

The role of satisfaction with life, social support, psychological problems, love, self-esteem satisfaction with love life and parenting styles in predicting loneliness among Palestinian university students  
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The role of satisfaction with life, social support, psychological problems, love, self-esteem  
satisfaction with love life and parenting styles in predicting loneliness among Palestinian  
university students

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## RESUMO

A solidão é um dos conceitos mais importantes em Psicologia e tem um forte impacto na área da saúde mental. O principal objetivo da presente investigação consiste em estudar o papel preditor do apoio social, da satisfação com a vida, dos problemas psicológicos, da auto-estima e dos estilos educativos parentais na determinação da solidão. Foram assim realizados cinco estudos com estudantes universitários da Palestina.

Os participantes foram 954 estudantes de vários departamentos da Universidade An-Najah National e da Universidade Arab American. Foram utilizadas as versões árabes de UCLA Loneliness Scale, Satisfaction with Life Scale (SWLS), Multidimensional Scale of Perceived Social Support (MSPSS), Psychological Problems Scale (PPS), Satisfaction with Love Life Scale (SWLLS), Love Attitudes Scale (LAS), Rosenberg Self-Esteem Scale (RSS), versão curta da UCLA Loneliness Scale (ULS-6), Social and Emotional Loneliness Scale for Adults- Short Form (SELSAS) and Parental Authority Questionnaire (PAQ).

Na análise de dados recorreu-se ao t-test para amostras independentes e à one-way ANOVA, para explorar os efeitos do género e de outras variáveis sociodemográficas na solidão, à análise das correlações para examinar a associação entre solidão e as restantes variáveis do estudo, e à análise de regressão múltipla hierárquica, para explorar os preditores da solidão.

De uma forma global, os resultados mostraram diferenças de género na solidão, com o sexo masculino a apresentar níveis mais elevados, e que os estudantes com níveis mais elevados de solidão, se sentiam menos satisfeitos com a sua vida e percebiam menos apoio da parte dos amigos, família e outros significativos. Os resultados também revelaram que a solidão estava negativamente associada com os estilos de amor, Eros, Storge e Pragma, bem como com a satisfação com a sua vida amorosa, a qual era o melhor preditor da solidão. Finalmente, considerando as várias dimensões da solidão, os resultados revelaram que o melhor preditor da solidão social era o apoio por parte dos amigos, o melhor preditor da solidão romântica era o apoio por parte dos outros significativos e que o melhor preditor da solidão familiar era o apoio por parte da família. É feita uma discussão das limitações destes estudos, seguida da apresentação das implicações dos resultados e das sugestões para investigações futuras.

*Palavras-chave:* Solidão, suporte social, satisfação com a vida, amor, auto-estima, vida amorosa, problemas psicológicos, estilos parentais

## ABSTRACT

Loneliness is one of the most important concepts in psychology with important repercussions on mental health. The main purpose of the present research was to examine the predictive role of social support, satisfaction with life, psychological problems, self-esteem and parenting styles in determining loneliness. To achieve this purpose, five studies were conducted with university students from Palestine.

The participants of the study were 954 students from different departments of An-Najah National University and Arab American University. Participants were administered the UCLA Loneliness Scale, the Satisfaction with Life Scale (SWLS), the Multidimensional Scale of Perceived Social Support (MSPSS), the Psychological Problems Scale (PPS), the Satisfaction with Love Life Scale (SWLLS), the Love Attitudes Scale (LAS), the Rosenberg Self-Esteem Scale (RSS), the short-form UCLA Loneliness Scale (ULS-6), the Social and Emotional Loneliness Scale for Adults - Short Form (SELSAS) and the Parental Authority Questionnaire (PAQ).

Data analysis was conducted using independent sample t test and one-way ANOVA, to explore the effects of gender and other demographic variables on loneliness levels; correlation, to examine the association between loneliness and the study variables; as well as Hierarchical Multiple Regression Analysis, to explore the predictors of loneliness.

Overall the results showed that there was a significant gender bias towards loneliness, with male students being lonelier than female students and that students who had higher loneliness, felt less satisfied with their life and perceived less support from friends, family and significant others. Results also revealed that loneliness was negatively associated with Eros, Storge and Pragma love styles, as well as with satisfaction with love life, which was the best predictor of university students' loneliness. Finally, considering the several dimensions of loneliness, results showed that the strongest predictor of social loneliness was friends' support, the strongest predictor of romantic loneliness was significant others' support, and the strongest predictor of family loneliness was family support. The limitations to these studies are discussed, followed by the implications of the findings and areas for future research.

**Keywords:** Loneliness, social support, life satisfaction, love, self-esteem, love life, psychological problems, parenting styles.

## RÉSUMÉ

La solitude est un des concepts les plus importants en psychologie et elle a un fort impact dans le domaine de la santé mentale. L'objectif principal de la présente recherche est d'étudier le rôle prédictif du soutien social, la satisfaction de la vie, les problèmes psychologiques, l'estime de soi et les styles éducatifs parentaux dans la détermination de la solitude. Cinq études ont ensuite été menées auprès des étudiants universitaires de Palestine.

Les participants étaient 954 étudiants de divers départements de l'Université An-Najah National et de l'Université Arab American. Les versions arabes de UCLA Loneliness Scale, Satisfaction with Life Scale (SWLS), Multidimensional Scale of Perceived Social Support (MSPSS), Psychological Problems Scale (PPS), Satisfaction with Love Life Scale (SWLLS), Love Attitudes Scale (LAS), Rosenberg Self-Esteem Scale (RSS), version brève de l'UCLA Loneliness Scale (ULS-6), Social and Emotional Loneliness Scale for Adults- Short Form (SELSAS) and Parental Authority Questionnaire (PAQ) ont été utilisées.

L'analyse des données a été effectuée à l'aide du test  $t$  pour des échantillons indépendants et d'une ANOVA, afin d'explorer les effets du sexe et d'autres variables démographiques dans la solitude, de l'analyse de corrélation pour examiner l'association entre la solitude et les autres variables d'étude, et de l'analyse de régression multiple hiérarchique, pour explorer les prédicteurs de la solitude.

Globalement, les résultats ont montré des différences entre les sexes dans la solitude, les hommes présentant des niveaux plus élevés, et les étudiants ayant des niveaux plus élevés de solitude, se sentaient moins satisfaits de leur vie et avaient la perception de recevoir moins de soutien des amis, de la famille et des proches. Les résultats ont également révélé que la solitude était négativement associée aux styles de l'amour, Eros, Storge et Pragma, ainsi qu'à la satisfaction de leur vie amoureuse, ce qui était le meilleur prédicteur de la solitude. Enfin, compte tenu des différentes dimensions de la solitude, les résultats ont révélé que le meilleur prédicteur de la solitude sociale était le soutien des amis, le meilleur prédicteur de la solitude romantique était le soutien des autres importants et le meilleur prédicteur de la solitude de la famille était le soutien de la famille. Une discussion sur les limites de ces études est faite, suivie par la présentation des implications et des suggestions pour les recherches futures.

*Mots-clés:* Solitude, soutien social, satisfaction de la vie, amour, auto-estime, vie amoureuse, problèmes psychologiques, styles parentaux

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## **INTRODUCTIN**

## INTRODUCTION

Based on estimates prepared by PCBS, the total population of Palestine, at the end of 2016, was approximately 4.88 million, with 2.97 million on the West Bank, 1.91 million in the Gaza strip and 432 thousand in Jerusalem. Furthermore, 29.9% of the population had ages ranging from 15-29 years, with 30% on West Bank and 29.7% in the Gaza strip (PCBS press release, 11/5/2017). Approximately 80.9% of Palestinians owned their houses, 81.9% on the West Bank and 79.0% in the Gaza strip. Until mid-2016, the urban population was 73.9%, the rural population was 16.6%, and the population in camps was 9.5% (PCBS, 2016). Most of the population is Muslim (Al-Krenawi, Lev-Wiesel, & Mahmud, 2007).

The conflict between the Palestinians and the Israelis, which has been taking place since 1948, is a political, not a religious one (Beinin & Hajar, 2001). This does not negate the fact that there are different religious groups in Palestine (Muslims, Christians, Druze, and Jews). The conflict between the Palestinians and the Israelis results in different forms of violence and disturbance. Therefore, many people in Palestine suffer from various mental health problems (Al-Krenawi, Lev-Wiesel, & Mahmud, 2007). They feel that their lives and well-being are at risk (Giacaman, Shannon, Saab, Arya, & Boyce, 2007).

The Palestinian people suffered from negative psychosocial disorders, including: insomnia, fear of the dark, phobias, depression, negative social-interaction, aggressive behavior, oblivion. These indicators show that, due to the adverse circumstances surrounding normal life in Palestine, the current and future psychological well-being of Palestinian students is going to be compromised by on-going traumatic experiences (Altawil, 2008).

The Gaza Strip is an area of land between Israel and Egypt, and it is governed by the Palestinian Authority. The Gaza Strip is divided into three areas: 4 towns, which have 53% of the population living there; 14 villages with 9% of the population; and 8 refugee camps with 35% of the population (the refugee camps are inhabited by the Palestinians who were forced out of their homeland in the 1948 catastrophe) (Thabet & Vostanis, 2005).

In this thesis, I will approach some aspects related to loneliness among Palestinian university students.

In this section, a comprehensive theoretical framework supporting this research program will be presented. Additional information is provided in the literature review regarding every article, as well as the introductory sections of each of the following chapters. Particular emphasis is given to the rationale supporting the aims of each study.

A theoretical review on the concept of loneliness will be presented in chapter I. In addition, loneliness will be briefly described in general, and then in particular, focusing on its forms, prevalence, relationships with other variables, gender, culture and predictors. Regarding chapter II, this section will describe the methodology used in the studies, such as participants, instruments, data collection and procedures.

As for the assessment of loneliness, this topic will be theoretically addressed in chapter I.

The studies are described as follows: Study I explore the psychological predictors of loneliness; Study II was conducted in order to examine the association between loneliness, love attitudes and satisfaction with love life; Study III consists of a psychometric analysis of the short-form UCLA loneliness scale (ULS-6); and Study IV explores the role of social support, psychological problems, self-esteem and parenting styles in predicting social emotional loneliness. Finally, psychological problems among Palestinian university students were examined.

## **Loneliness**

Loneliness is a universal phenomenon and an emotional and painful psychological experience, involving negative feelings. Nonetheless, it is a basic fact of life, which every individual has to cope with at least once, at some stage in their life. Loneliness is a multidimensional phenomenon, with different causes and conditions (Al-Kadoumi, Sawalha, & Momani, 2012; Bhagchandani, 2017; Bozorq & salami 2012; Heinrich & Gullone, 2006; Jordaan & Le Roux, 2004; Peplau & Perlman, 1982). Everyone experiences loneliness during their life, regardless of religion, socioeconomic status, race, culture, marital status, health status, age or gender (Demrl, 2007; Neto & Barros, 2000; Rokach & Neto, 2000). Since it is a painful and negative feeling, individuals seek to avoid it (Vaarala, Määttä, & Uusiautti, 2013). Moreover, loneliness may be felt for short periods of time or it may be continuous (Peplau & Perlman, 1982).

There are differing approaches that seek to explain whether or not loneliness is a multidimensional phenomenon. For example, the cognitive and social approaches may examine parts of loneliness (Kearns & Creaven, 2017), although there are other mechanisms and factors linked to the loneliness experience (Sønderby & Wagoner, 2013).

There are different kinds of human relationships, although, there seems to be an absence of types of relationships that correlate with loneliness (de Jong Gierveld, Van Tilburg, & Dykstra, 2016). Emotional loneliness arises when individuals lose their partners by divorce, widowhood or death, and although they receive social support from family and friends, it cannot replace the partner they lost, or the absence of an intimate relationship (Maes, Vanhalst, Van den Noortgate, & Goossens, 2017; Tomás, Pinazo-Hernandis, Donio-Bellegarde, & Hontangas, 2017). Indeed, one of the most important factors that can protect the individual against loneliness is having a partner (Nicolaisen & Thorsen, 2017). Social loneliness is associated with the absence of social support networks (de Jong Gierveld, Van Tilburg, & Dykstra, 2016; Tomás, Pinazo-Hernandis, Donio-Bellegarde, & Hontangas, 2017). Perlman and Peplau (1981) argued that the absence of relationships does not lead to loneliness. Russell, Cutrona, McRae and Gomez (2012) found, among high school students, an association between the increase of loneliness and having fewer close friends than desired. However, Dykstra and Fokkema (2007) also report the need to study relationships preferences, not only the personal relationships, in order to explain loneliness.

