

ONLINE VS. FACE-TO-FACE SELF-DISCLOSURE AND INTERPERSONAL  
COMPETENCE: THE ROLE OF SHYNESS AND LONELINESS

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Approval of the Graduate School of Social Sciences

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## **ABSTRACT**

### **ONLINE VS. FACE TO FACE SELF-DISCLOSURE AND INTERPERSONAL COMPETENCE: THE ROLE OF SHYNESS AND LONELINESS**

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The purpose of this study is threefold. First to examine the difference between the amount of online and face-to-face self-disclosure for different groups. Second to understand whether shyness and loneliness, has an effect on online and face-to-face self-disclosure. Third to understand whether online and face-to-face self-disclosure positively predicts perceived interpersonal competence for people who score high on shyness, after controlling for social media usage frequency and loneliness. The sample of the study consisted of 585 university students. Demographics information sheet, UCLA Loneliness Scale, Revised Cheek and Buss Shyness Scale (RCBS), Revised Wheelers and Grotz Self-Disclosure Scale, Interpersonal Competence Questionnaire were applied in both online and paper-pencil format form. In order to answer the research questions two-way MANOVA and hierarchical linear regression analysis were conducted. Results of the study suggested that people tend to engage in higher amounts of face-to-face self-disclosure compared to online self-disclosure. Besides,

study also showed that shyness and loneliness make a difference on both online and face-to-face self-disclosure. Moreover, results showed that online self-disclosure was a significant predictor for interpersonal competence of shy people when social media usage, demographics and loneliness level of the participants were controlled, whereas face-to-face self-disclosure cease to be a significant predictor. Further implications and contribution of the results to the existing literature were discussed in detail.

**Keywords:** computer-mediated communication, online self-disclosure, shyness, loneliness, interpersonal competence.

## ÖZ

### ÇEVİRİMİÇİ – YÜZ YÜZE KENDİNİ AÇMA DAVRANIŞI VE KİŞİLER ARASI YETKİNLİK: UTANGAÇLIK VE YALNIZLIĞIN ROLÜ

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Bu çalışmanın birinci amacı, değişik özellik gösteren bireylerin internet üzerinden ve yüz yüze iletişimdeki kendini açma miktarlarında bir fark olup olmadığını incelemektir. İkinci olarak ise utangaçlık ve yalnızlığın internet üzerinden ve yüz-yüze iletişimde kendini açma davranışına etkisi olup olmadığını anlaşılması amaçlanmıştır. Aynı zamanda, bu çalışmada, utangaç bireylerde, internet üzerinden ve yüz-yüze iletişimde kendini açma davranışının, sosyal medya kullanım sıklığı ve yalnızlık düzeyi kontrol edildiğinde bireylerin algılanan kişiler arası yetkinliklerinin anlamlı bir şekilde yordayıp yordamadığı incelenmiştir. Çalışmanın örneklemi 585 üniversite öğrencisinden oluşmaktadır. Demografik bilgi kâğıdı, UCLA Yalnızlık Ölçeği, Gözden Geçirilmiş Cheek ve Buss Utangaçlık Ölçeği, Gözden Geçirilmiş Wheelers ve Grotz Kendini Açma Ölçeği ve Kişiler Arası Yetkinlik Ölçeği hem

çevrimiçi hem de kâğıt-kalem formatında uygulanmıştır. Araştırma sorularına cevap verebilmek amacıyla çift yönlü çok değişkenli varyans analizi ve hiyerarşik regresyon analizi uygulanmıştır. Çalışmanın bulguları, yalnızlık ve utangaçlık düzeylerinin internet üzerinden ve yüz-yüze iletişimde kendini açma davranışına anlamlı bir etkisi olduğu yönündedir. Bunun yanı sıra, bulgular, yüz yüze değil sadece çevrimiçi kendini açma davranışının, utangaç bireylerde, sosyal medya kullanımı ve yalnızlık düzeyleri kontrol edildiğinde, kişiler arası yetkinlik düzeylerini anlamlı bir şekilde ve olumlu bir yönde yordadığını göstermektedir. Çalışmanın uygulanabilirliği ve alanyazına katkıları detaylıca tartışılmıştır.

**Anahtar kelimeler:** internet üzerinden kendini açma, utangaçlık, yalnızlık, kişiler arası yetkinlik.

To my dear family,



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## **LIST OF ABBREVIATIONS**

CMC Computer Mediated Communication

SNS Social Networking Sites

FtF Face to Face





## **CHAPTER I**

### **INTRODUCTION**

#### 1.1. Background to the Study

The internet is a relatively new medium, which provides individuals with an exciting and a complex way of communication (Amichai-Hamburger & Hayat, 2013) and serves as a platform where people can engage in interpersonal interactions (Kraut, Mukopadhyay, Szczypula, Kiesler, & Scherlis, 1998). McLuhan (1967) refers to any new medium for communication, as an extension of humankind and their biology. Unlike other media (e.g. TV, radio or mobile phones), online media - the Internet - requires engagement and attention (Nie & Erbring, 2000). According to the definition by Culnan and Markus (1987), online media refers to “interactive, computer-mediated technologies that facilitate two-way interpersonal communication among several individuals or groups” (p. 422). Considering the fact that the Internet is increasingly becoming more widespread day-by-day, the researchers who study how cyberspace is linked with psychological concepts seem to agree on the fact that it is important to understand the social impacts of the Internet on individuals’ everyday interactions at work, their social activities, personal life, and social relationships (Kraut, Kiesler, Boneva, Cummings & Helgeson, 2001; Tyler, 2002). Although Internet communication, also referred to as computer-mediated communication (CMC), can take many different forms, such as personal-diary blogs, social networking sites (SNSs) and micro-blogging sites (Child & Petronio, 2011), only the SNSs are the main focus of interest in the current study.

One of the most important advancements in online communication is the rapidly expanding use of SNSs especially since 2004 when Facebook was introduced as a social media platform, which has taken a lot of attention from people all around the world. Since then, the use of SNSs has become one of the very basic aspects of

people's daily life (Bryant, Marmo, & Ramirez Jr., 2011). This can be more readily witnessed among young adults whose daily communication patterns have changed to a greater extent with SNSs. In fact, SNSs have become so popular that it is estimated that, soon, it will be difficult to distinguish between online and offline world (Bryant, et al. 2011). According to a report published by "We are Social" (2017), there are total of 3.077.000.000 Internet users in 2017 and that 2.080.000.000 of them are globally active on social media. It is also reported that in Turkey, 48.000.000 users actively use social media. The rate has even grown by 14% over one year. Seventy-seven percent of Turkish users are online everyday while 16% are online at least once a week. Turkish users spend an average of 7 hours a day online (We are social, 2017). It was reported that, the most popular social network in Turkey is YouTube, followed by Facebook, Instagram, Twitter, Google +, LinkedIn, Pinterest and Snapchat (We are social, 2017). As these numbers indicate, the Internet and CMC have become an inevitable part of everyday life and they play a huge role in communication (Kraut, et al. 2001). Therefore, it is important to understand the emotional and social impacts that CMC has on individuals.

#### 1.1.1. Characteristics of CMC

CMC carries different qualities than that of face-to-face (FtF) communication due to its components, namely anonymity, lack of physical cues, higher accessibility in terms of time and place as well as greater control over personal information disclosure (Amichai-Hamburger & Hayat, 2013; Amichai-Hamburger, 2005, 2013; Bargh & McKenna, 2004; Hamburger & Ben-Artzi, 2000; McKenna & Bargh, 2000; McKenna, Green and Gleason, 2002;). According to Joinson (1998), online anonymity refers to the perception that, one has the ability of one to surf on the Internet without being having to disclose much identifying personal information. However, in FtF communication, disclosure automatically occurs to some degree with the help of visual cues and physical characteristics. Additionally, anonymity of CMC allows for a higher control over what a person wishes to disclose about oneself (Amichai-Hamburger & Hayat, 2013; Fox & Vandemia, 2016; Joinson, 2001; Metzger, 2004;

Walther, 2007). For example, SNSs are designed in a manner that allows people to display personal information on a website; yet, people can easily control many factors such as the type or content of information they will disclose and even the information or photographs other people are allowed to see (Amichai-Hamburger & Hayat, 2013; Desjardins, 2011; Fox & Vandemia, 2016). Researchers (Bryant, Marmo, & Ramirez Jr. 2011; Culnan & Markus, 1987; Dwyer, 2007; Kraut et al. 2001; O’Sullivan, 2000; Thimm 2008; Walther & Boyd, 2002; Walther & Tidwell, 1995) argued that, SNSs, which are forms of CMC, has freed interpersonal interaction from the boundaries of FtF interaction by removing the “here and now” qualities from communication and made it more accessible in terms of time and location. Moreover, CMC allows people to meet other people who are like them even though they do not happen to be geographically in the same location (Culnan & Markus, 1987). Through the elimination of the geographical location limit, CMC provides the opportunity of beneficial connections to people outside one’s immediate social circle, and to those who share similar interests (Kraut et al., 2001).

Communication in online environments can take place both synchronously and asynchronously (Culnan & Markus, 1987). Synchronous use of media allows for communication in real time, asynchronous use extends the interpersonal interaction and frees it from time limitations. According to Walther and Tidwell (1995), asynchronous communication is one of the most important advantages of CMC. Additionally, as Herring (2004) claimed, CMC interaction lacks physical reality and context which means that when two people interact in a mediated medium, they are void of the other party’s face and gestures, and the messages they send, usually lack the cues of a particular social context (e.g. home, office, café etc.). CMC medium is seen as distinct from writing and speaking (Herring, 2004). Although the messages produced are similar (writing vs. typing), Herring (2004) stresses that CMC allows for constant editing, reformatting of the message being sent and even asynchronous communication. Bryant, Marmo, and Ramirez Jr. (2011) mentioned that unique characteristics of online environments shape interpersonal communication. These characteristics will be discussed in more detail in the following sections.

### 1.1.2. CMC and Interpersonal Interactions

During the last few decades, online social media has become very influential on global communication (Blau & Barak 2012; Lin, 2012; Ogan, 2012; Thimm, 2008). Online media has many functions in one's daily life which can be as simple as ordering a book or a meal. However, it is not those functions that alter the global communication, but the socialization function of online media that significantly shapes human communication. Thimm (2008) describes personal online social media usage in terms of two forms of communication: presentational and interactive. Presentational form of social media usage is mainly used to attract other people's attention to one's ideas and one's own personal information as we see in personal profiles or homepages. Interactive usage, on the other hand, involves catching up with family or friends, and coordinating activities with each other. Earlier, in the beginning of the development of online media, these two forms were distinct from each other. However, nowadays these two modes of media usage can be used interchangeably via social media platforms (e.g., SNSs). In the current research study, the focus is more on the interactive form of social media usage and thus, its process will be discussed in more detail.

SNSs are important and useful communication tools that fulfill particular needs such as initiating (e.g. Ellison, Steinfield & Lampe, 2007; Stern & Taylor, 2007) and managing (e.g. Boyd, 2008; Götzenbrucker & Köhl, 2014) interpersonal relationships, forming impressions (e.g. Boyd & Ellison, 2007; Oh & LaRose, 2016) and seeking information about others (e.g. Lampe, Ellison & Steinfield, 2006) (for a review, see Bryant, Marmo, & Ramirez Jr., 2011). In fact, fulfilling these needs is one of the core purpose of using SNSs. Therefore, studies about SNS and communication need to be continued and carried to a further level. Bryant, et al. (2011) have argued that it is more beneficial to study SNS by taking a functional perspective and reviewed the different functional approaches to use of SNSs. Some of the very basic functions are relationship initiation and maintenance, relational connection, identity experimentation, impression formation and management, information seeking and metacommunication (Bryant, et al. 2011). Functions such as impression formation and

management, information seeking and metacommunication are beyond the scope of this work since the main focus of the present study is interpersonal relationships. Therefore, only the relational aspects of SNS, also referred to as interactive form of communication (Thimm, 2008), will be discussed.

An important function of the SNS is initiating new friendships by bringing together people with shared interests and people who are located in different parts of the world (Bryant, Marmo & Ramirez Jr., 2011; Kraut et al., 2001). However, Baym and Ledbetter (2009) pointed out that these social bonds tend to be weak and that people need to connect in different ways as well, to compensate their relationship in online media. Additionally, they suggested that no matter how the relationship had been initiated, online or offline, SNSs positively affect relationship development. Finally, they stress that in research investigating SNS and interpersonal relationships, other mediums in which people communicate should also be considered. In terms of SNSs, Facebook specifically plays an important role in maintaining social relationships of users (Ellison, Steinfeld, & Lampe 2007). SNS use decreases the costs which comes with trying to maintain a friendship such as time and effort; therefore, it provides an appropriate medium for maintaining relationships with relatively large number of individuals (Bryant, Marmo, & Ramirez Jr. 2011; Dwyer, 2007; O'Sullivan, 2000; Walther & Boyd, 2002). Having being allowed for asynchronous communication, people with different schedules might as well maintain their relationships through SNSs (Walther & Boyd, 2002; O'Sullivan, 2000). It has been suggested that, online networking not necessarily isolates users from their real-world relationships (Ellison, Steinfeld, & Lampe 2007), but it could be beneficial in terms of supporting the maintenance of those relationships and keep in touch even when users fall apart geographically. Cummings, Lee and Kraut (2006) examined the relationship maintenance through the help of CMC. They found that CMC could be helpful in maintaining closeness and intimacy in social relationships. The drop-off rates of communication are significantly higher for FtF communication as compared to CMC. In other words, people are more likely to stay in touch if they communicate through some type of electronic environment especially with those they do not see on

a regular basis (Dwyer, 2007). In addition to the positive effects SNSs have on the relationship initiation and maintenance, SNS use is also related to increased levels of intimacy (Kim & Yun, 2007), trust and perceived communication quality (Wright, 2004). Besides, people are more eager to share personal information via SNS use (Dwyer, 2007). Another function of the SNS related with the interpersonal communication between individuals is the relationship connection, which is re-establishing connections with relational partners such as long lost friends or family members (Bryant, Marmo, & Ramirez Jr. 2011). However, Bryant et al. (2011) also stress that relationship connection has not received much academic attention as much as relationship initiation and maintenance have. Social networking sites does not create the similar effect on everyone. Its effect differs according to many factors such as people's goals, needs, motives or personal characteristics (McKenna & Bargh, 2000). Therefore, individual differences that affect the extent to which people benefit from the SNSs need to be explored.

### 1.1.3. Shyness, Loneliness and CMC

Social networking sites have been a special interest for certain group of individuals in the sense that these sites facilitate individuals' communication (Baker & Oswald, 2010; McKenna & Bargh, 1999; Pratarelli, Browne & Johnson, 1999). For those who experience relatively high levels of anxiety in social interactions, engaging in face to face (FtF) relationships can be quite difficult and problematic in terms of relationship quality (Leary, 1983; McNamara-Barry, Nelson & Christofferson, 2013). Furthermore, those individuals tend to evaluate themselves to be less successful in FtF interactions, when compared to CMC (Shalom, Israeli, Markovitzky & Lipsitz, 2015). In CMC, some of the situational factors that make people experience anxiety may disappear. Therefore, some people may prefer to engage in social interactions in online environments to a greater extent, since they find it easier to interact with others online (McKenna & Bargh, 2000).

Research suggests that self-reported shyness is one of the important factors that influence the preference for SNSs (Baker & Oswald, 2010; McKenna & Bargh,

1999; Desjardins, 2011; Orr et al., 2009; Pratarelli et al., 1999; Roberts, Smith & Pollock, 2000). People who tend to be shy are affected by facilitations that CMC provides to themselves to a great extent, given that they experience trouble in face-face communications, and that they prefer to communicate online instead (Baker & Oswald, 2010). Social Networking Sites (SNSs) can be a medium in which people can communicate, form bonds with others, and feel accepted by the society, which in turn can lead to increased acceptance of self and decreased perceived social isolation (McKenna & Bargh, 1999). Further, for those who have difficulty to meet with others in person because of their increased anxiety, the SNS can provide a less threatening environment where they can socially connect with the world and disclose important aspects of themselves that they cannot in the real world. In fact, people are able to engage in behaviors online that are not easy in the real world (McKenna & Bargh, 2000). For instance, SNSs allow people to create a profile that is either public or semi-public, list their people of connections and browse whom else is connected with others (Boyd & Ellison, 2007).

Loneliness is another individual difference variable that can be relevant in predicting Internet use (McKenna & Bargh, 1999). Research suggests that lonely people aim to compensate their social skills in FtF settings with the help of social media (Jin, 2013). Loneliness also significantly affects how people behave in online mediums such as the kind of information they choose to disclose (Al-Saggaf & Nielsen 2014). Findings of a recent meta-analysis (Song et al., 2014) suggested that shyness leads to loneliness, which in turn leads to increased social media usage. However, there are also contradictory findings which suggest that individuals who tend to have high levels of shyness and loneliness do not use social media in order to compensate their poor social skills (Sheldon, 2013). It seems that, the online communication is a double edge sword when it comes to loneliness in that, lonely people may meet new people online and at the same time online communication may take individuals' time from their existing relationships in real world (Kraut, Patterson, Lundmark, Kiesler,



Mukopadhyay & Scherlis 1998). In other words, the SNSs can be a safe environment for those who tend to be shy and lonely, while it can also make them open to be abused (McKenna & Bargh, 2000).

The aforementioned qualities of the online communication such as anonymity, asynchrony and reduced nonverbal cues may sometimes lead to enhanced amounts of online self-disclosure for all users, but especially for those who have higher levels of shyness and loneliness (McKenna & Bargh, 2000; Walther, 1996). People have taken advantage of online mediums such as blogs, SNSs and dating sites in terms of engaging in self-disclosure behavior more comfortably (Kim & Dindia, 2011). Therefore, SNSs are very interesting area of research for self-presentation, self-disclosure and impression management researchers (Boyd & Ellison, 2007). SNSs also allow people to build intimacy with existing friends with whom they share information through the Internet (Collins & Miller, 1994). One of the major conclusions that CMC and SNSs research arrived at is that online communication facilitates greater self-disclosure (Antheunis, Valkenburg, Peter, 2007; Joinson, 2001; Tidwell & Walther, 2002). As a result of successful communication that takes place in online social media, people, especially those who suffer from low social interactions and social inhibition (e.g. individuals who display higher levels of shyness and) may experience heightened self-efficacy and may feel more competent in their social interactions than they do in FtF settings (McKenna & Bargh, 1998).

Considering the characteristics of the CMC, the current study is interested in whether facilitation of self-disclosure in online media especially for those who tend to display high amounts of shyness and loneliness, can have a positive effect on FtF interpersonal relationships of individuals or at least their own interpersonal competence in general.

## 1.2. The Purpose of the Study

Social networking sites has been a special medium that carries different qualities than traditional communication, and it significantly alters the way humans interact

with each other on a daily basis (McKenna & Bargh, 2000; Lin, 2012; Ogan, 2012; Thimm, 2008). Additionally, as previously discussed, certain populations (e.g. individuals who tend to be shy and lonely) may benefit from the unique characteristics of CMC to a greater extent and engage in behaviors and form relationships that they either cannot or at least find it very hard to in real world (Brunet & Schmidt, 2007; Green, Wilhelmsen, Wilmots, Dodd & Quinn, 2016; Lee, Noh & Koo, 2013; Matook, Cummings & Bala, 2015; McKenna & Bargh, 2000; Stritzke, Nguyen & Durkin, 2004). Therefore, the possibility of positive effects on social interactions competence, though not the change of behavior, that is associated with more comfortable behaviors in online interactions of certain populations was questioned by researchers (McKenna & Bargh, 2000; McKenna, 1998). However, more research is needed to unravel the underlying mechanisms of online behavior and real life social/interpersonal competence.

The major purpose of the present study is to investigate the online behavior of individuals who display high levels of shyness or high levels of loneliness on SNSs in general as well as examining the effect of online behavior of individuals on perceived interpersonal competence. More specifically, the aims of the study are threefold. First, the study aims to understand the difference between the amount of online and FtF self-disclosure in general and then to understand and compare the within difference between the amount of online and FtF self-disclosure of individuals who score high in shyness and loneliness. Secondly, it is aimed to investigate the effect of shyness, loneliness and their interaction on online and FtF self-disclosure behavior. Finally, this study aims to understand whether it is possible to predict perceived interpersonal competence from online and FtF self-disclosure behavior of people who score high on shyness, statistically controlling for the loneliness and social media use. Answers to total of four different research questions were sought throughout the study.

### 1.3. Research Questions

- 1) To what extent participants in general tend to engage in online self-disclosure as compared to FtF self-disclosure?
- 2) To what extent participants who score higher on shyness tend to engage in online self-disclosure as compared to FtF self-disclosure?
- 3) To what extent participants who score higher on loneliness tend to engage in online self-disclosure as compared to FtF self-disclosure?
- 4) To what extent shyness level, loneliness level and their interaction have an effect on the amount of online and FtF self-disclosure?
- 5) To what extent online and FtF self-disclosure predict interpersonal competence for those who score high in shyness after statistically controlling for social media usage frequency and loneliness?

### 1.4. Significance of the Study

This study has important contributions to the existing literature of CMC, self-disclosure and interpersonal competence as well as contributions to the counseling profession. This section discusses these contributions.

First of all, although there are many studies that investigate the difference in FtF self-disclosure and online self-disclosure (e.g. Joinson, 2001; Misoch, 2015; Nguyen, Bin & Campbell, 2012), its relationship to shyness (e.g. Brunet & Schmidt, 2007; Stritzke, Nguyen & Durkin, 2004; Green, Wilhelmsen, Wilmots, Dodd & Quinn, 2016), and loneliness (e.g. Lee, Noh & Koo, 2013; Matook, Cummings & Bala, 2015), as well as interpersonal competence (e.g. Michaeli, 2013), none of those studies has investigated whether it is possible to predict interpersonal competence from online self-disclosure, or explored and discussed their relationship in detail. In the current study, it is aimed to examine the difference between online and FtF self-disclosure in terms of shyness and loneliness as well as how online self-disclosure is associated with perceived interpersonal competence. It is believed that this study will contribute to the gap in the literature by examining the relationship between online self-disclosure

and perceived interpersonal competence by adding the role of shyness and loneliness in this relationship.

Secondly, control variables (social media usage frequency and loneliness) constitute another significant aspect of this study. The effect of social media usage frequency was statistically controlled in this study, an aspect as emphasized by Michaeli (2003) because of the strong relationship between interpersonal competence and CMC use frequency and preference. The effect of loneliness was also statistically controlled. Several studies conducted on loneliness and CMC, consistently found that loneliness was a significant predictor of greater Internet and SNS use (Doğan & Çolak, 2016; Ceyhan & Ceyhan, 2008), problematic Internet use (Oktan, 2015), and internet addiction (Durak-Batıgün & Hasta, 2010). Similar findings suggested that the higher the level of loneliness, the lower the communication with friends; however, loneliness was not significantly associated with friendship or other activities on Facebook (Aydın, Muyan, & Demir, 2013). Most importantly, recent research suggests a mediating effect of loneliness on the relationship between shyness and Internet use, and research suggest that the problematic internet use disappears when loneliness is controlled for (Huan, Ang, Chong, & Chye 2014). Therefore, it is important to control loneliness in order to understand the relationship between shyness, online and FtF self-disclosure and their effect on predicting interpersonal competence.

