR? Lütfen birini seçiniz:**

- A) Bu uygulamaları/ websitelerini romantik bir ilişki kurmak amacıyla yeni kişilerle tanışmak için kullanırım.
- B) Bu uygulamaları/ websitelerini romantik bir ilişki kurma beklentisi olmaksızın cinsel birliktelik/yeni cinsel deneyimler yaşamak amacıyla yeni kişilerle tanışmak için kullanırım.

Bugüne kadar online flörtleşme, tanışma, çöpçatanlık uygulamaları, websiteleri kullanımınızı düşündüğünüzde, **bunların yüzde kaçında** interneti **romantik bir ilişki / yakınlık kurmak için kullanmış oldunuz?** Yüzde 0 ila Yüzde 100 arasında bir değer belirtiniz:

\_\_\_%\_\_\_\_\_

Bu uygulamaları kullanarak tanıştığınız tüm kişileri düşündüğünüzde, bu kişilerle yüzyüze buluşmanız/ dışarıda görüşmenizden önce çevrimiçi (online) etkileşiminizin ortalama ne kadar sürdüğünü belirtiniz:

- a) 24 saatten az  
b) 1-7 gün arası  
c) 1 hafta ile 1 ay arası  
d) Bir aydan uzun 6 aydan kısa  
e) 6 aydan daha uzun



### APPENDIX III

#### (YIYE-II)

Aşağıdaki maddeler romantik ilişkilerinizde hissettiğiniz duygularla ilgilidir. Bu araştırmada sizin ilişkinizde yalnızca şu anda değil, genel olarak neler olduğuyla ya da neler yaşadığınızla ilgilenmekteyiz. Maddelerde sözü geçen "birlikte olduğum kişi" ifadesi ile romantik ilişkide bulunduğunuz kişi kastedilmektedir. Eğer halihazırda bir romantik ilişki içerisinde değilseniz, aşağıdaki maddeleri bir ilişki içinde olduğunuzu varsayarak cevaplandırınız. Her bir maddenin ilişkilerinizdeki duygu ve düşüncelerinizi ne oranda yansıttığını karşılarındaki 7 aralıklı ölçek üzerinde, ilgili rakam üzerine çarpı (X) koyarak gösteriniz.

1-----2-----3-----4-----5-----6-----7  
Hiç Kararsızım/ Tamamen  
katılmıyorum fikrim yok katılıyorum

1. Birlikte olduğum kişinin sevgisini kaybetmekten korkarım.	1	2	3	4	5	6	7
2. Gerçekte ne hissettiğimi birlikte olduğum kişiye göstermemeyi tercih ederim.	1	2	3	4	5	6	7
3. Sıklıkla, birlikte olduğum kişinin artık benimle olmak istemeyeceği korkusuna kapılırım.	1	2	3	4	5	6	7
4. Özel duygu ve düşüncelerimi birlikte olduğum kişiyle paylaşmak konusunda kendimi rahat hissedirim.	1	2	3	4	5	6	7
5. Sıklıkla, birlikte olduğum kişinin beni gerçekten sevmediği kaygısına kapılırım.	1	2	3	4	5	6	7
6. Romantik ilişkide olduğum kişilere güvenip inanmak konusunda kendimi rahat bırakmakta zorlanırım.	1	2	3	4	5	6	7
7. Romantik ilişkide olduğum kişilerin beni, benim onları önemsedığım kadar önemsemeyeceklerinden endişe duyarım.	1	2	3	4	5	6	7
8. Romantik ilişkide olduğum kişilere yakın olma konusunda çok rahatımdır.	1	2	3	4	5	6	7
9. Sıklıkla, birlikte olduğum kişinin bana duyduğu hislerin benim ona duyduğum hisler kadar güçlü olmasını isterim.	1	2	3	4	5	6	7
10. Romantik ilişkide olduğum kişilere açılma konusunda kendimi rahat hissetmem.	1	2	3	4	5	6	7
11. İlişkilerimi kafama çok takarım.	1	2	3	4	5	6	7
12. Romantik ilişkide olduğum kişilere fazla yakın olmamayı tercih ederim.	1	2	3	4	5	6	7
13. Benden uzakta olduğunda, birlikte olduğum kişinin başka birine ilgi	1	2	3	4	5	6	7