There are different characteristics regarding the precedents of loneliness, such as demographic and socio-structural factors related to gender, age, income level, educational level and migrant status. These factors affect the individual's social integration. Several personality factors are also involved, such as anxiety, social skills and self-esteem (de Jong Gierveld, Van Tilburg, & Dykstra, 2016; Hawkley, Hughes, Waite, Masi, Thisted & Cacioppo, 2008). Other factors relate to the individual's level of social integration (which are referred to as proximal factors of loneliness), such as the size and functioning of their personal network, reflected by neighbors and intimate relationships (Hawkley et al., 2008).

Women and men differ in terms of values and relationships. Specifically, women are more complex in their emotions, whereas men tend to be independent in their emotions and

rely on their wives and partners for social support (de Jong Gierveld, Van Tilburg, & Dykstra, 2016).

Concerning the relationship between loneliness and social support, Jackson, Soderline, and Weiss (2000) found, among college students, that lower levels of social support predicted increases in loneliness. In addition, Riley (1995) found, among female undergraduate students, that social support factors predicted both chronic and state loneliness.

The leading cause of loneliness among first year university students is the unsatisfactory state or total absence of a social network. Indeed, lower levels of social support have been associated with increased loneliness (Nicpon et al., 2006; Arcuri, 2009). The changes in university students' social networks may be a significant factor that leads to loneliness (Larson, Moneta, Richards, & Wilson, 2002).

University students, during their first year, face many difficulties in their process of adaptation, such as identity formation, stress, sharing life with others, and other issues related to their age (Otlu, 2010). Duru (2007) found that female students have higher levels of support, out of total support, as well as higher levels of support from family and friends than male students, thus revealing gender differences between female and male students.

The results also showed that, when support comes from multiple sources, it may be an important factor for adolescents and adults, in several aspects. Young adults from the ages of 18 to 31 exhibit higher scores of loneliness than other age groups, since this period is marked by specific societal demands regarding education and employment, which may lead to an increase in anxiety among these people (Rokach & Bauer, 2004).

## **CHAPTER I – THEORETICAL FRAMEWORK**

## **1. Loneliness**

Loneliness is a paramount issue relevant to university students. Recently, literature reports loneliness as one of the most important concepts in psychology, as a result of world changes in politics, economics, as well as social and cultural changes that led to different psychological problems among humans, of which loneliness is an example (Aljabari, 2012; Alqeeq, 2011; Shireen & Ibraheem, 2014). Thus, loneliness is a multidimensional phenomenon that has important repercussions on mental health (Heinrich & Gullone, 2006), with individuals reporting that it causes stress, pain and sadness during their lives (Jody, 2005).

Loneliness has been associated with chronic illness and self-rated health status in older adults (Russell, 1996), and correlations have also been found between loneliness and suicide or suicide ideation (McWhirter, 1990), alcohol abuse (Åkerlind & Hörnquist, 1992), social support (Flett, Harcourt, & Alpass, 1994), and depression (Russell, 1996). Moreover, loneliness is an important concept for epidemiological and social research, as it relates directly to human health and well-being (Cacioppo et al., 2002; Demakakos, Nunn, & Nazroo, 2006; Salimi & Bozorgpour, 2012).

Moustakas (1961) refers to loneliness anxiety and he describes it as: “Loneliness anxiety is a widespread condition in contemporary society, the individual no longer has an intimate sense of relatedness to the food he eats, the clothing he wears, and the shelter which houses him. He no longer participates directly in creation and production of the vital needs of his family and community. Modern man does not enjoy the companionship, support and protection of his neighbors” (p. 25), (cited in Sønderby & Wagoner, 2013). However, loneliness has negative effects on health, emotion, cognition and behavior (Hawkey, & Cacioppo, 2010).

### **1.1. Definition of Loneliness**

In literature, loneliness has been defined in many ways. Ascher and Paquette (2003, p. 75) define loneliness as “the cognitive awareness of a deficiency in one’s social and personal relationships, and ensuing affective reactions of sadness, emptiness, or longing”. Perlman

and Peplau (1981, p. 31) formulated a definition of loneliness as “the unpleasant experience that occurs when a person’s network of social relationships is deficient in some important way, either quantitatively or qualitatively”.

Rook (1984) defined loneliness as “an enduring condition of emotional distress that arises when a person feels estranged from, misunderstood, or rejected by others and/or lacks appropriate social partners for desired activities, particularly activities that provide a sense of social integration and opportunities for emotional intimacy” (p. 1391) as cited in (Dill, & Anderson, 1999).

In this regard, Akerlind and Hornquist (1992) argue that studies on loneliness focus on the negative internal feelings about relationships, whereas studies on social support focus on the availability of social support, as well as external factors. Nonetheless, both social support and loneliness have an effect on well-being. Bhagchandani (2017) described loneliness as a state of mind, usually exhibited by lonely people looking for relationships and contact with others, however, their state of mind makes it difficult to connect with others (Okwaraji, Onyebueke, Nduanya, & Nwokpoku, 2017).

Research shows that loneliness is related to different variables, such as age, social network, marital status, gender (Bhagchandani, 2017; Demakakos et.al, 2006; Pinguart & Sorensen, 2001), as well as several personality factors (van Baarsen, Snijders, Smit, & van Duijn; 2001; Rokach 2001).

Loneliness was also found to be related to psychological difficulties and distress, which includes the absence of social relationships and loss of intimate relations. It is also related to social aspects, in the sense that when people are unsatisfied with their social network, they are more likely to feel loneliness (Duru, 2008).

## **1.2. Forms of Loneliness**

There are two types of loneliness, as reported by Weiss (1973). The first form is emotional loneliness, which relates to the absence of intimate relationships or being separated from a partner by death or termination of the relationship, as well as the loss of intimate and friendly relationships such as parents or friends, with whom they were able to share their

experiences and responsibilities of living this kind of loneliness. Weiss described individuals who felt emotional loneliness as “Appraising others for their potential as providers of the needed relationship (Weiss, 1973, p.21)”.

The second form is social loneliness, which arises from the lack of social relationships. For example, when the individual is isolated from groups that share common interests and activities, or when they move to a new home or city, these events may lead to a greater sense of social loneliness.

There are several factors directly related to loneliness, such as lack of social skills, negative life outcomes and preference for online social activities (Kim, LaRose, & Peng, 2009).

There are other types of loneliness, reported by Bhagchandani (2017), such as cultural loneliness. This occurs when the individual is integrated into a new culture different from their original culture, but feels like they do not belong or fit in. Intellectual Loneliness takes place when the individual does not feel intellectually compatible with their social network.

Psychological loneliness happens when the individual experiences a traumatic event that separates them from their social group. Finally, there is also existential or cosmic loneliness, which tends to occur with people who are facing death.

### **1.3. Loneliness and gender**

The relationship between gender and loneliness has produced conflicting findings. Males and females both experience loneliness (Salimi, 2011), and females at risk of loneliness were found to experience more loneliness than males (Dahlberg et al., 2015). Exploring gender differences in loneliness, Pinquart and Sörensen (2001), in the results of their meta-analysis, found that 102 studies showed that females were significantly higher in loneliness than males.

Regarding loneliness and gender, several studies indicated that females report higher levels of loneliness than males (Alaviani, Parvan, Karimi, Safiri, & Mahdavi, 2017; Dong & Chen, 2017; Kim, 2001; Medora & Woodward, 1986; Nicolaisen & Thorsen, 2017; Sundberg, 1988; Woodward, 1991; Woodward & Frank, 1988). On the other hand, some studies found that males reported higher loneliness than females (Norman & DeWayne, 1986; Roscoe & Skomsky, 1989; Russell, Peplau, & Cutrona, 1980; Schultz & Moore, 1986; Wiseman and

Guttfreund 1995). Moreover, some studies report no gender differences regarding loneliness (Bhagchandani, 2017; Christensen & Kashy, 1998; Logo & Schatten-Jones, 2000; Moraldo, 1981; Peplau & Perlman, 1982; Peplau et al., 1982; Shireen & Ibraheem, 2014; Zhao, Kong, & Wang, 2013).

The inconsistent results on loneliness according to gender may be related to cultural or social differences, or differences concerning the sample (Alaviani, Parvan, Karimi, Safiri, & Mahdavi, 2017).

#### **1.4. Instruments for measuring loneliness**

The different instruments designed to measure loneliness use both direct and indirect questions. When the instruments includes direct words, such as “lonely” or “loneliness”, it reflects loneliness as perceived by the individual. Loneliness instruments with both direct and indirect questions can be used, although, the instruments comprising multiple questions exhibit greater reliability (de Jong Gierveld, Van Tilburg, & Dykstra, 2016).

Two instruments are used by most researchers, and they are as follows:

The R- UCLA Loneliness Scale (Russell, Peplau & Cutrona, 1980), which includes 20 items, ten of which are worded positively (1, 4, 5, 6, 9, 10, 15, 16, 19, 20), and ten of which are worded negatively (2, 3, 7, 8, 11, 12, 13, 14, 17, 18). The simplified format of the scale was developed to be used by less specialized individuals (Russell, 1996). The short version of the UCLA loneliness scale has also been used in many studies, which showed good reliability and validity (Neto, 1992, 2014; Wu & Yao, 2008).

The Social and Emotional Loneliness Scale for Adults-Short Form (SELSA-S) (DiTommaso et al., 2004). The full version of the SELSA was developed by DiTommaso and Spinner (1993), and it is a multidimensional scale of loneliness (social and emotional), which includes 37 items. The short version of SELSA-S scale was selected from the original scale and includes 15 items, designed to measure emotional and social loneliness. The social subscale comprises items 2, 3, 4, 9, 11, the family subscale includes items 2, 5, 17, 19, 23, and the romantic subscale comprises items 4, 8, 10, 15, 21. The studies indicated that the SELSA-S loneliness scale had good validity and reliability (DiTommaso et al., 2004).

## **1. 5. Loneliness prevalence**

Loneliness is a phenomenon experienced by children, adolescents, adults and seniors, and the prevalence of loneliness has been increasing in recent years (de Jong Gierveld, Van Tilburg, & Dykstra, 2016). Furthermore, the prevalence of loneliness varies according to religions, societies and cultures (Alaviani, Parvan, Karimi, Safiri, & Mahdavi, 2017). Women and adult groups were found to experience higher levels of loneliness than men and adolescents, seniors and young adults, according to age and gender (Rokach 2001). Late adolescents experienced loneliness more than younger adolescents (Woodward, 1993), and it is the main problem reported among them (Roscoe & Skomski, 1989; Russell et al., 1980; Schultz, & Moore, 1986). There are 8 to 16% of adolescents feeling very lonely (Ponzetti & Cate, 1988). Loneliness among Spanish people with less than 30 years of age was 4.4% (Yang & Victor, 2011), while 21% of the people from ages 20 to 34 had also been experiencing loneliness (Victor, & Yang, 2012). Nicolaisen and Thorsen (2017) found that 22.7% of people between the ages of 18-29 report feeling lonely. Approximately 60 million people in the U.S.A feel lonely, and the population is similar in Pakistan, most of whom are students (Ishaq, Solomon, & Khan, 2017).

