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The Relationship between Emotional and Social Loneliness and Internet Use among Lebanese  
College Students

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A thesis submitted to the faculty of Social and Behavioral Sciences in partial fulfillment of the  
requirement for Masters of Arts degree in Psychology

Beirut – Lebanon

February, 2013

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## **Dedication**

I dedicate this thesis with love to my parents, brother and family to thank them for all the support and love they have given me; along with deep appreciation to all of my friends who helped and encouraged me.

## **Acknowledgements**

Above all, I would like to express my sincere gratitude to my professors Dr. Daoud Tawil, Dr. Daisy Warren and Dr. Hanine Hout, for their valuable guidance and advice. I would not have been able to complete this thesis without them.

I would further like to thank my advisor Dr. Hanine Hout for all of the motivation and support she has given me throughout the years. I would like to thank as well Nercese Armani for his help in SPSS and my cousin Maha Katerji for her help in editing.

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## **Abstract**

This study was conducted to test several hypotheses concerning different types of loneliness, the social and emotional loneliness, with the latter including two aspects: the family loneliness and the romantic loneliness, and their relation to the level of addiction to the internet. A convenient sample of 150 Lebanese college students were administered a survey measuring their type of loneliness, through a short form of the Social and Emotional Loneliness Scale for Adults (SELSA-S), and their level of addiction to internet, through the Internet Addiction Diagnostic Questionnaire (IADQ) and the Internet Addiction test (IAT). The results showed a significant positive correlation between emotional, family, and social loneliness and the level of internet addiction. Moreover, the correlation between emotional loneliness and level of addiction to internet was marginal but in the predicted direction. Regression analysis showed that family loneliness had a bigger weight in explaining the variance on IADQ scores. Three analyses of variance showed a significant mean difference between the three IAT groups of internet addicts on emotional, family and social loneliness and marginal significance between these groups on emotional loneliness. Furthermore, the mean difference was between the normal and moderate groups. Further analysis showed that the moderate group of internet addicts spends more hours using Whatsapp and Facebook.



## **The Relationship between Emotional and Social Loneliness and Internet Use among Lebanese College Students**

The classification of heavy internet use as a clinical disorder is being proposed in a preliminary draft of the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) which will not be available for clinical use until May 2013. The American Psychiatric Association proposes to include "Internet use disorder" in Section III under the chapter of Substance Use and Addictive Disorders. However, further research and studies need to be included (this draft was published on the [www.dsm5.org](http://www.dsm5.org), and was updated on May 1, 2012) since the rationale and the recommendations for severity criteria for this disorder are not finalized yet. The fact that the coming edition of the DSM-V is focusing on the heavy internet use as a clinical disorder indicates the rise and importance of this new type of "addiction" in our societies these days and, therefore, studying this phenomenon among young people will add more value to our understanding of it, as this study hopes to achieve.

More specifically, in associating loneliness with increased level of internet use, studies focused on how socially lonely individuals may be drawn to social online activities to enhance their social behavior and network of friends. As Rokach (2004) nicely put it: "Although common to all of us, the nature of loneliness as a subjective experience is varied across different people, under many conditions, with a multitude of causes and enumerable results and consequences" (p. 25). Robert R. Weiss, considered defining loneliness as a condition of being alone to be misleading and, therefore, should be addressed by researchers with caution. Instead, he defined loneliness with reference to its cause and emphasized the role of close and intimate relations (Weiss, 1976 as cited in Drennan, et al., 2008). As a result, he distinguished between two dimensions, the social and the emotional loneliness. This study is concerned with the

individuals' quality of emotional bonding with their family and or romantic partner and how such bonding could correlate with the level of internet use.

### **Background of the Study**

In previous research studies, lonely individuals were differentiated from the non-lonely individuals using a unidimensional approach to the loneliness construct (Ditommaso, & Spinner 1997; McKenna et al., 2002; Kraut et al., 2002; Morahan-Martina & Schumacher, 2003; Matsuba, 2006). From the unidimensional perspective, loneliness differs between individuals only in intensity and is considered to be invariant across circumstances and causes. This might be the result of adopting the UCLA (University of California, Los Angeles) Loneliness Scale, the most frequently used measure of loneliness that assesses satisfaction with social relationships (Russell, 1996). In an independent study that evaluated seven popular measures of loneliness, Cramer and Barry (1999) found that although this scale might represent a useful global index of loneliness, yet it heavily measures "social" loneliness.

As to the studies that addressed loneliness from a multidimensional approach, they did show support to emotional and social loneliness with some limitations, though. According to Moody (2001), the results of his study might not be generalized for several reasons. Some were related to the participants and others to the internet application used in the study. As to Hardie and Tee (2007) who classified internet users into three groups: the average users (who have complete control over their internet activity), over-users (who experience frequent problems due to their internet activity), and internet addicts (who experience significant problems due to their dependence on internet activities), results showed that all three groups reported moderate levels of social loneliness. On the other hand, the results for emotional loneliness level were different among the three groups with addicts and over users reporting high levels of emotional loneliness.

A limitation to this study, though, is the fact that the sample was relatively small and the group classified as internet addicts represented only 8 % of the sample study. Moreover, the diagnostic tool, the IAT (Internet Addiction Test), used in this study is outdated. A new scoring system was recommended by Young (2007), the innovator of IAT, for the purpose of classifying internet users.

Moreover, the same studies that addressed emotional loneliness almost neglected other potentially important facets of emotional loneliness such as family loneliness (DiTommaso, & Spinner, 1993, 1997). Culture, for instance, plays a major role in this sense. Medora, Woodward, and Larson (1987) state that "among the important factors affecting the individual's experience of loneliness are the culture and the family in which he/she develops" (p. 205). Goodwin (1999) proposed that Western cultures such as North America place great importance on romantic love, probably as a solution to the disconnection experienced in these individualistic cultures. In non-western cultures, like that of Lebanon, the family may ease the feeling of loneliness by providing emotional support if a person is not in a relationship. In cultures that encourage individualism and encourage romantic relationships, loneliness is predominant (Goodwin, 1999; Medora, Larson, Hortaçsu, & Dave, 2002). In fact, in such cultures, the absence of romantic relationships can amplify feelings of loneliness compared with non-Western cultures (Seepersad, Choi, & Shin, 2008) such as Lebanon, where stronger family ties are emphasized instead.