The current study also contributes to the CMC studies conducted with Turkish samples. Although many studies have aimed to enlighten the CMC and online behavior of individuals and individuals with certain individual differences, such as shyness and loneliness (e.g. Bruss & Hill 2010; Antheunis et al. 2007; Colemani Paternite & Sherman, 1999; Desjarlais, Gilmour, Sinclair, Howell & West, 2015; Joinson, 2001; Tidwell & Walther 2002), studies on CMC using diverse cultural groups are important since cultural factors have influence on self-disclosure (Reed, Spiro & Butts, 2016). Theories, research and models that aim to explain psychological mechanisms of online behavior have mostly been tested using a single culture - such as Northern America and Western European countries – and were assumed to be universal without being commonly tested in diverse samples (McKenna & Bargh, 2000). For instance, Günsoy et al. (2015) found that, Turkish individuals differ in

terms of their online behaviors when compared to northern Americans due to differences in culture and values. In fact, self-disclosure alone shows difference between cultures without including the effect of the medium such that people from the Western cultures tend to disclose more information than people from the Eastern cultures (Gudykunst & Nishida, 1986). The present study carries importance in the sense that, it investigates the relationship between online and face to face self-disclosure, shyness, loneliness and interpersonal competence thoroughly with a Turkish sample. However, it should be noted that this study uses a single study; therefore, not allowing for a cultural comparison. Besides, the study does not use any cultural variables to test their possible effects on the study variables. Nevertheless, replicating and improving CMC research that are already conducted with different cultures (e.g. American and European) is an important contribution for CMC literature.

Third, a huge number of studies conducted on CMC in Turkey focused on the problematic aspect of Internet use (Oktan 2015; Ceyhan 2011), Internet addiction (Durak-Batıgün, & Hasta 2010), cyber-bullying (Arslan, Savaşer, Hallett & Balcı 2012; Erdur-Baker 2010), online education (Yükseltürk, 2010; Özgür, Demiralay & Demiralay, 2014), general Facebook use and motives (Sipal, Karakaya & Hergül 2011; Tektaş, 2014; Şener, 2009; Alikılıç, Gülay & Binbir 2013; Tosun, 2012), and relationship between social media and personal characteristics (Aydın, Muyan & Demir, 2013; Ceyhan & Ceyhan, 2008). Only one study addressed the relationship between self-disclosure and SNSs (Varnalı & Toker, 2015). Therefore, this study is believed to contribute to the CMC research conducted with Turkish samples as well.

Finally, the present study and its results are of importance to counseling professionals as well. Self-disclosure, which is the focus of the current study, is an important aspect of the therapeutic process, since it has a big influence on healing process (Pennebaker, 1997). In fact, people who tend to conceal personal information experience physical problems and tend to display higher amounts of shyness (Kelley & Macready, 2009). Counseling process is an opportunity for people to express their thoughts and feelings that they cannot reveal elsewhere (Farber & Hall, 2002). Yet, full disclosure may not always occur in the counseling process due to the client's

conscious inhibition (Farber, 2003), or experiences of shame, guilt and fear (Farber, 2003; Hill, Thompson, Cogar & Denman, 1993) of the client. Therefore, it is an important concept for counseling professionals to understand the concept of self-disclosure and how it relates to other areas such as interpersonal competence. Information retrieved from the current study on how self-disclosure changes in different mediums (online and face-to-face) and how it affects perceived interpersonal competence is believed to be important for counselors to understand their clients better.

Besides, interpersonal competence is reported to be important determinant of psychological distress (Caplan, 2003). Michaeli (2013) argued that, understanding the correlates of interpersonal competence can strengthen the treatment planning for the counseling professionals. Moreover, by exploring what shy individuals experience in both online and face-to-face communication, and in what circumstances they behave more comfortably, counseling professionals can tailor specific interventions or counseling activities that help those individuals in need (Chan, 2011).

Additionally, with the advancements of technology and spread of the use of social media, it is important for counselors to understand how clients may be affected from daily social networking use clearly. Present findings can add value to existing sources of information on the differences between online and FtF self-disclosure in terms of how they relate to the level of shyness and loneliness as well as how it might relate to clients' perceived interpersonal competence. Knowing more about the predictors of interpersonal competence, helps counselors to intervene their clients more effectively or interpret their conditions more competently.

To sum up, the present study has mainly four important contributions which are investigating the variables in a way that has not yet been studied; extending the literature by extending the Turkish literature on CMC studies by studying a Turkish sample; controlling social media use frequency, and the negative effects of loneliness so that the relationship between shyness, online self-disclosure and interpersonal competence can be observed more clearly. And finally, the study is believed to provide valuable source of information for further studies as well as counseling professionals

for understanding their clients in terms of self-disclosure and interpersonal competence.

### 1.5. Definition of the Terms

#### *Computer Mediated Communication*

Herring (1996) defines CMC as the “communication that takes place between human beings via the instrumentality of computers” (as cited in Thurlow, Lengel, Tomic, 2004).

#### *Interpersonal Competence*

The term competence is defined as “...fitness or ability to perform” (Paulk, Pitmann, Kerpelman, Adler-Baeder p.6), and interpersonal competence refers to “...the process whereby people effectively deal with each other” (p.6).

#### *Self-Disclosure*

Self-disclosure is defined as “...verbal behavior through which individuals truthfully, sincerely and intentionally communicate novel, ordinarily private information about themselves to one or more others” (Fisher, 1984, pp. 278).

#### *Shyness*

Shyness is a form of social anxiety, which is characterized by feeling anxious in social situations, avoiding social interactions, and failing to conduct appropriate social relationships (Pilkonis, 1977)

## *Loneliness*

Peplau and Perlman (1982) defined loneliness as "...the unpleasant experience that occurs when a person's network of social relations is significantly deficient in either quality or quantity" (p. 4).



## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

In this section, guiding theories on CMC and previous studies conducted on self-disclosure, loneliness, shyness and interpersonal competence, and how they are related to each other was summarized and their relationship with the current research study was explained.

#### **2.1. Self-Disclosure**

Self-disclosure is defined as “verbal behavior through which individuals truthfully, sincerely and intentionally communicate novel, ordinarily private information about themselves to one or more others” (Fisher, 1984, pp. 278). As defined by Wheelless and Grotz, (1976) “the process of self-disclosure is the process of communication through self-disclosive messages.” (p.338). Researchers have also argued that these messages have dimensions and suggested that breadth, depth and duration of the information disclosed constitutes the basic parameters (Altman & Taylor, 1973; Cozby, 1973). Other researchers have mentioned additional dimensions such as honesty of self-disclosure (Jourard, 1971), and willingness or intent of self-disclosure (Pearche & Sharp, 1973). In the current study, self-disclosure is perceived as a multidimensional construct consisting of six dimensions: consciously intended disclosure, amount of disclosure, positive negative nature of the disclosure, honesty-accuracy of the disclosure and control of general depth or intimacy of disclosure and relevance of the self-disclosure to the topic (Wheeles & Grotz, 1976). In order to understand self-disclosure more deeply we need to take a theoretical perspective. Social penetration theory, one of the most commonly referred theories in self-disclosure research, will be explained in the following section.

### 2.1.1. Social Penetration Theory

Social penetration process encompasses how people behave in interpersonal relationships; more specifically what they think and feel about each other and how they form social bonds ranging from verbal behavior to body language (Altman & Taylor, 1973). Social penetration is briefly described by Altman and Taylor (1973) as “overt interpersonal behaviors, which take place in social interaction and internal subjective processes which precede, accompany, and follow overt exchange” (p.5). The theory seeks to explain observable interpersonal interactions occurring in social relationship as well as internal processes that take place in relationship formation. Social penetration theory is based on the assumption that interpersonal exchange happens gradually and takes different forms in each step such that it starts from superficial exchange and progresses to more intimate information sharing as the social bonds become stronger between the actors (Altman & Taylor, 1973). Although this mutual information sharing process, in other words social penetration, often occurs gradually through self-disclosure, Altman and Taylor (1973) highlight that there may be some situations that foster or inhibit this process. (e.g. stranger on the train phenomenon; Rubin, 1975). When people first greet each other, they are more likely to share personal information at a more superficial level such as their demographic information, or information related to their education and work life. Therefore, they are more likely to disclose deeper and more personal information as the relationships proceed to further levels step by step (Altman & Taylor, 1973). They also add that, “social interaction is generally predicted to proceed only gradually and systematically from superficial to intimate topics” (Altman & Taylor 1973, p.29). According to Altman and Taylor (1973) basic dimensions of self-disclosure is breadth, depth and duration. Breadth category refers to “general areas of personality, each of which contains a number of specific aspects or items” (p.29) whereas breadth frequency refers to “the idea that each area of personality has specific items or pieces of Information” (p.29). Depth of the self-disclosure is defined as the intimacy of the information shared whereas duration is the amount of time that is spend disclosing information.

### 2.1.2. Psychosocial Consequences of Self-Disclosure

Self-disclosure is an important part of communication both for relationship development, closeness, and intimacy (Altman & Taylor, 1973; Jourard, 1971; Slatcher, 2010; Welker, Baker, Padilla, Holmes, Aron & Slatcher, 2014), as well as in mental health and wellbeing (Blackburn, 2011; Farber & Hall, 2002; Fisher, 1984; Horvath & Greenberg, 1986; Kelly & Yuan, 2009). Jourard (1971) claimed that opening oneself to the others is significantly and positively associated with psychological health. He added that, lower levels of self-disclosure were related to increased tension and increased tendency to see others as threats. Derlega and Chaikin (1975) similarly pointed out that high and low levels of self-disclosure were associated with poor adjustment whereas moderate levels of disclosure were positively related to mental health of individuals. Darlega and Chaikin (1975) also showed in their research that self-disclosure increased self-awareness and helped to grasp a better view of the person's inner self in the process of describing oneself to others.

Self-disclosure also has great importance in terms of social relationships such that in general it is positively associated with liking the other person (Collins & Miller 1994; Kashian, Jang, Shin, Dai, & Walther, 2017; Miller, Berg & Archer, 1983). For instance, a study by Collins and Miller (1994) reported that people tend to like those who engage in higher amounts of self-disclosure behavior, and likewise people engage in more frequent self-disclosure behavior if they like the person in the receiving end. They also tend to like the other person after disclosing self-relevant information to them. Other findings suggest that self-disclosure positively affects psychological wellbeing (Best, Manktelow & Taylor, 2014; Huang, 2016; Ko & Kuo, 2009; Lee, Noh & Koo, 2013; Wang, Jackson, Gaskin, & Wang 2014). Besides, in some studies it was found that self-disclosure behavior in online media such as blogs could increase people's social capital and therefore enhance their wellbeing (Huang, 2016; Ko & Kuo, 2009).

### 2.1.3. Online vs. FtF Self-Disclosure

Nowadays, with the advancement of digital technology and the huge place the internet constitutes in an individual's daily life, researchers shift their focus on merely studying self-disclosure to studying differences between self-disclosure in different media such as online and face-to-face (Bruss & Hill, 2010; Desjarlais & Joseph, 2017; Emanuel, Neil, Bevan, Fraser, Stevenage, & Whitty 2014; Hallam & Zanella, 2017). Recently, social penetration theory has been applied to computer-mediated communication studies (Sheldon, 2009; Tang & Wang, 2012; Yum & Hara, 2005), which indicates that the theory can be extended to the online interpersonal relationships as well. The relationship between social penetration theory and CMC will be illustrated in the following section. For example, Tang & Wang, (2012) applied social penetration theory to bloggers and found that bloggers are more prone to disclosing their personal ideas and experiences to their intimate friends in real world rather than online audiences. Results also indicated that, bloggers are aware of the possible risks of extreme disclosure on online blogs and tend to disclose their general interest rather than personal issues. Huang (2016) showed that, people can gradually develop intimate interpersonal relationships through online self-disclosure which could benefit their social wellbeing. This finding supports the core premise of social penetration theory and provides evidence that it could be carried to the online environment.

Huge number of research findings suggest that people tend to engage in higher amounts of self-disclosure in computer-mediated environments than FtF communications (Antheunis et al., 2007; Bruss & Hill 2010; Coleman, Paternite & Sherman, 1999; Joinson 2001, 2002; Tidwell & Walther 2002). Not only people disclose more information online, but they also perceive that their partner (person in the other end of the communication) discloses more to them in an online setting compared to FtF (Bruss & Hill 2010). In fact, Wallace (1999) highlighted the effect of online medium on self-disclosure as, “you sit at a computer screen feeling relatively anonymous, distant, and physically safe, and you sometimes feel closer to the people on the other side of your screen whom you have never seen... You may reveal more

about yourself to them, feel more attraction to them, and express more emotions” (p. 151). As for gender differences in CMC, Wang and Andersen (2007) found that, women engaged in higher amounts of self-disclosure than men both in FtF and CMC contexts. In another study, gender was reported to be a moderating variable in the relationship between online communication and the amount of self-disclosure (Wang et al., 2011). However, Cho (2007) have shown that gender does not seem to create any significant difference in the relationship between online and FtF self-disclosure. Study of Merkle and Richardson (2000), referred to the unique characteristics of CMC by arguing that the anonymity of CMC may unleash the constrictions that come with gender roles, making the gender differences on self-disclosure less evident in online environments. Considering the way people self-disclose in online mediums, especially in recent years, researchers have become interested in understanding the underlying mechanisms of enhanced self-disclosure in online mediums (e.g. Chen, Xie, Ping & Wang, 2017; Durand, 2010; Kuang, 2011; Misoch, 2015).

#### 2.1.4. Correlates of Online Self-Disclosure

Individual differences are among the factors that have been explored in relation to online self-disclosure. For example, a recent study found that self-disclosure behavior increased with such individual differences as extraversion, and attractiveness of the person in the receiving end (Tait & Jeske 2015). Another study suggested that self-disclosure behavior is affected by mood, such that people who are happier disclose more positive self-relevant information whereas people who are less happy tend to disclose more negative information about themselves (Forgas, 2011).

Apart from individual differences, the audience, and individual’s perceptions of the audience in which people communicate in online settings also influence the nature of the communication. Specifically, studies showed that individuals who have long term wish to continue a relationship in FtF settings, in other words who have future anticipation to meet again, not only engage in higher levels of self-disclosure, but they also engage in more honest, intentional and intimate information sharing (Gibbs, Ellison, & Heino 2006; Walther, 1992, 1994). Another finding on the effect

of audience showed that unacquainted individuals asked more direct questions and provided more intimate self-disclosure when getting to know each other in online settings compared to FtF settings (Schouten, Valkenburg & Peter, 2009), providing support for the stranger on the train phenomenon (Rubin, 1975) which refers to people's tendency to disclose intimate personal information to their unknown seatmates.

Another important factor that significantly influences how people involve in self-disclosure in online communication is their motivations (Cho, 2007). In a study, Attril and Jalil (2011) found that people whom have more favorable attitudes toward online relationships engaged in higher amounts of online self-disclosure. The study has also shown that people mostly engage in superficial disclosures online such as their personal matters and interests. This finding is important in the sense that even though there are studies in the literature arguing that CMC increases self-disclosure compared to FtF communication, it is possible that it only increases the quantity of self-disclosure that is restricted by superficial subjects rather than the quality of the disclosure such as intimate personal information.

#### 2.1.5. Inconsistent Findings on Online and FtF Self-Disclosure

Not all studies, provided supporting evidence for a tendency for engaging in more online self-disclosure. There are studies (e.g., Chan & Cheng 2004; Chiou & Wan 2006; Knop et al. 2016; Mallen, Day & Green, 2003; Stritzke et al., 2004) which reported that people are more willing to involve in higher amounts of self-disclosure in FtF communication, as well as studies (Buote, Wood & Pratt, 2009; Parks & Roberts, 1998) which found no significant difference between face to face and online self-disclosure. These contradictory findings may be because of the research design. For example, experimental studies more intensely support the view that people disclose more information online, whereas survey studies that rely on self-report seem to provide support for greater self-disclosure in FtF communication (Nguyen, Bin, & Campbell 2012). Nguyen et al. (2012) also underlined that, to date, not one theory is particularly supported more than the other; thus, further research is needed to enlighten

how self-disclosure differs in terms of different media (e.g. replication of results in different SNSs).

Despite the inconsistency and ongoing debate in the literature on self-disclosure behavior differences in online media, there are considerable number of positive findings regarding the consequences of online self-disclosure. For instance, online communication can help people build relationships by fostering self-disclosure (Bruss & Hill 2010). More intimate self-disclosure on SNS is related to feelings of higher connectedness in relationships (Utz, 2015), higher social capital (Ko & Kuo, 2009), and wellbeing (Huang, 2016; Ko & Kuo, 2009). Engaging in online self-disclosure on SNSs was also found to be beneficial considering that it can provide individuals with social support and positively influence the individual's satisfaction with his/her social life online (Huang, 2016). According to the review conducted by Desjarlais, Gilmour, Sinclair, Howell, and West (2015), studies to date suggest that CMC is beneficial and produce positive effects, especially for those who face challenges in social situations (e.g. people who tend to be shy and lonely) as well as for those who thought that CMC compensates their lack of social or interpersonal skills. Therefore, in order to understand the relationship between CMC and interpersonal skills, research related to interpersonal competence and its relationship with CMC will be summarized in the following section.

## 2.2. Interpersonal competence

Defining and assessing individual differences in interpersonal skills have always been interesting for social scientists (Heary, 2015; Kanai, Bahrami, Roylance & Rees, 2012; Riggio, 1986). Interpersonal competence, one of the main variables in this study, is a complex concept that has been defined and studied in many different ways (Paulk, Pittman, Kerpelman, & Adler-Baeder, 2011). In order to prevent further confusion, below, several definitions of the concept are introduced and then how it relates to CMC is summarized.

The term competence is defined as “fitness or ability to perform” (Spitzberg, Cupach, 1989 p.6). Interpersonal competence, on the other hand, refers to ‘the process

whereby people effectively deal with each other” (p.6). The term interpersonal competence has been used interchangeably, yet not consistently, with some other concepts such as communicative competence, social competence, psychosocial competence, social skills and relational competence (Segrin & Flora, 2000; Spitzberg & Cupach, 1989; Spitzberg, 1983; Wiemann, 1977). The term that is used interchangeably with interpersonal competence in the literature and is more commonly used than interpersonal competence is social skills, which refers to “the particular overt behaviors emitted during interaction with another person” (Spitzberg & Cupach, 1989 p.10). Besides social skills, the term communication competence has also been used in literature to refer to interpersonal competence, and Spitzber (1983) argued that the term communication competence provides an efficient “umbrella term” (p.327) which covers the integrated concepts of motivation, knowledge and skills.

Weimann (1977) proposed a model of communicative competences including 5 dimensions: (1) affiliation/support, (2) social relaxation, (3) empathy, (4) behavioral flexibility, and (5) interaction management skills. In the present study, interpersonal competence was operationalized by the measurement of Buhrmester, Furman, Wittenberg and Reis (1988) which is represented by the total score of 5 sub factors in line with Weimann’s categorization, which are initiating relationships, emotional support, asserting influence, self-disclosure and conflict management. Weimann (1977) suggested that “the competent interactant is other-oriented to the extent that he is open to receive messages from others, does not provoke anxiety in others by exhibiting anxiety himself, is empathic, has a large enough behavioral repertoire to allow him to meet the demands of changing situations and finally, is supportive of the faces and lines his fellow interactants present.” (p.197). Although finding a consistent definition of interpersonal competence or social skills is hard and all these different yet similar concepts may refer to different research perspectives, they all refer to the very core dimensions of social skills, and researchers agree that they all include basic sending and receiving of information as well as control of behaviors and emotions (Riggio, 1986; Michaeli, 2003). Researchers continue to argue that, such skills are learned abilities and strategies that are governed by social and cultural norms that regulate interpersonal communication (Riggio, 1986; p. 650). Although these terms



have been used interchangeably in the literature, when presenting the results of the present study, these set of skills will be referred to as “interpersonal competence” in order to prevent confusion.

### 2.2.1. Correlates of Interpersonal Competence

Knowing the predictors and consequences of interpersonal competence is equally important as clearly defining the term. Research on interpersonal communication skills showed that good communication skills can act as a protective factor against psychosocial problems such that, people with good skills are less likely to experience depression, loneliness and social anxiety when compared to those with poor skills (Segrin & Flora, 2000). It is important to stress that, poor social skills have been suggested to be a vulnerability factor for psycho-social problems rather than an antecedent or a consequence (Segrin, 1993). In terms of factors related to interpersonal competence, since shyness and loneliness was the focus in this study, association between interpersonal competence and shyness and loneliness will be of interest.

With regard to loneliness, huge number of findings have shown that the relationship between self-related and observer related social skills is negative (Jones, 1982; Jones, Hobbs, & Hockenbury, 1982; Prisbell, 1988; Riggio, Throckmorton, & DePaola, 1990; Segrin, 1993, 1996, 2000; Segrin & Flora, 2000; Spitzberg & Canary, 1985; Spitzberg & Hurt, 1987). In other words, individuals who have high scores on loneliness tend to perceive their interpersonal competences as much lower. This lack of belief in own interpersonal competence may lead people to seek for an alternative way of communication than FtF (Caplan, 2003) such as online communication where they feel safer (Caplan, 2005; McKenna, Green & Gleason, 2002).

On the other hand, social skills deficit hypothesis proposes that, lack of social skills to perform accordingly in social situations is the reason for individuals to experience shyness (Curan, 1977). Deficits in social skills, as social-skills deficit vulnerability hypothesis posits (Segrin, 1996, 1993), create a vulnerability factor for social anxiety. Pilkonis (1977) have also compared shy and non-shy individuals and found that, individuals who tend to be shy, were less able to initiate and maintain

conversations and performed worse in unstructured social situations. Yet, whether it is caused by an actual deficit in social skills or a lack of belief in person's own social skills is the more important determinant is of discussion (Stravynski, & Amado, 2001). Segrin (1996) argues that it is not all aspects of social skill deficits that create a vulnerability for social anxiety; rather, it is the observer-rated social skills that mostly take credit for a vulnerability factor. Zimbardo (1977) have also pointed out that, shyness is at peak when individual thinks that he/she is being evaluated by others. In other words, individual's social skills evaluated by other individuals that they interact constitute the biggest portion of vulnerability to anxiety. In CMC, where the social cues are absent or at the minimum (Culnan & Markus, 1987), the effect of observer rated social skills on the person is expected to be minimum due to the absence of social and contextual cues (Caplan, 2005; Valkenburg & Peter, 2007). Michaeli (2013) have stressed the importance of studying the relationship between interpersonal competence and CMC usage frequency and found a negative relationship between the two. Findings of the study by Engelberg and Sjoberg (2004) have also supported that frequent users display lower amounts of interpersonal competence. However, the relationship between interpersonal competence and CMC should not be limited to the frequency of use (Michaeli, 2013). Therefore, the relationship between interpersonal competence and CMC as well as how they influence each other is worth a deeper examining.

### 2.2.2. Interpersonal Competence and CMC

The common use and popularity of computer-mediated communication will continue to grow and broaden the concepts of intimacy and immediacy in interpersonal communication (Thimm, 2008). New wide choice of online communication technologies has gradually changed the nature of interpersonal communication (Blau & Barak 2012; Lin, 2012; Ogan, 2012; Thimm, 2008). CMC use and channel preferences of individuals differ according to their level of social competence (Ruppel & Burke, 2014). However, the relationship between social competence, social anxiety and CMC are not always consistent; therefore, similar results cannot be obtained in

every research (Stinson & Jeske 2016). As such, research findings towards online communication and its effects on individual's interpersonal communication are contradictory and suggests either deficits (Michaeli, 2003) or improvements (Thimm, 2008).