## APPENDIX IV

### PATOLOJİK NARSİSİZM ENVANTERİ (PNE)

#### PNE- 40

**Yönerge:** Aşağıda 39 betimleyici ifade bulacaksınız. Lütfen her bir ifadeyi değerlendirmeye alınız ve sizi ne kadar iyi tarif ettiğini belirtiniz. Doğru veya yanlış yanıt söz konusu değildir. İfadenin yanındaki çizgiye tek bir yanıt işaretleyeceksiniz. Her bir ifadenin, 6 derecelik ölçek üzerinden, sizi ne kadar iyi tarif ettiğini belirtiniz:

0	1	2	3	4	5
Bana hiç benzemiyor	Bana biraz benzemiyor	Bana çok az benzemiyor	Bana çok az benziyor	Bana biraz benziyor	Bana çok benziyor

- \_\_\_ 1. Kendimi sık sık hayran olunan ve saygı duyulan biri olarak hayal ederim.
- \_\_\_ 2. Kendime olan güvenimde sık sık dalgalanmalar olur.
- \_\_\_ 3. Yalnızken kendimi iyi hissetmek benim için zordur.
- \_\_\_ 4. Yardım istemekten nefret ederim.
- \_\_\_ 5. İnsanlar beni farketmediğinde kendimi kötü hissetmeye başlarım.
- \_\_\_ 6. Başkalarının beni muhtaç ve bağımlı biri gibi görmesinden korktuğum için çoğunlukla ihtiyaçlarımı gizlerim.
- \_\_\_ 7. Herkesi istediğim herşeye inandırabilirim.
- \_\_\_ 8. İnsanlar onlar için yaptıklarımı farketmediğinde, sinirden deliye dönerim.
- \_\_\_ 9. Yaptıklarım ya da söylediklerimle ilgilenmeyen insanlar sinirime dokunur.
- \_\_\_ 10. İnsanları kolaylıkla kendi isteklerime göre yönlendirebilirim.
- \_\_\_ 11. Başkaları beni farketmediğinde kendimi değersiz hissetmeye başlarım.
- \_\_\_ 12. Beni hayalkırıklığına uğratacakları endişesiyle bazen insanlardan kaçırım.

0	1	2	3	4	5
Bana hiç benzemiyor	Bana biraz benzemiyor	Bana çok az benzemiyor	Bana çok az benziyor	Bana biraz benziyor	Bana çok benziyor

- \_\_\_ 13. Genelde, insanlardan istediğimi alamayınca çok öfkelenirim.
- \_\_\_ 14. Kendimi değerli hissetmem için, bazen önemsedüğim insanların beni bu konuda rahatlatmalarına ihtiyaç duyarım.
- \_\_\_ 15. Başkaları bana güven duyduklarında kendimi önemli hissederim.
- \_\_\_ 16. İnsanların içini bir kitap gibi okuyabilirim.
- \_\_\_ 17. Başkaları beni hayal kırıklığına uğrattığında, çoğu kez kendime kızarım.
- \_\_\_ 18. Başkaları için fedakârlık yapmak beni daha iyi bir insan yapar.
- \_\_\_ 19. Çoğu kez olanaklarımın ötesinde olan şeyleri başardığımın hayalini kurarım.
- \_\_\_ 20. Onlardan istediklerimi yapmayacaklarından korktuğum için bazen insanlardan kaçınırım.
- \_\_\_ 21. İçimde hissettiğim zayıflığı başkalarına göstermek benim için zordur.
- \_\_\_ 22. Diğer insanların beni beğendiğini bilmediğim sürece kendimi iyi hissetmem zordur.
- \_\_\_ 23. Sık sık çabalarım için ödüllendirildiğim hayalini kurarım.
- \_\_\_ 24. Çoğu insanın benimle ilgilenmediğine yönelik düşünce ve endişelerle zihnimi meşgul ederim.
- \_\_\_ 25. Bana güvenen arkadaşlarım olmasından hoşlanırım çünkü bu bana kendimi önemli hissettirir.
- \_\_\_ 26. Herkes benim anlattıklarımı dinlemekten hoşlanır.