### **Problem Statement**

In this study, loneliness was approached from a multidimensional perspective in which loneliness was differentiated into typologies. However, not only did the different typologies, mainly the emotional (romantic and family) and social loneliness, helped differentiate between lonely and non-lonely individuals, but they also helped differentiate between the lonely

individuals' different experience of loneliness as expressed in their different levels of use of the internet. More specifically, this study is a comparison of emotionally lonely, socially lonely and non-lonely individuals in their use of internet, and how that usage affected their daily lives.

Therefore, in light of the above mentioned literature, this study hypothesized that:

1. There will be a positive correlation between the scores on the Emotional Loneliness scale and the scores on the Internet Addiction Diagnostic Questionnaire among Lebanese College Students.
  - 1a. There will be a positive correlation between the scores on the Family subscale of the emotional scale and the scores on the Internet Addiction Diagnostic Questionnaire among Lebanese College Students.
  - 1b. There will be a positive correlation between the scores on the Romantic subscale of the emotional scale and the scores of the Internet Addiction Diagnostic Questionnaire among Lebanese College Students.
2. There will be a positive correlation between the scores on the Social Loneliness scale and the scores on the Internet Addiction Diagnostic Questionnaire among Lebanese College Students.

### **The Professional Significance of the Study**

From a clinical perspective, studying the relationship between social and emotional loneliness and the level of internet use may help detail the bases for intervention, identify the type of intervention called for, and provide support for a specific theoretical perspective toward loneliness. Specifying the source of loneliness would facilitate exploring ways that would help the lonely individuals cope with their type of loneliness and feel connected without getting overly occupied with the internet.

Culturally speaking, research is still needed to understand how cultural differences affect internet addiction characteristics and what applications appear to be problematic in certain countries (Young, 2007). This study is being carried out to find out the level of internet use among Lebanese undergraduate and graduate students and which group of people is more vulnerable to excessive internet use, the socially or emotionally lonely people. In Lebanon, there is nearly no research about social and emotional loneliness and its association with the level of internet use.

### **Overview of Methodology**

Lebanese graduate and undergraduate students from four private universities in Lebanon, mainly, Lebanese American University (LAU), Lebanese International University (LIU), American University of Beirut (AUB) and Haigazian University (HU), between the age of 18 and 30 ( $n = 150$ ) were given three inventories: the Internet Addiction Questionnaire (IAQ), the Internet Addiction Test (IAT), and the short version of the Social and Emotional Loneliness Scale for Adults (SELSA-S) as well as a demographic questionnaire which consisted of several questions including their age, gender, relationship status, if they still lived with their parents, and if the use of internet lessened their interaction with family and friends. The current research employed the quantitative method of statistical analysis to measure variables by using correlational, regression analysis, Analysis Of Variance (ANOVA), Post Hoc Tukey Test and t-test.

### **Delimitations**

There were several limitations in this study. The primary limitation of the current study was the use of self-report measures to assess the level of internet use, emotional (family and romantic) and social loneliness experienced by the participants. The use of self-report measures

might have increased the risk of participants' over or underestimating their ratings. Furthermore, this study made use of convenient sampling of college students, a larger sample size would have added to the generalizability of the study.

### **Definitions of Key Terms**

Emotional loneliness- is conceptualized as having elements of both family loneliness and romantic loneliness. It is the absence or lack of a close emotional attachment with family or a romantic partner (DiTommaso& Spinner, 1997; DiTommaso et al., 2004).

Social loneliness- is the absence or lack of a meaningful and engaging social network of friends (DiTommaso& Spinner, 1997; DiTommaso et al., 2004).

Internet- is a publically accessible network connecting many smaller networks around the world. (Merriam-Webster)

Level of internet use- is measured in terms of the extent the user has or lacks control over the use of internet (Young 1996).

## CHAPTER 2

### Literature Review

It is discernible nowadays that the Internet has seeped into almost every aspect of the human life. At the workplace, home, schools, public places, on our desktops, laptops, iPads, and smart phones, the Internet is at the fingertips of everyone from children to grandparents. Due to the fast pace of technological progress, Internet networks are becoming more accessible, affordable, and portable and many applications are even available for free.

According to Shelly, Napier, and Rivers (2010), the Internet is a world wide network of computers that allow users around the world to share information and other resources. It is an interconnected network of networks, where each host – a computer directly connected to the Internet- has a number of other computers connected to it. When an Internet user connects to the internet to access information and services, the user is considered to be online. The internet is accessible from different types of computers and mobile devices by sharing a common method of communication known as protocol. A protocol is a standard set of rules that computer network devices follow when transmitting and receiving data.

Social interactive technology has evolved to include audio and video contents and is no longer restricted to networked computers and texting. The smart phone industry has contributed to the new face of interactive technology. The internet online activities in this study include browsing using search engines, playing online games, and communicating with other through instant messages and social networking sites (Skype, Facebook, & Twitter) that have people meet and interact with strangers as well as maintain existing relationship with friends (Ross et al., 2009; Mckenna et al. 2002). Applications of mobile devices addressed in this study are smart phones' Whatsapp, BlackBerry Messenger.

With the easy and wide accessibility to the Internet, people are becoming more and more dependent on social interactive technologies to interact with each other (Wong, 2007). Young (1996) even states that some applications have specific features which render them more addictive in nature than other on-line applications. It seems that the more interactive an application is, the greater its addictive potential might be. A study about the potential explanations of pathological Internet use indicated that when being online, dependents were most likely to use chat rooms and MUDs followed by news groups and emails whereas informational protocols and Web pages were utilized the least (Young, 1996).

### **Internet Use**

The time spent on internet varies from one individual to another. Some use it wisely and adequately while others use it excessively and pathologically. Healthy Internet use refers to using the Internet as a helpful tool for a reasonable amount of time (Davis, 2001) without negative consequences (Caplan 2005). Young (2007) used the term Mild Use to describe an average internet user who spent a bit too long time on internet, but has control over the usage.

Moderate use of internet, however, refers to a quantity, or degree, of online activity that exceeds what a person thinks of as a normal, usual, or planned amount of time online with occasional problems due to internet usage (Young, 2007).