It is suggested that, uncertainty and asynchronous communication, which are very basic natures of CMC, together facilitate more positive interpersonal and relational communication (Walther & Burgoon, 1992). As a study by Caplan (2005) reported that people with poor social skills are more prone to preferring online social interactions. On the other hand, Ledbetter (2009) analyzed the relationship between online self-disclosure and generalized communication competence, and reported a negative correlation. In another study, in which a non-clinical sample was examined, higher CMC use was found to be negatively associated with interpersonal competence (Michaeli, 2003). Since it was a correlational study, the author points out that the relationship could be the other way around, suggesting that people with lower interpersonal competence may also be more inclined to use CMC. People with low social competence engage in more effective interaction by masking potentially undesirable nonverbal cues via lesser rich communication channels such as e-mail and text messaging (Caplan, 2005; Valkenburg & Peter, 2007).

On the other hand, people with high social competence are able to effectively connect regardless of the richness of the communication channels (Poley & Luo, 2012). The rich-get-richer hypothesis (Kraut et al., 2001; Valkenburg & Peter, 2007) supports this finding and suggests that people with higher levels of social competence can effectively communicate through both weak and rich communication channels because they are internally motivated to connect with others (Poley & Luo, 2012). Ledbetter (2009) states that people with higher levels of social competence are more likely to realize the potential limitations of CMC and use it more appropriately. He added that higher social competence was associated with less beneficial perceptions of CMC, and self-disclosure was more likely to increase to prevent miscommunication. In studies examining the relationship between CMC and interpersonal competence, it is suggested that CMC use frequency should be considered cautiously (Michaeli, 2003). Tepte and Reinecke (2012) have also pointed

out that online self-disclosure and amount of SNS use are reciprocal processes. Their results indicated that, frequent users involve in higher amounts of online self-disclosure. Therefore, in this study, social media usage frequency level was used as a control variable in examining the predictor role of certain variables on interpersonal competence. It is important to note that, previous studies have investigated the relationship between interpersonal competence and CMC use in general. However, the relationship between online self-disclosure and interpersonal competence especially for individuals who have high scores on shyness have not been studied.

### 2.2.3. Displacement and Rehearsal Hypotheses

Apart from theories dominating the CMC literature, there are some hypotheses that were frequently used for explaining the relationship between online self-disclosure and real world. The main argument of the displacement hypotheses is that increased amounts of online self-disclosure leads to a decrease in self-disclosure in real world since the time they spent online limits the time they spent in real world (Valkenburg & Peter, 2007). On the other hand, rehearsal hypothesis predicts a more positive relationship between online self-disclosure and real world. It posits that, online media in which people communicate acts as a rehearsal area for them, especially for those who tend to be shy and to improve their ability to self-disclose in real world. (Valkenburg, & Peter, 2007, 2008; Valkenburg, Sumter, & Peter 2011). These two hypotheses are relatively new to the field and has not received sufficient attention to find out which one is supported more than the other. This study aims to extend the rehearsal hypothesis by examining the relationship between online self-disclosure and perceived interpersonal competence.

### 2.3. Theories of CMC

Opportunities that CMC offers are more desirable than those offered by FtF communication (Walther, 1996). Research and theories of CMC have its roots in investigating electronic e-mail systems in organizational settings (Sproull & Kiesler,

1986; Walther, 1996). Several theories (e.g. Media Richness Theory, Daft & Lengel, 1984; Social Information Processing (SIP) Theory, Walther, 1992) have aimed to investigate the different characteristics of online media and to explain behavior of individuals on online contexts. There has been no predominance of one theory over the other and it was even suggested that each of these theories are right in their own way (Nguyen, Bin, & Campbell, 2012). It was recommended that a “unified theory of communication” would be more useful in explaining human communication not constrained by medium based characteristics (p.109). Some of the very basic theories of CMC are summarized below.

### 2.3.1. Media-Richness Theory

Lengel and Daft (1984) introduced the media richness concept in their article from the perspective of information processing. Richness is defined by authors as “the potential information carrying capacity of data” (p.7). They proposed that communication media differs in the richness of the information processed. The degree of richness is directly related to the capacity to transfer more than one way of social cues in communication (Lengel & Daft, 1984; Daft, Lengel, & Trevino, 1987; Gilman & Turner, 2001; Park, Chung, & Lee 2012; Trevino, Lengel, & Daft, 1987). Each medium involves different acts of information processing; therefore, each medium can be considered a different source. Since it provides immediate feedback and includes physical presence, FtF communication is considered to be the richest form of communication (Lengel & Daft, 1984, Daft & Lengel, 1986). FtF conversation allows for participants to observe multiple cues such as social context cues, nonverbal cues, body language, and facial expression. One step lesser rich medium can be considered as the telephone medium. Although the feedback capacity is fast, visual cues are not available in this particular medium. Yet again, the researchers (Daft, Lengel, & Trevino, 1987; Lengel & Daft, 1988) considered media such as video and telephone to be moderately rich due to verbal cues, immediate feedback and synchronous communication. The least rich media is the ones that only rely on written communications. Not only the feedback is slow in written media, audio cues are absent

and visual cues are limited to a certain text (Daft & Lengel, 1986; Lengel & Daft, 1984, 1988; Gilman & Turner, 2001).

Each media in different richness are considered to be suitable for different information processing. The richness of media becomes an important issue especially when there is a communicative ambiguity which leads to confusions in interpreting the message (Dennis & Valacich, 1999). Therefore, it is important for senders of the message to choose a medium appropriate in richness for the communication (Flanagin & Metzger, 2001; Lengel & Daft, 1988; Park et al. 2012). Daft and Lengel (1983) suggest that relatively difficult and challenging situations are better dealt with rich media sources whereas less rich media are more suitable for simpler topics. Due to the multiple cues and immediate feedback of rich media, such as FtF communication, challenging situations are much easily handled with rich media. Richness is also important for the accurate perception of the short and decontextualized messages (Hornung, 2015). On the other hand, for simple topics or routine topics that are already well understood, less rich media such as CMC is suitable. In fact, for those kinds of problems or topics, rich media might as well be inefficient and distractive. To sum up, stable activities, conversations are well suited for less rich media such as CMC whereas in environments that include uncertainty, rich media, FtF, are more suitable. However, this task-media fit hypothesis has been found to receive inconsistent results suggesting that richness alone may not be sufficient to predict the effectiveness of the media (Dennis & Kinney, 1998; Markus, 1994; Mennecke, Valacich, & Wheeler, 2000). Yet, it seems that, people's reported experience and preference of media is not in line with their actual behaviors such that their actual usage patterns seem to be directed towards less rich text-based mediums (Adobe, 2013; Cisco, 2012; Lenhart, Macgill, Madden & Smith, 2007; Maynard & Gilson, 2014; Roose, 2014; Shim, Shropshire, Park, Harris & Campbell, 2007; Wu et al. 2014) which threatens the validity of Media Richness Theory.

### 2.3.2. Social Presence Theory

Social Presence Theory (Short, Williams and Christie 1976, as cited in Lowenthal, 2009 and Walther & Burgoon, 1992) was originally developed in order to explain the effect of electronic media on interpersonal communication. Social presence refers to the state or degree of “being there” between the two parties which use a medium of communication. Short et al. (1976) suggest that the degree of social presence plays a vital role on how people communicate. As they explain from their perspective, social media can have either higher degree of social presence as it happens in the example of video, or lower degree of social presence as in audio. They refer to media with higher degree of social presence as more warm and humane, whereas a lower degree of social presence is considered as more impersonal. Research of Walther and Parks (2002) support this view by pointing out that lack of nonverbal and social cues leads to a more impersonal communication in CMC. Short et al. (1976) consider social presence as differential in CMC, such that computer-mediated media differ in their capacity to transfer interpersonal communication information such as transferring cues and facial expressions. Therefore, CMC is seen as a medium which is low in social presence as compared to FtF; thus, causing the messages to be more impersonal in CMC.

Social presence theory is one of the mostly frequently used theories especially in the field of online and distance education (Garrison & Akyol, 2009; Benbunan-Fitch, Hiltz & Harasim, 2005; Vrasidas & Glass, 2002). However, the literature notes some problems regarding social presence theory. Most importantly, researchers who study social presence seem to keep redefining the concept of social presence rather than settling on a single definition (Biocca, Harms, & Burgoon, 2003; Lowenthal, 2012; Tu & Mc Isaac, 2002). Additionally, most of the research conducted using social presence theory are outdated; however, CMC is a subject that grows and evolves rapidly, and thus new studies are warranted (Gunawardena, 1995; Gunawardena & Zittle, 1997; Rourke, Anderson, Garrison & Archer 2001).

### 2.3.3. Cues Filtered Out Approach

CMC lacks many features that FtF possesses, yet, FtF communication does not include all the qualities that CMC offers (Culnan & Markus, 1987). Lack of nonverbal cues is stated as one of the most important differences between CMC and FtF behavior (Walther & Tidwell, 1995). Culnan and Markus (1987) pointed out what CMC communication lacks, which is mainly the social cues. From that point of view, they introduce the concept of 'cues filtered out approach' (p.423). The cues-filtered out approach brings together several theories of interpersonal communication in CMC and mentioned as an 'umbrella term' (p.462) by Walther, Anderson, and Park (1994).

Communication in electronic media filters out one of the very basic sources of information that regulates the interpersonal interactions. Culnan and Markus (1987) stressed that, absence of social cues (such as eye gaze, voice pitch and loudness) make it hard to correctly regulate the communication (i.e. increased interruptions, difficulty in taking turns, interpreting the other party's reactions). Nonverbal cues that are missing in CMC also have a great role in providing valuable information of the communication partner in terms of whether one comprehends the message, forming impressions etc. (Culnan & Markus, 1987). According to the cues filtered out approach (Culnan & Markus, 1987), social context (ambience) of the communication is also not available in CMC. Lack of nonverbal cues and cues regarding social context eventually results in changes in interaction patterns in CMC. As shown by Sproull and Kiesler (1986), lack of awareness on social context of the communication results in the decreased effect of social context on the communication and accordingly in the increase of uninhibited behavior. According to the meta-analysis conducted on interpersonal effects of CMC by Walther et al. (1994), limited social cues in CMC do in fact hinder the course of communication. However, given appropriate time, participants can adapt to the unique characteristics of CMC and eventually exchange information as they do in FtF communication. In other words, they suggest that interaction patterns should be similar across time (Walther, et al 1994; Walther & Burgoon 1992). Thus, contradicts with the cues filtered out approach by eliminating the effect of the medium itself alone (Walther, 1994; Walther 1992). Walther (1994)



proposes that the medium (CMC or FtF) is only the moderator, and stress that one of the main variables that affect interpersonal interaction is the anticipation of future interaction. He continues that, once the effect of the anticipation of future interaction is removed; the medium has no effect in relational intimacy in CMC. In fact, he adds, CMC is founded to be more interpersonally positive, provided that the members of the communication will anticipate future interaction.

A longitudinal experiment was conducted to detect the time factor in comparing interpersonal interaction effects of CMC and FtF, (Walther, 1992). Results revealed that, given appropriate time, CMC participants showed more positive social and relational behavioral interaction than did FtF participants. This study also contradicts with the cues filtered out approach and suggests that it ceases to apply once extended time is given to the CMC group. Walther (1992) argued that the reason why CMC group acts more sociable than FtF group is the nature of the CMC, which may enable asynchronous interaction, selective self-presentation and uncertainty reduction to lead to such results. The effect of time was also studied in terms of forming impressions on different mediums (Walther, 1993), and it was found that given appropriate time (i.e. five weeks), participants' ability to form impressions of one another has significantly improved despite the fact that they had never met FtF. The linear improvement of forming impressions in CMC group came close to that of FtF group formed earlier on. Time was not a critical variable in terms of forming expression for FtF groups. Nonverbal behaviors that lack in CMC but found in FtF have social meanings that lead to evaluation and regulation of the communication (Burgoon & Walther, 1990). Additionally, FtF communication involves qualities as "heightened levels of psychic, sensory, and emotional involvement and arousal, increased cognitive load, competing conversational and relational demands, differential salience of context cues, and greater investment in outcomes" (p.258).

Walther and Tidwell, (1995) also point out that CMC is not completely void of social cues (e.g. use of chronemics) required to make appropriate social and communicational regulations during interpersonal interaction and support that regardless of the medium, interaction may occur between two parties. These later findings contradict with the main argument of the cues filtered out approach in which

the effect of the medium is significantly defended. CMC can be as personal as FtF in interpersonal communication and can even surpass the FtF in some aspects (Walther, 1996). He proposes that, combinations of many approaches and processes such as what one attributes to media, social phenomena and underlying social-psychological processes may play a significant role in turning CMC into 'hyperpersonal' that surpasses FtF communication.

#### 2.3.4. Hyperpersonal Communication Theory

There are situations in which CMC has surpassed the level of interaction that of FtF which results from the more socially desirable medium offered by CMC, a phenomenon labeled as 'hyperpersonal communication' (Walther, 1996). The original work of Walther (1996) starts with discussing and comparing group works in CMC with FtF. He reveals that when people work through CMC in professional contexts, they seem to be more task-oriented and less social in their conversations. He also found that in CMC, people were more hostile and uninhibited compared to FtF interaction (for a review, see Garton & Wellman, 1995; Walther, 1994). As he widens his research, he stresses the point of the impersonality of CMC. He argues that, the inherent impersonality of CMC comes from the lack of nonverbal cues and reduced interactivity (Walther, 1996). Research shows that in CMC, social cues decline, people become more inhibited in their messages and feel more comfortable telling bad news (Sproull & Kiesler, 1986), they feel greater anonymity and are less likely to detect individuality in others and less likely to receive feedback (Kiesler, Siegel & McGuire, 1984), and social cues such as nonverbal behaviors are absent (Kiesler et al. 1984). Kiesler et al. (1984) also argues that hierarchical social status become less clear in CMC and people may feel more equal in those mediums. This argument was supported by the research findings of Sproull and Kiesler (1986) who found that people are more likely to prefer communicating through e-mails with their superordinates rather than their subordinates since the pressure of higher status is relatively relieved in CMC. Recent findings have also support the view that, disinhibited behaviors are observed in people who communicate online due to the characteristics of CMC (Lapidot-Lefter

& Barak, 2012; Morahan-Martin & Schumacher, 2000; Suler, 2004), and it was also found that, anonymity in social networking sites was significantly associated with adult cyberbullying behaviors (Lowry, Zhang, Wang, & Siponen, 2016). Walther (1996) examined this CMC and hyperpersonal communication approach based on the very basics of communication process, which are receivers, senders, channel and feedback. Each concept is described and discussed briefly below

Receiver: “CMC receivers take in stylized messages, construct idealized images of their partners and relationships, and, through reciprocation, confirm them” (Walther, 1996, p. 28-29). In order to explain the receiver aspect of the hyperpersonal communication, Walther refers to Spears and Lea (1994)’s model of deindividuation. They suggest that in a computerized interaction, social cues dramatically reduce and the two parties are ‘deindividuated’. Therefore, receivers may rely on stereotypical interpretations of their partners, or over interpret any cues that indicate a sign of the partner’s personality such as misspellings or punctuation types. Deindividuation theory will be explained in more detail, further in the chapter.

Sender: People tend to present themselves accordingly so that they could form a socially favorable impression of themselves (Goffman, 1959; Leary & Kowalski, 1990; Schlenker, 1975). Each element of CMC such as reduced social cues, and asynchronous communication significantly contributes to the process of selective self-presentation. In other words, the information people provide to the other party is highly subject to censorship of the sender in CMC compared to FtF. The sender also need not to respond constantly to the other via smiling, nodding or looking interested etc. (Walther, 1996). Walther (1996) explains the sender part of the communication as follows: “at the level of the sender, CMC partners may select and express communication behaviors that are more stereotypically desirable in achieving their social goals and transmit messages free of the ‘noise’ that otherwise comes with unintended appearance or behavior features (p.28-29).

Channel: One of the aspects of CMC that differs from FtF is that, participants of the conversation do not have to immediately apply to a message or a question. The communication does not take place in real time as it does in FtF communication. As

discussed in Walther (1996) taking into account this asynchronous feature of the CMC, people may take their part of the communication whenever they feel comfortable and relaxed, thus removing the time bound between the interactions of two people. He adds that “these processes may be further enhanced when the minimal-cue interaction is also asynchronous; freed from communicating in real time, users are released from the pressure to meet and the stress of including both task and social issues in limited time intervals typically allowed by FtF interaction” (p.28 - 29).

Feedback: The concept of feedback is also known as behavioral confirmation, and in CMC as well, communication improves through the sender, receiver and channel processes, and intensifies through the effect of feedback (Walther, 1996). Feedback individualizes the communication (Kraut, Lewis, & Swezey, 1982). People can adjust what they will say and how they will say it to the current audience, according to the feedback (questions, affirmations, smiling, head nods etc.) they receive. It could help the conversation flow between two people whereas it could also have negative influences such that bored looks can cause a sensitive person to stop speaking or changing the subject relying on the feedback he receives that the other person might be bored. As a summary, feedback helps to regulate the conversation between two parties.

Walther (1996) discusses whether CMC interaction is more impersonal or hyperpersonal. He states that, in laboratory experiments where participants have very limited time, and that participants do not anticipate a future interaction, it is expected that CMC participants seem more goal-oriented and impersonal. He adds that CMC is impersonal under conditions in which participants seek such an interaction with the help of features such as anonymity. He concludes that, it is not the medium that makes one impersonal; therefore, it would not be so accurate to say that CMC makes communication impersonal or hyperpersonal. CMC provides the necessary opportunities for people to communicate, as they desire.

### 2.3.5. Social Identity Model of Deindividuation (SIDE)

Festinger, Pepitone and Newcomb (1952) defined deindividuation, as “a state of affairs in a group where members do not pay attention to other individuals qua individuals, and, correspondingly, the members do not feel they are being singled out by others” (p.389). They continue by stating that this phenomenon (deindividuation) results in uninhibited behavior that is normally limited by inner restrains. Zimbardo (1969) listed underlying mechanisms that the state of deindividuation occurs as anonymity, unstructured or novel situations resulting in decreased self-evaluation and decreased concern for conforming to social norms. In other words, in deindividuated states, people lessen the control mechanisms that normally operate based on feelings like guilt, shame or fear, which in turn result in performing uninhibited behaviors (as cited in Reicher, Spears & Postmes, 1995).

SIDE theory argues that, individuals experience a change in their perception when they communicate in online environments (Postmes, Spears & Lea, 1998). Moreover, Postmes et al. (1998) underlined that, CMC alone does not lead to changes in the way how people behave, rather, the features of the CMC make alterations in the context of communication, which leads to certain factors more or less salient than before. The theory focuses on the effects produced by the social context. For example, certain aspects of computer-mediated communication like anonymity may prompt the deindividuation behavior such as lowered self-regulation and enhanced uninhibited behavior (Kiesler, Siegel & McGuire, 1984; Siegel, Dubrovsky, Kiesler & McGuire, 1986). Reicher, Spears and Postmes (1995) argue that, although antecedents and consequences of the deindividuation phenomena may differ when it is studied by different researchers/authors, the main core is that it involves acting without self-regulation. Reicher, Spears and Postmes (1995) sought to replace the traditional approaches of deindividuation with a social identity of deindividuation (SIDE) model. This model argues that, deindividuation factors such as lack of personalizing social cues enhance individuals’ social identity. When individual’s social identity is enhanced, they become unidentifiable to the outer group. Therefore, their ability to over-ride the particular norms that belongs to the out-group will be enhanced. Spears

(1994) also reported that social isolation might also enhance the social identity (as cited in Reicher, Spears & Postmes 1995).

In an Internet newsgroup or a crowded and estranged chat room, people tend to think that, their posts gets lost or stands out less than normal which makes Internet directly related to deindividuation (Zimbardo, 1970 as cited in McKenna & Bargh, 2000). Although many research focus on group behavior and especially the negative aspects of deindividuation, deindividuation phenomenon is not necessarily linked to the group behavior nor does it have to always have negative consequences (Reicher, Spears & Postmes, 1995). A study conducted by Gergen, Gergen and Barton, (1973) have been a classic example of positive effects of deindividuation. In their study, a group of people sit and have conversation in a dark room when no one can see one another whereas other group sit and have conversation in a lighted room. At the end, it was reported by the researchers that, those who sat in the dark room engaged in more intimate self-disclosure and the left the room with more positive feelings regarding other people when compared to those who interact with each other with lights on. Researchers (Reicher, Spears & Postmes, 1995) have mentioned that, communicating in a computer mediated environment has similar qualities that of communicating in a dark room, without seeing anyone or without being seen. Anonymity and deindividuation that comes with online communication may allow for a deeper communication and self-disclosure than meeting in a FtF traditional setting. It seems that people feel more comfortable and protected in anonymous conditions that leads them to express the way they think and feel (Spears & Lea, 1994).

Therefore, it is expected that online relationships develop more quickly and intimately than real world relationships (Joinson 2001; McKenna & Bargh, 2000; McKenna, Green & Gleason, 2002).

#### 2.3.6. Social Information Processing Theory (SIP)

Social information processing perspective of CMC (Walther, 1992) investigates how interpersonal interaction is shaped from the very first impersonal layer to the further more developed forms in CMC. The term social information

processing is described as “the individual cognitive processing of socially revelatory information (and subsequent communication based on that information), rather than the social processing of information” (p.68). He examines the process mainly under four assumptions regarding human communication: relational/affiliative motivators, impression formation/decoding, psychological-level knowledge and relational changes. Each concept is explained briefly below.

SIP theory argues that when people communicate through CMC, just as they would in any other form of communication, they maintain the motives of affiliation and social reward (Walther, 1992). Although in cues filtered out approach it is suggested that in CMC, it is rather difficult to form impressions of each other due to lack of social cues (Culnan & Markus, 1987), it is argued by the perspective of SIP that, two parties can in fact attribute impressions to one another based on verbal cues (Walther, 1992). In other words, they decode each other’s verbal cues in order to form impressions. Considering the fact that building impression of other individual occurs much slower in CMC due to partly lack of nonverbal cues, psychological level knowledge of each other takes time to form in CMC when compared to FtF. Therefore, psychological-level knowledge may not occur in earlier stages of communication as it happens in FtF. As interpersonal knowledge starts and maintains to occur, communication becomes more personal than impersonal (Walther, 1992).

In sum, SIP reviews the communication process in CMC and examines it from the very beginning of the impersonal level to further developed levels. The theory suggests that, communicators in CMC actually act no different from other communicators in different mediums in terms of relational-affiliative motivations. The affiliation and developing positive social relationships are the basic motives of communication in computer-mediated environments as well. Thus, in order to fulfill their affiliation needs, they need to form impressions of one another, which develop relatively slowly in CMC due to lack of non-verbal cues and slower information exchange. Yet, they manage to achieve impression forming by benefiting from verbal cue decoding. Although again relatively slower, interpersonal knowledge continues to develop as communication moves further, and impressions of each other are being developed by the help of personal information exchange, which carries the

communication to a much more personal level. As argued in SIP, social information processing takes place differently in CMC and FtF communication. In CMC, initial and further forms of communication evolve in time and correspond to the level of FtF as personal and social level exchange becomes more frequent. Overall, SIP argues that the effects of CMC on interpersonal communication are decreased over time which means that, given appropriate time, information exchange and communication may correspond to that of FtF. Yet, this does not mean that CMC is an alternative form of communication to FtF since it takes much longer to develop a relationship to a further level.

So far, theories have been summarized that explained how CMC facilitates interpersonal interaction and has the ability to change the way people act differently than FtF communication with the help of its unique characteristics. As years of research has shown, some individual differences are of particular interest in CMC studies. In the next section, two of the individual differences, namely shyness and loneliness, have been explained along with their relationship with CMC.

#### 2.4. Shyness

Some researchers suggested that people who tend to be shy can especially benefit from the facilitations CMC brings to the interpersonal communication (e.g. Baker, & Oswald, 2010; Desjarlais, et al., 2015). Before discussing the relationship between shyness and CMC, it is important to review the conceptualization of shyness.