0	1	2	3	4	5
Bana hiç benzemiyor	Bana biraz benzemiyor	Bana çok az benzemiyor	Bana çok az benziyor	Bana biraz benziyor	Bana çok benziyor

- \_\_\_ 27. İnsanların beni sevdiğini bilmezsem, kendimi iyi hissetmekte zorlanırım.
- \_\_\_ 28. İnsanlar benim ne kadar iyi birisi olduğumu fark etmediklerinde rahatsız olurum
- \_\_\_ 29. Hak ettiğim herşeyi elde edene dek asla tatmin olmam.
- \_\_\_ 30. Yaptığım fedakârlıklarla ne kadar iyi bir insan olduğumu göstermeye çalışırım
- \_\_\_ 31. İnsanlar beni farketmediğinde hayal kırıklığına uğrarım
- \_\_\_ 32. Sık sık kahramanca davranışlarda bulunduğumun hayalini kurarım.
- \_\_\_ 33. İyi bir insan olduğumu kanıtlamak için insanlara yardım ederim.
- \_\_\_ 34. Sıklıkla başarılarıyla tanınmış biri olduğumun hayalini kurarım.
- \_\_\_ 35. Kendimi zayıf hissetmeme neden olduğu için başlakalarına bel bağlamaya tahammül edemem.
- \_\_\_ 36. Diğer insanların beni onaylamasına ihtiyaç duyarım.
- \_\_\_ 37. Dünyanın gözünde bir değerimin olmasını isterim.
- \_\_\_ 38. Diğer insanlar ihtiyaçlarımı bir an için bile farketmediğinde, kaygılanır ve utanırım.
- \_\_\_ 39. Bazen, insanlardan her istediğimi elde edemediğimi görmektense, yalnız kalmak daha kolay gelir.
- \_\_\_ 40. Başkaları benimle aynı fikirde olmadığında çok öfkelenabiliyorum.

## APPENDIX V

### Narsistik Kişilik Envanteri- Kısa versiyon (NKE-16)

Yönerge: Aşağıdaki her bir tutum çifti içinden, lütfen size en uygun olanı belirtiniz.

1		İnsanlar bana iltifat ettiklerinde bazen utanırım.
		İyi biri olduğumu biliyorum, çünkü herkes böyle söyler.
2		Kalabalık içinde herkesten biri olmayı tercih ederim.
		İlgi merkezi olmayı severim.
3		Pek çok insandan ne daha iyi ne de daha kötüyüm.
		Özel biri olduğumu düşünüyorum.
4		İnsanlar üzerinde otorite kurmaktan hoşlanırım.
		Emirlere uymaktan rahatsız olmam.
5		İnsanları kolayca manipüle ederim.
		İnsanları manipüle ettiğimi fark ettiğimde rahatsız olurum.
6		Layık olduğum saygıyı elde etme konusunda ısrarcıyım.
		Hak ettiğim saygıyı genellikle görürüm.
7		Gösterişten kaçınırım.
		Genellikle fırsatını bulduğumda şov yaparım.
8*		Her zaman ne yaptığımı bilirim.
		Bazen yaptığım şeyden emin değilimdir.
9		Bazen iyi hikaye anlatırım.
		Herkes hikayelerimi dinlemekten hoşlanır.
10		İnsanlardan çok şey beklerim.
		Başkaları için bir şeyler yapmaktan hoşlanırım.
11		İlgi merkezi olmaktan hoşlanırım.
		İlgi merkezi olmak beni rahatsız eder.
12		Otorite olmanın benim için pek bir anlamı yoktur.
		İnsanlar daima otoritemi kabul ediyor görünürler.
13		Önemli bir insan olacağım.
		Başarılı olmayı umuyorum.
14		İnsanlar söylediklerimin bazılarına inanır.
		İnsanları istediğim her şeye inandırabilirim.
15		Kendi kendime yeterim.
		Başkalarından öğrenebileceğim çok şey var.
16		Herkes gibi biriyim.
		Sıra dışı biriyim.