Although Internet users may benefit from the Internet to gather information, have fun and start new social relationships online (KOÇ, 2011), yet there is growing recognition to problematic internet use (Windyanto, &McMurran, 2004). Young (1996) likened extremely excessive Internet use to pathological gambling which, according to DSM-IV TR, is a disorder of impulse control. According to Young (2007), as addiction to internet use grows, users become absorbed in Internet activities such as, playing online games, chatting with online friends,



gambling over the Internet, and gradually ignoring relationships with family and friends in exchange for spending times alone in front of the computer.

Different terms were used to talk about extremely excessive use of internet. While Caplin (2005) referred to serious internet abuse as compulsive, Young (1996) defined “Internet addiction” as an impulse-control disorder which does not involve an intoxicant. Addiction, as used in the literature and DSM-IV TR, refers to a physiological dependence between a person and some stimulus, usually a substance. However, the DSM-IV TR does not use addiction to describe pathological use or abuse of a substance or other such stimulus, nor does it describe compulsive gambling as an addiction. As a result, (Davis, 2001) favored the terms dependence (for substances) and pathological (for gambling disorders). Therefore, in this study extremely excessive use of internet as Young (1996 & 2007) suggested will reflect lack of impulse control to the extent that the use would cause severe problems in the user’s life.

### **Social and Emotional Loneliness Theoretical Background**

The human state of loneliness has been defined differently by many scholars. Peplau and Perlman (as cited in Perlman, 1987), for instance, defined loneliness in terms of a discrepancy between one’s desired and achieved levels of interpersonal bonds taking into consideration the quantitative and qualitative aspects of relationships. Paloutzian (1987) further explained that the greater the discrepancy is, the greater the loneliness will be. Other researchers tried to distinguish between state loneliness and trait loneliness. State loneliness refers to what is experienced at the moment and is probably the outcome of immediate interpersonal deficits in a given situation. On the other hand, trait loneliness probably results from repeated interpersonal failure and may originate in prototypical relationships (Jones, 1987). What the above definitions share in common is the notion that loneliness is a subjective psychological experience that causes distress

and results from deficiencies in the social relationships of lonely individuals (Jones, Rose, & Russell, 1990).

Most researchers use one of two general conceptual approaches in their studies on loneliness, the unidimensional or the multidimensional approach. The majority of these studies fall within the unidimensional construct of loneliness. This approach views loneliness as a unitary phenomenon which varies in experienced frequency or intensity (Russell, 1982). Within this view there is commonality in the experience of loneliness regardless of cause.

In contrast, loneliness according to the multidimensional approach is viewed as a multifaceted phenomenon which cannot be captured by a single global measure (Russell, 1982). This conceptualization promotes the differentiation of various hypothesized typologies of loneliness. One of the proposed typologies of loneliness is Weiss's (1973) distinction between the loneliness of social isolation and that of emotional isolation. It should be noted that later body of research used the term loneliness instead of isolation since they did not support the separation of isolation from loneliness for the two terms probably provide the same information (Vincenzi, 1987). According to Weiss (1973), social loneliness, results from the absence of community while emotional loneliness results from the absence of an attachment figure.

Underlying Weiss's theoretical examination of loneliness has been his focus on what people get from relationships with others. He argued that different types of relationships make different provisions, all of which are important for individuals to maintain their wellbeing and stay healthy (Weiss, 1987). Weiss identified six social provisions: attachment (providing a sense of safety and security), social integration (providing a sense of belonging by a network of relationships), reliable alliance (counting on assistance from another), guidance (receiving advice), reassurance of worth (noting one's skills/abilities) and opportunity for nurturance

(feeling responsible for the wellbeing of another) (Di Tommaso, & Spinner, 1997; Vincenzi, 1987).

According to Weiss, the social provisions are distinct from loneliness in that they reflect specific relational needs supplied by relationships themselves. Weiss theorized that loneliness is a response to the absence of one particular social provision or more. Thus, he proposed that underlying the loneliness of emotional loneliness is the social provision of attachment, whereas underlying the loneliness of social loneliness is the social provision of social integration (Di Tommaso, & Spinner, 1997). Friendship networks provide a community of shared concern in which could be found a sense of membership and belonging (Weiss, 1987). To Weiss, the reality of loneliness resembles childhood attachment distress (Jones, 1987).

Furthermore, Weiss proposed that when feeling threat-vulnerable, insecure, or anxious the attachment system in the adult will be triggered and will begin to dominate feelings and motivations. Only then, the individual will feel the need for an attachment figure's reassuring presence. And that is when the individual without an attachment figure will feel lonely (Weiss, 1987). In other words, loneliness occurs among those without attachment figures when there is a feeling of vulnerability to threat. Weiss proposes that the attachment figure is not necessarily an intimate or a confidante but rather a figure that provides security perceptually and emotionally. He further argues that when one's intimate other replaces the parents as an attachment figure; the loss of that significant other is similar to the experience of an infant separated from its parents. For that reason, Weiss considers emotional loneliness a developmental extension of an infant's attachment to its parents (Schultz, 1987).

Weiss's proposal (1973) on the distinction between social loneliness and emotional loneliness was of great interest to many scholars. In a study on Weiss's proposal, Jones (1987)

defined social loneliness as a currently felt deprivation in social integration and reassurance of worth. His study provided support for the Weiss's definitions of emotional and social loneliness. It also supported the belief that emotional and social loneliness measures different forms of social deficits yet contain a common core of experiences (Jones, 1987). Another study conducted by Russell, Cutrona, Rose, and Yurko (1984) show that there are some differences in the subjective experiences associated with social and emotional loneliness. On the basis of correlations between the measures of these two types of loneliness, the socially lonely and the emotionally lonely appear to be different groups of people. Emotional loneliness apparently occurs when one does not receive the attachment provision from one's social relationships as well as a deficit in the quantity or quality of romantic/dating relationships. Results for social loneliness were less supportive to Weiss's conceptualization, with the reassurance of worth provision (rather than social integration) emerging as the best predictor of this form of loneliness. Social loneliness is, however, clearly related to the quantity and quality of friendship relationships. Therefore, social loneliness results from the lack of satisfying friendships and emotional loneliness results from the lack of satisfying romantic relationships. Furthermore, social and emotional types of loneliness were better predicted by qualitative measure of satisfaction with relationships than by the more objective social network measures of the number of relationships and frequency of social contact. In their research, DiTommaso and Spinner (1993) lend further support to Weiss's (1973) typology of loneliness and to the importance of distinguishing between its different types. Not only did DiTommaso and Spinner (1993, 1997) distinguish between social and emotional loneliness, but they also broke down emotional loneliness into two aspects: romantic emotional loneliness and family emotional loneliness.