Several definitions of shyness exist in the literature. A simple definition of shyness has been made by Jones, Briggs and Smith (1986) as “discomfort and inhibition in the presence of others” (p.629). Shyness has been considered as a form of social anxiety (Pilkonis, 1977), which occurs when people want to make certain impression on others, but think that they lack the ability to do so (Schlenker & Leary, 1982). Shyness is characterized by feelings of anxiousness in social situations, avoiding social interactions, and failing to conduct appropriate social relationships (Pilkonis, 1977), and people who tend to be shy generally experience difficulty to communicate in social situations because of the lack of belief in their own skills to



behave accordingly in social situations (Baker & Edelmann, 2002). Additionally, individuals who score high in shyness, that is who are both anxious and inhibited in social interactions, display low social skills, avoid eye contact, talk much less than others and seem less comfortable and friendly by others in social situations (Pilkonis, 1977). In fact, there may be times in which individuals prefer to not to communicate so that not to feel uncomfortable or experience the fear of being disapproved or rejected by others (Saunders & Chester, 2008). In the current study, shyness has been conceptualized as a personality trait and measured accordingly using a trait measure of shyness (Cheek & Buss, 1981), one of the most reliable measures in shyness researches (Leary, 1991). According to researchers that regarded shyness as a personality trait, shyness indicates a tendency to respond with increased anxiety and feelings of awkwardness in social interactions (Briggs, 1988; Buss, 1980; Cheek & Briggs, 1990; Crozier, 1979).

Miller (1995) underlines that lack of social skills and self-esteem are the strongest predictors of shyness. Considering the fact that shy individuals generally suffer from poor friendship quality and difficulties in social relationships, it is important to know the factors and identify the contexts that may facilitate their social relationships (Baker & Oswald, 2010). Indeed, research shows that CMC includes some of these facilitating factors (Ebeling-Witte, Frank, & Lester, 2007; Hammick & Lee 2013; McKenna, Green & Gleason, 2002; Orr, Sisic, Ross, Simmering, Arseneault, & Orr, 2009; Scealy, Philips, & Stevenson, 2002).

#### 2.4.1. Shyness and CMC

Individuals who have scored high on shyness have been found to feel less inhibited in social interactions in CMC compared to FTF (Stritzke, Nguyen, & Durkin, 2004). A study showed that in CMC where negative social cues are reduced, individuals who display higher levels of shyness are more comfortable in communication compared to FtF communication (Hammick & Lee 2013). In another study (Pierce, 2009), people who scored high in shyness reported that they felt more comfortable when they were text messaging or communicating through SNSs rather

than communicating FtF. Similarly, Scealy, Philips, and Stevenson (2002) in their study showed that shy people think it is much easier to communicate online rather than offline.

Some studies have found that particular online contexts influence the behavior of shy individuals differently. For example, presence of webcam (i.e., presence of social cues) significantly decreases online self-disclosure of shy individuals whereas absence of webcam significantly increases the self-disclosure (Brunet & Schmit 2007; 2008). These findings are not surprising considering that presence of others is a major source of their anxiety in traditional (offline) environments (Zajonc, 1965), and that CMC provides a comforting communication environment for shy individuals by reducing the factors that trigger anxiety.

Several studies have examined the relationship between shyness and SNSs (i.e. Facebook). In in one study it was shown that individuals who display higher levels of shyness had fewer friends, spent more time on Facebook, and had more favorable attitudes towards Facebook than non-shy individuals (Orr, Sisic, Ross, Simmering, Arseneault, & Orr, 2009). Shyness scores were also found to be associated with staying online longer and also thinking about staying online more often than others (Orr et al. 2009). Baker and Oswald (2010) studied how Facebook affects university students' perception of friendship quality and found that Facebook use was positively associated with increased perceived friendship quality and closeness for Facebook friends for shy individuals. Also, Facebook use was found to be related to increased perception of social support for shy students but not for non-shy students. In fact, non-shy students already reported high levels of friendship quality and social support regardless of Facebook use. Buonomo, Ciriani, Piperno, Saddi, Fiorilli, and Tian (2013), in their study, showed that people with high levels of shyness have fewer relationships than those with lower levels of shyness both online and offline, however they report to have more quality in their interactions on online environments rather than offline. Therefore, SNSs can be a medium for shy people to communicate with others in a more comfortable and less anxiety-provoking way (Ebeling-Witte, Frank, & Lester, 2007).

Some studies (e.g. Bian & Leung, 2014; Caplan, 2002; Chak & Leung, 2004) that aimed to illustrate the relationship between shyness and CMC reported some negative consequences as well. For example, it was found that facilitation of relationship forming and enhanced disinhibited behavior in online environment may lead to an increase in problematic internet use (Ebeling-Witte, Frank, & Lester, 2007). In addition to problematic internet use, it may lead to social isolation such that usage of the Internet even as little as 2 hours per week results in a decrease in actual social network of participants (Kraut et al., 1998). However, the negative or positive consequences are not clear-cut. Despite the findings that suggest negative consequences, other findings suggest that more than half of the people who form relationships online later take a step to meet in person, and the majority of the relationships formed online can turn into intimate or romantic relationships later on (McKenna & Bargh, 2000). McKenna, Green and Gleason (2002) suggest that being able to express the real self, more freely in an online environment increases the likelihood of developing close relationships within those who communicate online rather than offline, which is impacted by greater self-disclosure. McKenna and Bargh (2000) continue to argue that, online relationships can move on to real life, which signals a promising solution for those who have a hard time forming relationships in real life. Yet, research findings also suggest that, for individuals who experience shyness, Facebook use is associated with an increased closeness with Facebook friends but not for non-Facebook friends (Baker & Oswald 2010). This result indicates that even though people use these online mediums to compensate for their low levels of social competence, they may not be able to transfer these achievements to real world (Teppers, Luyckx, Klimstra, & Goossens, 2014). In order to contribute to this ongoing debate, the present research study aims to answer the question of whether online self-disclosure behavior of individuals who tend to be shy positively predicts perceived interpersonal competence in real life interactions. It is predicted that participants who tend to be shy will be more likely to engage in higher self-disclosure in online media compared to FtF; and, higher scores in online self-disclosure will positively predict perceived interpersonal competence.

## 2.5. Loneliness

Another individual difference that is found to be significantly associated with CMC and facilitated online interactions is loneliness (Morahan-Martin & Schumacher, 2003; Teppers et al., 2014; Ye & Lin, 2015). Below, the definition, causes and consequences of loneliness as well as basic characteristics of people who score higher on loneliness will be discussed before examining its relationship to CMC.

Loneliness has been referred to as a unique and multifaceted phenomenon that stands for the condition that individuals' social relations are not satisfactory or their social network is not wide enough (McWhirter, 1990; Nilsson, Naden, & Lindstrom, 2008; Jones, 1981; Weiss, 1975), and it is associated with a decreased interpersonal intimacy (Chelune, Sultan, & Williams, 1980). It would be a mistake to define loneliness as a mere need for a company. In fact, it is far from a desire for any company, but rather a desire to form specific forms of social relationships (Weiss, 1975). Besides, it should not be confused with aloneness such that people with a huge social network may experience loneliness whereas people with a smaller network may not (Asher & Paquette, 2003). As stressed by Weiss (1975) "Loneliness is not caused by being alone but by being without some definite needed relationship or set of relationships" (p.17). However, in order to try and understand all aspects of loneliness, it should be known that loneliness has no clear-cut existence or absence. Rather, it constantly ranges between either barely identifiable to the person or unbearable (Weiss, 1975).

In order to understand the concept of loneliness more clearly, how it initiates, its consequences and other factors that are associated with loneliness should be examined. In general, loneliness is initiated by "the absence of a close emotional attachment and the absence of socially integrative relationships" (Weiss, 1975, pp. 33). Therefore, it can be argued that loneliness is a form of "relational deficit" (p.18). Most dominant symptoms of loneliness are boredom, feelings of aimlessness, marginality, and loss of meaning followed by anxiety and emptiness (Bullock, 2001; Rotenberg, Bartley, & Toivonen, 1997; Weiss, 1975). Besides its definition and its premise, how loneliness can be eliminated is equally important. Research suggests

that, if loneliness starts and is maintained by the absence of a quality social network, it could be eliminated merely with the help of such a social network (Weiss, 1975).

Studies reported a positive association between loneliness and certain psychological characteristics such as shyness, extraversion vs. introversion (Ciftci - Uruk & Demir, 2003), and negative self-perception (Goswick & Jones, 1981). In a recent study (Lim, Rodebaugh, Zyphur, & Gleeson, 2016), loneliness was found to be associated with different negative psychological consequences such as poorer mental health and depression. Lim et al. (2016) also showed that social anxiety positively and directly predicts loneliness and vice versa. In other words, literature seems to point out that personal characteristics such as loneliness and shyness are significantly interrelated such that they can be both causes and consequences of each other. Therefore, it is important to take the effect of loneliness or shyness into account in studies where these variables are being studied.

#### 2.5.1. Loneliness and CMC

Research suggests that students who felt relatively lonelier tended to prefer online social interactions (Morahan-Martin & Schumacher, 2003; Ye & Lin, 2015). Individuals who display higher levels of loneliness differ in terms of how they use the SNS for social purposes. For example, research reported that lonely people are more likely to use the SNS in order to find emotional support and to interact with others (Morahan-Martin & Schumacher, 2003) and to increase their interpersonal contact in a way that makes them feel more comfortable (Teppers et al., 2014). Another study supports that people who perceive themselves to be lonely in their relationships, tend to use social media (i.e. Facebook) to compensate for their weak social skills and to increase their interpersonal contact (Teppers, et al. 2014). In fact, what motivations people carry in SNS use plays a huge role in its effect on people. For example, if Facebook is used to make new friends and meet new people, loneliness may decrease over time (Teppers, et al. 2014). Therefore, the negative or positive relationship between Facebook and loneliness is influenced by the purpose of using social media. Although past research has proposed that increased loneliness can motivate people to

engage in higher amounts of self-disclosure (Komarovsky, 1974), negative feelings such as hopelessness, can also play inhibitory role in terms of self-disclosure behavior (Sullivan, 1953). Another study has underlined the importance of other variables (e.g. social media usage frequency), in the relationship between loneliness and online self-disclosure (Leung, 2002). Findings showed that, as the frequency online communication is increased, the likelihood of engaging in self-disclosure is also increased for participants who scored higher on loneliness.

Loneliness not only affects the amount of self-disclosure but also what people disclose about themselves in social media (Al-Saggaf & Nielsen 2014). While more lonely people disclose personal information about themselves (such as demographic information), less lonely people may be more likely to disclose their personal views and values. Another study suggests that lonely people disclose more negative and less honest information online (Leung, 2002). On the other hand, Morahan-Martin and Schumacher (2003) showed that lonely people share more information and are more sincere and friendlier in online interactions. They also found support for the idea that online interaction enhances relatively lonely individual's social life. In terms of negative consequences, higher scores in loneliness were reported to be associated with problems in real life relationships and functioning (Morahan-Martin & Schumacher, 2003), and that loneliness is a statistically significant positive predictor of social media use and addiction (Blachnio, Przepiorka, Boruch, & Balakier 2016). SNS use is also known to be negatively correlated with the time they spend outside with real people (Nie, Erbring, 2002). Yet, there are contradictory findings in literature which suggested that Facebook users score lower in loneliness when compared to non-users (Teppers, et al. 2014). For example, Leung (2002) reported no significant correlation between social media use and loneliness. These contradictory results led researchers to look for a consistent explanation by conducting more research with controlling possible confounding variables. For example, a study found that, after taking into account the effect of social anxiety, loneliness becomes a significant predictor of preference for online social interaction (Caplan, 2007). An important finding on the effect of loneliness comes with the research results of Huang, Ang, Chong, and Chye (2014) who found that, when loneliness was taken into account, the relationship

between shyness and problematic internet use was disappeared which shows that loneliness is a significant mediator between shyness and Internet use.

In the present study, considering the finding of Huang et al. (2014), the effect of loneliness was taken into account in exploring whether online self-disclosure positively predicts perceived interpersonal competence of individuals who tend to be shy. It was predicted that online self-disclosure scores of participants who have scored higher on shyness, will positively predict perceived interpersonal competence when loneliness were taken into account.

## 2.6. CMC Studies In Turkey

The present study contributes to the existing literature on CMC studies conducted with Turkish samples given that majority of the existing studies have focused on internet addiction (Durak-Batıgün & Hasta, 2010), cyberbullying (Arslan, Savaser, Hallett & Balci 2012; Erdur-Baker 2010), or online education (Yükseltürk 2010; Özgür, Demiralay, & Demiralay, 2014). Studies conducted on the relationship between loneliness and CMC in Turkey consistently found that loneliness was a significant predictor of greater Internet and SNS use (Doğan & Çolak 2016; Ceyhan & Ceyhan 2008), problematic Internet use (Oktan, 2015), and internet addiction (Durak-Batıgün & Hasta, 2010). Similar findings suggest that, higher level of loneliness was associated with lower levels of communication with friends; however, loneliness was not significantly associated with friendship or other activities on Facebook (Aydın, Muyan, & Demir, 2013). Other studies which have investigated the relationship between shyness and CMC use have reported a positive association between shyness and Facebook use, which suggests an increased Facebook activity along with increased shyness level (Aydın et al., 2013). Ceyhan (2011) focused on communication skills and Internet use and found that communication skills does not significantly affect people's Internet use, and that does not act as an obstacle (Ceyhan, 2011). Only one study addressed the relationship between self-disclosure and SNSs (Varnalı & Toker, 2015). In that study it was found that, self-disclosure behavior and

related personality characteristics (e.g. self-esteem, self-consciousness) have significant effects on the decision whether one posts on a SNSs or not.

Considering the inconsistent findings and ongoing debates in literature as well as the lack of studies that focus on CMC and interpersonal competence, this study aims to provide a contribution to literature in a couple of ways. Specifically, apart from investigating the relationship between online self-disclosure and interpersonal competence of individuals who tend to score high on shyness, the study also aims to fill the gap in the literature by controlling loneliness and social media usage frequency.

## 2.7. Summary to the Literature Review

In sum, it seems that the idea that people can form social interactions in online environments as well, is being supported by recent applications of social penetration theory (Altman and Taylor, 1973). Besides, based on the SIP theory (Walther, 1992), it is assumed that, given appropriate time, disadvantages that are caused by lack of social cues (Culnan & Markus, 1987), social presence (Short et al. 1976) and richness (Lengel & Daft, 1984) can be compensated and communication can further develop to a level which corresponds to that of FtF. Although it is possible that some aspects of CMC (e.g. anonymity) alters the perception of individuals which lead them to behave in a less inhibited manner (Postmes, et al. 1998), therefore they may involve in higher amounts of self-disclosure (Reicher, Spears & Postmes, 1995) and even helpful to develop intimate relationships (Joinson 2001; McKenna & Bargh, 2000; McKenna, Green & Gleason, 2002). However, Walther (1996) also suggests that, media alone does not have the power to create an impersonal or hyper-personal interaction between individuals; rather, it serves as a medium where people communicate as they desire. The current study is based on the premises of SIP, SIDE and Social Penetration Theory, as well as rehearsal hypotheses, and makes its hypotheses in line with these theories.



## CHAPTER III

### METHOD

In this chapter, methodology of the study was presented including detailed description of sampling, instrumentation and procedure. Additionally, data analyses plan and limitations regarding the design of the study was discussed.

#### 3.1. Participants

A total of 585 participants (373 women, 208 men, 4 missing) participated in the study. Participants' age ranged between 18 and 30 ( $M = 21.41$ ,  $SD = 2.15$ ). Sample entirely consisted of university students ( $n = 585$ ).

In terms of usage of social media, some of the highest percentages indicated that 40% of the sample was found to be a frequent user of social media whereas approximately 20% of the sample was reported to use social media very frequently and 27% reported their frequency of use as moderate.

##### 3.1.1. Sampling

Convenience sampling was used to gather data due to greater accessibility. Data was gathered via both online and paper pencil questionnaires. One-hundred and two participants completed an online survey and 443 completed the paper pencil survey.

##### 3.1.1.1. Sampling for Online Data

Online questionnaire battery was generated via Qualtrics software (Qualtrics, Provo, UT). A link that directed participants to the online questionnaire was shared

with several e-mail groups and Facebook pages that again mostly consisted of university students. However, no restrictions were announced that defined the eligibility to fill out the questionnaires. An informed consent form appeared when participants first clicked the link in which the content and the purpose of the study were explained. Participants were asked whether they would voluntarily participate in the study. To those who were affirmative, rest of the questionnaire was presented in the same order as the paper-pencil questionnaires. To those who did not volunteer, a thank you note appeared and the rest of the survey was not presented.

#### 3.1.1.2. Sampling for Paper-pencil Data

For paper pencil questionnaires, an e-mail that explained the content and the purpose of the study was sent to the instructors from various departments at Middle East Technical University (METU) and instructors were asked for their permission to collect data during their classes. A schedule was formed with those who gave their permission. Classrooms were visited at the time, predetermined with the instructor of the course, and announcement of the study was made by the researcher in each class. Questionnaire battery was distributed to the students who voluntarily asked to participate in the study.

### 3.2. Instrumentation

#### 3.2.1. Demographic Information Sheet

Information related to the age, gender and the occupation of the participant was gathered (i.e. student, private sector, public, employee and unemployed) (Appendix A).

### 3.2.2. Social Media Usage

Social media usage frequency was gathered along with demographic information. It was a rating scale and had a question asking the participants' frequency of social media use. The question was "How do you evaluate your frequency of social media use?" Answers ranged between '1 = very low' to '5 = very high' (Appendix A).

### 3.2.3. UCLA Loneliness Scale

UCLA Loneliness Scale (Russel, Peplau, & Ferguson 1978) is a self-report questionnaire which consists of 20 items aiming to measure the perceived loneliness level. Ten of the 20 items are stated positively and 10 stated negatively. Positive items (items numbered 1, 4, 6, 9, 10, 15, 16, 19, 20) were reverse coded. Items are rated on a 4-point Likert scale (1= I *often* feel this way, and 4 = I *never* feel this way). Sample items are: "I have nobody to talk to", and "I lack companionship". A total score of perceived loneliness is calculated by summing up all the items. Higher scores indicate higher levels of perceived loneliness. The original scale was found to be valid and reliable with  $\alpha = .96$  and  $r = .73$  over test-re test correlation (Russel, Peplau, & Ferguson 1978). Adaptation of the scale into Turkish was conducted by Demir (1989) and the scale was found to be sufficiently reliable and valid. Internal consistency of the translated version was reported to be  $\alpha = .96$  and test re-test reliability was reported as  $r = .94$  (Demir, 1989). The Cronbach's alpha of the UCLA Loneliness scale was found to be .94 for the current study (Appendix F).

### 3.2.4. Revised Cheek and Buss Shyness Scale (RCBS)

Revised Cheek and Buss (1981) Shyness Scale (RCBS) is a standardized scale that measures dispositional shyness. It consists of 13 items measured on a 5-point Likert scale ("1 = strongly disagree" to "5 = strongly agree"). The minimum score that can be obtained from the scale is 13, whereas the maximum score is 65, with higher scores indicating higher degrees of shyness. Sample items are: "I feel tense when I'm

with people I don't know well.” and “I am often uncomfortable at parties and other social functions” The scale was adapted to Turkish by Koydemir and Demir (2005). The original scale was reported to have an alpha coefficient of .90, and 45-day retest reliability of .88. (Cheek & Briggs, 1990). Turkish version of the Revised-Cheek and Buss Shyness Scale was found to be internally consistent  $r = .91$  (Koydemir & Demir, 2005). Cronbach's alpha of the Revised Cheek and Buss Shyness Scale was found to be .92 for the current study (Appendix D).

### 3.2.5. Interpersonal Competence Scale

Interpersonal Competence Scale (Buhrmester, Furman, Wittenber, & Reis, 1988) was developed to measure perceived interpersonal competence level. It is measured on a 5 point-Likert scale (1 = “I am not good at this” 5 = “I am very good at this”). The scale has 25 items and 5 differentiating sub factors, namely initiating relationships (items 1, 6, 11, 16, and 21), emotional support (items 2, 7, 12, 17 and 22), asserting influence (items 3, 8, 13, 18 and 23), self-disclosure (items 4, 9, 14, 19 and 24) and conflict management (items 5, 10, 15, 20 and 15). A total score is obtained by summing up all the scores. The minimum and maximum score one can get is 25 and 125, respectively. Higher scores indicate higher degrees of perceived interpersonal competence. Cronbach alpha coefficient for five sub factor were found to range between .77 and .86, while test re-test reliability was reported to range between between .69 and .89 (Buhrmester, Furman, Wittenber, & Reis, 1988). Coefficient for the total scale was found to be .83 and .85 in test re-test reliability. Turkish adaptation study was conducted by Şahin and Gizir (2014). Turkish version consists of 25 items. Reliability coefficients for the sub-factors ranged between .74 to .83, and for test-retest reliability they ranged between .72 to .89 (Şahin and Gizir, 2014). As a result of the reliability and validity measurements, Turkish version was found to be valid and reliable material to measure interpersonal competence. Cronbach alpha of the Interpersonal Competence Questionnaire was found to be .86 for initiating

relationships sub factor, .86 for emotional support, .82 for asserting influence, .82 for self-disclosure, .87 for conflict management and .89 for total score in the current study (Appendix C).

### 3.2.6. Wheelless and Grotz' Revised Self-Disclosure Scale (RSDS)

Wheelless and Grotz' Revised Self-Disclosure Scale (RSDS; Wheelless & Grotz 1976) was developed in order to measure self-reported self-disclosure. The items are rated on a 7-point Likert (1=d "strongly disagree" to 7: "strongly agree"). RSDS consists of 18 items and 6 sub-scales. Sub-scales and their sample items are; (1) intended disclosure "When I wish, my self-disclosures are always accurate reflections of who I really am"; (2) amount "I do not often talk about myself"; (2) positive-negative "I usually disclose positive things about myself"; (4) honesty-accuracy "I cannot reveal myself when I want to because I do not know myself thoroughly enough"; (5) control of general depth "I typically reveal information about myself without intending to"; and (6) relevance to message nature "My messages reveal mostly what I like". Summation of all scores provides a total score of self-reported self-disclosure level. Higher scores indicate higher self-reported self-disclosure. Sub-measures of the scales and their reliability coefficients were: consciously intended disclosure (.64), amount of disclosure (.74), positiveness - negativeness of disclosure (.62), honesty-accuracy (.64), control of general depth of disclosure (.72) and relevance of the disclosure to the topic of discussion (.25) (Wheelless & Grotz 1976). Turkish translation was carried out by Erdost (2004) and reliability measures were reported to be as follows: intended disclosure (.75), amount of disclosure (.66), positiveness-negativeness of disclosure (.26), honesty-accuracy (.65), control of general depth of disclosure (.34) and relevance of the disclosure to the topic of discussion (.26) and .55 in total. Reliability measures of the sub factors in the current study was found to be as follows: intended online self-disclosure (.70), intended FtF self-disclosure (.71), amount of online self-disclosure (.76), amount of FtF self-disclosure (.81), positiveness-negativeness of online self-disclosure (.31), positiveness negativeness of FtF self-disclosure (.34), honesty-accuracy of online self-

disclosure (.65), honesty-accuracy of FtF self-disclosure (.69), control of depth of self-disclosure (.34), control of depth of FtF self-disclosure (.28), relevance to message nature in online self-disclosure (.32) relevance to the message nature in FtF self-disclosure (.37). Cronbach alpha for total online self-disclosure was found to be .70 and .75 for total FtF self-disclosure (Appendix E).