Indeed, there are many university students faced with loneliness (Pamukçu & Meydan, 2010). Hamdan-Mansour and Marmash (2007) showed that 21.6 % of university students in Jordan feel lonely, 58 % of which were female and 42 % of which were male. Özdemir and Tuncay (2008) found that 60.2% of university students from the University of Ankara, in Turkey, were lonely. McWhirter (2002) estimated that 30 % of college students experience loneliness as a problem. Among Iranian university students, the prevalence of moderate loneliness was 50.5%, severe loneliness was 31.6% and mild loneliness was 18.0% (Alaviani, Parvan, Karimi, Safiri, & Mahdavi, 2017). Okwaraji, Onyebueke, Nduanya, and Nwokpoku (2017) found that 19.0% of Nigerian university students felt frequent loneliness, and 7.2% felt severe loneliness.

## **1.6. Loneliness and culture**

Cross-cultural studies report the importance of understanding that cultural differences can be responsible for people's sense of loneliness (Sønderby & Wagoner, 2013). Accordingly, loneliness differs according to cultural norms and values, which affect people's ideas about their social network size and their obligations to their family, as well as the values that can lead to loneliness (de Jong Gierveld, Van Tilburg, & Dykstra, 2016; Lykes & Kemmelmeier, 2014). Collectivist cultures like the Chinese culture place more emphasis on social relationships and less emphasis on the individual and their self-esteem, which may lead to increased loneliness, thus differing from western cultures (Huo, & Kong, 2014; Kong, & You, 2013).

Societal context, values, norms and demographic composition may lead to loneliness, not only individual failures (de Jong Gierveld, Van Tilburg, & Dykstra, 2016). Moreover, cultural background also plays an important role in the experience of loneliness (Neto & Barros, 2003). However, if loneliness derives from people's relationships with society, they will thus experience and cope with loneliness in different ways according to culture (Rokach & Neto, 2001).

Regarding the cultural aspect, there are differences between collectivist and individualistic cultures. Collectivist countries focus on family, friends and groups, whereas individualistic countries focus on the individual. Collectivist societies tend to report less loneliness than individualistic societies, since the former experience less loneliness, due to the greater sense of belonging and bonds with family and groups, and they also experience cultural differences more easily (Sønderby & Wagoner, 2013). However, in a collectivist society such as Palestine, some studies suggest that when people in this type of society have not perceived social support, they are at greater risk of experiencing loneliness than in an individualistic society (Dong, & Chen, 2017; Lykes & Kemmelmeier, 2014).

Collectivist culture promotes more social relationships, which may support and protect individuals against loneliness (Kerr, 2016). There are associations between religious practices and mental health, in the sense that religion may play an important role in reducing disorders, such as depression or loneliness, by developing more support, helping to face problems and stress, thus adding to a greater sense of well-being and that they are living a meaningful life

(Koenig, 2001; Lee, 2008; Sheikholeslami, Masole, Rafati, Vardanjani, Talami, & Khodadadi, 2012). Regarding gender differences in religion, females pay more attention to practicing religious orders when faced with problems, even simple ones, whereas males resort to religion just when they face complicated problems (Meisenhelder, 2003).

## **2. Predictors of loneliness**

In order to develop the appropriate interventions to reduce loneliness, it is necessary to understand the factors that lead to this phenomenon (Dahlberg et al., 2015). There are several factors associated with loneliness, which can be classified in two groups. The first group is socio-demographic, and the most important factor associated with loneliness in this group is gender, with women being lonelier than men (Dahlberg et al., 2015; Pinquart & Sorensen, 2001). Several studies have examined the predictors of loneliness. Depression has been found to be associated with loneliness and it is a predictor of loneliness for women, while social contact is a predictor of loneliness for men (Dahlberg et al., 2015). Neuroticism was also found to be a predictor of loneliness (Neto & Barros, 2003).

Positive relationships with others were the best predictors of loneliness among university students in Turkey (Çeçen, & Cenkseven, 2007). Being single was also one of the best predictors of loneliness for all age groups (Nicolaisen & Thorsen, 2017). Mental health was a stronger predictor of loneliness than personality and demographic variables, among Malaysian university students (Md Nordin, Abu Talib, & Yaacob, 2009).

Loneliness was negatively correlated with social support and social connectedness, among Turkish university students, while, on the other hand, having friends, the support of significant others, and social connectedness were predictors of loneliness (Duru, 2008). Psychological well-being was also an important factor for predicting loneliness (Bhagchandani, 2017), and self-esteem was a strong predictor of loneliness in Portugal (Neto 2002).

## **3. Loneliness and social support**

Social support is defined as “information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations” (Cobb, 1976;

pp.300). Social support is an important factor that may reduce the effects of life stress on mental and physical health (Oni, 2010).

Social support provides people with an opportunity to share a wide range of issues, to build a support system that exists so that it may create a chance to obtain support from others dealing with similar issues, to discuss feelings and experiences with people who understand what the individual is going through, by personal experience. Social support is studied across a wide range of disciplines including psychology, social work, medicine, sociology, public health, and nursing (Inkpen & Tsang, 2005; Lumadi & Sethusha, 2013).

Social support has been described as relating to adjustment, increased public happiness, psychological integrity, resilience in stressful situations, and self-esteem, and reduced stress (Davison et al, 2000; Inkpen & Tsang, 2005; Lumadi & Sethusha, 2013; Thoits, 1995). Additionally, some studies have found that positive supportive relationships are positively correlated with physical health. People who experience lack of social support have been found to have a shorter life and to recover from illness and injury slower (Johnson et al., 1997; Orth-Gomér, Rosengren, & Wilhelmsen, 1993).

Several studies have indicated the important role of social relationships for one's health (both psychological and mental health), and, thus, reduced social support may lead to different problems, such as loneliness and depression. In addition, a negative association has been found between loneliness and social relationships (Bhagchandani, 2017; Domènech-Abella, Lara, Rubio-Valera, Olaya, Moneta, Rico-Urbe, ... & Haro, 2017; Jackson, Soderlind, Weiss, 2000; Oni, 2010).

Family is the birth place of society and the most basic social unit. Family relationships are very important for its members, and early family environment and relationships have a strong effect on an individual's future relationships (Batgos & Leadbeater, 1994; Donley, 1993). Many studies found a strong relationship between loneliness and family relationships and environments; with social and personality difficulties, such as loneliness, depression and poor social networks, being related to poor family cohesion (Cummings et al., 1994; Harold & Conger, 1997; Johnson, LaVoie, & Mahoney, 2001; Perry, Perry, & Kennedy, 1992; Wentzel & Feldman, 1996). Uruk and Demir (2003), in a study with three groups of predictors, observed that the most significant predictor of loneliness was peer relations (as cited in Demrl,

2007). Associations have also been found between poor social skills and developing relationships, which could lead to loneliness (Ernst & Cacioppo, 2000).

Perceived social support is one of the most important factors related to loneliness (Salimi, & Bozorgpour, 2012). Loneliness negatively correlated with perceived social support (from family, friends and others) among university students (Kozaklı, 2006, as cited in Salimi, & Bozorgpour, 2012) and (Pamukçu & Meydan, 2010).

Social support can be described as follows: “Responsiveness to another’s needs and more specifically as acts that communicate caring; that validate the other’s worth, feelings or actions’ or that facilitate adaptive coping with problems through the provision of information, assistance, or tangible resources” (Cutrona, 1996, p. 10).

Lumadi and Sethusha (2013) presented four functions of social support:

- Emotional support, or sometimes referred to as esteem support or appraisal support, which is a nurturance provided by sources of social support, such as empathy, love, trust and intimacy.
- Tangible support, or instrumental support, which relates to the provision of services or financial assistance, with this type of social support providing directly for the people.
- Informational support, associated with the provision of useful information or guidance for someone, in order to help them solve problems.
- Companionship support, which refers to providing support for people by offering them a sense of social belonging through social activities.

In recent years, social support has been studied by many scholars, who found associations between low social support and mental health (Duru, 2007). For example, Demaray and Malecki (2002) demonstrated that high levels of support for students from their peers and families are associated with positive indicators, whereas low levels of support from their peers and families are associated with negative indicators. Loneliness and social support may be viewed as opposing concepts, since social support is related to the availability of interpersonal relationships, while loneliness refers to the lack of social relationships (Perlman & Peplau, 1984).

Both loneliness and social support are linked to mental health outcomes, an association that is of extreme importance, since these are common phenomena and they may have an effect on the psychological and physical health of individuals (Heinrich & Gullone, 2006; Jackson, 2007). There are associations between loneliness and both quality and quantity of

social support, and negative associations have been found between loneliness and social network size, in the sense that smaller social networks relate to higher feelings of loneliness (Dykstra, Van Tilburg, & Gierveld, 2005; Kerr, 2016). Having large social networks is related to positive social support and less loneliness (Kerr, 2016). However, there is a stronger correlation between loneliness and quality of social network, rather than quantity of social network (Pinquart, & Sorensen, 2001).

As for the relationship between loneliness and social support, individuals who lack social networks are more likely to experience loneliness than those who perceive social support (Perlman & Peplau, 1984). When individuals experience problems in their communications and environments, they usually seek help from their social network, and the perception of social support leads to a greater sense that their problems can be solved and they will not feel alone. Therefore, social support is of extreme importance for individuals to cope with their problems. Furthermore, it is also important for students to receive support from their families and friends, in order protect them from feelings of loneliness, as family and friends are the most important social relationships (Akhunlar, 2010; Nicolaisen & Thorsen, 2017).

Research on the association between loneliness, life satisfaction and relationships has found that a lack of friends or a lack of satisfaction about one's social contacts generates higher feelings of loneliness than in the case of individuals who have at least one or more close friends. An important correlation has also been found between relationships and life satisfaction, in the sense that individuals who have close and good relationships with family and others exhibit higher scores on the level of life satisfaction than individuals who do not have good relationships, the latter reporting lower scores on life satisfaction (Demakakos, Nunn, & Nazroo, 2006; Nicolaisen & Thorsen, 2017).

Typically, individuals tend to share their intimate feelings with their close friends, who thus fulfill the need for closeness and intimacy (Hashim & Khodarahimi, 2012). There is a correlation between loneliness, social support, life satisfaction and self-esteem, in the sense that when people experience lower levels of social support they are more likely to have higher levels of loneliness, lower levels of life satisfaction and lower levels of self-esteem (Kong, & You, 2013).

#### **4. Loneliness and life satisfaction**

Satisfaction with life is a cognitive component of subjective well-being (Huo, & Kong, 2014; Sam, 2001). Pavot and Diener (1993) define life satisfaction as a “judgmental process, in which individuals assess the quality of their lives on the basis of their own unique criteria” (p. 164). In other words, life satisfaction is an evaluative summary of one’s like or dislike for one’s life (i.e., the attitudinal object). Regarding the relationship between loneliness and life satisfaction, Swami et al. (2007) studied the relationship between loneliness, life satisfaction and depression, among Malaysian medical university students, and found that life satisfaction was negatively and significantly correlated with loneliness and depression.

On the other hand, and related to the topic of life satisfaction as a part of subjective well-being (SWB), Diener (1984) proposed that subjective well-being (SWB) has three distinct components: life satisfaction (LS), positive affect (PA), and negative affect (NA). Furthermore, Ed, Suh, Lucas, and Smith (1999) also included satisfaction in specific life domains. Studies on subjective well-being (SWB) often distinguish cognitive and affective components of SWB (Diener, 1984; Ed et al., 1999). Life satisfaction and domain satisfaction are considered cognitive components, because they are based on evaluative beliefs about one’s life. In contrast, positive affect and negative affect assess the affective component of SWB. Positive affect and negative affect reflect the amount of pleasant and unpleasant feelings that individuals experience in their lives. Furthermore, according to some researchers, the term subjective well-being (SWB) is used synonymously with life satisfaction (Diener 1994).

Loneliness was positively and significantly correlated with depression (Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006). One of the well-being dimensions – life satisfaction – was quite strongly correlated with a distress dimension – depression. It is unlikely for an individual to be both satisfied with life and depressed, but they may be satisfied and anxious (Headey, Kelley & Wearing 1993).