Despite arguments that social and emotional loneliness have a common core, all of the above studies indicate that the different types of loneliness have distinct determinants.

When the levels of emotional (romantic and family) and social loneliness experienced by an individual were assessed (DiTommaso, Spinner, 1993), the study found relative low inter-correlations among these types of loneliness. Social loneliness, family loneliness and romantic loneliness appear to be relatively independent and each is by itself a unidimensional construct.

The majority of studies applied on internet falls within the unidimensional approach to the construct of loneliness. However, little light has been shed on the application of Weiss's typology of loneliness and internet.

### **Empirical studies on Loneliness and Internet Use**

The results of the studies conducted by McKenna, Green, & Gleason (2002) showed that socially anxious and lonely individuals find internet to be appealing and that the increase use of the internet had some positive outcome on those individuals. Participants reported that their social network has grown and closer meaningful new relationships were formed in an environment they considered to be nonthreatening due to internet features such as anonymity and lack of FtF interaction.

According to a study (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998), the heavy use of the internet for communication had a negative effect on the social involvement and psychological wellbeing among new internet users. Kraut et al. (1998) longitudinal study reported an association between Internet use and decline in family communication and in the number of people in participants' local and distant social circles. Paradoxically, participants reported increases in loneliness, depressive symptoms, and daily-life stress. A follow-up study conducted three years later including participants from the previous

sample found that Internet use was only associated with increases in stress, while depressive symptoms and loneliness declined significantly (Kraut, Kiesler, Boneva, Cummings, Helgeson, & Crawford, 2002). In comparing between introverts and extraverts in terms of social involvement with family and social network, Kraut et al. (2002) further found that extraverts, who are highly sociable and initially have social support, benefit more from using the Internet than their shier and more reticent counterparts. By contrast, introverts with limited social networks and less social support reported decline in social involvement. Moreover, extraverts who used the Internet extensively were less lonely than those who rarely used it whereas introverts who used the Internet extensively were lonelier than those who rarely used it.

It is noteworthy that in the two studies of McKenna et al. (2002) and Kraut et al. (1998, 2002), there is no clear understanding of the association between the high use of internet and loneliness due to the contradicting results of the studies. Even the conflicting findings between studies and their follow-ups have added to ambiguity of this association. Besides that, the studies of McKenna et al. (2002) and Kraut et al. (1998, 2002) that mainly reported the benefits of the internet use may not apply on people nowadays. Since then, internet services and means of communication have evolved and have become more popular and accessible, and consequently life-disruptive habits may be associated with the use of the internet. Negative consequences of the high use of internet were not seriously tackled in these studies. This study addressed the downside of the high use of internet.

The theoretical background of Moody (2001) was based on Weiss's typology on loneliness. However, there were several limitations in his study. To begin with, his sample was based on college students who were predominantly away from home for the first time. The emotional loneliness that these students experienced might have been induced by the new

detachment from families, and for that reason the results in Moody's study may not be generalized to the population at large. The second limitation is associated with the difficult access application available for the participants at that time which may have caused them to avoid accessing the internet. Moreover, emotional loneliness in his study, defined as the lack of close intimate attachments to others, measured romantic and dating relationships. However, it did not assess attachment relationships with family, something that is going to be addressed in the current study.

In Morahan-Martina and Schumacher (2003) study, lonely individuals were compared to non-lonely according to their use of internet and its impact on the users' social interactions. According to this study, online social networking was beneficial to lonely individuals because it facilitated pro-social behavior and enhanced online friendship formation. These individuals also resorted to this sort of interaction to modulate negative moods associated with loneliness, decrease self-consciousness and social anxiety. However, this study has also documented that some lonely individuals had complained about disruptions in their life as a result of their high use of the internet such as routinely cutting-short sleep, missing social engagements, or missing work or school to be online. The positive and negative consequences of the internet on lonely individuals reported by Morahan-Martina and Schumacher (2003) are very enlightening. However, the measurement scale in this study was used to differentiate between lonely and non-lonely users of internet, but it didn't address lonely individuals according to the intensity and type of loneliness. Addressing individuals according to their degree and type of loneliness might help in identifying those who are more likely to benefit from using internet and those who are likely to develop life-disruptive habits.

Using the results of his study to explain why people use the internet, Matsuba (2006) sorted his sample into different “types” of users in terms of pathological internet use (PIU), internet motivation, and loneliness. He clustered the subjects of his sample into three groups according to their scores. Cluster 3 Users were the highest on loneliness, communication and PIU scores. In contrast, Cluster 2 Users were the lowest on loneliness, PIU, communication and entertainment scores, but the highest on information scores. Finally, Cluster 1 users were moderately high on loneliness, communication and PIU scores. In addition, these individuals scored the highest on entertainment. In differentiating loneliness by type, the focus in our study was on the influence of presence or absence of friends, family relationships, a romantic partner, or all on the use level of internet. From a research perspective, this distinction may help explain inconsistencies in the loneliness research. From a clinical perspective, this distinction may help ascertain suitable approaches of interventions required to help the socially and emotionally lonely who have subsequently become severe users to internet.

There were different perspectives regarding the factors influencing the source and type of loneliness. One of these perspectives to loneliness differentiated between emotional (romantic and family) and social loneliness. This study’s focus on emotional (romantic and family) loneliness in a Lebanese sample stemmed from the differentiation between Western and Middle Eastern cultures. The Western cultures may be described as Individualist Societies; this type of society encourages independence and usually expects children to take care of themselves as soon as they turn adults (Schaus, 2010). Family ties in Middle Eastern cultures, however, are extremely strong; Lebanese nuclear and extended families operate as a unit, relying on each other implicitly in social, financial, and business affairs (Hajar, & Jones, 2007). The family provides protection to all family members, and unmarried children continue to live with their



family (Schaus, 2010). Therefore, one could expect the quality of bonding with the family to impact the level or type of loneliness; those individuals with a secure relationship with their family might experience fewer problems with loneliness than those who are insecure.