### 3.3. Procedure

Before starting to gather any data, approval of the Applied Ethics Research Center in METU was obtained (Appendix G).

#### 3.3.1. Paper – pencil data

Classrooms were visited according to the schedule created together with the instructors beforehand. The researcher introduced herself and explained the purpose of the study. Then the questionnaire battery was distributed to those who were willing to participate in the study. The battery was prepared in the order that students had to read and sign the informed consent form before starting to fill out the questionnaires. Questions coming from the students during the procedure were not answered and students were instructed to answer the questions as they see appropriate. Among all data that were gathered from METU, 2 students gave the questionnaire back reporting that they were not users of any online social media. Four students didn't manage to respond to all questions due to their limited time schedule. Papers from other participants were gathered and all data were entered in to the Statistical Programming for Social Sciences (SPSS) v.21 (IBM, 2012). It took approximately 15 minutes to complete the whole questionnaire. No incentive was offered to participants by the researcher.

#### 3.3.2. Online Data

A link obtained from the Qualtrics Software (Qualtrics, Provo, UT) was shared in three Facebook groups and one e-mail group that consist of METU members. The

same link was also shared through personal Facebook accounts of the researcher and also other students' account by request. Finally, the link was shared with two e-mail groups that consisted of psychology and counseling professionals. A total of 4 different links were shared due to 100 participant limit of the free version of the Qualtrics software (Qualtrics, Provo, UT). All of the 4 links included exactly the same instructions and appearance. Among those who opened the links, a total of 9 participants did not agree to the terms of the study and thus did not give their consent for participation. Among those who did agree and gave their consent and moved along to the rest of the survey, 238 participants did not complete the questionnaires. Data from 208 participants who successfully completed the online questionnaires were imported in the PDF format and entered into the SPSS v.21 (IBM, 2012) by hand. According to the survey statistics obtained from Qualtrics (Qualtrics, Provo, UT), majority of the online surveys were answered between 9am. and 3pm., while the average time that took participants to answer the online surveys ranged between 10 minutes and 20 minutes.

#### 3.4. Data Cleaning

Six hundred and nine were gathered from the online and paper-pencil surveys in total and was entered into SPSS v.21 (IBM, 2012). Participants with case number 643 and 343 were removed since they failed to complete more than half of the questions. For data with fewer missing items, data were replaced with means scores of the surveys.

#### 3.5. Outlier Analyses

In order to detect univariate outliers, z-scores were calculated for all of the five variables. Data with z-score values which exceed the -3.39 and 3.29 limit were removed from data. Histogram and box-plots were also created for all variables. Looking at box-plots, all cases which were found to be extreme outliers were removed. Others, which seem to be marked as slightly outliers, were controlled in histograms

and their z-scores. Those who were seen as outliers in histogram and z-scores were deleted whereas others remained. Participants who were above the age of 30 were all removed from the data, due to insufficient cell size. For detecting multivariate outliers, Mahalanobis and Cook's distance were calculated. As a result, a total of 36 data were removed as a result of univariate and multivariate outlier analysis. Remaining 651 data were found eligible to be included in the analyses. Finally, 66 participants were excluded from the data since they were not students and target sample of the study was set to be university students. Remaining 585 data which consists entirely of university students were included in the analyses.

### 3.6. Data Analysis

Before the analysis that will answer the main research questions, some preliminary analysis was conducted to identify the sample. First, an independent samples t-test procedure was applied to data see whether different data gathering methods, gender or age had any significant effect on variables. Those variables which were found to significantly affect the study variables were statistically controlled for in the regression analyses. Then, a paired samples t-test was conducted in order to understand whether there is a significant difference between online and FtF self-disclosure in the current sample.

In order to see whether shyness and loneliness level has a significant effect on the amount of online and FtF self-disclosure, a two-way MANOVA was conducted. For this purpose, first, independent variables were turned into categorical variables. For shyness, 40<sup>th</sup> and 60<sup>th</sup> percentiles were used as cut-off points as suggested by Cheek and Buss (1981). For loneliness scale, Russel, Peplau and Ferguson (1978) did not suggest a normative cut-off points; therefore, one standard deviation below and above the total mean score reported in their study was taken as the cut-off for this study. Finally, a hierarchical regression was applied to the data see whether online and FtF self-disclosure was a significant predictor of perceived interpersonal competence among people with high levels of shyness, controlling for the effect of media use



frequency, gender, working status and loneliness. IBM SPSS v.21 (IBM, 2012) was used to conduct all the analyses. Alpha level was set to .05 throughout the whole study.

### 3.7. Limitations of the Study

Although this study significantly contributes to the existing literature, it has some limitations and should be viewed with caution. First of all, there are some limitations considering the sampling methods. Convenience sampling method was preferred in the current study because of the ease of accessibility of students and in order to obtain a greater amount of data. This constitutes a threat to the generalizability of the results. Besides, the fact that data were gathered with two different methods was another limitation of the sampling method. For example, although the students who participate in the study was METU students, the name of the institution was not specified in online forms which makes it impossible to fully define the entire sample and suggests a problem for generalizability. Yet, a recent meta-analysis suggested that there is no significant difference between paper surveys and online surveys in terms of social desirability (Dodou, & Winter, 2014). Secondly, current study relies on self-report of the participants, which is a data gathering method very open to bias due to social desirability (van de Mortel, 2008). Social desirability bias is a threat to the validity of the study (Huang, Liao & Chang, 1998). Open ended questions, experimental methods or qualitative measurements or complementing present findings with one other method, may have provided more reliable results. Another important limitation to note was that, in the current study no particular social media account was specified. Participants were instructed to consider their general online communication without directing towards a particular media or a particular situation or audience (person they meet online, or person they already now etc.). As a result of this limitation, it is impossible to be sure what did the participants think while answering the questionnaires. They could have thought of their communication through Facebook, WhatsApp or e-mailing, which all could have addressed with a different research. One other limitation is that, although results propose significant relationships, effect sizes did not suggest a large effect. In fact, in the current study,

mostly, a small to medium effect was observed according to the classification of Cohen (1988). The limitation of effect size could have been a result of the methodology, sample size or inequality of variances. Additionally, measurement of social media usage frequency can be listed as another limitation since only one question was used in a 5-point Likert type scale. And final limitation of the study is that the current study is designed as a correlational study therefore causal relationship cannot be inferred from the results (Fraenkel, Wallen, & Hyun, 2011). Only a relationship can be suggested with the help of the findings of the current study.

## CHAPTER IV

### RESULTS

#### 4.1. Preliminary Analyses

##### 4.1.1. Effects of Demographic Variables and Sampling Method

Since two different methods of data collection was applied, namely online survey and paper-pencil survey, whether data gathering method made any statistically significant difference on the study variables was checked. An independent samples t-test was applied to examine the effect of different data gathering methods on the study variables. The analysis revealed that data gathering method suggested a significant difference only for loneliness ( $t_{(583)} = 2.817, p = .005$ ) and social media usage frequency ( $t_{(583)} = -2.445, p = .010$ ). It was found that people who participated in the study via online survey scored higher on loneliness ( $M = 40.72, SE = 1.15$ ) than participants who took the paper-pencil survey ( $M = 37.33, SE = .57$ ); whereas people who took the paper pencil survey ( $M = 2.57, SE = .05$ ) scored higher on social media usage frequency than those who took the online survey ( $M = 2.22, SE = .08$ ). For other measures, no significant differences were revealed.

Another independent samples t-test was conducted to see whether gender had a significant effect on main study variables. The analysis revealed that gender had a significant effect on all of the variables except for shyness ( $t_{(579)} = .171, p = .86$ ), and interpersonal competence ( $t_{(579)} = .118, p = .14$ ). According to the results of independent samples t-test, online self-disclosure ( $t_{(579)} = 2.702, p = .01$ ), FtF self-disclosure ( $t_{(579)} = 4.057, p = .00$ ), and loneliness ( $t_{(579)} = -3.499, p = .00$ ) significantly differed in terms of gender. Specifically, it was found that women ( $M = 83.44, SD = 12.37$ ) engaged in higher online self-disclosure than men ( $M = 80.58, SD = 12.02$ ).

Similarly, women ( $M = 89.14$ ,  $SD = 12.55$ ) engaged in higher amounts of FtF self-disclosure than men ( $M = 84.66$ ,  $SD = 13.15$ ), and finally men ( $M = 40.60$ ,  $SD = 13.14$ ) scored higher on loneliness than women ( $M = 36.83$ ,  $SD = 12.05$ ).

A third independent samples t-test was conducted in order to understand whether different age groups resulting from the different data gathering methods created any significant difference on variables of the study. In order to control for the effect of age, the variable was split into two categories consisting of ages 18-25 and 26-30. Since the mean value of age is 21.87 and standard deviation is 2.55, 3 points above the age 22 which is 25 was used as a cut-point. Results of the independent samples t-test revealed that none of the variables significantly differed in terms of age.

#### 4.1.2. Descriptive Analyses and Intercorrelation among Variables

Before the main statistical analysis, correlations among all variables were examined and these correlations are displayed in Table 1.

Table 1: *Correlations among variables*

	Interpersonal Competence	Online Self- Disclosure	FtF Self- Disclosure	Shyness	Loneliness
Interpersonal competence		.43**	.48**	-.61**	-.52**
Online Self Disclosure			.72**	-.37**	-.33**
FtF Self- Disclosure				-.44**	-.46**
Shyness					.54**
Loneliness					

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

As displayed in Table 1, interpersonal competence level, amount of online self-disclosure, and FtF self-disclosure are significantly negatively associated with shyness and loneliness.

Descriptive statistics of the variables including means and standard deviations are displayed in Table 2. According to the descriptive statistics, participants involved in higher amounts of FtF self-disclosure ( $M = 87.53$ ,  $SD = 12.92$ ) than online self-disclosure ( $M = 82.37$ ,  $SD = 12.35$ ). However, in order to know that this relationship is significant, series of independent samples t-test were conducted.

Table 2: *Descriptive Statistics*

	$N = 585$	$M$	$SD$
Loneliness		38.15	12.56
Shyness		34.28	11.49
Face-to-face Self Disclosure		87.53	12.92
Online Self-Disclosure		82.37	12.35
Interpersonal Competence		83.81	14.10
Social Media Usage Frequency		2.41	1.05

#### 4.1.3. Online vs. FtF Self-Disclosure

In order to test the first hypothesis, a paired samples t-test was conducted to see whether there is a significant within group difference between online and FtF self-disclosure. Results of the paired samples t-test suggested a statistically significant difference between online and FtF self-disclosure scores ( $t_{(584)} = 13.219$ ,  $p = .000$ ). On average, participants' FtF self-disclosure scores ( $M = 87.53$ ,  $SD = 12.92$ ) were significantly found to be higher than online self-disclosure scores ( $M = 82.37$ ,  $SD = 12.35$ ).

To check whether participants who scored higher in shyness significantly differed in terms of online and FtF self-disclosure, a select cases procedure was carried out in which participants who score 35 and below were filtered out. Remaining

participants represented participants who scored higher than average in shyness. Results showed that participants with high level of shyness significantly differed in terms of their online and FtF self-disclosure ( $t_{(258)} = 6.79, p = .000$ ). Participants who scored higher on shyness displayed higher FtF self-disclosure scores ( $M = 82.30, SD = 11.41$ ) than online self-disclosure scores ( $M = 78.31, SD = 10.96$ ). A similar procedure of paired sample t-test was followed in order to see if participants who scored higher on loneliness significantly differed in terms of online and FtF self-disclosure. In determining the participants who had higher score on loneliness, a select cases procedure was conducted and only the participants who scored higher than 47 were selected. Results showed that, participants with high level of loneliness significantly differed in terms of their online and FtF self-disclosure ( $t_{(125)} = 2.42, p = .017$ ). Participants who scored higher on loneliness displayed higher FtF self-disclosure scores ( $M = 78.52, SD = 10.73$ ) than online self-disclosure scores ( $M = 76.76, SD = 11.41$ ).

#### 4.2. Results of Assumption Testing of MANOVA

A two-way MANOVA was conducted to see if shyness and loneliness levels had a significant effect on the amount of online and FtF self-disclosure levels. Before the analysis, data was checked to see if it met the assumptions of a two-way multivariate analysis of variance.

##### 4.2.1. Variables, Sample size, independence of observations and outliers

Types of variables and sample size were appropriate to conduct a two-way MANOVA, and independence of observations assumption was also met. Univariate outliers were detected and removed with the help of calculation of z-score, histograms and box-plots. Thirty-eight variables were removed after checking for univariate outliers. Mahalanobis distance was calculated to detect multivariate outliers in the data cleaning process. Data did not include univariate and multivariate outliers and therefore did not violate the assumption.

#### 4.2.2. Tests of Normality

Kolmogorov-Smirnov and Shapiro-Wilk tests of normality suggested a normal distribution for all variables except for shyness and loneliness (See Table 3). According to the Skewness and Kurtosis tests of normality, all variables were distributed normally since none of the variables were placed outside the values of -3.00 and +3.00 (See Table 4).

Table 3: *Kolmogorov-Smirnov and Shapiro Wilk Tests of Normality*

	Kolmogorov-Smirnov			Shapiro-Wilk		
	<i>Statistic</i>	<i>df</i>	<i>p</i>	<i>Statistic</i>	<i>df</i>	<i>p</i>
Online Self-Disclosure	.036	585	.072	.998	585	.531
Ftf Self-Disclosure	.029	585	.072	.998	585	.531
Shyness	.052	585	.001	.986	585	.000
Loneliness	.119	585	.000	.936	585	.000

Table 4: *Skewness and Kurtosis*

	Skewness		Kurtosis	
	<i>Statistics</i>	<i>S. E</i>	<i>Statistics</i>	<i>S. E</i>
Online Self-Disclosure	.002	.101	-.146	.202
Ftf Self Disclosure	-.116	.101	-.206	.202
Shyness	.213	.101	-.545	.202
Loneliness	.812	.101	.038	.202

Assumption of normality was also checked using histograms and Q-Q plots. FtF self-disclosure, and online self-disclosure variables displayed a normal distribution (See Figures 1 and 2). Histogram for shyness showed a slightly positively skewed distribution, whereas histogram for loneliness showed a positively skewed distribution (See Figures 3 and 4)

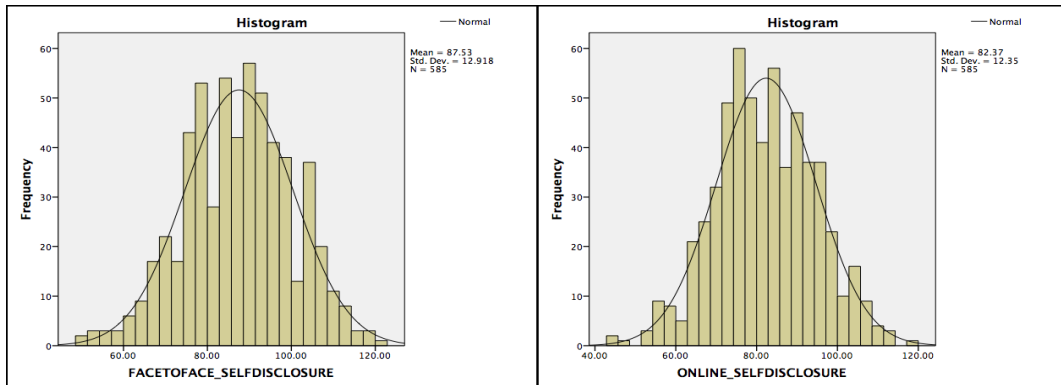


Figure 1: Histogram for FtF self-disclosure Figure 2: Histogram for Online Self-Disclosure

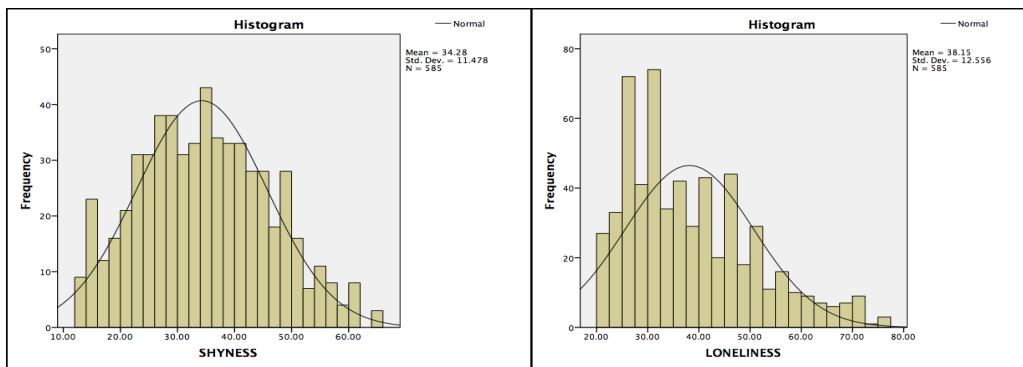


Figure 3: Histogram for shyness

Figure 4: Histogram for loneliness

Finally, assumption of normality was also checked using Q-Q Plots. All variables were normally distributed (See Figure 5, 6, and 7). Only for loneliness, the normality assumption was violated according to the Q-Q plot (See figure 8).

Homogeneity of covariances assumption was not violated in this data ( $F_{(24, 57745.193)} = 1.15, p = .282$ ), and equality of covariance assumption was checked by Levene's test, which was found not to be violated (See Table 5).

Table 5: Levene's test of equality of variances

	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
Online Self-Disclosure	.925	8	576	.495
Face-to-face Self-Disclosure	.958	8	576	.468



Correlations between two dependent variables were checked according to multicollinearity, the two independent variables were related yet the correlation does not suggest a multicollinearity.

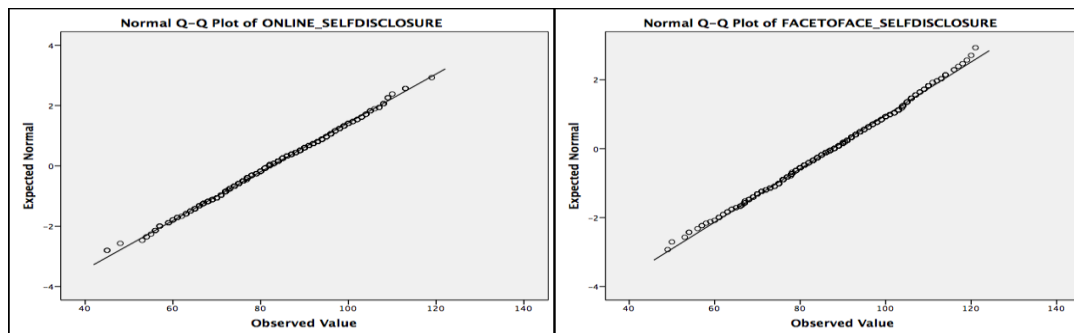


Figure 5: Q-Q Plot of online self-disclosure      Figure 6: Q-Q Plot of FtF self-disclosure

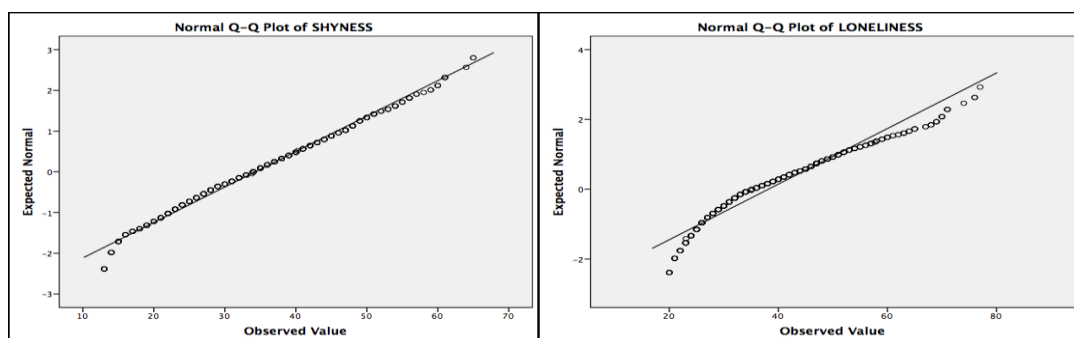


Figure 7: Q-Q plot of Shyness      Figure 8: Q-Q plot of Loneliness

#### 4.2.3. Results of Multivariate Analysis of Variance

After checking all the assumptions, a two-way MANOVA was conducted. Results of showed that there was a statistically significant difference on self-disclosure based on the level of shyness ( $F_{(4,1150)} = 6.771, p = .000, \text{partial } \eta^2 = .023$  Wilk's  $\lambda = .955$ ) and loneliness ( $F_{(4,1150)} = 13.394, p = .000, \text{partial } \eta^2 = .045, \text{Wilk's } \lambda = .913$ ). No interaction effect was found between loneliness and shyness ( $F_{(8,1150)} = .517, p = .844, \text{Wilk's } \lambda = .993$ ).

After obtaining a significant result on Multivariate tests, separate univariate ANOVAs were conducted. According to the results, shyness level had a significant

effect on both face-to face ( $F_{(2,576)} = 12.52, p = .000, \text{partial } \eta^2 = .042$ ), and online self-disclosure ( $F_{(2,576)} = 8.72, p = .000, \text{partial } \eta^2 = .030$ ). Loneliness level also significantly affected both online ( $F_{(2,576)} = 10.89, p = .000, \text{partial } \eta^2 = .036$ ), and face-to-face self-disclosure ( $F_{(2,576)} = 26.74, p = .000, \text{partial } \eta^2 = .085$ ).

Table 6: *Scheffe comparison of shyness levels*

Variable			Mean difference	Std error	
Face to face self-disclosure	High shy	Moderate shy	-6.73*	1.34	
		Low shy	-10.56*	1.04	
	Moderate shy	High shy	6.72*	1.34	
		Low shy	-3.83	1.37	
		High shy	10.56*	1.03	
	Low shy	Moderate shy	3.83*	1.37	
	Online self-disclosure	High shy	Moderate shy	-5.65*	1.37
			Low shy	-8.01*	1.05
Moderate shy		High shy	5.65*	1.37	
		Low shy	-2.36*	1.39	
Low shy		High shy	8.01*	1.05	
		Moderate shy	2.36*	1.39	

\* $p$  is significant at the .05 level

In order to see which levels significantly differ from one another, post-hoc analysis was applied. Scheffe multiple comparison analysis (see Table 6) revealed that, for online self-disclosure, participants who scored low on shyness engaged in higher amounts of online self-disclosure compared to those who scored relatively higher on shyness. Participants who were moderately shy significantly differed from those who scored higher and lower in shyness. For face-to-face self-disclosure, participants who scored higher on shyness engaged in significantly less face-to-face self-disclosure than those who scored moderate and low on shyness. Those who scored low on shyness engaged in largest amount of face-to-face self-disclosure.

Table 7: Sheffe comparison of loneliness levels

<i>Variable</i>		<i>Mean difference</i>	<i>Std error</i>		
Face to face self-disclosure	High lonely	Moderate lonely	-8.56*	1.23	
		Low lonely	-15.41*	1.29	
	Moderate lonely	High lonely	8.56*	1.23	
		Low lonely	-6.85*	1.07	
	Low lonely	High lonely	15.41*	1.29	
		Moderate lonely	6.85*	1.07	
	Online self-disclosure	High lonely	Moderate lonely	-4.89*	1.78
			Low lonely	-10.37*	1.24
Moderate lonely		High lonely	4.88*	1.78	
		Low lonely	-5.48*	1.02	
Low lonely		High lonely	10.37*	1.24	
		Moderate lonely	5.48*	1.02	

\*  $p$  is significant at the .05 level

Post-hoc analysis for loneliness levels revealed that (see Table 7), participants who scored lower in loneliness engaged in significantly higher amounts of online and face-to-face self-disclosure compared to those who scored moderate or high on shyness. Moderate and high levels of loneliness also significantly differed from each other in terms of both online and FtF self-disclosure. Participants with higher levels of loneliness engaged in less online and face-to-face self-disclosure than those with moderate levels of loneliness.