Individuals with high levels of life satisfaction tend to have more positive relationships, feel better and experience lower levels of psychopathology, than individuals with low levels of life satisfaction (Lewis, Huebner, Malone, & Valois, 2011). Moreover, when the quality of the individual's life increases, their satisfaction with life also increases (Akhunlar, 2010). Life satisfaction is influenced by several factors, such as age, gender, work,

education, religion and family (Akhunlar, 2010). When the individual experiences problems with their interpersonal interactions and environment, they will likely feel loneliness; and when they experience poor communications, their satisfaction with life can decrease. Thus, there may be an association between loneliness and satisfaction with life (Akhunlar, 2010).

As indicated by Perlman and Peplau (1984), loneliness may also result from a change in the individual's social needs, not only from a change in the individual's social contacts. Moreover, loneliness is associated with different feelings, such as dissatisfaction and anxiety (Perlman & Peplau, 1984).

Loneliness is not only one of the most important indicators of life satisfaction (Bozorq & Salami 2012), but it is also one of the most important predictors of life satisfaction in adolescents (Chipuer, Bramston, & Pretty, 2003; Civitci et.al, 2009; Neto, 1993). Some studies have found a negative association between loneliness and life satisfaction (Bozorq & salami 2012; e.g., Goodwin et al., 2001), with studies demonstrating that lonely individuals report lower levels of satisfaction with life (e.g., Swami et al., 2007; Goodwin, Cook, & Yung, 2001; Neto, 1993). Lonely students also reported feelings such as anger, or feeling depressed and more sensitive (Okwaraji, Onyebueke, Nduanya, & Nwokpoku, 2017). Loneliness and life satisfaction are variables that may contribute to poor mental health, and there is an important negative relationship between loneliness and life satisfaction (Swami et al., 2007).

## **5. Loneliness and love**

Love and belongingness are some of the most important human needs, as Maslow mentions in his hierarchy of needs, as well as having good and positive relationships with others (Turkdogan & Duru, 2012). Therefore, in order to fulfill the basic need of belongingness, individuals seek relationships with others, and usually perform several daily activities with other people, such as eat, talk and work with others (Hasan, & Clark, 2017).

Some studies found links between loneliness and living alone. Indeed, living with others or having a partner may play an important role in order to protect individuals against loneliness, although this differs according to culture (de Jong Gierveld, Dykstra, & Schenk, 2012; Kerr, 2016). Love is an important factor in the individual's life, in particular for

satisfaction in relationships with family and friends (Turkdogan & Duru, 2012). Therefore, when the individual's social and intimate needs are not met, loneliness may occur (Alaviani, Parvan, Karimi, Safiri, & Mahdavi, 2017; Tomás, Pinazo-Hernandis, Donio-Bellegarde, & Hontangas, 2017).

Intimacy is of paramount importance in individuals' relationships, particularly during their youth and development stages, as they can often share these feelings with their friends and lovers. Indeed, intimate relationships may reduce the risk of isolation (Hashim & Khodarahimi, 2012).

Intimacy is one of the five styles of interactions and it is an indicator of a normal and effective friendship (Hashim & Khodarahimi, 2012). Hashim (2004) found a positive association between psychological well-being and the number of friendships an individual has, in the sense that both factors increased together. Moreover, friendships may contribute to the prevention of loneliness, since individuals who lack social networks are more likely to feel loneliness compared to others who developed a good social network (Hashim & Khodarahimi, 2012; Nicolaisen & Thorsen, 2017). Lonely Turkish university students demonstrated less subjective well-being (Saygin, Akdeniz, & Deniz, 2015). Additionally, Deniz, Hamarta and Ari, (2005), in their study among Turkish university students, found that students who did not have a romantic relationship exhibited higher levels of loneliness than who had a romantic relationship.

## **6. Loneliness and mental health**

There is growing focus, in the mental health field, toward the role of social support as a facilitator of psychological and physical well-being (Thoits, 2011).

Loneliness has been linked to mental health problems such as depression and anxiety, to physical health issues such as sleep deficiencies (Heinrich & Cullone, 2006), as well as to a general cognitive decline (Hawkley & Cacioppo, 2003; Victor & Yang, 2012).

According to APA (2000), depression is one of the most common mental disorders. People who have been diagnosed with depression presented low self-worth, loss of interest, and sleep disorders. It can affect individuals of any gender, age, or economic status. The

prevalence of depression differs among university students, depending on the definition or diagnosis of depression.

In recent years, there has been an increase of mental disorders among university students (Hunt & Eisenberg, 2010). Many university students must cope with loneliness, anxiety and depression, during their time at university, and many psychological difficulties may increase in this period (Ceyhan & Ceyhan, 2011). A study by Andrews and Wilding (2004) found that 9% of British university students develop depression and 20% develop anxiety. Among Nigerian university students, 20.2% of them reported mild depression, 5.4% moderate depression and 2.0% severe depression (Okwaraji, Onyebueke, Nduanya, & Nwokpoku, 2017). As for Korean university students, depression scores were observed in 35% of females and 24% of males (Kim, 2001). There were no significant gender differences regarding life satisfaction and depression measures, in a cross-cultural study among Australian, Ghanaian, Nigerian, Northern Irish, and Swazi university students (Dorahy, Lewis, Schumaker, Akuamoah-Boateng, Duze & Sibiya, 2000). Furthermore, female university students reported higher depression scores than male students (Abadsa & Thabet, 2012; Alansari, 2006; Bayram, & Bilgel, 2008; Kim, 2001).

Among the Palestinian university students at An-Najah National University, in Palestine, Assaf (2002) found that the perception of psychological problems in students, due to Israeli aggression, was 61.2%, which, considered in terms of psychological effects is high. There were significant differences in the perception of students' psychological problems, according to family income and place of residence. There were no significant differences in the perceptions of students' psychological problems according to gender and faculty.

The lonelier and less satisfied students feel, the more likely they are to report high levels of depression, given the association between loneliness, depression and poor mental health (Ceyhan & Ceyhan, 2011; Swami et al., 2007; Oehler, 2017). People with depression may suffer with their social relationships and, thus, lack a social network (Kerr, 2016). Moreover, there is evidence of a strong association between loneliness and depression, which makes lonely individuals more vulnerable to develop depression than non-lonely individuals (Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006; Luanaigh & Lawlor, 2008).

## **7. Loneliness and self-esteem**

Self-esteem, which develops from an early age, plays an important role in the adaptation and well-being of adolescents. Comparing social support, an external source, and self-esteem, an internal source, self-esteem has a powerful role on individuals' relationship with loneliness (Kapıkıran, 2013), and individuals with low levels of social support are more likely to feel loneliness and low self-esteem, which may also lead to low life satisfaction (Kong, & You, 2013).

Self-esteem is the individual's evaluation of his or her own self-worth, in other words, it is how we feel about ourselves (Bozorgpour, & Salimi, 2012; Okwaraji, Onyebueke, Nduanya, & Nwokpoku, 2017). Negative correlations between loneliness and self-esteem have been found (McWhirter, Besett-Alesch, Horibata, & Gat, 2002; Neto, 2014). However, conversely, a high correlation between loneliness and self-esteem was found among Chinese university students (Huo, & Kong, 2014).

Loneliness is associated with low self-esteem, as has been reported (Cacioppo et al. 2006; Çeçen, 2007). There is a significant correlation between loneliness, life satisfaction and self-esteem among Turkish university students (Bozoglan, Demirer, V., & Sahin, 2013). A relationship has also been found between loneliness and self-esteem among Chinese university students (Zhao, Kong, & Wang, 2012). Thus, loneliness may play an important role in the reduction of self-esteem among university students (Ishaq, Solomon, & Khan, 2017). Furthermore, an association has been found between self-esteem and depression, suggesting that depression may lead to low self-esteem (Okwaraji, Onyebueke, Nduanya, & Nwokpoku, 2017).

In a study evaluating the self-esteem among Nigerian university students, results showed that 72.0% of them exhibited high self-esteem and 28.0% reported low self-esteem (Okwaraji, Onyebueke, Nduanya, & Nwokpoku, 2017). Males reported higher levels of self-esteem than females, among university students in the U.S.A (Furr, 2005), and among Turkish university students (Zhao, Kong, & Wang, 2013).

There were no gender differences in loneliness and self-esteem (Ishaq, Solomon, & Khan, 2017). Additionally, no gender differences were found in self-esteem among Syrian university students (Adam, & Algagan, 2014).

## 8. University students

University students need to adapt to their new social environment, in addition to encountering interpersonal, academic and financial difficulties (Mori, 2000). University students face different problems, from social, psychological to relationships problems, with which they must learn to cope (Al-Kadoumi, Sawalha, & Momani, 2012; Gizir, 2005). Students with high social connectedness are more likely to adapt to their new environment and less likely to report loneliness (Duru, 2008). Arab students, in particular, face significant stress during their university life, as a result of substantial family obligations, or differences between the student's and their family's expectations, even if they receive high support from their family (Yazdani, Jibri, & Kielhofner, 2008).

Associations have been found between loneliness and age, especially during the university years. Indeed, university students are more likely to report high levels of loneliness than any other age group, which has become a serious problem among students, as different studies have found. Individuals, during this period, need intimacy in their relationships and to feeling as if they belong in the social environment. Thus, if they are unsatisfied about their relationships, this may lead to loneliness (Ishaq, Solomon, & Khan, 2017; Migdady, 2008).

University students are more likely to experience loneliness than other groups, due to the changes in their social relationships (Ibriam, 2013). The first transition in an adolescent's life is the beginning of university and college, as it brings life changes in personal relationships and social networks. This transition represents a significant occupational challenge, and may impact students' mental health and reduce their subjective well-being, as they are more likely to experience loneliness and depression than others young people who are not attending university (Alaviani, Parvan, Karimi, Safiri, & Mahdavi, 2017; Berman & Sperling, 1991; Gall, Evans, Bellerose, 2000; e.g., Frazier & Schauben, 1994; Ishaq, Solomon, & Khan, 2017; Radloff, 1991; Larson, Moneta, Richards, & Wilson, 2002; Okwaraji, Onyebueke, Nduanya, & Nwokpoku, 2017; Yazdani, Jibri., & Kielhofner, 2008). Loneliness is a common phenomenon during a university student's life, since they have to develop new relationships (Bugay, 2007; Özdemir & Tuncai, 2008; Wei, Russell & Zakalik, 2005). Studies have reported that loneliness is a complex experience, and it may become stronger when the individual deals with life changes and events (e.g. Dahlberg, Andersson, McKee, &

Lennartsson, 2015). In addition, the density of an individual's social networks is significantly correlated with reduced loneliness (Sawir, Marginson, Deumert, Nyland, & Ramia, 2008).

For university students, a negative correlation was found between loneliness and number of relationships, suggesting that a person's network plays an important role in the protection against loneliness (de Jong Gierveld, Van Tilburg, & Dykstra, 2016; Sawir, Marginson, Deumert, Nyland, & Ramia, 2008). Thus, when the individual has a small social network, they are under risk of being lonely (Cacioppo, et al., 2009). Moreover, the functioning and the composition of a person's social network are also important, not only its size (Cacioppo, et al., 2009; de Jong Gierveld, Van Tilburg, & Dykstra, 2016).

Culture plays an important role in a person's lifestyle and how they cope with problems, and different degrees of loneliness may be expected, according to culture (Bugay, 2007). The prevalence of depression among college students ranges from 14% to 17%, and it is higher among first year students than among students in other years (Fadloff, 1991; McDermott, Hawkins, Littlefield, & Murray, 1989; Rosenthal & Schreiner, 2000). It is estimated that university students experience depression at higher rates than the general population (Ibrahim, Kelly, Adams, & Glazebrook, 2013). The American College Health Association found that, among university students, 38% of males and 47% of females experience depression (Oehler, 2017). Different causes may lead to depression among university students, such as lack of social support, academic stress and the changes that take place during the transition into university life (Keith, 2010). A study by Knox, Vail-Smith, and Zusman (2007) found that 25.9% of male university students and 16.7% of female university students experienced loneliness. In addition, Kim (2001) found that, among Korean college students, loneliness was the main predictor of depression for both men and women. Indeed, loneliness appears to be one of the strongest predictive variables of depressive symptoms (Oehler, 2017).