### **Research Hypotheses**

The aim of this study was to determine the role that emotional and social loneliness play in influencing the intensity of internet use among the lonely individuals. The following hypotheses were tested:

1. A positive correlation between the scores on the Emotional Loneliness scale and the scores on the Internet Addiction Diagnostic Questionnaire among Lebanese College Students.
  - 1a. A positive correlation between the scores on the Family subscale of the emotional scale and the scores on the Internet Addiction Diagnostic Questionnaire among Lebanese College Students.
  - 1b. A positive correlation between the scores on the Romantic subscale of the emotional scale and the scores of the Internet Addiction Diagnostic Questionnaire among Lebanese College Students.
2. A positive correlation between the scores on the Social Loneliness scale and the scores on the Internet Addiction Diagnostic Questionnaire among Lebanese College Students.

## CHAPTER 3

### Method

#### Participants

A total of 150 participants responded to the survey. All 150 surveys were completed and were included in the analysis. The participants were 48 males and 101 females. The ages ranged from 18 to 38 with the mean age of participants around 20 years old. 54% (N= 81) of the surveyed participants were single, 26% (N= 39) were in a relationship, 12.7% (N= 19) were engaged, and 7.3% (N= 11) were married. The participants were all Lebanese college students from four private universities in Lebanon, mainly, Lebanese American University (LAU), Lebanese International University (LIU), American University of Beirut (AUB) and Haigazian University (HU).

#### Instruments

The participants were handed out one questionnaire that consisted of three scales along with demographic questions. The scales included the Internet Addiction Diagnostic Questionnaire (Appendix B), the Internet Addiction Test (Appendix C), and the short version of the Social and Emotional Loneliness Scale for Adults (Appendix D).

*The demographic questions.* Items one to nine included questions about age, gender, relationship status, whether or not the participants lived with their parents, along with questions about internet usage, i.e., having access to the Internet on cell phones and the use internet while in the company of others. Moreover, questions eight and nine asked participants to estimate the frequency of use and the time spent on each internet application i.e. Facebook, Twitter, Skype, Whatsapp, Online games, BlackBerry messenger, Instant messages, and Search engines that were listed in a table (Appendix A).

***Internet Addiction Diagnostic Questionnaires.*** Young's Internet Addiction Diagnostic Questionnaires (IADQ) is an 8-item all yes-or-no questions, used to classify addicts from non-addicts with a cutoff score of five (Young, 1996). This cutoff score was consistent with the number of criteria used for pathological gambling and was seen as an adequate number to differentiate normal from pathological addictive Internet use. In this study, the IADQ items are the items ten to 17. These items were intentionally not presented as a new set of questions to create a sense that the term internet refers to the applications that were mentioned in items 8 and 9. In Huang, and Leung (2009) study, the IADQ showed acceptable Cronbach alpha.

***Internet Addiction Test Questionnaire.*** The Internet Addiction Test (IAT), consists of 20-items measured on a six-point Likert scale, where (0 = does not apply and 5 = always). The items cover the degree to which internet use affects daily routine, social life, productivity, sleeping pattern, and feelings. An overall score is obtained by adding the numbers for each response. The higher the score, the greater the problems internet use causes. Young suggests four levels of Internet usage: the normal level with a score range from 0-30, the mild level with a score range from 31-49, the moderate range from 50 to 79, and the severe score range from 80-100. Initial investigation into the validity of the IAT has shown good internal consistency and reliability (Windyanto, &McMurrin, 2004; Huang, & Leung, 2009; Jelenchick, Becker, & Moreno, 2012). In this questionnaire and to identify the healthy use from problematic one, Young (2007) recommended that the participants should be informed not to confuse the time spent online for recreation with that spent for job or academic purposes.

***The Social and Emotional Loneliness Scale for Adults – short version.*** The SELSA-S consists of 15 items, and produces a total loneliness score as well as scores for three sub-factors of loneliness: Family (five items), romantic (five items) and social (five items). Participants rate

their level of agreement with each item using a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). In DiTommaso et al. (2004) study, the psychometric properties of SELSA-S were examined and results showed that the test has good concurrent and discriminate validity, as well as good internal consistency for the subscales.

### **Procedure**

The surveys were distributed in four universities in Lebanon, mainly, LAU, LIU, AUB and Haigazian. The data collection process consisted of entering classrooms and distributing the surveys to students in classes. Data collection began in the mid of November 2012 and ended in mid-December 2012. The data collected was entered into SPSS and several correlation analyses were computed along with a test for significance between the correlations and a comparison of means.

## CHAPTER 4

### Results

#### Reliability Testing

Based on computed reliabilities, the Internet Addiction Diagnostic Questionnaire (IADQ), Internet Addiction Test (IAT) and the Short version of the Social and Emotional Loneliness Scale (SELSA-S), were all reasonably reliable (*see table 1*).

Table 1  
*Cronbach Alpha for the IAT, IADQ, and SELSA-S*

Scales	Previous studies cronbach's alpha	Current cronbach's alpha
IAT	.54 - .83 <sup>a</sup> .83 - .91 <sup>b</sup> .91 <sup>c</sup>	.919
IADQ	.73 <sup>d</sup>	.63
SELSA-S	.87 - .90 <sup>e</sup>	.828

*Note.* a= Windyanto, and McMurran study (2004); b= Jelenchick, Becker, and Moreno study (2012); c= Huang, and Leung study (2009); d= Huang, and Leung study (2009); e=DiTommaso et al. study (2004).

#### Hypotheses Testing

To test the set of hypothesized relations, a Pearson Correlation coefficient was computed between the scores on emotional loneliness, family loneliness, romantic loneliness, social loneliness and the scores on IADQ. A summary of these correlations were presented in (table 2).

Table 2  
*Pearson Correlations for Social, Emotional, Family and Romantic Loneliness with Internet Addiction Diagnostic Questionnaire N=150*

Scales	IADQ	
	Pearson correlation	Significance
Emotional loneliness	0.309**	.000
Family loneliness	0.376**	.000
Romantic loneliness	0.148---	.070
Social loneliness	0.306**	.000

*Note.* IADQ=Internet Addiction Diagnostic Questionnaire.

\*\* =  $p < .01$  (two-tailed).

As can be seen, the results showed that the first hypothesis was confirmed. A significant positive correlation ( $p < .001$ ) between the scores on the emotional loneliness scale and the scores on the IADQ was obtained. Also Hypothesis 1a, on the positive correlation between the scores on the family subscale of the emotional scale and the scores on the IADQ, was confirmed with a significant level ( $p < .001$ ). As to Hypothesis 1b, on the positive correlation between the scores on the romantic subscale of the emotional scale and the scores on the IADQ, the results showed a marginal correlation of  $r = .148$  ( $p = .070$ ). Although this result did not reach the 0.05 level of significance, it was in the predicted direction. The second Hypothesis, on the positive correlation between the scores on the social loneliness scale and the scores on the IADQ, the results showed a significant ( $p < .001$ ) positive correlation, thereby confirming the hypothesis.