#### 4.3. Results of the Regression Analysis

Prior to conducting a hierarchical multiple regression analysis, required assumptions of the statistical analysis were tested. Since only those who scored high

on shyness scale were included in the analysis, normality assumptions and others were checked accordingly.

#### 4.3.1. Tests of normality

All variables seemed to have a normal distribution according to histograms (See Figures 9, 10, 11 and 12) and Q-Q Plots (See Figures 13, 14, 15 and 16).

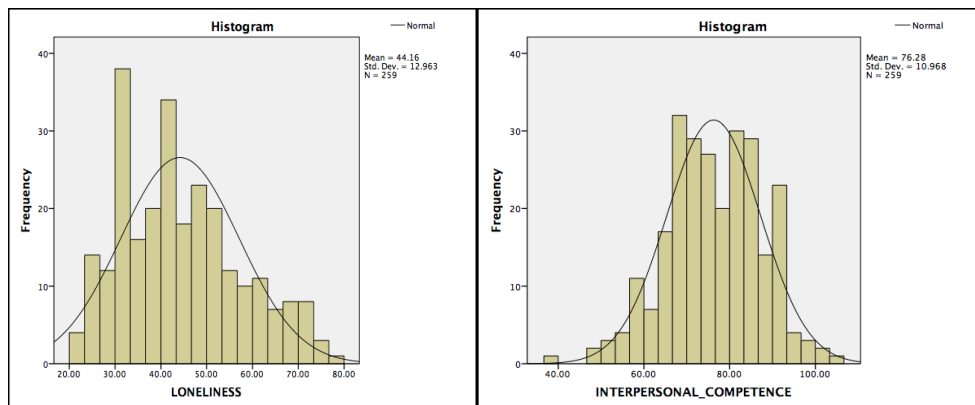


Figure 9: Histogram of loneliness Figure 10: Histogram of interpersonal competence

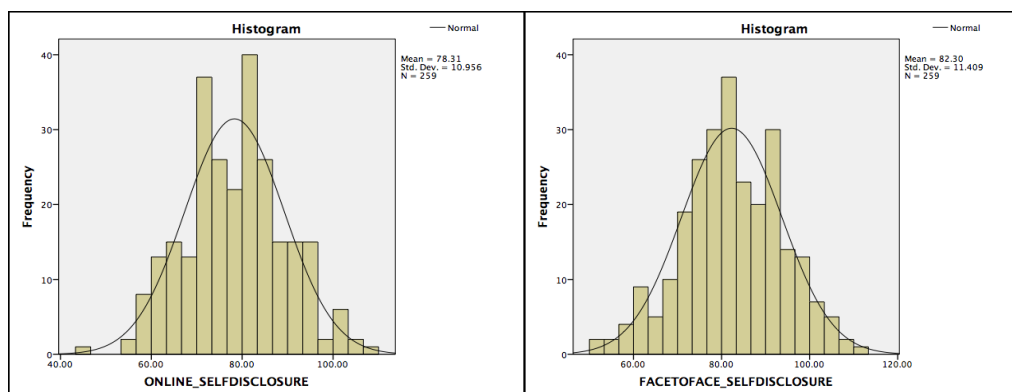


Figure 11: Histogram of online self-disclosure Figure 12: Histogram for FtF Self-disclosure

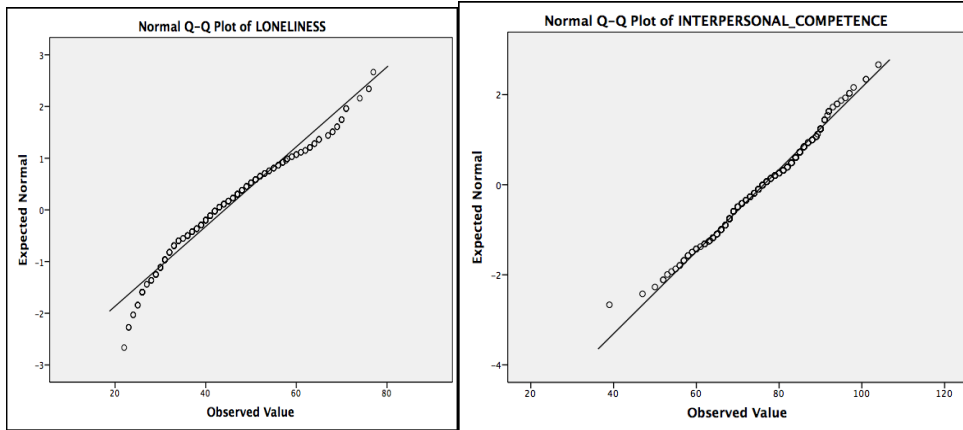


Figure 13: Q-Q plot for loneliness Figure 14: Q-Q plot for interpersonal competence

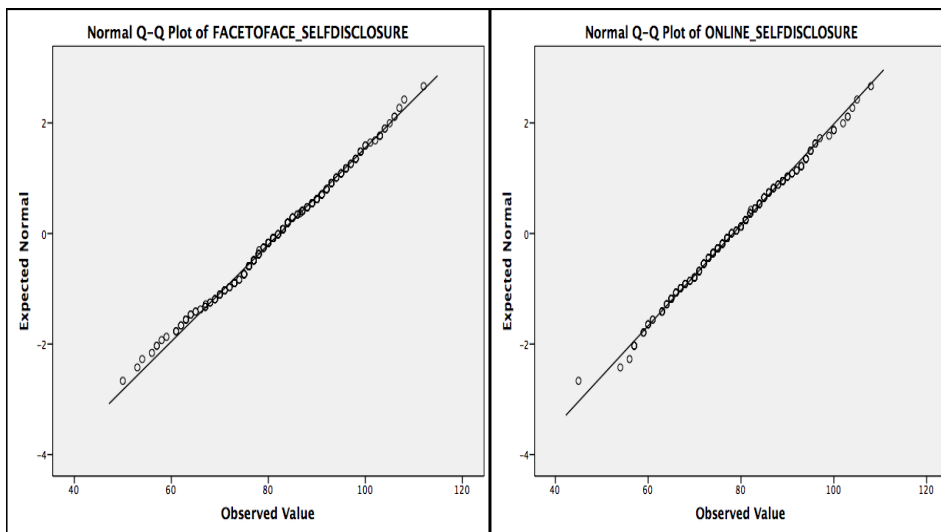


Figure 15: Q-Q plot for FtF self-disclosure Figure 16: Q-Q plot for online self-disclosure

Table 8: *Skewness and Kurtosis Levels of Variables*

	Loneliness	FtF Self-Disclosure	Online Self-Disclosure	Interpersonal Competence
Skewness	.498	-.118	.084	-.225
SE of Skewness	.151	.151	.151	.151
Kurtosis	-.524	-.086	-.162	-.098
SE of Kurtosis	.302	.302	.302	.302

Normality assumption was also controlled by Skewness and Kurtosis levels. No extreme skewness and kurtosis were observed (See Table 8). Shapiro-Wilk and Kolmogorov-Smirnov tests also indicated a normal distribution (See Table 9).

Table 9: *Kolmogorov-Smirnov and Shapiro-Wilk Tests of Normality*

	Kolmogorov-Smirnov			Shapiro-Wilk		
	<i>Statistic</i>	<i>df</i>	<i>p</i>	<i>Statistic</i>	<i>df</i>	<i>p</i>
Interpersonal competence	.062	259	.200	.991	259	.119
Online Self-disclosure	.038	259	.200	.996	259	.714
FtF self-disclosure	.057	259	.066	.995	259	.558
Loneliness	.076	259	.002	.963	259	.000

#### 4.3.2. Homoscedasticity and Normality of Residuals

Types of variables and sample size were appropriate to conduct a hierarchical multiple regression analysis. Independence of residuals were controlled by Durbin-Watson test and it was concluded that residuals were independent for this test. No multicollinearity was detected between variables according to collinearity statistics. There were no univariate or multivariate outliers, examined by histograms, box-plots

and Cook's distance. Linearity and homoscedasticity assumptions were met (see Figure 17). Normality of residuals assumption was met (See Figures 18, 19 and 20).

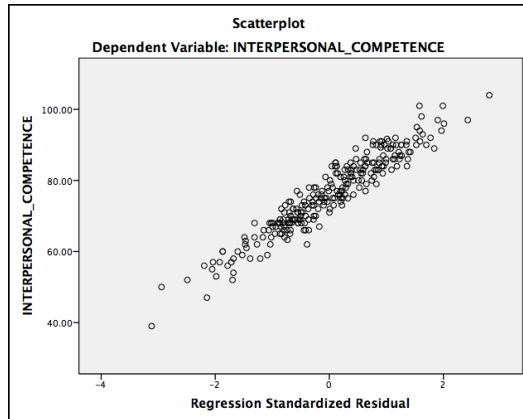


Figure 17: Homoscedasticity and linearity assumption test

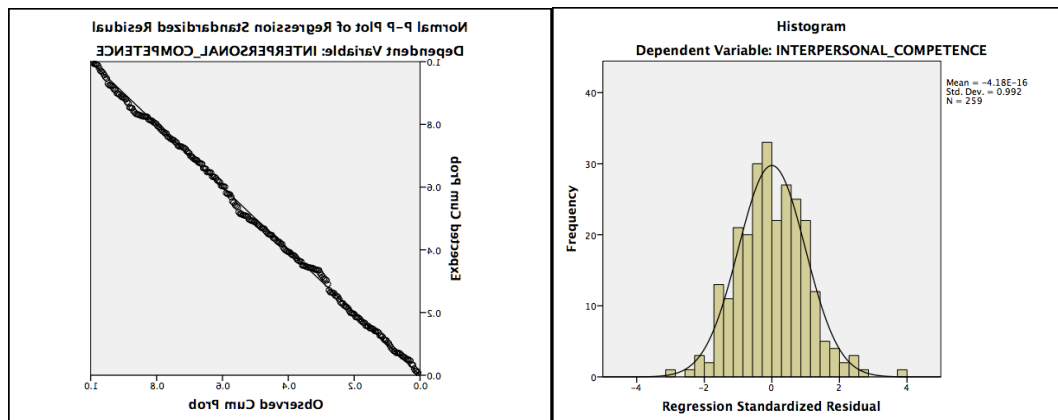


Figure 18: Normality of residuals with P-P plot Figure 19: Normality of residuals with histogram

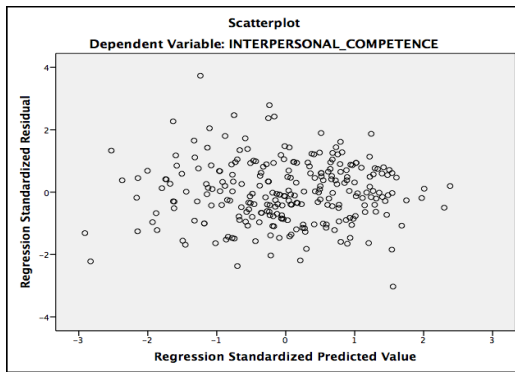


Figure 20: Scatter plot of standardized predicted value

#### 4.4. Results of the Hierarchical Regression Analyses

A three-stage hierarchical multiple regression was run to predict interpersonal competence by the amount of online self-disclosure and FtF self-disclosure after controlling for type of survey administration, frequency of social media use, and loneliness. Since participants who scored higher in shyness were the main interest in this analysis, a select cases procedure was employed beforehand. As a result of the select cases procedure, only those who scored 36 or more on shyness were included in the regression analysis.

Table 10: *Hierarchical Regression Analyses Evaluating Predictors of Interpersonal Competence*

	Measures	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	$\Delta F$	<i>df</i>	$\beta$
Step 1	Social Media Use	.17	.03	.03	7.876*	1	-.17*
Step 2	Loneliness	.49	.24	.21	71.031*	1	-.46*
Step 3	Self-Disclosure	.53	.28	.04	7.453*	2	
	Online						.15*
	Face-to-face						.08

\**p* is significant at the .05 level



In order to test the hypothesis, a three-step hierarchical regression analysis was conducted. In the first step of the model, social media usage was entered. Loneliness was entered in the second step. In step 3, online self-disclosure and face-to-face self-disclosure were entered, the outcome variable was perceived interpersonal competence. After controlling for social media use and loneliness, FtF self-disclosure was not a significant predictor of the perceived interpersonal competence. Yet, online self-disclosure was still a significant predictor of perceived interpersonal competence (See Table 10).

## **CHAPTER V**

### **DISCUSSION**

The main aim of this study was to examine online behavior and its effects in interpersonal interaction especially for individuals who tend to be shy or lonely. More specifically, the current study aimed to compare the amount of online and FtF self-disclosure considering two individual difference variables (shyness and loneliness) and to understand the extent to which online self-disclosure is associated with shyness and loneliness, as well as whether shyness, loneliness and online self-disclosure affect perceived interpersonal competence.

First, a series of paired samples t-tests were applied in order to see whether there was any within group differences between the amount of online and FtF self-disclosure. Three separate analyses were carried out in order to understand the amount of online and FtF self-disclosure for the entire sample (people aged between 18 and 30), for participants who scored higher in shyness and for participants who scored higher in loneliness. Secondly, the study sought to understand if shyness and loneliness levels (high, moderate, and low) made a significant effect on the amount of online and FtF self-disclosure. The third and the final aim of the study was to understand whether it is possible to predict perceived interpersonal competence of participants who scored higher on shyness, from the amounts of online and FtF self-disclosure after statistically controlling for the effects of loneliness levels and social media use frequency. Findings regarding the preliminary analyses and main analyses along with their implications and directions for further research are discussed below.

#### **5.1. Discussion Regarding Preliminary Analyses**

Before going further into the findings of the current study, results of some preliminary analyses will be discussed. Some factors that are thought to affect the

results of the study were checked beforehand and included as a control variable in the further analyses. Firstly, any possible effects of the survey administration methodology were checked. Studies that showed that survey administration methodology might have an impact on findings emphasize the need to take the effect of survey administration methodology into account (Aquilino, Wright, & Supple, 2000; Eileen, Amanda, Serge, Craig, Colleen, 2006). However, preliminary analyses showed that, survey administration methodology did not have a significant effect on the dependent variable of the study - interpersonal competence. Therefore, survey administration was not included as a control variable in the regression analyses. Secondly, the effect of certain demographics (gender and age) on the study variables were examined. Again, gender and age was not included in the regression analyses since they did not have a significant effect on interpersonal competence.

## 5.2. Discussion Regarding the Comparison of Online vs. FtF Self-Disclosure

One of the aims of the current study was to investigate the difference between the amounts of online and FtF self-disclosure. Moreover, it was aimed to investigate the difference in the amount of online and FtF self-disclosure among participants with different characteristics (i.e., participants who tend to be shy or lonely).

The findings suggested a significant difference between the reported amount of online and FtF self-disclosure. Specifically, participants were found to be involved in higher amounts of FtF self-disclosure compared to online self-disclosure. Although most of the previous research suggests an opposite pattern which demonstrates higher amounts of online self-disclosure (Antheunis et al., 2007; Bruss & Hill 2010; Coleman et al., 1999; Joinson 2001; Tidwell & Walther 2002) there are also studies in which no difference were found between online and FtF self-disclosure (Buote, Wood & Pratt, 2009; Mallen, Day & Green, 2003) as well as studies which demonstrate higher FtF self-disclosure (Chan & Cheng, 2004; Chiou & Wan, 2006; Schiffrin, Edelman, Falkenstern & Stewart, 2010). This inconsistency may result from the measurement of self-disclosure (Nguyen et al. 2012). For example, survey studies like the present study may not reflect the actual self-disclosure accurately. Therefore, future studies

may enlighten this difference with conducting studies that measure actual self-disclosure behavior.

In the following analyses, only the participants who scored higher on shyness measure were included. The same procedure was repeated with only those who scored higher on loneliness measure. The findings revealed a similar trend in that, those who scored higher on shyness had greater FtF self-disclosure compared to online self-disclosure as well as participants who scored higher on loneliness. In other words, in the current study, regardless of the shyness or loneliness levels, all participants were found to engage in higher amount of FtF self-disclosure rather than online. This finding contradicts with the dominant literature since the majority of the study findings suggested that individuals, especially those who score higher on shyness, engage in higher amounts of self-disclosure rather than face-to-face self-disclosure (Antheunis et al. 2007, Baker & Oswald, 2010; Bruss & Hill, 2010 Coleman et al. 1999, Desjarlais, et al. 2015; Joinson 2001, Tidwell & Walther 2002). Similarly, the literature on loneliness suggested that, individuals who felt lonelier tend to involve in higher amounts of self-disclosure in online contexts due to their perceived social skill deficits in offline contexts (Davis, 2001; Kraut et al. 1988; Lee, Noh and Koo, 2013; Morahan-Martin, Schumacher 2000; Valkenburg, Peter, 2009). However, there are also studies in which FtF communication was reported to be greater than online self-disclosure for shy individuals (Knop et al. 2016; Chan, Cheng 2004, Chiou & Wan 2006, Stritzke et al 2004; Mallen et al. 2003; Schouten, Valkenburg, Peter, 2007). In one study Sheldon (2013) reported that shy individuals involve in higher amounts of self-disclosure in their FtF interactions compared to online interactions. The study also showed that individuals who display lower amounts of shyness disclosed more, both to their FtF and online friends if they display lower amounts of shyness. This may suggest that lower levels of shyness are associated with greater self-disclosure regardless of the medium of communication.

It is also known from the previous research that loneliness is associated with decreased amount of self-disclosure in general (Jones, Freemon & Goswick, 1981). However, a recent study (Al-Saggaf & Nielsen 2014) pointed out that, although people who tend to have higher loneliness scores tend to disclose more information in SNSs,

the information is limited with certain categories. For example, people who reported to be lonelier, disclosed personal information, relationship information and their home address, that they were not likely to disclose their views (political, religion etc.), educational or work information. They were also found to be frequently updating their profile such as messaging or sharing photos. Al-Saggaf and Nielsen (2014) argued that, individuals who reported to be lonelier tend to disclose the type of self-relevant information that encourages people to approach them, since they find it hard to initiate the relationships. This finding can also be meaningful from the perspective of social penetration theory (Altman & Taylor, 1973). Those who feel lonely, may especially need the disclosure of superficial topics (e.g. identifying information, demographics) because they need the first contact of the relationships. However, the type of information disclosed has not been gathered as part of the current study. Therefore, this may be one of the reasons why the findings contradict with the previous research findings.

Besides, it has been argued that, different research designs in studying self-disclosure may result in different results (Nguyen, Bin, & Campbell 2012). Nguyen et al. that, experimental studies more frequently support the idea that people engage in higher amounts of online self-disclosure whereas survey studies that rely on self-report seem to provide support for greater self-disclosure in face-to-face communication. Considering that this study is a survey study, higher amounts of face-to-face self-disclosure levels of participants may be partially due to the methodology of the current study. As Schiffrrin et al. (2010) have also suggested the effect of self-reports and actual self-disclosure on findings should also be kept in mind.

Another possible reason for unexpected results may be the lack of specific instruction given to the participants. The type of media (Facebook, Twitter, LinkedIn etc.), audience (friends, family or acquaintances), or content of information (intimate stuff, feelings, daily chat, interview etc.) was not specified in the instructions of the study. Participants were instructed to answer according to their online interactions in general. Thus, the lack of specific instructions may have also affected the results.

### 5.3. Discussion of the Relationship Between Shyness, Loneliness and Self-Disclosure

The current study has also attempted to find out whether shyness and loneliness as well as their interaction, had a significant effect on the amount of online and FtF self-disclosure. Findings of the present study suggested that shyness and loneliness levels do significantly influence the online and FtF self-disclosure levels. However, there was no significant interaction effect between loneliness and shyness on online and FtF self-disclosure which means that only the individual main effects of shyness and loneliness were examined. Further investigation of the results revealed that, lower scores of shyness is associated with higher amounts of both online and FtF self-disclosure and similarly, higher scores of shyness, is found to be associated with lower levels of both online and FtF self-disclosure which is in line with the findings of Sheldon (2013).

Similarly, for loneliness, lower levels were found to be associated with higher amounts of both online and FtF self-disclosure. Highest amount of online and FtF self-disclosure was observed in participants who scored lower in loneliness followed by those who scored moderate and high in loneliness. Decreased amounts of self-disclosure is not surprising for individuals who tend to be highly shy or lonely considering the previous research findings (Jones, Freemon & Goswick, 1981; Matsushima, Shiomi & Kuhlman, 2000). Results of this study support previous findings by suggesting that the higher the individual scores on shyness or loneliness, the less they disclose self-relevant information to others. The same pattern has been observed for both online and FtF self-disclosure in terms of shyness or loneliness. Therefore, the current findings can be interpreted in the sense that, the relationship between shyness, loneliness and amount self-disclosure shows a similar pattern regardless of the medium of communication (e.g. online or FtF).

#### 5.4. Discussion of the Correlates of Perceived Interpersonal Competence

The fifth research question of the current study examined whether it is possible to predict perceived interpersonal competence of participants who score higher on shyness based on the online and FtF self-disclosure levels, after controlling for loneliness and frequency of social media. Findings of the statistical analyses suggested that, FtF self-disclosure was not a significant predictor of perceived interpersonal competence. On the other hand, for those who score high in shyness, online self-disclosure is found to be a significant positive predictor of perceived interpersonal competence, even after statistically controlling for the aforementioned control variables. In other words, if we eliminate the effect of loneliness and social media use, increased amount of online self-disclosure is associated with increased perceived interpersonal competence for participants who scored higher in shyness. Previous research indicated that loneliness and interpersonal competence are negatively correlated (Jones, 1982; Jones, Hobbs, & Hockenbury, 1982; Özben, 2013; Prisbell, 1988; Riggio, Throckmorton, & DePaola, 1990; Segrin, 1993, 1996, 2000; Segrin & Flora, 2000; Spitzberg & Canary, 1985; Spitzberg & Hurt, 1987) and that social media usage significantly influences the results in online behavior research (Leung, 2002; Michaeli 2003). Literature have also suggested that, deficits in social skills, in other words interpersonal competence, suggests a vulnerability for shyness (Curan, 1977; Segrin, 1996, 1993). Findings supporting the lack of belief in own interpersonal competence may motivate people to seek for an alternative way of communication such as online communication where they feel safer (Caplan, 2003, 2005; McKenna, Green and Gleason, 2002).

As Huang et al. (2014) have also showed, by taking the effect of loneliness into account, negative or problematic relationship between shyness and the Internet use can be eliminated. Findings of the present study suggested a positive relationship between online self-disclosure and perceived interpersonal competence for a sample who scored higher on shyness. Results of the current study is in line with the rehearsal hypothesis which views online media as a rehearsal medium for social skills especially

for those who have trouble in social situations (individuals who display higher amounts of shyness). According to social penetration theory, an individual has to engage in significant degree of self-disclosure in order to build a relationship with others (Altman & Taylor, 1973). Therefore, current findings have also contributed to Social Penetration literature by suggesting that online media can be a platform for self-disclosure and to maintain social relationships as previous studies have also shown (Huang et al. 2016; Sheldon, 2009; Tang & Wang, 2012; Yum & Hara, 2005).