## **9. Significance of the study**

The twenty-first century has been marked by many social, economic, cultural and political changes, as well as changes to the values of humanity, generating conflicts between the old and the new. These rapid changes and multiple conflicts brought with them significant

pain and psychological troubles, which may cause loneliness in humans. The reality of the Palestinian people plays a big role in the emergence of several psychological symptoms. Since the Palestinian reality differs from others in terms of pressures, political, social, and economic factors, as well as security. These issues prevent Palestinians from being able to satisfy needs and motivations, and may lead to deprivation, frustration and then loneliness. Furthermore, young people are the age group that most suffers from loneliness, compared to groups in other stages of life. Researchers interested in the subject of loneliness among youth, and its causes, have found that it is linked to shame, depression, low self-esteem, lack of social harmony, lack of social skills, suicide and suicidal thoughts.

Therefore, there is a need for studies on loneliness and life satisfaction, among Palestinian university students, in order to identify the causes, as well as the best methods for prevention and treatment.

## **10. Study problem**

The aim of this study is to contribute to literature on the loneliness of Palestinian university students, as well as to provide empirical evidence for university counselling centers who work with this population. Specifically, the purpose of this study was to explore the levels of loneliness of Palestinian university students, according to their gender, age, parental education levels, monthly family income, place of residence, university, faculty, housing conditions, study level and accommodation. This study also intended to examine the relationship between loneliness and other variables in a sample of Palestinian university students. In order to achieve these aims, the focus was placed on variables that relate to loneliness during their time at university.

Loneliness is a serious and important social phenomenon, with prevalence among all ages, from childhood, to adults and seniors, although it is more prevalent among younger individuals than any other age group.

This justifies the interest towards studying this phenomenon among university students in Palestine, as well as its prevalence, causes, predictors and its association with other demographic variables (Alqeeq, 2011).

The relationships of university students are the most important and obvious variables that may lead to loneliness, as several studies have found a positive association between loneliness in individuals and a lack of social networks (Al-Kadoumi et al., 2012). University students feel the need to develop new friends and social networks at university, after leaving their homes and relationships behind, and these new relationships are very important in helping the students to adapt to this new life, by allowing the sharing of activities and information (Hashim & Khodarahimi, 2012; Richardson, Elliott, & Roberts, 2017).

## **CHAPTER II – METHODOLOGICAL FRAMEWORK**

## **1. Methods**

In order to examine the hypotheses formulated in the current studies, a quantitative three-period research design was adopted. In this section, the procedure, sampling process and questionnaire design will be explained. Regarding the major variable loneliness, the questionnaire is incorporated with various measuring instruments to study the relationships between these variables. The validity and reliability of the instruments were calculated. Data collection and analysis will also be explained.

### **1.1 Procedure**

This thesis followed a descriptive design that examined the association between loneliness and other variables, among university students in Palestine. Structured questionnaires were administered for this study. Demographic data (Table 1) were collected from all participants. The data included gender, age, monthly family income, housing conditions, place of residence, faculty, university, study level, accommodation, family size, birthplace and parental educational level.

Letters were sent to the administrators of the An-najah National University, in Nablus, and Arab American University, in Jenin, Palestine, in order to ask for permission to enter the classes. Each student completed the questionnaire by themselves, with the researcher answering questions that may have arisen. The scales administered were the UCLA Loneliness Scale, the Perceived Social Support Scale, used to measure perceived support from family, friends and significant others, the Satisfaction with Life Scale, the Psychological Problems Scale, the Social and Emotional Loneliness Scale for Adults - Short Form, the Love Attitudes Scale, the Rosenberg Self-Esteem Scale, the Satisfaction with Love Life Scale, and the Parental Authority Questionnaire.

The data were collected at three different times. The first time was on 8/9/2015, the second time was on 8/9/2016, and the third time was between 12/2016-4/2017. The students required between 30 and 60 minutes to fill out the scales, depending on the time. The questionnaires were filled out in the classrooms. A total of 254 participants were identified in the first-time period, from the An-Najah and the Arab American University, from different faculties and fields of study. In the second time period, 500 participants were identified from

An-najah and, in the third time period, 200 participants were recruited from the Arab American University.

All participants received a written informed consent before participating in the study.

## **1.2 Data collection**

Eight self-report instruments were used to gather data for these studies. Table 2 summarizes each instrument. The instruments were translated into Arabic (which is the native language of the participants).

Data was analysed using the SPSS statistical package. In order to examine the mean differences among groups, t-test for independent samples and one-way ANOVA procedures were used, and a bivariate correlation was calculated to explore the associations among variables, as well as to test the hypotheses. To test the final hypothesis, a multiple linear regression analysis was used, as a way to identify the independent variables that are important for predicting the loneliness of university students.

## **1.3 Samples**

The sample of this study was composed entirely of students studying at the An-Najah National University and at the Arab American University. The students comprised a mix of genders, ages, colleges, courses and other sociodemographic backgrounds. Therefore, the students were chosen randomly. They answered the Arabic version of the questionnaires, as it was their native language. This study involved some difficulties, due to the number of items the students had to answer, as some of the participants became bored.

Tables 1 and 2 display the demographic characteristics of the sample.

### **An-Najah national university**

An-Najah National University is located in Nablus, Palestine. The number of students attending the university was 22714, in 2016. They study 130 programs, more than 80 Bachelor's programs, and 54 post-graduate programs, two PhD programs in chemistry and physics, and approximately 20 courses in the intermediate diploma.

### **The Arab American University**

The Arab American University, located in Jenin (AAUJ), Palestine, is the first private Palestinian university. The number of students attending the university was 9000. They study over 30 Bachelor's programs and 9 post-graduate programs.

#### **1.4 Instruments**

Instruments were either adapted for the study or taken directly, or with some modification, from existing studies.

The translated (Arabic) questionnaires were reviewed by five academic members from the departments of Psychology and English at the An-Najah National University, in Nablus. Several meetings were held with the reviewers and translators, in order to conduct the required corrections, in view of the goals of the current study. Subsequently, the researcher conducted the pilot study, and the translated and reviewed questionnaires were administered. After preparing the questionnaires, a pilot study was conducted, with an interviewer administering them in order to collect the data. The questionnaire included three sections. The first section comprised the informed consent, the second section was made up of close-ended questions regarding demographic characteristics, and the third section consisted of all items, as they are presented in the original instruments (the total was 52 items).

The researcher addressed a letter to the Vice President of An-Najah National University for Academic Affairs, requesting permission to enter the classroom to conduct the study. After obtaining the informed consent, the researcher looked for compulsory and optional courses at the university, and selected a range of classes, distributing the questionnaires, attached to the consent form, to the participating students. In this step, an exploratory experience was conducted in order to ensure that the participants were able to understand the instruments' instructions and that the paragraphs were clear.

The instruments included in these studies as presented as follows: 1. University of California Los Angeles (UCLA) Loneliness Scale; 2. Satisfaction with Life Scale (SWLS); 3. Multidimensional Scale of Perceived Social Support (MSPSS); 4. Psychological Problems Scale (PPS); 5. The Satisfaction with Love Life Scale (SWLLS); 6. The Love Attitudes Scale (LAS); 7. The Rosenberg Self-Esteem Scale (RSS); 8. The short-form UCLA Loneliness Scale (ULS-6); 9. The Social and Emotional Loneliness Scale for Adults - Short Form (SELSAS);

and 10. Parental Authority Questionnaire (PAQ). (Table 3). These instruments were integrated into a questionnaire with demographic variables (gender, age, faculty, university, study level, place of residence, monthly family income, housing condition and family size), which were also obtained.

Table 3 provides a description of the instruments.

The following instruments were used:

#### *1.4.1 University of California Los Angeles (UCLA) Loneliness Scale (Appendix 1)*

In this study, loneliness was measured by the R-UCLA Loneliness Scale. The

R-UCLA was developed by Russell, Peplau and Cutrona (1980) to measure one's subjective feelings of loneliness and social isolation. This scale is a revised version of the original UCLA Loneliness Scale, and its purpose was to make 10 of the original 20 items reverse scored. This measure has high internal consistency,  $\alpha = .96$  (Russell, Peplau, & Cutrona, 1978). As reported by Russell (1996), the scale was evaluated using data from college students and seniors, and its reliability and validity were determined. It was shown to have high reliability, yielding a coefficient alpha ranging from 0.89 to 0.94.

It is a 20-item measure of loneliness, comprised of 10 positively stated items (1, 4, 5, 6, 9, 10, 15, 16, 19, 20), for example, "There are people I can talk to", as well as 10 negatively stated items (2, 3, 7, 8, 11, 12, 13, 14, 17, 18), for example, "There is no one I can turn to". These items are assessed with a 4-point Likert-scale ( $1 = \text{never}$ ,  $4 = \text{often}$ ) and are summed up to produce a total score. The total score ranges from 20 to 80, with higher values indicating greater loneliness.

#### *1.4.2 Satisfaction with Life Scale (SWLS). (Appendix 2)*

The Satisfaction with Life Scale was developed by Diener et al. (1985), to measure global life satisfaction, or satisfaction with one's subjective life as a whole. It is used with various age groups, because of its brevity, reliability and validity (Neto, 2005). It includes five items assessed with a 7-point Likert-scale ( $1 = \text{strongly disagree}$ ,  $7 = \text{strongly agree}$ ), for example, "In most ways my life is close to my ideal". As reported by Abdallah (1998), the scale was evaluated by using data from Palestinian university students, and its reliability and validity was analyzed, yielding a coefficient alpha of .79. For this study, the Jaradat (2013) version was used, with a Cronbach's alpha of .71.

#### 1.4.3 *Multidimensional Scale of Perceived Social Support (MSPSS). (Appendix 3)*

The Multidimensional Scale of Perceived Social Support MSPSS was developed by Zimet et al. (1988). It is a self-report measure that subjectively evaluates social support according to three domains: 1) Family (FA), for example, “My family really tries to help me”; 2) Friends (FR), for example, “I can talk about my problems with my friends.”; and 3) Significant others (SO), for example, “There is a special person who is around when I am in need.”. This measure comprises 12 items, assessed with a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). The reliability and validity of this scale have been shown across several groups, and the items are designed to allow participants the opportunity to explain perceived social support in ways related to themselves (Canty-Mitchell & Zimet, 2000). High scores indicate high levels of perceived social support. We have used the Arabic version of the MSPSS, adapted by Abou-hashem (2010), in Egypt. Cronbach’s alpha coefficients for the total scale, friends’ support, family’s support and significant others’ support are .89, .83, .78 and .81, respectively.

#### 1.4.4 *Psychological Problems Scale (PPS). (Appendix 4)*

The Psychological Problems Scale (PPS) was developed to measure depression, anxiety and psychosomatic symptoms (Berry et al., 2006; Neto, 2009). It consists of 15 items, five items for each disorder. An example item for depression is “I feel unhappy and sad”, for anxiety is “My thoughts seem to be mixed up”, and for psychosomatic symptoms is “I feel sick in the stomach”. The items are assessed on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). Factor analyses show that the 15 items constitute a single factor. Furthermore, Cronbach’s alpha in this study is .87.

#### 1.4.5 *The Satisfaction with Love Life Scale (SWLLS) (Appendix 5)*

The Satisfaction with Love Life Scale (SWLLS) was developed by (Neto, 2005) to evaluate satisfaction with love life, specifically, the subjective evaluation of one’s own love life. It comprises five items, for example “In most ways my love life is close to my ideal”, which are assessed with a 7-point Likert-scale (1 = *strongly disagree*, 7 = *strongly agree*). Higher scores indicate higher levels of love life satisfaction. Cronbach’s alpha for the current study was 0.83.