### **Further Analysis**

A regression analysis was computed with IADQ as the dependent variable, and three types of loneliness (social loneliness, emotional loneliness, and family loneliness) as the independent variables, to determine the contribution of each independent variable on the scores of IADQ. Romantic loneliness was not included in this regression, because results showed that romantic loneliness and emotional loneliness were highly correlated with  $r = .852$ . Results showed that only family loneliness had a significant effect in explaining the variance in the scores of IADQ (*see table 3*).

The IADQ classified addicts (N=38) from non-addicts (N=112). Further analysis to the scores on IAT was used to identify the category that fits the total score for each participant. The participants' total scores were classified in terms of normal or mild, moderate, and severe level of internet addiction. The group of severe level of internet addiction was disregarded because the sample representing this level was too small N= 2.

Table 3

*Regression of social loneliness, emotional loneliness, and family loneliness on IADQ*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.043	.460		2.266	.025
	Emotional Loneliness	.008	.019	.050	.438	.662
	Family Loneliness	.083	.037	.263	2.228	.027
	Social Loneliness	.055	.031	.157	1.800	.074

*Note.* a. Dependent variable IADQ

Three analyses of variance were conducted to test how each type of loneliness (Emotional, Family, Romantic and Social) differs between the three IAT's levels of internet addiction (Normal, mild, and moderate). Emotional loneliness [ $F(2, 146) = 5.552, p = .001$ ], family loneliness [ $F(2, 146) = 5.526, p = .001$ ], and social loneliness [ $F(2, 146) = 3.992, p = .009$ ] differed significantly among the three levels of internet addiction. However, romantic loneliness was marginally significant [ $F(2, 146) = 2.402, p = .070$ ].

The Post Hoc Tukey test was conducted to test for mean difference between levels of internet addiction and the scores of the different loneliness subscales. Results showed that the mean difference was between the normal and moderate groups of internet users (*see table 4*).

Table 4

*Post Hoc Tukey Test Multiple Comparison Tukey HSD<sup>a</sup>*

	IAT			Significance
	Means		Mean difference between the normal and moderate IAT groups	
	Normal	Moderate		
Emotional Loneliness	25.3288	34.9259	-9.59716(*)	.001
Family Loneliness	9.7260	14.6667	-4.94064 (*)	.002
Social Loneliness	11.8219	15.1111	-3.28919(*)	.037
Romantic Loneliness	15.6027	20.2593	-4.65652 (*)	.044

*Note.* a= Honesty Significant Difference. \* =  $p < .05$ .

To pinpoint the specific problem areas related to internet use, frequencies were computed to identify the questions that the normal, mild and moderate IAT groups scored high on. Table 5 displays these questions along with the total number of IAT groups. For example, from the normal group N=73, the number of participants who scored high on question number 10 were 31. That is, 42% of the 73 participants were classified as normal users to the internet.

Table 5  
Preoccupied with the internet <sup>a</sup>

	Frequency	Percentage
Normal (N=73)	31	42
Mild (N=48)	33	68.8
Moderate (N=27)	23	85.2
Achieve satisfaction by excessive use of internet <sup>b</sup>		
	Frequency	Percentage
Normal (N=73)	26	35.6
Mild (N=48)	28	58.3
Moderate (N=27)	22	81
Feel restless moody, depressed when attempting to cut back internet use <sup>c</sup>		
	Frequency	Percentage
Normal (N=73)	15	20
Mild (N=48)	26	54.2
Moderate (N=27)	18	66.7
Stay online longer than intended <sup>d</sup>		
	Frequency	Percentage
Normal (N=73)	28	38
Mild (N=48)	27	56.3
Moderate (N=27)	17	63
Fear that life without the internet would be boring, empty and joyless <sup>e</sup>		
	Frequency	Percentage
Normal (N=73)	5	6.8
Mild (N=48)	4	8.3
Moderate (N=27)	11	40.7
Feel depressed moody and nervous when offline which goes away when using the internet <sup>f</sup>		
	Frequency	Percentage
Normal (N=73)	2	2.7
Mild (N=48)	6	12.5
Moderate (N=27)	10	37

Note. a = item numbered 10 in this study's survey and is item number 1 on the IADQ original questionnaire; b = item numbered 11 in this study's survey and is item number 2 on the IADQ original questionnaire; c = item numbered 13 in this study's survey and is item number 4 on the IADQ original questionnaire; d = item numbered 14 in this study and is item number 5 on the IADQ original questionnaire; e = Item number 12 in IAT; f = item number 20 in IAT.



Additional analyses to the demographic questions (N=150) revealed that (82.7%, N=124) of the participants reported still living with their parents and (29%, N=44) reported spending more than nine hours a day on Whatsapp. To get more information about the applications that appear to be problematic in terms of the hours spent on them per day, three t-tests were performed to see on average how much time each IAT group spent on this study's internet applications. (see Table 6).

Table 6

*T-test between the Normal and Mild IAT groups and the number of hours spent per day on Facebook and Whatsapp*

	Facebook				Whatsapp			
	Mean	SD	t-test	Sig.	Mean	SD	t-test	Sig.
Normal	1.5137	1.74398	-2.316	.022	3.9589	3.40012	-1.798	.075
Mild	2.2917	1.90138			5.0625	3.14985		
<i>t-test between the Moderate and Mild IAT groups and the number of hours spent per day on Facebook and Whatsapp</i>								
	Facebook				Whatsapp			
	Mean	SD	t-test	Sig.	Mean	SD	t-test	Sig.
Moderate	3.4630	2.88206	-2.118	.038	7.6296	1.88411	-3.858	.066
Mild	2.2917	1.90138			5.0625	3.14985		
<i>t-test between the Normal and Moderate IAT groups and the number of hours spent per day on Facebook and Whatsapp</i>								
	Facebook				Whatsapp			
	Mean	SD	t-test	Sig.	Mean	SD	t-test	Sig.
Normal	1.5137	1.74398	-4.108	.000	3.9589	3.40012	-5.305	.000
Moderate	3.4630	2.88206			7.6296	1.88411		

Results showed that there is a significant difference between the mild and normal groups with respect to the time spent on Facebook, whereas the difference was insignificant with that spent on Whatsapp. Comparing moderate and mild users in terms of the time spent on Facebook and Whatsapp, results showed a significance of  $p = .038$  for Facebook and  $p < .001$  on Whatsapp. As for normal and moderate users, the difference in the time spent on Whatsapp and Facebook between the two groups was very significant ( $p < .001$ ).