It is, however, important to know, why only the amount of online self-disclosure, but not FtF positively predicted perceived interpersonal competence. Previous analyses of the current study showed no differences between the patterns of FtF and online self-disclosure considering the shyness and loneliness levels of the participant. Lower levels of shyness and loneliness were found to be associated with higher amounts of self-disclosure in both online and FtF communication. Further research is needed to address this question. However, it can be argued that feeling more disinhibited and free in online interactions as suggested by the SIDE model (Reicher, Spears, & Postmes, 1995) can be a possible explanation. The anonymity in online interactions results in individuals feeling safer, more comfortable and confident compared to their traditional social interactions (Caplan, 2003). Behaving in a way that is more comfortable and less anxious in online social interactions (Caplan, 2003; Reicher, Spears & Postmes, 1995), although the amount of self-disclosure stays the same, may have a significant contribution that leads to an increased perceived interpersonal competence for individuals who experience increased amounts of shyness.

## 5.5. Conclusion

Findings of the current study in general suggested that, there is a significant difference between the amount of reported online and FtF self-disclosure for this study sample. Participants in this study, regardless of their level of shyness or loneliness, tend to involve in higher amounts of FtF self-disclosure compared to online self-disclosure. Additionally, findings suggested that personal characteristics such as



increased shyness and loneliness do play an important role in the amount of online and FtF self-disclosure. In other words, reported higher amounts of shyness and loneliness, is significantly correlated with how much a participant will disclose in both online and FtF interactions. Increased amounts of shyness and loneliness is associated with lower amounts of self-disclosure both in online and FtF interactions. Additionally, results of the current study underline the role of online self-disclosure as opposed to FtF self-disclosure in association with perceived interpersonal competence. Findings revealed that, for individuals who tend to score higher on shyness, online self-disclosure, but not FtF self-disclosure, positively predicts perceived interpersonal competence, after controlling for loneliness and social media usage.

Findings of the current study contribute to the ongoing discussion of the SNS and its social impacts on individual's life in which positive and negative impacts of the SNS are still being discussed. Researchers argue that, the Internet or SNS itself alone does not cause any vital changes on the person such as leading loneliness and depression (Davis, 2001; McKenna & Bargh, 2000; Shotton, 1991). They further continue to argue that certain phenomena (e.g. the Internet) and personal variables interact to produce particular psychological outcomes. In other words, the Internet as a phenomenon is not entirely positive or negative in nature or has the ability to lead to loneliness or addiction. It rather provides an extra medium, in which individuals can fulfill their specific goals and needs (McKenna & Bargh, 1999). As Hughes and Hans, (2001) have also stressed, individuals are not passive interactants of technology, but that they shape and influence it actively. Additionally, as McKenna and Bargh (2000) stated, "Internet will always and only be what individuals make of it" (p.72).

#### 5.6.Implications for Theory and Practice

Previous results on self-disclosure research have underlined the important place of self-disclosure in the counseling process (Blackburn, 2011; Farber & Hall, 2002; Fisher, 1984; Horvath & Greenberg, 1986; Kelly & Yuan, 2009) and strong relationship between mental health and self-disclosure (Altman & Taylor, 1973; Jourard, 1971; Slatcher, 2010; Welker et al. 2014) A recent study showed that SNSs

can serve as a platform where individuals engage in self-disclosure behavior and look for support, and that SNSs are valuable for mental health (Huang, 2016). Addressing what role shyness, loneliness and medium of communication play in self-disclosure and understanding how they relate to clients' interpersonal competence is an important source of information for counselors to understand their clients better. Therefore, findings of the current study have also proposed significant implications for counseling professionals in terms of understanding client's behaviors more clearly. In an era where human social interactions are significantly affected by the Internet and SNS (Child, Petronio, 2011; Kraut et al. 2001; Thimm, 2008), it is important for counselors to understand this interaction in order to plan their way of helping clients.

Nowadays, there are increasing amount of studies conducted on online counseling (e.g. Cook & Doyle, 2002; Day & Schneider, 2002; Dowling & Rickwood, 2013; Liebert, Archer, Munson, & York, 2006; Mallen, Day, and Green 2003; Prado & Meyer, 2004; Reese, Conoley & Brossart 2002; Sekerler, 2008; Spizman 2001;), online interventions (e.g. Christensen, Batterham, Callear, 2014; Silva, Seigmund & Bredemeier, 2015; Titov, Andrews & Schwencke, 2009), and online support groups (e.g. Carter, Fergus, Ahmad, Kaufman, 2014; McLeod & Stephen, 2015) in which the effectiveness of these methods is discussed. CMC research shows that due to online disinhibition effect (Suler, 2004), clients' self-disclosure behavior may increase in online communication which also applies to online counseling (Camillus, 2007; Sekerler, 2008). Besides, research has also shown that increased comfort with CMC is associated with positive attitudes toward online counseling and intentions to seek online professional help, especially for intimate interpersonal problems (Caretta, Burgess, DeMarco, 2016; Joyce 2012). Although huge amounts of ethical concerns are involved in the process of online counseling, researchers claim that those concerns can be dealt with the help of more research studies (Rummel & Joyce 2010). By exploring what shy individuals experience online, and in what circumstances they behave more comfortably, counseling professionals can tailor specific interventions or counseling activities that help those individuals in need (Chan, 2011). Findings of the current study may be important for counseling professionals to know that online

interventions can be helpful for certain individuals and it may be a reference for them to refer clients to online interventions.

Social networking sites will continue to have a social impact on human interaction considering its huge and growing role on communication (Kraut et al. 2001). However, it is also underlined by researchers (Kraut et al. 2001) that, there is no consensus on the social impacts of online communication on human life, and that the effect of the SNS on human social interaction depends on how people use it and what people give up in their social lives for using it (e.g. real life social interactions, time spent outside), as well as their personal characteristics. Kraut et al. (2011) add that, people who are already competent in social resources are more likely to be positively affected by SNS use. Then, whether people differ in their perception regarding their social skills, in other words interpersonal competence, or, do they actually differ in their skills in online and offline mediums becomes an important question to be sought (Caplan, 2005). Especially for people with social inhibitions, online communication has been and continues to provide powerful empowerment in their social interactions that lead researchers to ask the question whether they are able to transfer the skills that they acquire from the online relationships to offline world (Amichai-Hamburger & Hayat, 2013; Michaeli, 2013). However, Tang and Wang (2012) suggested that, interpersonal relationships in real world is irreplaceable, and that it cannot be totally compensated with online relationships. Other researchers have also suggested that transferring from online to offline can be very challenging (Amichai-Hamburger & Hayat, 2013). Considering the frequency of daily use of online media, findings indicate that if individuals who display higher amounts of shyness engage in online-self-disclosure, this can lead to an increase in the perception of their interpersonal competence which hopefully, in turn, is positively associated with daily, face-to-face relationships. However, further research is needed to be conducted in order to suggest results in this direction. Findings of the current study, contributes to this ongoing discussion by stating that, for individuals who tend to be shy, online self-disclosure, as distinct from FtF self-disclosure, is associated with increased perceived interpersonal competence, after controlling for loneliness and social media use. This finding underlines a different role of media in terms of self-

disclosure which also provides supporting evidence for rehearsal hypothesis, SIDE model and implication of social penetration theory to online media. Future researchers who will study on this topic can both influence from this finding in conducting research and extend the present findings. Counseling professionals can have a better understanding how their clients interact with online media, how online self-disclosure is related with interpersonal competence and what role does shyness and loneliness play in this relationship.

### 5.7.Recommendations for Future Research

In order to improve this research, some recommendations will be discussed. First of all, an important recommendation regarding generalizability is that, current findings need to be replicated with different samples (age group, culture etc.) in order to strengthen the generalizability of the findings. Besides, several important recommendations for future research could be made in terms of methodology. For instance, as Nguyen, Bin, and Campbell (2012) have pointed out, survey studies and experimental studies may produce difference in results. They also suggested that that survey studies may not reflect actual self-disclosure behavior. Therefore, future studies need to consider conducting experimental studies that aim to measure actual self-disclosure behavior. Future experimental studies will be also important in terms of addressing cause and effect relationship between online self-disclosure and perceived interpersonal competence.

In terms of methodology, another recommendation regards the medium. Including target audience or a specific situation may generate more reliable results in the future. For example, specifically examining the relationship between interpersonal competence and amount of self-disclosure in terms of communicating with existing social network, new people, romantic encounters, professional encounters and any other specifications of audience, condition and medium (Facebook, Twitter, LinkedIn etc.) would be helpful to elaborate the present findings. It is possible that, online communication with different audiences produce difference results on perceived interpersonal competence. In addition, Teppers, et al. (2014) have emphasized that,

how social media will affect (positive vs. negative) the individual is influenced by the individual's purpose of using it. Therefore, future studies may extend the literature by including the purpose of using social media in their analyses.

Besides, future studies may apply a different way of measuring social media usage frequency as statements such as frequent or very frequent are too personal and open to bias. Approximate amount of time can be asked or actual time can be measured via daily diary methods (e.g., experience sampling). Finally, more in depth analyses of self-disclosure such as breadth, depth and duration as specified by Altmann and Taylor, (1973) can be measured and evaluated separately in terms of its influence on interpersonal competence.

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## APPENDICES

### A: Demographics and Social Media Usage Form

#### Kişisel Bilgiler

Yaş: \_\_\_\_\_

Cinsiyet: Kadın ( ) Erkek ( )

Meslek:

Öğrenci ( )

Özel Sektör ( )

Kamu ( )

İşveren ( )

Çalışmıyor ( )

Diğer: \_\_\_\_\_

**Aşağıdaki soruyu lütfen kullandığınız sosyal medya araçlarından (Facebook, Twitter, Instagram vb.) en sık kullandığınızı düşünerek, uygun yeri işaretleyin.**

1) Sosyal Medya kullanma sıklığınız ne kadardır?

Çok Fazla ( ) Fazla ( ) Orta ( ) Az ( ) Çok Az ( )

## **B: Informed Consent Form**

Bu araştırma, ODTÜ Rehberlik ve Psikolojik Danışmanlık Yüksek Lisans öğrencisi Selin Mısır tarafından Prof. Dr. Ayhan Demir danışmanlığındaki yüksek lisans tezi kapsamında yürütülmektedir. Bu form sizi araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır. Araştırmanın amacı, genç yetişkinlerin internet üzerinden kendini açma davranışı ve bu davranışın yüz yüze iletişimde sosyal yeterlilik algısı hakkında bilgi edinmektir.

Araştırmaya katılmayı kabul ederseniz, sizden 4 farklı ölçekten oluşan bataryayı yanıtlamanız beklenmektedir. Yanıtlaması yaklaşık olarak yirmi dakika sürmesi beklenen bu bataryada sizlere bir dizi çoktan seçmeli soru yöneltilecek ve bu soruları kendinize ait bilgileri düşünerek dürüst bir şekilde yanıtlamanız istenecektir.

Araştırmaya katılımınız tamamen gönüllülük temelinde olacaktır. Çalışmada sizden kimliğinizi belirtecek hiçbir bilgi istenmemektedir. Yanıtlarınız tamamıyla gizli tutulacak ve sadece araştırma amacıyla değerlendirilecektir. Katılımcılardan elde edilecek bilgiler gruplar halinde değerlendirilecek ve bilimsel amaçlarla kullanılacaktır.

Araştırma soruları, genel olarak kişisel rahatsızlık verecek sorular veya uygulamalar içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz araştırmayı yarıda bırakabilirsiniz. Böyle bir durumda araştırmayı uygulayan kişiye devam etmek istemediğinizi söylemeniz yeterli olacaktır.

Araştırma sonunda, bu çalışmayla ilgili sorularınız cevaplanacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için Rehberlik ve Psikolojik Danışmanlık Bölümü öğretim üyelerinden Prof. Dr. Ayhan Demir (E-posta: aydemir@metu.edu.tr) ya da yüksek lisans öğrencisi Selin Mısır (E-posta: selin.misir@metu.edu.tr) ile iletişim kurabilirsiniz.

*Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak*

Katılıyorum ( ) Katılmıyorum ( )

### C: Interpersonal Questionnaire Scale Sample Items

Aşağıdaki ifadelerde kişilerarası ilişkilere özgü bazı davranışlar yer almaktadır.

Lütfen her bir ifadeyi dikkatlice okuyunuz ve bu ifadelerde yer alan davranışları gerçekleştirme konusunda kendinizi nasıl gördüğünüzü belirtiniz.

- 1: Bu konuda hiç iyi değilim                      2: Bu konuda iyi değilim  
3: Bu konuda biraz iyiyim                      4: Bu konuda iyiyim  
5: Bu konuda çok iyiyim

1. Yeni tanıştığınız birilerine birlikte bir şeyler yapmayı teklif etmek (sinemaya gitmek vb.)	①	②	③	④	⑤
2. Başkalarına yaşadıkları sorunları anlayabildiğinizi hissettirebilmek.	①	②	③	④	⑤
3. Kendi isteklerinizi diğer insanlara kabul ettirmek.	①	②	③	④	⑤
4. Kendinizle ilgili özel şeyleri başkalarına anlatmak.	①	②	③	④	⑤
8. Kendinizi savunmak.	①	②	③	④	⑤
9. Kendinizle ilgili utandığınız şeyleri birisine söylemek.	①	②	③	④	⑤
12. Birisi sorularını anlatırken, gerçekten onunla ilgilendiğinizi göstermek.	①	②	③	④	⑤
13. Kendi görüşlerinizi diğer insanlara kabul ettirmek.	①	②	③	④	⑤
14. Birisine açılmak ve kendinizle ilgili her şeyi bilmesine izin vermek.	①	②	③	④	⑤
15. Anlaşmazlıkları hiç kimseyi üzmeden ya da kırmadan çözümlenmek.	①	②	③	④	⑤
17. Başkalarına yaşadıkları sorunları tam olarak anlamaları için yardımcı olmak.	①	②	③	④	⑤
20. Anlaşmazlıkları bir kişinin her zaman zararlı çıkmayacağı şekilde halletmek.	①	②	③	④	⑤
21. Yeni tanıştığınız birilerini telefonla arayarak birlikte bir şeyler yapmak için randevulaşmak.	①	②	③	④	⑤
24. Herkesin bilmesini istemediğiniz şeyleri birisine anlatmak.	①	②	③	④	⑤

### D: Revised Cheek and Buss Shyness Scale Sample Items

Lütfen aşağıdaki maddeleri dikkatlice okuyarak her maddenin sizin duygu ve davranışlarınıza uygunluğunu, verilen dereceleme sistemine göre değerlendiriniz. Yanıtlama işlemini, her maddenin karşısındaki rakamlardan birini işaretleyerek yapınız.

1: Bana hiç uygun değil      2: Uygun değil      3: Kararsızım  
4: Uygun      5: Bana çok uygun

1. İyi tanımadığım kişilerle birlikteyken kendimi tedirgin hissedirim.	①	②	③	④	⑤
2. Toplumsal ilişkilerde hiç rahat değilim.	①	②	③	④	⑤
3. Başkalarından herhangi bir konuda bilgi istemek bana zor gelir.	①	②	③	④	⑤
4. Arkadaş toplantıları ve diğer sosyal etkinliklerde genellikle rahat değilimdir.	①	②	③	④	⑤
7. Yeni tanıştığım insanlara doğal davranmakta güçlük çekerim.	①	②	③	④	⑤



## E: Revised Wheelles & Grotz Self-Disclosure Scale Sample Items

Aşağıdaki maddeleri İnternette ve gerçek yaşamda kurduğunuz ilişkiler içinde en yakın olduğunuzu düşündüğünüz kişiyle olan iletişiminizi yansıtacak şekilde ayrı ayrı derecelendirin.

1: Kesinlikle katılmıyorum 2: Katılmıyorum 3: Kısmen katılmıyorum

4: Kararsızım 5: Kısmen katılıyorum 6: Katılıyorum 7: Kesinlikle katılıyorum

	Çevrimiçi İletişim	Yüz yüze iletişim
1. Eğer istersem, her zaman gerçekten kim olduğumu doğru yansıtacak şekilde kendimi anlatabilirim.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
2. Özel duygularımı açıkladığımda, her zaman ne yaptığımın ve ne söylediğimin farkındayım.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
4. Çoğu kez kendim ile ilgili konuşmam.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
5. Duygularım ile ilgili ifadelerim çoğunlukla kısadır.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
6. Kendimle ilgili konuşuyorsam, konuşmalarım kısa sürer.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
8. Çoğu kez, kendimle ilgili olumlu şeyleri anlatırım (açıkça yansıtırım).	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
10. İstediğim zaman kendimi açıklayamam çünkü kendimi yeteri kadar tanımam.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
12. Her zaman kendimi anlatırken dürüst değilimdir.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
14. Konuşmalarımda, gerçekten kim olduğumu açıkça ve tam olarak samimi bir şekilde açıklarım.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
16. Genellikle kendimle ilgili bilgileri istemeden açıklarım (açığa vururum).	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦
17. Mesajlarım çoğunlukla neden hoşlandığımı gösterir.	① ② ③ ④ ⑤ ⑥ ⑦	① ② ③ ④ ⑤ ⑥ ⑦

## F: UCLA Loneliness Scale Sample Items

Aşağıda çeşitli duygu ve düşünce içeren ifadeler verilmektedir. Sizden istenilen her ifadeye tanımlanan duygu ve düşünceyi ne sıklıkla hissettiğinizi ve düşündüğünüzü her biri için tek bir rakamı daire içine alarak işaretlemenizdir.

1: Ben bu durumu hiç yaşamam  
yaşarım  
3: Ben bu durumu bazen yaşarım  
yaşarım

2: Ben bu durumu nadiren  
4: Ben bu durumu sık sık

1. Kendimi çevremdeki insanlarla uyum içinde hissediyorum.	①	②	③	④
2. Arkadaşım yok.	①	②	③	④
3. Başvurabileceğim hiç kimsem yok.	①	②	③	④
7. Artık hiç kimseyle samimi değilim.	①	②	③	④
8. İlgilerim ve fikirlerim çevremdekilerce paylaşılmıyor.	①	②	③	④
9. Dışa dönük bir insanım.	①	②	③	④
10. Kendimi yakın hissettiğim insanlar var.	①	②	③	④
11. Kendimi grubun dışına itilmiş hissediyorum.	①	②	③	④
12. Sosyal ilişkilerim yüzeyseldir.	①	②	③	④
13. Hiç kimse gerçekten beni iyi tanımıyor.	①	②	③	④
18. Çevremde insanlar var ama benimle değiller.	①	②	③	④
20. Derdimi anlatabileceğim insanlar var.	①	②	③	④

## G: Approval of Applied Ethics and Research Center

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ  
APPLIED ETHICS RESEARCH CENTER



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13 Nisan 2016

Gönderilen: Prof.Dr. Ayhan DEMİR

Eğitim Bilimleri

Gönderen: Prof. Dr. Canan SÜMER

İnsan Araştırmaları Etik Kurulu Başkanı

İlgi: Etik Onayı

Sayın Prof. Dr. Ayhan DEMİR' in danışmanlığını yaptığı yüksek lisans öğrencisi Selin MISIR' ın "İnternet Üzerinden Kendini Açma Davranışının Temel Psikolojik İhtiyaçları ve Yüzyüze İletişimde Kişilerarası Yetkinlik Algısı ile İlişkisi" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay 2016-EGT-051 protokol numarası ile 18.04.2016-30.06.2016 tarihleri arasında geçerli olmak üzere verilmiştir.

Prof. Dr. Canan SÜMER

İnsan Araştırmaları Etik Kurulu Başkanı

## H: Turkish Summary / Türkçe Özet

### ÇEVİRİMİÇİ – YÜZ YÜZE KENDİNİ AÇMA DAVRANIŞI VE KİŞİLER ARASI YETKİNLİK: UTANGAÇLIK VE YALNIZLIĞIN ROLÜ

#### 1. GİRİŞ

İnternetin insanların günlük yaşamında vazgeçilemez bir hale gelmesi, araştırmacıları, internetin kullanıcılar üzerindeki sosyal etkilerine, kişisel yaşam tarzına ve sosyal etkileşimlerine olan etkisini çalışmaya yönlendirmiştir (Tyler, 2002; Kraut ve ark. 2002). Son yıllarda çevrimiçi medya kullanımı, iletişimi önemli derecede etkilemiştir (Thimm, 2008). Araştırmalara göre, bilgisayar ortamında gerçekleştirilen iletişim, bir diğer deyişle bilgisayar aracılı iletişim, yüz-yüze iletişimden farklı özellikler göstermektedir (örn; Amichai-Hamburger ve Hayat, 2013). Özellikle bir bilgisayar aracılı iletişim yeri olan sosyal medya siteleri, kişiler arası etkileşimi, yüz yüze iletişimin yer ve zaman kısıtlamalarından kurtarmakta ve kullanıcılara avantajlar sağlamaktadır (Culnan ve Markus, 1987; Thimm, 2008). Bu sayede bilgisayar aracılı iletişim, bireyin daha hızlı erişebildiği sosyal çevresini genişletmekte ve benzer ilgi alanlarına sahip insanlarla tanışabilme olanağını artırmaktadır (Kraut ve ark. 2002). Eşzamanlı olmayan, anında tepki vermeksizin kurulabilen iletişim olanağı da alanyazında bilgisayar aracılı iletişimin avantajı olarak bahsedilmektedir (Walther ve Tidwell, 1995). Bunun yanı sıra, bilgisayar aracılı iletişimde karşıdaki kişinin yüzü, mimikleri, ses tonu gibi fiziksel ipuçlarının erişilebilir olmaması, bilgisayar aracılı iletişimi yüz yüze iletişimden ayıran temel özelliklerdendir (Herring, 2004).

Sosyal medya siteleri, özellikle 2004 yılında Facebook'un başlangıcıyla hızlı bir artışla insanların hayatında yer etmeye başlamıştır (örn; Bryant, Marmo, Ramirez Jr. 2011). Özellikle genç yetişkinler sosyal medya siteleri aracılığın kişiler arası ilişkilerinde iletişim başlatma, sürdürme izlenim oluşturma ve bilgi edinme gibi

ihtiyaçlarını önemli derecede karşılamaktadırlar (Bryant, Marmo, Ramirez Jr. 2011). Özellikle eşzamanlı olmayan, anında tepki vermeksizin kurulabilen iletişim olanağı sayesinde, sosyal medya siteleri bireylerin ilişkilerini sürdürmeleri açısından olumlu katkılar sunmaktadır (Walther & Boyd, 2002, O'Sullivan, 2000). Dolayısıyla Ellison, Steinfeld ve Lampe (2007)'nin de önerdiği gibi, internet ve sosyal medya kullanıcıların her zaman gerçek dünyadan izole olmalarına yol açmamakta ve ilişkilerinde yakınlık, samimiyet ve sürdürülebilirlik sağlama konusunda iletişimi olumlu etkileyebilmektedir (Cummings, Lee ve Kraut 2006; Dwyer, 2007).

Sosyal medya siteleri özellikle, bazı özelliklere sahip bireylerin ayrıca özel ilgilerini çekmektedir (Pratarelli ve ark. 1999; Baker, & Oswald, 2010; McKenna & Bargh, 1999). Utangaçlık, sosyal medya siteleri üzerinden iletişimi tercih etme açısından özel bir yer tutmaktadır (Pratarelli ve ark., 1999). Araştırmalara göre utangaç bireyler, bilgisayar aracılı iletişimin sağladığı bazı olumlu özellikler sayesinde kendilerini daha iyi ifade edebilmekte ve daha sağlıklı iletişim kurabilmektedirler (Baker, & Oswald, 2010; McKenna & Bargh, 1999; McKenna & Bargh, 2000). Ayrıca araştırmalar utangaç bireylerin bilgisayar aracılı iletişimde, yüz yüze iletişime göre daha fazla kendini açma davranışı sergilediklerini göstermektedir (Joinson, 2001; Tidwell & Walther, 2002; Antheunis ve ark., 2007).