#### 1.4.6 *The Love Attitudes Scale (LAS). (Appendix 6)*

The Love Attitudes Scale (LAS) was developed by Hendrick and Hendrich, (1986). The scale is based on the color of love model, by Lee (1973), which proposed a typology of six major love styles. It is a 42-item self-report questionnaire, organized into six love styles, each style measured by seven items, which are rated on a 5-point Likert scale (*1 = strongly disagree, 5 = strongly agree*). An example item for Eros is “My lover and I became emotionally involved rather quickly”, for Ludus is “I can get over love affairs pretty easily and quickly”, for Storge is “The best kind of love grows out of a long friendship”, for Pragma is “I try to plan my life carefully before choosing a lover”, for Mania is “I cannot relax if I suspect that my lover is with someone else”, and for Agape is “I would rather suffer myself than let my lover suffer”. Cronbach’s alphas for the current study were 0.95 for Eros, 0.78 for Ludus, 0.74 for Storge, 0.86 for Pragma, 0.77 for Mania, and 0.85 for Agape.

#### 1.4.7 *The Rosenberg Self-Esteem Scale (RSS). (Appendix 7)*

The Rosenberg Self-Esteem Scale (RSES) is one of the most popular self-esteem Scales (Rosenberg, 1965). It was developed to measure adolescents’ global feelings of self-acceptance or self-worth, and it is the standard against which other self-esteem measures are compared (Dwairy, 2004). It is a self-report instrument used for evaluating individual self-esteem, both negative and positive feelings (Gray-Little, Williams, & Hancock, 1997; Rosenberg, 1965). This self-esteem scale is of great use for therapists, teachers and other professionals, as it is assumed that high self-esteem will lead to positive outcomes and good performance, thus, it is important to work on increasing self-esteem in individuals (Baumeister, Campbell, Krueger, & Vohs, 2003). Self-esteem was assessed using the 10-item inventory by Rosenberg (1965). The items were rated on a 4-point Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*), with high scores indicating high self-esteem. One example of an item is “I feel that I have a number of good qualities”. Cronbach’s alphas of the RSES, in various samples, ranged from .77 to .88 (Dwairy, 2004). We used the Arabic version of this scale (Ghazal & Jaradat, 2009). Cronbach’s standardized alpha for the current study was .74.

#### 1.4.8 *The short-form UCLA Loneliness Scale (ULS-6) (Appendix 8)*

This short-form UCLA Loneliness Scale (ULS-6; Neto, 1992; 2014) contains the 6 items selected from the revised UCLA Loneliness Scale by Russell, Peplau, and Cutrona

(1980). The items were (1) I lack companionship, (2) I feel part of a group of friends, (3) I feel left out, (4) I feel isolated from others, (5) I am unhappy being so withdrawn, (6) People are around me but not with me. The answers ranged from 1 (*never*) to 4 (*often*). Higher values indicate higher levels of loneliness. Cronbach's alpha for the current study was 0.86.

#### 1.4.9 *The Social and Emotional Loneliness Scale for Adults - Short Form (SELSAS) (Appendix 9)*

The Social and Emotional Loneliness Scale for Adults - Short Form (SELSAS) (DiTommaso et al., 2004) is a multidimensional measure of loneliness. It consists of 15 items designed to measure emotional loneliness (romantic and family), for example, "I wish I had a more satisfying romantic relationship", as well as social loneliness, for example, "I am able to depend on my friends for help". The items were rated on a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), with high scores indicating high levels of emotional and social loneliness. The SELSA-S's three subscales have high internal reliability, with Cronbach's alphas ranging from .87 to .90, and have been shown to be a valid measure of loneliness (DiTommaso et al., 2004). Cronbach's alpha coefficients for the current study, regarding the total scale and the social, family and romantic scales are .79, .70, .79 and .61, respectively.

#### 1.4.10 *Parental Authority Questionnaire (PAQ). (Appendix 10)*

The Parental Authority Questionnaire (PAQ) (Buri, 1991) is a multidimensional measure of parenting styles. It consists of 30 items designed to measure parental authority or disciplinary practices from the point of view of the child (of any age). In the original version of the scale, ten items reflect each of the three parenting styles. In this study, reliabilities for each dimension were tested, and the results indicated that 7 items (1, 6, 14, 17, 19, 21, & 24) continued to measure the permissive dimension, 7 items (2, 3, 7, 9, 12, 16, & 18) continued to measure the authoritarian dimension, and 8 items (4, 5, 8, 11, 15, 20, 23, & 30) continued to measure the authoritative dimension. It is designed to reflect the three basic parenting styles: authoritarian, for example, "My parents do not allow me to question any decision they made"; permissive, for instance, "My parents do what children in the family want when making family decisions"; and authoritative, exemplified by "If my parents made a decision in the family that hurts me, they are willing to discuss that decision with me and to admit if they made a mistake". The items were rated on a 7-point Likert scale, ranging from 1 (*strongly*

*disagree*) to 5 (*strongly agree*). Cronbach's alpha coefficients for the current study, regarding permissive, authoritarian and authoritative styles are .61, .65, and .82, respectively.

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### **CHAPTER III**

#### **STUDY 1: PSYCHOLOGICAL PREDICTORS OF LONELINESS AMONG THE PALESTINIAN UNIVERSITY STUDENTS IN THE WEST BANK**

## **STUDY 1**

Psychological predictors of loneliness among the Palestinian university students in the West Bank

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### **Abstract**

The purpose of this study was to examine the predictive role of life satisfaction, perceived social support, and psychological problems on loneliness among Palestinian university students in the West Bank. Participants were 254 volunteer undergraduate students (50.4% males and 49.6% females), ranging from 18 to 26 years of age. Data was collected using the Loneliness Scale (UCLA), Satisfaction with Life Scale (SWLS), Multidimensional Scale of Perceived Social Support (MSPSS), Psychological Problems Scale and a Demographic Information Form. There was a significant gender bias towards loneliness, male students being lonelier than female students. Results showed that students who had higher loneliness, felt less satisfied with their life and perceived less support from friends, family and significant others. Furthermore, students who had high loneliness also presented more psychological problems. These results also indicated that, after accounting for psychological problems, life satisfaction, and social support from friends and significant others are negative predictors of loneliness. These findings suggest that universities should create strategies to improve well-being and social support to protect students from the negative effects of loneliness.

*Keywords:* Loneliness, life satisfaction, perceived social support, psychological problems, university students, Palestine, West Bank.

# Psychological predictors of loneliness among the Palestinian university students in the West Bank

## Introduction

The State of Palestine, or as it is known Palestine, is an Arab Muslim country located in the Middle East. The State of Palestine claims the West Bank bordering Jordan, and the Gaza Strip bordering Egypt, with Jerusalem as the capital. These areas of Palestine have been occupied by Israel since 1967, and are administered by the Palestinian Authority. As a result of the occupation and continuous conflict the Palestinian people live a continuous crisis (Al-Krenawi, Lev-Wiesel, & Mahmud, 2007).

Palestine is divided into 16 administrative divisions. Nablus and Jenin are two of them. The estimated total population of Palestine was about 4.81 million until the mid of 2016, 2.36 million being females, and 2.45 males. A total of 2.93 million live in the West Bank and 1.88 million in the Gaza Strip; 73.9% of the population lives in urban areas, 16.6% in rural areas, and 9.5% in camps. Regarding religion, 93% of Palestinians are Muslim, 6% of the Palestinian are Christians, and the remaining 1% are Druze, Samaritans and Jewish. (Palestinian Central Bureau of Statistics, 2016). West Bank is managed by the Palestinian National Authority which is established by the Palestine Liberation Organization pursuant to the Oslo Accords of 1993, and it has limited control of populated areas of the West Bank (The Palestinian Government, 2001).

For more than 66 years, Palestinians have been suffering from various levels of traumatic experiences as a result of the occupation of Palestine by the Israeli army. The Palestinian population suffers abuse to basic human rights and stress imposed by armed military violence such as continuous restriction of movement through checkpoints, closures and curfews. Traumatic events such as shootings or bombings, destruction of houses, countryside, bombardment, physical injuries, and infrastructures including ministries, schools, and universities, physical violence and deaths of relatives occur on a daily basis (Abdeen, Qasrawi, Nabil, & Shaheen, 2008; Espi  , et al., 2009; Punam  ki, Komproe, Qouta, Elmasri, & Jong, 2005; Qato, 2004; Rytter, Kj  ldgaard, Br  nnum-Hansen, & Helweg-Larsen, 2006).

There is some evidence that children and youth who have experienced such trauma are more vulnerable to psychological problems (Assaf, 2002), and even that the effects of trauma

and violence have been increasingly affecting mental health among the Palestinian populations (Giacaman, Shannon, Saab, Arya, & Boyce, 2007). For example, Palestinian children frequently suffer negative psychological and social effects such as insomnia, phobias, depression, anxiety, bedwetting, negative social interaction, behavioral problems, and post-traumatic stress disorder (Al-Krenawi, Lev-Wiesel, & Mahmud, 2007; Altawil, Nel, Asker, Samara, & Harrold, 2008). These childhood traumas might result into severe psychological disorders in the Palestinian youth including university students (Assaf, 2002).

Transition from secondary school to university usually implies that students develop new social networks involving people from different social, religious, cultural and political backgrounds (Al-Kadoumi, Sawalha, & Momani, 2012). However, many students face difficulties in developing new social relationships, which can lead to loneliness. This study analyzes the predictive role of life satisfaction and perceived social support in loneliness among Palestinian university students in the West Bank, after accounting for psychological problems.

While loneliness can be a normative experience, it can also be stressful and debilitating for the individual. and interfere with psychosocial functioning. Perlman and Peplau (1984) define loneliness as “the unpleasant experience that occurs when a person’s network of social relationships is significantly deficient in either quality or quantity” (p. 15). Loneliness is characterized by unpleasant feelings that arise when an individual perceives a discrepancy between their desired and actual social relationships (Peplau & Perlman, 1982). In other words, loneliness results from the mismatch between the actual and the desired perceptions on the size and quality of an individual’s social network (Lykes & Kemmelmeier, 2013). Several studies have shown that the causes of loneliness are related to changes in personal relationships and social networks (Peplau & Perlman, 1982). The cultural background such as ethnicity, language, and ethics, also plays an important role in the experience of loneliness. People may differ in their experience of loneliness according to their cultural background (Jordaan & Le Roux, 2004; Mullett, 2002; Neto & Barros, 2003). For instance, Non-Caucasian adolescents were found to feel more lonely than Caucasian ones (Jordaan, & Le Roux 2004; Mullett, 2002). Neto and Barros (2000) found no significant differences in loneliness according to ethnicity among Portuguese and Cape Verdean university students. How individuals cope with loneliness is related to their cultural background and their cultural

beliefs (Rokach, 1999). Prevalence of loneliness among the general population has been increasing, and it is a serious problem among university students (Al Khatib, 2012). In their study with Turkish university students, Özdemir and Tuncay (2008) found that 60.2% of the participants have experienced loneliness. In this same vein, Sawir et al. (2008) found that 65% of the international students in Australia experienced loneliness. Moreover, loneliness is an important concept for epidemiological and social research as it directly relates to human health and well-being (Bozorgpour & Salimi, 2012; Cacioppo et al., 2002).

The results reported in the literature regarding gender differences in loneliness among university students are conflicting. In a first group of studies conducted in Iraq (Aljabari, 2012), Gaza (Alqeeq, 2011), Turkey (Ekinci et al., 2015), Biskra (Merrakchi, 2014), Jordan (Migdady, 2008), Portugal and Angola (Neto & Barros, 2003) loneliness did not differ according to gender. In a second group of studies performed in Saudi Arabia (Addelaim, 2002), Iran (Bozorgpour & Salimi, 2012), Turkey (Ceyhan et al., 2011; Demrl, 2007; Ozben, 2013; Tümkaya, Aybek & Çelik, 2008), and Algeria (Ibraiam, 2013), results pointed out higher loneliness among male university students. Finally, in a third group of studies conducted in Iraq (Abdullah, 2011), United Arab Emirates (Al Khatib, 2012), Turkey (Bugay, 2007), and Jordan (Mustafa & Alshrefen, 2012) results revealed higher loneliness among female university students.

There is some evidence showing that loneliness varies across age. In a study with Palestinian university students in Gaza, Alqeeq (2011) found that fourth-year students feel lonelier than the first-year students. Merrakchi (2014) found that university students in Algeria from 21 to 23 years old experience more loneliness than those with ages comprised between 18 and 20 and those above 23 years old.