## CHAPTER 5

### Discussion

This study explored loneliness from a multidimensional perspective in which loneliness is differentiated into typologies. The study's aim was to examine whether emotional (romantic and family) and social loneliness relate to the level of internet use. The results obtained from the study concluded that three out of the four hypotheses were confirmed.

The prediction that there will be a positive correlation between social loneliness and addiction to internet was supported. This finding contradicts with Moody's (2001) results of a relation between high level of internet use and low levels of social loneliness. One plausible explanation to our result could be related to Weiss's speculation that social loneliness is associated with feelings of boredom, depression, aimlessness, marginality and is a motive to seek relationships with others (as Cited in DiTommaso & Spinner, 1997; Russel, 1984). The moderate group in this study did report having fear that their life without the internet would be boring, empty, and joyless. Moreover, their feelings of depression and nervousness disappear once they are online. In seeking social support to hold off such feelings and other feelings associated with it, the recent interactive technologies have facilitated integration with online network of friends and provided an alternative to socialize. This idea is further supported by what Huang and Leung (2009) study found on teenager's addiction to instant messaging. Teenagers who suffered estrangement from peers reported seeking friendship and social support through the heavy use of instant messaging.

In this study the downside of using the internet, as reported by the moderate group, was feeling preoccupied with the internet, staying online longer than originally planned and feeling the need to use the internet with increasing amount of time to achieve satisfaction. This could be

related to what Morahan-Martin (1999, p. 431) said that, “Internet gave them a vehicle for both communication and recreation, often providing a safe and fun social life that was denied in real life”. In his analysis, Matsuba (2006) found that very lonely individuals are motivated to meet and communicate with other people.

In regards to the prediction made about emotional loneliness being positively correlated with addiction to the internet, the hypothesis has also been confirmed by the current study. This result corresponds with Moody’s (2001) and Hardie and Tee’s (2007) findings of an association between high levels of internet use and high levels of emotional loneliness. A conceivable explanation to this study’s result could be related to Weiss’s (1987) proposal. The proposal suggests that when feeling vulnerable, insecure, or anxious, the attachment system in the adult will be triggered and feelings of aloneness, emptiness and restlessness will motivate the individual to seek the reassuring presence of an attachment figure that would provide a sense of safety and security (Di Tommaso, & Spinner, 1997; Vincenzi, 1987). People met online do not only provide companionship but also care, encouragement (Young, 1998), and emotional support which make lonely individuals spend more time online (Morahan-Martina, & Schumacher’s, 2003).

However, in terms of specific hypotheses related to the sub-factors of emotional loneliness, i.e. the family and romantic loneliness, the results of the current study were controversial to prior studies that didn’t take into consideration the family role yet congruent to our speculations. The speculation that there will be a positive correlation between family loneliness and addiction to internet use was confirmed based on correlational evidence. However, the positive correlation between romantic loneliness and addiction to internet use was marginal. A study conducted by

Ryan and Xenos (2011) further supports this study's speculation of a relationship between internet use (Facebook) and high level of family loneliness.

Other than the correlation evidence, further analysis showed that family loneliness had a significantly bigger weight in explaining the variance in internet use on the scores of IADQ in comparison to social and emotional loneliness. This finding might be attributed to Western cultures such as North America that highly regard romantic relationships as a solution to the disconnection and loneliness resulting from individualism (Goodwin, 1999). Not only is it considered a solution, but its absence can as well amplify the feelings of loneliness (Seepersad, Choi, & Shin, 2008). In contrast, in non-western cultures like that of Lebanon, family ties are still highly valued and may ease the feeling of loneliness by providing emotional support if a person is not in a relationship. Lebanese nuclear and extended families, for instance, operate as a unit relying on each other implicitly in social, financial, and business affairs (Hajar, & Jones, 2007). The family provides protection to all family members, and singles continue to live with their family (Schaus, 2010) which is supported by the current study where it was indicated by the large number of participants, whether single, dating, or engaged, still live with their parents.

Like the previous studies (DiTommaso, & Spinner, 2004; Moody, 2001), the results of this study have provided support to Weiss's theoretical perspective toward loneliness. However, in this study, Weiss's typology of loneliness was applied in relation to internet use. Not only that, emotional loneliness in this study was approached in terms of two aspects, romantic and family loneliness. And as the results showed, the latter renders people more vulnerable to internet use than romantic and social loneliness actually do. From a clinical perspective, differentiating between the types of loneliness may, therefore, help psychologists detail the bases for intervention and identify the type of intervention needed. Specifying the source of loneliness as

well should facilitate exploring ways that would help the lonely individuals cope with their type of loneliness and feel connected without getting overly occupied with the internet.

### **Further Recommendations**

No research is without limitation. Despite the confirmed hypotheses within the study and the best efforts to obtain a wide range of internet users within the sample by including participants from different universities, it appears that the majority of the participants in this study are average users to the internet. A larger sample size would have added to the generalizability of the study. Moreover, the results of the three analyses of variance showed that emotional, family, and social loneliness differed significantly among the three IAT levels with a mean difference between the moderate and normal IAT groups, except for romantic loneliness where the significance was marginal. These findings correspond with this study's results on the correlational relationship between the different types of loneliness and IADQ. Other results specifically related to IADQ should be considered with caution. The initial validation of IADQ in the pilot study was high ( $r=0.87$ ), and it also showed a respectable range in Huang and Leung (2009) study. However, when IADQ was applied on a larger population ( $N=150$ ) the reliability of IADQ was not in the desirable range.

Moreover, this study is based on correlational relationships and although the regression analysis showed that family loneliness had a bigger weight in explaining the variance in IADQ scores, the cause effect relationship needs to be further examined. For future research, it is recommended that individuals suffering from both family loneliness, for instance, and internet addiction receive intervention to improve family relationships. These individuals are later tested to see how the intervention might affect their level of internet use. This would help determine the direct effect of family loneliness, for instance, on internet addiction.