## 1.2.Araştırmanın Amacı

Bu araştırmanın ana amacı, utangaçlığın ve yalnızlığın bireylerin bilgisayar aracılı iletişimde sergiledikleri davranışları ve bu davranışların kişiler arası yetkinlik düzeylerine etkilerini incelemektir. Daha detaylı olarak bu çalışmanın farklı alt amaçları bulunmaktadır. İlk olarak, katılımcıların internet üzerinden kendini açma davranışları ile yüz yüze iletişimde kendini açma davranışı arasında anlamlı bir fark olup olmadığı, daha sonra ise utangaçlık ve yalnızlık düzeyi yüksek bireylerde bu farkın gözlenip gözlenmediğinin ayrı ayrı incelenmesi amaçlanmıştır. İkinci olarak ise, utangaçlık ve yalnızlık düzeylerinin, farklı ortamlardaki kendini açma davranışının miktarı üzerinde anlamlı bir değişiklik ile ilişkili olup olmadığı sorgulanmıştır. Son olarak ise, utangaçlık düzeyi yüksek bireylerde, sosyal medya

kullanım sıklığı ve yalnızlık düzeyleri kontrol edildiğinde, internet üzerinden ve yüz yüze kendini açma davranışının kişiler arası yetkinlik düzeyini anlamlı bir şekilde yordayıp yordamadığı anlaşılmaya çalışılmıştır. Bu kapsamda 5 farklı araştırma sorusu sorulmuştur.

### 1.3.Araştırma Soruları

Soru 1: Örneklemin internet üzerinden ve yüz yüze iletişimde kendini açma davranışları arasında anlamlı bir fark var mıdır?

Soru 2: Utangaçlık düzeyi yüksek bireylerin internet üzerinden ve yüz yüze iletişimde kendini açma davranışları arasında anlamlı bir fark var mıdır?

Soru 3: Yalnızlık düzeyi yüksek bireylerin internet üzerinden ve yüz yüze iletişimde kendini açma davranışları arasında anlamlı bir fark var mıdır?

Soru 4: Utangaçlık ve yalnızlık düzeyleri internet üzerinden ve yüz yüze iletişimde kendini açma davranışını anlamlı şekilde etkiler mi?

Soru 5: Demografik özellikler, sosyal medya kullanım sıklığı ve yalnızlık düzeyi kontrol edildiğinde, utangaçlık düzeyi yüksek bireylerde, internet üzerinden ve yüz yüze iletişimde kendini açma davranışı, kişiler arası yetkinlik düzeyini anlamlı bir şekilde yordar mı?

### 1.4. Araştırmanın Önemi

Bu çalışmanın, Türk örneklemiyle yapılmış bilgisayar aracılı iletişim konusunda bulgularıyla bu alandaki bilgi birikimine katkı sağlayacağı düşünülmektedir. Bilgisayar aracılı iletişim, utangaçlık ve yalnızlık üzerine yapılmış birçok çalışma olmasına rağmen (örn; Joinson 2001, Bruss & Hill 2010; Antheunis ve ark., 2007, Coleman ve ark. 1999, Tidwell & Walther 2002; Desjarlais, Gilmour, Sinclair, Howell & West, 2015), Türk örneklemi ile yapılmış çalışmaların sayıca artması, örneklemelerin kültür ve değer farkı taşıması sebebiyle ayrıca önem taşımaktadır (Reed, Spiro & Butts, 2016; Günsoy ve ark. 2015).

Dolayısıyla bu çalışma, utangaçlık, yalnızlık, kişiler arası yetkinlik ve kendini açma davranışı arasındaki örüntüleri kapsamlı bir şekilde incelemesi ve bunu Türk örnekleme ile yapması açısından önem taşımaktadır.

Buna ek olarak, demografik değişkenlerin kontrol edilmiş olması çalışmanın bir başka önemi olarak sayılabilir. Alanyazında demografik değişkenlerin kendini açma, yalnızlık ve utangaçlık değişkenleri üzerindeki etkisi tartışmalı ve değişkendir (Wang ve ark. 2011; Cho, 2007; Öztürk & Kaymak-Özmen 2011; Chou & Hsiao, 2000; Scherer, 1997; Leung, 2004; Soule, Shell, & Kleen, 2003; Young, 1998). Ayrıca, yalnızlık değişkeninin kontrol ediliyor olması da çalışmanın katkılarından biridir. Alanyazına göre yalnızlık, utangaçlık ve internet kullanımı arasındaki ilişkiyi açıklamada aracı değişken rolü oynamakta olup, yalnızlığın etkisi kontrol edildiğinde problematik internet kullanımı ve utangaçlık arasındaki ilişkinin ortadan kalktığı görülmüştür (Huan, Ang, Chong, & Chye 2014). Bu sebeple, utangaçlık, internet üzerinden kendini açma ve kişiler arası yetkinlik arasındaki ilişki incelenirken, yalnızlık değişkeninin kontrol edilmesi çalışmayı güçlü kılan bir özellik sayılabilir.

Çalışmanın, psikolojik danışmanlık alanında çalışan profesyoneller açısından da bazı katkılar sağlayacağı düşünülmektedir. Çalışmanın odağı olan kendini açma davranışı, danışma ve iyileşme sürecinin önemli bir parçası olarak görülmektedir (Pennebaker, 1997). Öyle ki, kişisel bilgilerini saklama eğiliminde olup kendini açmayan bireylerin daha fazla fiziksel problemler yaşadığı bulunmuştur (Kelly & Mcready, 2009). Ayrıca, kendini açma davranışı, danışmanlık süreci için de önemli olup, danışmanlık süreci bireylerin başka yerde yapamayacakları ölçüde kendilerini açmaları için iyi bir fırsattır (Farber & Hall, 2002). Dolayısıyla, kendini açma davranışı, danışmanlık süreci için önem taşır. Kişiler arası yetkinlik ise psikolojik rahatsızlıklar için anlamlı bir belirleyici rolü oynamaktadır (Caplan, 2003). Yüz yüze ve bilgisayar aracılı iletişimdeki kendini açma davranışı farkı ve bunun kişiler arası yetkinliğe etkisi üzerine bu çalışmadan edinilecek bilgiler ışığında danışmanlar, danışmanlarına daha etkili bir şekilde yardım edebilir ve tedavi planları uygulayabilir (Chan, 2011; Michaeli, 2013).

Ayrıca, günlük sosyal medya kullanımının bireyler üzerindeki etkilerini bilmek, utangaçlık ve yalnızlığın bu süreçteki yerini anlamak danışanları daha iyi anlamak ve daha iyi yardımcı olmak için de yararlı bilgiler sağlayabilir.

## 2. YÖNTEM

### 1.6. Örneklem

Çalışmaya 373'ü kadın, 208'i erkek ve 4'ü belirtilmemiş olmak üzere toplam 585 katılımcı katılmıştır. Katılımcıların yaşı 18 ve 30 arasında değişiklik göstermektedir ( $M = 21.41$ ,  $SD = 2.15$ ). Örneklem tamamı üniversite öğrencilerinden oluşmaktadır ( $n = 585$ ).

### 2.2. Veri Toplama Araçları

#### 2.2.1. Demografik Bilgi Formu

Katılımcıların yaş, cinsiyet, çalışma/öğrenci olma durumuna dair bilgiler demografik bilgi formu aracılığı ile toplanmıştır.

#### 2.2.2. Sosyal Medya Kullanım Ölçeği,

Sosyal medya kullanım sıklığı “kullanım sıklığınız ne kadardır?” sorusu ile ölçülmüştür. Sosyal medya kullanım ve sıklığı, 1 = çok az ve 5 = çok fazla arasında değişkenlik gösteren 5’li Likert tip ile ölçülmüştür.

#### 2.2.3. UCLA Yalnızlık Ölçeği

UCLA Yalnızlık Ölçeği (Russel, Peplau & Ferguson 1978) 20 maddeden oluşan ve algılanan yalnızlık düzeyini ölçmeyi amaçlayan bir ölçektir. 20 maddeden 10’u olumlu, 10’u olumsuz ifadeler içermekte olup, olumsuz ifadeler ters



kodlanmıştır. Ölçek 4'lü Likert tip sorulardan oluşmaktadır (1 = Ben bu durumu sık sık yaşarım, 4 = Ben bu durumu hiç yaşamam). Ölçeğin örnek maddeleri olarak “arkadaşım yok” ve “başvurabileceğim hiç kimsem yok” verilebilir. Toplam yalnızlık puanı tüm maddelerin toplanması ile elde edilir ve yüksek puanlar yüksek yalnızlık düzeylerini ifade eder. Ölçek Demir (1989) tarafından Türkçeye çevrilmiş ve geçerlilik, güvenilirlik çalışmaları yapılmıştır. Ölçeğin iç tutarlılığı  $\alpha = .96$  ve test-tekrar test güvenilirliği  $r = .94$  olarak hesaplanmıştır.

#### 2.2.4. Gözden Geçirilmiş Cheek ve Buss Utangaçlık Ölçeği

Orijinal ölçek Cheek ve Buss (1981) tarafından geliştirilmiş olup 5'li Likert tip'te sorular içeren 13 maddeden oluşan bir ölçektir. Ölçeğin puanlandırılması 1= Bana hiç uygun değil ve 5 = Bana çok uygun arasında değişiklik göstermektedir. Ölçekten alınabilecek en düşük puan 13 iken en yüksek puan 56'dır ve yüksek puanlar yüksek düzey utangaçlık olarak yorumlanmaktadır. Örnek maddeler olarak “İyi tanımadığım kişilerle birlikteyken kendimi tedirgin hissedirim” ve “Arkadaş toplantıları ve diğer sosyal etkinliklerde genellikle rahat değilimdir” verilebilir. Ölçeğin Türkçe çevirisi Koydemir ve Demir (2005) tarafından gerçekleştirilmiş olup iç tutarlılığı  $r = .91$  olarak hesaplanmıştır.

#### 2.2.5. Kişilerarası Yetkinlik Ölçeği

Ölçeğin orijinali Buhrmester, Furman, Wittenber ve Reis (1988) tarafından bireylerin algılanan kişiler arası yetkinlik düzeyini ölçmek amacıyla geliştirilmiştir. 5'li Likert tipinde (1 = Bu konuda hiç iyi değilim, 5 = Bu konuda çok iyiyim) 25 soru içermektedir. Ölçek, ilişki başlatma, duygusal destek, etki bırakma, kendini açma ve çatışma yönetimi olmak üzere 5 alt ölçekten oluşmuştur. Toplam kişiler arası yetkinlik puanı, tüm alt ölçeklerin toplanmasından oluşmaktadır. Ölçekten alınabilecek en düşük puan 25 iken en yüksek puan 125'tir. Ölçeğin Türkçe çevirisi Şahin ve Gizir (2013) tarafından yapılmıştır. Alt faktörlerin güvenilirliği .74 ve .83 arasında

değişmekte, test-tekrar test güvenilirliği ise .72 ile .89 arasında değişiklik göstermektedir. Ölçeğin Türkçe çevirisi kullanım için geçerli ve güvenilir bulunmuştur.

#### 2.2.6. Gözden Geçirilmiş Wheelless ve Grotz Kendini Açma Ölçeği

Wheeles ve Grotz (1976) tarafından geliştirilen ölçek 7'li Likert tipte 18 soru içermektedir ve 6 alt ölçekten oluşmaktadır. Örnek maddeler “Eğer istersem, her zaman gerçekten kim olduğumu doğru yansıtacak şekilde kendimi anlatabilirim” ve “Her zaman kendimi anlatırken dürüst değilimdir” olarak verilebilir. Yüksek puanlar, yüksek düzeyde kendini açma davranışına işaret eder. Türkçe çevirisi Erdost (2004) tarafından yapılmış olup güvenilirlik puanı .55 olarak hesaplanmıştır.

#### 2.3. Veri Toplama Süreci ve İşlem

Veri toplama süreci hem internet üzerinden hem kâğıt-kalem aracılığı ile gerçekleştirilmiştir. Çalışmaya 208 kişi internet üzerinden, 443 kişi ise kâğıt kalem ölçekler ile katılmıştır. Tüm katılımcılar önce bilgilendirilmiş onay formunu okuyarak çalışmaya gönüllü katıldıklarını belirttikten sonra aynı sırayla ölçekleri yanıtlamışlardır. Kâğıt- kalem ölçekler Orta Doğu Teknik Üniversitesi öğrencilerine uygulanırken, İnternet üzerinden gerçekleştirilen ölçekler çeşitli sosyal medya hesapları ve mail gruplarında duyurulmuştur. Ölçekleri yanıtlamak yaklaşık 15 dakika kadar sürmüştür ve katılımcılara katılım karşılığında herhangi bir ödül sunulmamıştır.

#### 2.4. Veri Analizi

Veri Analizi için SPSS 21 programı kullanılmıştır. İnternet üzerinden ve yüz yüze iletişimde kendini açma davranışı arasındaki farkın incelenmesi için eşleştirilmiş örneklem t-testi kullanılmıştır. Utangaçlık ve yalnızlık düzeylerinin internet üzerinden ve yüz yüze iletişimde kendini açma davranışına olan etkisinin incelenmesinde ise çift yönlü çoklu varyans analizi kullanılmıştır. Son olarak ise,

kişiler arası yetkinlik düzeylerinin kendini açma davranışı üzerinden yordanıp yordanmadığının anlaşılması amacıyla hiyerarşik regresyon analizi uygulanmıştır.

### 3. BULGULAR

Çalışmada kâğıt – kalem ve internet üzerinden olmak üzere iki farklı veri toplama yöntemi ve işlem uygulandığı için bu iki farklı uygulamanın değişkenler üzerindeki etkisi bağımsız örneklem t-testi kullanılarak kontrol edilmiştir. Sonuca göre, farklı işlem uygulamaları sadece yalnızlık ( $t_{(583)} = 2.817, p = .005$ ) ve sosyal medya kullanım sıklığı ( $t_{(583)} = -2.445, p = .010$ ) üzerinde anlamlı bir farklılığa sahip olmuştur ve internet üzerinden katılan katılımcıların, kâğıt kalem ile katılan katılımcılara göre daha yalnız hissettikleri görülürken, kâğıt kalem ile katılan katılımcıların sosyal medya kullanım sıklığının daha fazla olduğu görülmüştür. Bunun yanı sıra katılımcıların yaş ve cinsiyet durumunun da etkisi yine bağımsız örneklem t-testi ile kontrol edilmiştir. Bulgulara göre cinsiyet değişkeni, internet üzerinden kendini açma davranışı ( $t_{(579)} = 2.702, p = .01$ ), yüz yüze iletişimde kendini açma davranışı ( $t_{(579)} = 4.057, p = .00$ ), ve yalnızlık ( $t_{(579)} = -3.499, p = .00$ ) üzerinde anlamlı bir etkiye sahiptir. Yaşın ise herhangi bir değişken üzerinde anlamlı bir etkisi olmadığı görülmüştür.

Yüz yüze ve bilgisayar üzerinden kendini açma davranışı arasındaki farkın anlamlı olup olmadığının anlaşılması için tekrarlanabilen ölçülerle tek yönlü varyans analizi yapıldı. Bulgulara göre bilgisayar üzerinden kendini açma davranışı ile yüz yüze iletişimde kendini açma davranışı arasında anlamlı bir fark mevcuttur ( $t_{(584)} = 13.219, p = .000$ ). Bilgisayar üzerinden iletişimde kendini açma davranışı ( $M = 82.37, SD = 12.35$ ) ile karşılaştırıldığında katılımcıların yüz yüze iletişimde kendilerini açma davranışının ( $M = 87.53, SD = 12.92$ ) daha fazla olduğu görülmüştür. Aynı analiz, yalnızlık ve utangaçlık düzeyleri yüksek bireylerle olmak üzere iki kere tekrarlanmıştır. Bulgular, her iki grupta da sonucun değişmediğini, bilgisayar acılı iletişim ve yüz yüze iletişim arasında anlamlı bir fark gözlemlendiği ve her iki grup için de yüz yüze iletişimde kendini açma davranışının daha yüksek olduğunu gösteriyor.

İki yönlü çoklu varyans analizinin sonuçlarına göre bireylerin yalnızlık ( $F_{(4,1150)} = 13.394, p = .000, \text{kısmi } \eta^2 = .045, \text{Wilk's } \lambda = .913$ ) ve utangaçlık ( $F_{(4,1150)} = 6.771, p = .000, \text{kısmi } \eta^2 = .023, \text{Wilk's } \lambda = .955$ ) düzeyleri, internet üzerinden ve yüz yüze kendini açma davranışı üzerinde anlamlı bir etkiye sahiptir. Çoklu karşılaştırma testi sonuçlarına göre, yalnızlık ve utangaçlık düzeyi düşük bireylerde hem internet üzerinden hem de yüz yüze kendini açma davranışı artış göstermektedir. Yalnızlık ve utangaçlık düzeyi arttıkça, kendini açma davranışı hem yüz yüze hem de internet üzerinden iletişimde, düşüş göstermektedir.

Hiyerarşik Regresyon analizi bulgularına göre ise, sosyal medya kullanımı ve yalnızlık düzeyi kontrol edildiğinde, utangaçlık düzeyi yüksek bireylerde yüz yüze iletişimde kendini açma davranışı kişiler arası yetkinlik seviyesini yordamazken, internet üzerinden kendini açma davranışının, anlamlı ve olumlu bir yordayıcı olmaya devam ettiği görülmüştür.

#### 4. TARTIŞMA

Bu çalışmada utangaç bireylerin internet üzerinden kendini açma davranışı ile yüz yüze kendini açma davranışları arasında anlamlı bir fark olup olmadığının anlaşılması amaçlanmıştır. Bunun yanı sıra utangaçlık ve yalnızlık seviyelerinin internet üzerinden ve yüz yüze iletişimde anlamlı bir etkisi olup olmadığı da araştırılmıştır. Son olarak ise utangaçlık seviyesi yüksek bireylerde, internet üzerinden ve yüz yüze iletişimde kendini açma davranışının, demografik özellikler, yalnızlık ve sosyal medya kullanım sıklığının etkisi kontrol edildiğinde algılanan kişiler arası yetkinlik seviyesini anlamlı bir şekilde yordayıp yordamadığını anlamak amaçlanmıştır.

Araştırma sorularını yanıtlama amacıyla gerçekleştirilen istatistiksel analizlerden önce, çalışmaya ve sonuçlara etki edebilecek diğer değişkenlerin etkisi incelenmiştir. Öncelikle, farklı veri toplama yöntemlerinin değişkenler üzerindeki etkisi incelenmiş, daha sonra ise cinsiyet ve yaş gibi demografik değişkenlerin etkisi incelenmiştir. Değişkenlerin, çalışmanın bağımlı değişkeniyle anlamlı bir ilişkisi gözlenmediği için, kontrol edilmeyerek analizlere devam edilmiştir.

Araştırma sorularından ilkinde dair bulgular incelendiğinde, internet üzerinden ve yüz yüze iletişimde kendini açma davranışı arasında anlamlı bir fark olduğu görülmüştür ve katılımcıların yüz yüze iletişimde kendini açma davranışının, internet üzerinden kendini açma davranışına göre daha fazla olduğu görülmüştür. Utangaçlık ve yalnızlık düzeyi yüksek bireylerde de bu durum değişiklik göstermemektedir. Yani bu örnekte, utangaçlık ve yalnızlık düzeylerinden bağımsız olarak bireyler daha fazla yüz yüze iletişimde kendini açma davranışı göstermektedir.

Utangaçlık ve yalnızlık seviyelerinin yüz yüze ve internet üzerinden kendini açma davranışları üzerinde anlamlı bir etkisi olup olmadığı incelendiğinde ise, her ikisinin de anlamlı bir etkiye sahip olduğu görülmüştür. Bulgular, utangaçlık seviyesi düşük olan bireylerin hem yüz yüze hem de internet üzerinden daha fazla kendini açma davranışı sergilediklerini göstermektedir. Tam tersine, utangaçlık düzeyi yüksek bireylerin ise, düşük düzeydeki bireylere göre daha az kendini açma davranışı sergilediği bulunmuştur.

Yalnızlık değişkeni için bakıldığında ise düşük, orta ve yüksek düzeylerin anlamlı bir şekilde birbirinden farklılık gösterdiği görülmüştür. Yalnızlık düzeyi yüksek olan grubun, en düşük miktar kendini açma davranışı ile ilişkiliyken, yalnızlık düzeyi orta olan grubun kendini açma davranışı, yalnızlığı yüksek olan gruba göre daha fazla miktarda kendini açma davranışı ile ilişkili bulunmuştur. Yalnızlık düzeyi düşük olan grubun ise kendini açma davranışı ile en fazla ilişkili olduğu gözlenmiştir. Bu sonuçlar hem yüz yüze kendini açma hem de internet üzerinden kendini açma davranışı için aynı örüntüyü göstermektedir.

Son olarak ise, utangaçlık düzeyi yüksek bireylerde, algılanan kişiler arası yetkinliğin kendini açma davranışı tarafından yordanıp yordanamayacağı test edilmiştir. İstatistiksel bulgulara göre, sosyal medya kullanım sıklığı ve yalnızlık düzeyleri kontrol edildiğinde, utangaçlık düzeyi yüksek bireylerde yüz yüze kendini açma davranışı kişiler arası yetkinlik için anlamlı bir yordayıcı olmazken, internet üzerinden kendini açma davranışı, kişiler arası yetkinlik düzeyini anlamlı bir şekilde ve olumlu yönde yordamıştır.

Özetle sonuçlar, internet üzerinden kendini açma davranışının utangaç bireyler için, yalnızlık düzeylerinin etkisi göz ardı edildiğinde, kişiler arası yetkinlik seviyeleri

için olumlu yönde bir yordayıcı olabileceğini göstermektedir. İnternetin etkinlerinin olumlu veya olumsuz yönleri hala tartışılmaya devam ederken, mevcut bulgular, İnternetin insanların günlük sosyal yaşantısını tartışan alanyazına önemli bir katkı sunmaktadır. Bu alanda çalışan araştırmacılara göre, İnternet doğası gereği olumlu veya olumsuz etkiye sahip olamaz, yani kullanıcılarını bağımlı veya daha yalnız hale getirme gibi özellikleri söz konusu değildir.

Daha çok, kullanıcıların ihtiyaç, hedef ve amaçlarını gidermeleri için yeni ve fazladan bir ortam oluşturmaktadır (McKenna & Bargh, 1999). Bir başka deyişle, insanlar, internetin edilgen bir kullanıcı değil, daha çok internet ile etkin bir etkileşim içindedirler (Hughes ve Hans, 2001).

## I: Tez Fotokopisi İzin Formu

### ENSTİTÜ

Fen Bilimleri Enstitüsü	<input type="checkbox"/>
Sosyal Bilimler Enstitüsü	<input checked="" type="checkbox"/>
Uygulamalı Matematik Enstitüsü	<input type="checkbox"/>
Enformatik Enstitüsü	<input type="checkbox"/>
Deniz Bilimleri Enstitüsü	<input type="checkbox"/>

### YAZARIN

Soyadı : MISIR  
Adı : SELİN  
Bölümü : EĞİTİM BİLİMLERİ

**TEZİN ADI** (İngilizce) : ONLINE VS. FACE TO FACE SELF-DISCLOSURE AND INTERPERSONAL COMPETENCE: THE ROLE OF SHYNESS AND LONELINESS

**TEZİN TÜRÜ** : Yüksek Lisans  Doktora

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir.
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir.
3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz.

**TEZİN KÜTÜPHANEYE TESLİM TARİHİ:**