The way loneliness is experienced differs according to several factors, one of which being religiosity (Lauder, Mummery & Sharkey, 2006). Religion plays a significant role in people's life and in explaining the response to life events (Hackney & Sanders, 2003). Religiosity has been found to be positively associated with well-being and mental health, and negatively associated with psychopathology, such as anxiety. Thus, religious people report higher levels of satisfaction with their lives, better mental health and lower levels of anxiety and depression (Abdel-Khalek, 2007; Abdel-Khalek, & Naceur, 2007; Cohen, & Johnson, 2016). According to Sobosan (2004), loneliness is found when people feel far away from God

and from the humanity. Faith in God, prayer, fasting and attending religious institutions are some of the people beliefs which play an important role in maintaining well-being (Acharya & Northcott, 2007). Even after the decreasing of religious practice identified in several countries around the world, religiosity still remains central to the individuals' lives, playing a relevant role in preventing loneliness (Lauder, Mummery & Sharkey, 2006).

Given the cognitive and social dimensions of loneliness (i.e., the perceived discrepancy between actual and desired social relationships; Peplau & Perlman, 1982), one can expect that other sociocognitive variables, such as life satisfaction and perceived social support, have a protective role on loneliness.

Life satisfaction is defined as a “judgmental process, in which individuals assess the quality of their lives on the basis of their own unique criteria” (Pavot & Diener, 1993, p. 164). Furthermore, life satisfaction refers to a global cognitive evaluation or judgment of one's satisfaction with his or her own life (Diener, Emmons, Larsen, & Griffin, 1985). Some studies show that gender did not correlate with life satisfaction (Shaqora, 2012; Tumkaya, 2008), while other studies indicate that life satisfaction is higher among male university students in Turkey (Bugay, 2007; Ozben, 2013) and among female university students in Iran (Bozorgpour & Salimi, 2012). In Palestine, Shaqora (2012) found that the university students from high income and high education families have higher levels of life satisfaction.

Some evidence regarding a negative association between loneliness and life satisfaction has been found in nursing students in Turkey (Akhunlar, 2010), medical university students in Malaysia (Swami et al., 2007), and university students in Iran (Bozorgpour & Salimi, 2012).

Perceived social support refers to “an individual's perception of general support or specific supportive behaviors (available or enacted on) from people in their social network, which can either enhance functioning or buffer from adverse outcomes” (Demaray & Malecki, 2002, p. 215). The social support network offers people an opportunity to share a wide range of issues, and to build a support system (Lumadi & Sethusha, 2013). Some studies addressing the relationship between loneliness and social support both in young and elderly people, have shown that social support relieves loneliness (Wilson, Calsyn, & Orlofsky, 1995). Social support from friends, family and significant others prevents loneliness also among university

students (Davison, Pennebaker, & Dickerson, 2000; Eshbaugh, 2008; Lumadi & Sethusha, 2013).

As far as we know, to date, only one studied the relationship between loneliness, perceived social support, and life satisfaction among university students (Shahini, Asayesh, Ghobadi, & Sadeghi, 2013). The study was conducted in Iraq and its results revealed that loneliness was negatively correlated with life satisfaction and family and friends' social support, whereas social support from the family and friends was positively correlated with life satisfaction.

Not surprisingly, loneliness appears to be positively related to several mental health problems, like depression, among university students (Daniel, 2013; Nordin, Abu Talib, & Yaacob, 2009; Russell, 1996; Swami et al., 2007). For instance, loneliness and lack of social support, can lead to depression. When people feel depressed they tend to avoid social contacts which may lead to loneliness (Aljabari, 2012; Migdady, 2008; Wei, Russell, & Zakalik, 2005). Research with Palestinian university students in the Gaza Strip showed that greater attention should be given to students' mental health, especially among students coming from low income families (Abadsa & Thabet, 2012; Assaf, 2002).

To the best of our knowledge there are, to date, no studies on life satisfaction and social support as determinants of loneliness among Palestinian university students in the West Bank. This study aims to fill this gap. Based on the existing research, we have defined one research question (RQ1) and four hypotheses.

RQ1: Are there significant differences in the degree of loneliness according to individual characteristics such as gender and age, family background, place of residence, and local academic context? Results of previous research on the relationship between loneliness and demographic variables are not conclusive, not allowing to advance specific hypothesis.

Hypothesis 1: Loneliness and life satisfaction are negatively correlated.

Hypothesis 2: Loneliness and support from friends, family, and significant others are negatively correlated.

Hypothesis 3: Loneliness and psychological problems are positively correlated.

Hypothesis 4: Loneliness is negatively predicted by life satisfaction, perceived social support from friends, family and significant others, and positively predicted by psychological problems.

## Methods

### Participants

Participants were 254 (126 females and 128 males) undergraduate students from two Palestinian universities in the West Bank in Palestine. The age of the participants ranged from 18 to 26 years (41.3% of participants were 18 to 21 years old and 58.7% were 22 to 26 years old). Eighty-seven percent were attending the An-Najah National University and 19.3% were attending the Arab American University; 27 % were attending a course in sciences and 73% in humanities. All the participants were Arab Muslim Palestinian.

Regarding parental education, 20.1% of the parents did not complete secondary school, 37.4% completed secondary school, and 42.5% hold a bachelor degree or higher. Regarding monthly family income, about 37% of the participants' families had a monthly income ranging between 500-1000 USD. Furthermore, 52.4% of the participants were living in villages, about 42.5% in cities, and 5.1% in refugee camps. More than 89.8% of the participants' families had their own houses (See Table 1).

Insert Table 1 about here.

### Measures

Students were asked to fill five self-report questionnaires: Revised UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980), Satisfaction with Life Scale (Diener et al., 1985), Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988), Psychological Problems Scale (Berry et al., 2006; Neto, 2009), and Demographic Information Form.

The *Revised UCLA Loneliness Scale*. UCLA was developed by Russell et al. (1980). It is a 20-item measure of loneliness, comprised of 10 positively stated items (1, 4, 5, 6, 8, 10, 15, 16, 19, 20) and 10 negatively stated items (2, 3, 7, 9, 11, 12, 13, 14, 17, 18), assessed with a 4-point Likert-scale (*1=never, 4 = often*). These statements concern the individual's satisfaction with his or her interpersonal relationships. Items are summed to produce a total score. Greater scores indicate greater loneliness. The Arabic version of Loneliness scale was adapted by Al-Omari and Jaradat (2013) and by Asaad (2010) in Jordan. In this study, the Al-Omari and

Jaradat (2013) version was used, and revealed good internal consistency (Cronbach's alpha = .81).

*Satisfaction with Life Scale (SWLS).* SWLS assesses the individual's subjective evaluation of his or her life. It was developed by Diener et al. (1985), including five items assessed with a 7-point Likert-scale (1 = *strongly disagree*, 7 = *strongly agree*). In this study, the Jaradat (2013) version was used, and revealed good internal consistency (Cronbach's alpha = .71).

*Multidimensional Scale of Perceived Social Support (MSPSS).* MSPSS was developed by Zimet et al. (1988) to assess support in three domains: family (FA), friends (FR), and significant others (SO). It is a 12-item scale assessed with a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). The Arabic version of MSPSS adapted by Abou-hashem (2010) in Egypt was used in this study. Cronbach's alpha coefficients for the total scale, friends support, family support and significant others support were of .89, .83, .78 and .81, respectively, revealing good internal consistency.

*Psychological Problems Scale (PPS).* This scale assesses depression, anxiety and psychosomatic symptoms (Berry et al., 2006; Neto, 2009). It consists of 15 items assessed with a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). Factor analyses show that the 15 items constitute a single factor. Chronbach's alpha in this study was .87, revealing good internal consistency.

*Demographic Information Form.* This form was used to gather detailed information on basic demographics such as student's age and gender, family income, parents' level of education, housing conditions, place of residence, and university and faculty attended by students.

## **Procedures**

Informed consent was obtained from all participants before they were asked to fill the questionnaires. Participants were assured of the confidentiality of their responses. The questionnaires were presented in Arabic to all participants. This was considered an adequate procedure as all participants were fluent in Arabic. It took approximately 20 minutes to complete the full set of questionnaires.

## Data analyses

Data were analyzed using descriptive statistics, independent sample t-test and one-way ANOVA to test differences among groups defined by sociodemographic variables, and bivariate correlation to examine the association among variables. Hierarchical multiple regression analysis was used to identify the independent variables that are important in predicting university students' loneliness.

## Results

Descriptive statistics are presented in Table 2. Results show that loneliness was higher in male than in female students,  $t(252) = 2.29, p < .05$ . Life satisfaction was higher in female than in male students,  $t(252) = -5.17, p < .05$ . No significant differences were found between male and female students regarding perceived social support from friends,  $t(252) = -1.28, p > .05$ . Perceived social support from the family and from significant others was higher in female than in male students,  $t(252) = -2.54, p < .05$ , and,  $t(252) = -3.96, p < .05$ , respectively. Female students revealed more psychological problems than male students,  $t(252) = -3.74, p < .05$ . This difference is due to anxiety,  $t(252) = -2.84, p < .05$ , and psychosomatic symptoms,  $t(252) = -3.75, p < .05$ ; there were no gender differences on depression.

Insert Table 2 about here.

There were no significant differences in loneliness between 18 to 21 and 22 to 26 age groups,  $t(252) = -.49, p > .05$ , between An-Najah and Arab American universities,  $t(252) = .88, p > .05$ , nor between sciences and humanities faculties,  $t(251) = .89, p > .05$ . There were no significant differences between the three parental education groups (less than secondary, secondary and bachelor and more),  $F(2,252) = 2.53, p > .05$ , nor between the three income family groups,  $F(2,247) = .11, p > .05$ , regarding loneliness. Finally, there were no significant differences in loneliness according to the place of residence (village, city and refugee camp),  $F(2,251) = .02, p > .05$ .

To test hypotheses 1, 2 and 3 a correlation analysis was conducted (see Table 3). According to Cohen, Manion and Morrison (2000) an absolute correlation coefficient between 0.00 and  $\pm 0.10$  is weak, 0.10 and  $\pm 0.30$  is modest, 0.30 and  $\pm 0.50$  is moderate, 0.50 and  $\pm 0.80$  is strong, and larger than  $\pm 0.80$  is very strong. Significant correlations among all variables ( $p < .01$ ) were found. There was a moderate negative correlation between loneliness

and life satisfaction ( $r = -.35$ ), and a modest positive correlation between life satisfaction and support from friends ( $r = .26$ ), family ( $r = .42$ ), and significant others ( $r = .39$ ). Strong negative correlations between loneliness and support from significant others ( $r = -.56$ ) and friends ( $r = -.54$ ) were also found. There was a moderate positive correlation between loneliness and psychological problems ( $r = .43$ ). According to these findings, the hypotheses 1, 2, and 3 were supported.

Insert Table 3 about here.

To test hypothesis 4, a two-step hierarchical multiple regression analysis was performed to determine whether the university students' life satisfaction and perceived social support from friends, family and significant others predict loneliness, after accounting for psychological problems. Results show that all the variables are significant predictors of loneliness, except family support (see Table 4). Independent variables explained 48% of the variance in loneliness. Psychological problems, in a positive way ( $\beta = .27, p < .001$ ), and life satisfaction ( $\beta = -.11, p < .05$ ), support from friends ( $\beta = -.28, p < .001$ ), support from significant others, in a negative way ( $\beta = -.27, p < .001$ ), emerged as significant predictors of loneliness.

Insert Table 4 about here.

## Discussion

This study was designed to examine the predictive role of life satisfaction and perceived social support in loneliness among Palestinian university students living in the West Bank, after accounting for psychological problems. Studies in the West Bank are scarce compared to the studies developed in Gaza.