Ongoing research will be needed to keep up with the rapid growth of internet applications. Some internet applications are more engaging and appealing to the addicted internet users. The moderate IAT group in this study reported spending more time on Whatsapp and Facebook compared to the normal and mild groups. The impact of internet use, whether beneficial or not on individuals wellbeing and daily life should be tracked. Future research should take into consideration the mentioned limitations in the study and keep on examining individuals' internet usage behaviors in order to better understand how to diminish the negative effects of addiction. Moreover, it is recommended for future research to look into different types of loneliness and their relation to internet use among teenagers.

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**Appendix A**

1. How old are you? \_\_\_\_\_
2. What is your gender? ☐ Male ☐ Female
3. What is your relationship status?
   
☐ Single ☐ In a relationship with a boyfriend or a girlfriend
   
☐ Engaged ☐ Married ☐ Divorced
4. Do you live with your parents? ☐ Yes ☐ No
5. Do you have access to Internet applications on your cell phone? ☐ Yes ☐ No
6. How often do you use the Internet while you are in the company of close friends/family?
   
☐ Almost Never ☐ Sometimes ☐ Almost Always
7. Do you feel that the internet lessens your interaction with your close friends/family while you are in their company?
   
☐ Yes ☐ No
8. Can you estimate, how many hours per day you spent using the following?

	More than 9 hours Daily	7-8 hours Daily	5-6 hours Daily	3-4 hours Daily	1-2 hours Daily	Half an hour Daily	Don't spent time at all
Facebook							
Twitter							
Skype							
Whatsapp							
Online Games							
BlackBerry Messenger							
Instant text messages (sms)							
Search engines e.g. Google etc.							

9. Approximately how many times per day do you go online to use the following?

	All day long	More than 4 times per day	3-4 times per day	1-2 times per day	Not use it at all
Facebook					
Twitter					
Skype					
Whatsapp					
Online Games					
BlackBerry messenger					
Instant text messages (sms)					
Search engines e.g. Google etc.					

**Appendix B****The Internet Addiction Diagnostic Questionnaire**

10. Do you feel preoccupied with the Internet (think about previous on-line activity or anticipate next on-line session)?  
☐ Yes ☐ No
11. Do you feel the need to use the Internet with increasing amounts of time in order to achieve satisfaction?  
☐ Yes ☐ No
12. Have you repeatedly made unsuccessful efforts to control, cut back, or stop Internet use?  
☐ Yes ☐ No
13. Do you feel restless, moody, depressed, or irritable when attempting to cut down or stop Internet use?  
☐ Yes ☐ No
14. Do you stay on-line longer than originally intended?  
☐ Yes ☐ No
15. Have you jeopardized or risked the loss of significant relationship, job, educational or career opportunity because of the Internet?  
☐ Yes ☐ No
16. Have you lied to family members, therapist, or others to conceal the extent of involvement with the Internet?  
☐ Yes ☐ No
17. Do you use the Internet as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)?  
☐ Yes ☐ No

## Appendix C

### The Internet Addiction Test

**For the next several questions, please choose a number from 0-5 and write it next to each statement to indicate how often you spent time online for non-academic or non-job (or recreational) purposes.**

0	1	2	3	4	5
Not applicable	Rarely	Occasionally	Frequently	Often	Always

1. \_\_\_\_\_ How often do you find that you stay online longer than you intended?
2. \_\_\_\_\_ How often do you neglect household chores to spend more time online?
3. \_\_\_\_\_ How often do you prefer excitement of the internet to intimacy with your partner?
4. \_\_\_\_\_ How often do you form new relationships with fellow online users?
5. \_\_\_\_\_ How often do others in your life complain to you about the amount of time you spend online?
6. \_\_\_\_\_ How often do your grades or school work suffer because of the amount of time you spend online?
7. \_\_\_\_\_ How often do you check your e-mail before something else that you need to do?
8. \_\_\_\_\_ How often does your job performance or productivity suffer because of the internet?
9. \_\_\_\_\_ How often do you become defensive or secretive when anyone asks you what you do online?
10. \_\_\_\_\_ How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?
11. \_\_\_\_\_ How often do you find yourself anticipating when you will go online again?
12. \_\_\_\_\_ How often do you fear that life without the internet would be boring, empty, and joyless?
13. \_\_\_\_\_ How often do you snap, yell or act annoyed if someone bothers you while you are online?



14. \_\_\_\_\_ How often do you lose sleep due to late night log-ins?
15. \_\_\_\_\_ How often do you feel preoccupied with the internet when off-line or fantasize about being online?
16. \_\_\_\_\_ How often do you find yourself saying “Just a few more minutes” when online?
17. \_\_\_\_\_ How often do you try to cut down the amount of time you spend online and fail?
18. \_\_\_\_\_ How often do you try to hide how long you’ve been online?
19. \_\_\_\_\_ How often do you choose to spend more time online over going out with others?
20. \_\_\_\_\_ How often do you feel depressed, moody, or nervous when you are offline, which goes away once you are back online?

## Appendix D

### The Social and Emotional Loneliness Scale for Adults- Short version

**For the next several questions, please choose a number from 1-7 and write it next to each statement to indicate how much you agree with the statement.**

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

1. \_\_\_\_\_ I feel alone when I am with my family.
2. \_\_\_\_\_ I feel part of a group of friends.
3. \_\_\_\_\_ I have a romantic partner with whom I share my most intimate thoughts and feelings.
4. \_\_\_\_\_ There is no one in my family I can depend on for support and encouragement, but I wish there was.
5. \_\_\_\_\_ My friends understand my motives and reasoning.
6. \_\_\_\_\_ I have a romantic or marital partner who gives me the support and encouragement I need.
7. \_\_\_\_\_ I don't have any friends who share my views, but I wish I did.
8. \_\_\_\_\_ I feel close to my family.
9. \_\_\_\_\_ I am able to depend on my friends for help.
10. \_\_\_\_\_ I wish I had a more satisfying romantic relationship.
11. \_\_\_\_\_ I feel part of my family.
12. \_\_\_\_\_ My family really cares about me.
13. \_\_\_\_\_ I do not have any friends who understand me, but I wish I did.
14. \_\_\_\_\_ I have a romantic partner to whose happiness I contribute.
15. \_\_\_\_\_ I have an unmet need for a close romantic relationship.

Thank you for your time

Have a nice day