APPENDIX VI  
**Bilgilendirilmiş Onam Formu**

Sayın Katılımcı,

Bu araştırma İstanbul Bilgi Üniversitesi Klinik Psikoloji programı öğrencisi Zeynep Sunbay Bilgen tarafından tez yükümlülüğünün bir parçası olarak Dr. Ümit Akırmak danışmanlığında yürütülmektedir. Bu araştırmada çevrimiçi flörtleşme/çöpçatanlık uygulamaları kullanımı, bağlanma özellikleri ve narsisistik eğilimler hakkında bilgi edinilmesi amaçlanmaktadır.

Araştırmaya 18 yaş ve üzeri tüm yetişkin bireyler katılabilmektedir ve katılım tamamen gönüllülük esasına dayalıdır.

Bu araştırma kapsamında toplanan tüm veriler gizli tutulacak, tamamen bilimsel amaçlarla kullanılacak ve toplu olarak değerlendirilecektir. Anketi doldurma süresi katılımcıdan katılımcıya değişiklik göstermekle birlikte, anketi tamamlamanın en fazla 30 dakika alacağı öngörülmektedir. Eğer çalışmanın herhangi bir noktasında kendinizi rahatsız hissederseniz anketi doldurmayı bırakabilirsiniz. Çalışmanın geçerliliği açısından, verdiğiniz bilgilerin araştırmaya dahil edilebilmesi için tüm soruları yanıtlamanız gerekmektedir.

Araştırmaya yönelik herhangi bir sorunuz, sorunuz ya da geribildiriminiz olursa, zsunbay@gmail.com adresinden araştırmacıyla iletişime geçebilirsiniz.

Katılımınız ve katkınız için teşekkür ederiz. Klinik Psikoloji Yüksek Lisans Öğrencisi Zeynep Sunbay Bilgen

**Çalışmaya Katılma Onayı**

Bu bilgilendirilmiş onam belgesini okudum ve anladım. İstedğim zaman bu araştırmadan çekilebileceğimi biliyorum. Bu araştırmaya katılmayı kabul ediyor ve bu onay belgesini kendi hür irademle imzalıyorum.



**ETİK KURUL DEĞERLENDİRME SONUCU/RESULT OF EVALUATION BY  
THE ETHICS COMMITTEE**

(Bu bölüm İstanbul Bilgi Üniversitesi İnsan Araştırmaları Etik Kurul tarafından  
doldurulacaktır /This section to be completed by the Committee on Ethics in research  
on Humans)

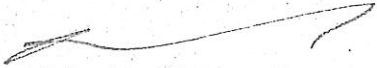
**Başvuru Sahibi / Applicant:** Zeynep Ayşe Sunbay Bilgen

**Proje Başlığı / Project Title:** Motives for online dating application use as a function  
of attachment anxiety, attachment avoidance and narcissistic tendencies: Hook-ups or  
search for romance


**Proje No. / Project Number:** 2018-20024-128

1.	Herhangi bir değişikliğe gerek yoktur / There is no need for revision	XX
2.	Ret/ Application Rejected Reddin gerekçesi / Reason for Rejection	

Değerlendirme Tarihi / Date of Evaluation: 13 Aralık 2018

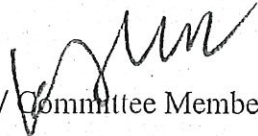
  
Kurul Başkanı / Committee Chair

Doç. Dr. İtir Erhart

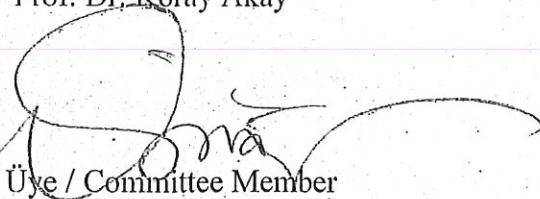


Üye / Committee Member

Prof. Dr. Hale Bolak


  
Üye / Committee Member

Prof. Dr. Koray Akay

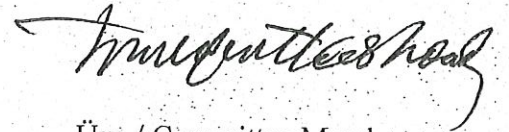


Üye / Committee Member

Prof. Dr. Ayhan Özgür Toy

  
Üye / Committee Member

Prof. Dr. Aslı Tunç



Üye / Committee Member

Prof. Dr. Turgut Tarhanlı

  
Üye / Committee Member

Prof. Dr. Ali Demirci