A significant gender bias towards loneliness was found. Male students feel lonelier than female students. This result is supported by some studies in Saudi Arabia (Addelaim, 2002), Iran (Bozorgpour & Salimi, 2012), Turkey (Ceyhan & Ceyhan, 2011; Demrl, 2007; Ozben, 2013; Tumkaya et al., 2008), and Algeria (Ibraiam, 2013). However, several studies found that female students feel lonelier than male students (Abdullah, 2011; Alkhatib, 2012; Bugay, 2007; Mustafa & Alshrefen, 2012), or that there were no statistically significant differences in loneliness according to gender (Aljabari, 2012; Alqeeq, 2011; Bozorgpour & Salimi, 2012; Ekinici et al., 2015; Merrakchi, 2014; Migdady, 2008; Neto & Barros, 2003).

In the present study, several factors can explain the gender bias towards loneliness. It is possible that lower life satisfaction and perceived social support from family and significant others reported in the male population might be the reason for their higher loneliness. Moreover, males are less prone to share their problems and emotions with others than females (Salimi, 2011; Salimi & Bozorgpour, 2012). In line with studies on the role of cultural background in loneliness (Al-Kadoumi, Sawalha, & Momani, 2012; Neto & Barros, 2003), females have larger social networks, which can be explained by cultural family norms in Palestinian society. At this life stage males are looking for identification and self-realization, thinking about their future, career and marriage (Migdady, 2008). Families put a lot of stress on them, because Palestinian males are expected to take responsibility for their family (Salimi, 2011). Due to the permanent fear of being recruited to military service, male students lack social network and frequently find difficulties in building satisfying and meaningful relationships (Aljabari, 2012). Additionally, some studies show that loneliness is explained by a lack of social support and difficulty in building significant relationships (Peplau & Perlman, 1982; Sawir et al., 2008). All these factors may lead to higher loneliness among male students (Addelaim, 2002; Demrl, 2007; Ibraiam, 2013). Results also show that there are no significant differences in loneliness according to the other sociodemographic variables.

A significant gender differences on psychological problems was found. Female students had higher level of psychological problems than male students, which is in agreement with previous results among university students in Palestine (Abadsa & Thabet, 2012; Alansari, 2006). Females usually have fewer job opportunities and are less free to live their life in the way they want in the Islamic and Eastern countries, which could lead to the negative affect associated with psychological problems (Abadsa & Thabet, 2012; Alansari, 2006; Assaf, 2002).

Confirming hypothesis 1, the correlation analyses showed that loneliness is negatively related to life satisfaction. This result is supported by several studies with university students in Turkey (Akhunlar, 2010; Bugay, 2007; Ozben, 2013; Tümkaya et al., 2008), Iran (Shahini et al., 2013), and Malaysia (Swami et al., 2007). Loneliness is also negatively correlated with perceived social support from friends, family, and significant others, confirming hypothesis 2 and in line with the study by Yilmaz et al., (2008). When individuals perceive to have a consistent support from their social network, they tend to perceive themselves as feeling less

lonely and to experience more life satisfaction than those who perceive less social support (Shahini et al., 2013). It is likely that the Palestinian society perceives a higher support from several countries and human rights associations, as a unique country under occupation, than other societies which do not live under occupation and do not suffer the same difficulties. Students who receive more support from their social network feel more satisfied than those who receive less support. Additionally, students who receive more support and feel more satisfied about their life feel less loneliness (Bozorgpour & Salimi, 2012; Swami, et al., 2007).

The positive correlation found between loneliness and psychological problems confirms the hypothesis 3 and shows that people with good psychological well-being feel less lonely than others (Aljabari, 2012; Migdady, 2008). Finally, the results of the multiple regression analysis show that both life satisfaction and perceived social support from friends and significant others were negative predictors of loneliness, among Palestinian university students, after accounting for psychological problems. As life satisfaction and perceived social support increase, loneliness decreases. These results are in line with studies by Eshbaugh (2008) and Davison et al. (2000) in USA, and Shahini et al. (2013) in Iran. Individuals who perceive friends and significant others as being available and supportive tend to feel less lonely, in line with the study by Salimi and Bozorgpour (2012). These results highlight the importance of improving social support among Palestinian university students to promote their life satisfaction.

However, it must be underlined that perceived family support is not a significant predictor of loneliness. This probably occurs because university students spend more time with their friends who play an important role in reducing their sense of loneliness, especially when they are at the same developmental stage. The higher influence of perceived social support from friends when compared with support from family may also be attributed to the authoritarian rearing practices of Palestinian parents, which contrast with friends being more sensitive to the needs of peers, and by that reason, their support and advice is probably more influential (Ozben, 2013).

### **Limitations and implications**

This study has several limitations. The sample only includes university students from two universities in the Northern West Bank, An-Najah National University in the Nablus

District, and the Arab American University in the Jenin District. This makes generalization to all Palestinian university students difficult. Thus, research should be carried out with groups representative of all the university students in Palestine. It would also be useful to consider other variables such as happiness, self-esteem, other age groups, and other social groups who have abnormal life events such as wounded, and the sons of the martyrs to examine if the same patterns will occur. Moreover, for future study it would be useful to analyze the effects of religiosity and ethnicity.

This study has practical implications for counseling centers in universities. Students who lack social support are more prone to feel loneliness. Programs should be designed to educate students and teachers on loneliness and to improve social support and life satisfaction in university students who feel loneliness. It is important that these programs allow students the opportunity to participate in extracurricular activities such as students' associations and volunteering in community service, which can improve their personal and social skills. These social activities are important to reduce loneliness, as well as to prevent mental health problems. They also can increase students' satisfaction about their own life and improve their perception of their own social support.

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*Table 1**Demographic Characteristic of the Participants*

| Demographic variables     |                     | Frequency | Percentage |
|---------------------------|---------------------|-----------|------------|
| Gender                    | Males               | 128       | 50.4       |
|                           | Females             | 126       | 49.6       |
| Age                       | 18-21               | 105       | 41.3       |
|                           | 22-26               | 149       | 58.7       |
| Parental Education levels | Less than secondary | 51        | 20.1       |
|                           | Secondary           | 95        | 37.4       |
|                           | Bachelor and more   | 108       | 42.5       |
| Monthly Family Income     | 500\$ and less      | 77        | 30.3       |
|                           | 500-1000\$          | 94        | 37.0       |
|                           | More than 1000\$    | 79        | 31.5       |
| Place of Residence        | Village             | 133       | 52.4       |
|                           | City                | 108       | 42.5       |
|                           | Refugee camp        | 13        | 5.1        |
| University                | An-Najah            | 205       | 80.7       |
|                           | Arab American       | 49        | 19.3       |
| Faculty                   | Sciences            | 68        | 26.8       |
|                           | Humanities          | 185       | 72.8       |

Table 2

*Descriptive Statistics of the Major Study Variables, and Independent Sample t-Test  
Performance Scores of Students With Gender*

|                            | Total<br>(n=254)<br>M(SD) | Min-<br>Max | Male<br>(n=128)<br>M(SD) | Female<br>(n=126)<br>M(SD) | t<br>(df=252) | Sig |
|----------------------------|---------------------------|-------------|--------------------------|----------------------------|---------------|-----|
| Loneliness                 | 38.5(8.17)                | 22-69       | 39.7(8.0)                | 37.4(8.2)                  | 2.29          | .02 |
| Life Satisfaction          | 23.2(5.68)                | 6-35        | 21.4(5.0)                | 24.9(5.8)                  | -5.17         | .00 |
| Friends support            | 20.4(4.70)                | 4-28        | 20.1(4.9)                | 20.8(4.5)                  | -1.28         | .20 |
| Family support             | 21.6(4.72)                | 4-28        | 20.9(4.7)                | 22.3(4.7)                  | -2.54         | .01 |
| Significant others support | 21.9(4.80)                | 4-28        | 20.8(5.0)                | 23.1(4.3)                  | -3.96         | .00 |
| Psychological problems     | 39.3(11.13)               | 16-72       | 37.2(2.9)                | 41.4(12.4)                 | -3.74         | .00 |

Table 3

*Correlation Among the Study's Variables (n = 254)*

|                               | 1       | 2      | 3      | 4      | 5       |
|-------------------------------|---------|--------|--------|--------|---------|
| 1. Loneliness                 |         |        |        |        |         |
| 2. Life satisfaction          | -.35*** |        |        |        |         |
| 3. Friends support            | -.54*** | .26*** |        |        |         |
| 4. Family support             | -.43*** | .42*** | .49*** |        |         |
| 5. Significant others support | -.56*** | .39*** | .58*** | .57*** |         |
| 6. Psychological problems     | .43***  | -.19** | -.21** | -.21** | -.23*** |

\*\*  $p < .01$ . \*\*\*  $p < 0.001$ .

Table 4

*Multiple Linear Regression Analysis Results for Study Variables as Predictors of Loneliness*

|                            | <i>B</i> | <i>SE</i> | <i>B</i> | <i>T</i> | <i>P</i> |
|----------------------------|----------|-----------|----------|----------|----------|
| Step 1                     |          |           |          |          |          |
| (Constant)                 | 26.3     | 1.71      |          | 15.4     | .000     |
| Psychological problems     | .31      | .04       | .43      | 7.45     | .000     |
| Step 2                     |          |           |          |          |          |
| (Constant)                 | 55.7     | 2.96      |          | 18.8     | .000     |
| Life satisfaction          | -.15     | .08       | -.11     | -2.04    | .04      |
| Friends support            | -.49     | .10       | -.28     | -4.79    | .000     |
| Family support             | -.07     | .10       | -.04     | -.66     | .51      |
| Significant others support | -.47     | .11       | -.27     | -4.34    | .000     |
| Psychological problems     | .20      | .04       | .27      | 5.74     | .000     |

*Note.*  $N = 254$ ,  $R = .69$ ,  $R^2 = .48$ ,  $F(5,253) = 45.061$ ,  $p < .05$ .

## **CHAPTER IV**

### **STUDY 2: LONELINESS, LOVE ATTITUDES AND SATISFACTION WITH LOVE LIFE AMONG UNIVERSITY STUDENTS IN PALESTINE**

### **Abstract**

The association between loneliness, love styles and satisfaction with love life among Palestinian university students was examined in this study. Gender differences in loneliness, love styles and satisfaction with love life was examined as well as the relationship among these variables. The study included 500 students (63.6% females and 36.4% males), aged between 18 and 26 years. Data were collected using the Loneliness Scale (UCLA), Love Attitudes Scale (LAS), Satisfaction with Love Life Scale (SWLLS) and a Demographic Information Form. Analyses showed that there were no gender differences in loneliness. Significant gender differences were found on ludic, males were more in their love styles than were females. Loneliness was negatively associated with Eros, Storge and Pragma love styles, and with satisfaction with love life. Multiple regression analysis indicated that all the variables accounted for 18% of the variance in loneliness scores. Satisfaction with love life appears to be the best predictor of university student's loneliness.

*Keywords:* Loneliness, Love Styles, Satisfaction with Love Life.

## **Introduction**

Loneliness is one of the main problems which is common in the societies, and it is affects among the people younger and older, it is negative experience (Ang, 2016; de Jong Gierveld, Van Tilburg & Dykstra, 2016; Diener, 2006), which in recent years many scholars have studied it as a universal phenomenon. Every human at least once in his/her life experience some level of loneliness, independently of gender, age, or marital status (Demrl, 2007; Medora & Woodward, 1986; Neto & Barros, 2000; Perlman & Peplau, 1984).

Loneliness is a complex and unpleasant feeling. Loneliness is dependent on social network and support from peers. When people feel a gap between desired and achieved social relations or feel dissatisfaction about their relationships, they are more likely to feel loneliness (Ang, 2016; Bauminger & Kasari, 2000; Perlman & Peplau, 1982). When they are satisfied with their social network they will probably feel less loneliness (Jackson, Soderlind, & Weiss, 2000), and perceive more support from their relationships (Pierce, Sarason, & Sarason, 1991). However perceived support does not lead to loneliness directly.

Social relationships are very important in human life. There is a link between satisfying social relationships and good mental health, since people who have deficits on their relationships with others are likely to experience psychological problems such as anxiety and depression as well as loneliness (Ang, 2016; Heinrich & Gullone, 2006). Loneliness also has been linked with negative affects such as unhappiness and social problems, people feel lonely when they have few social relationships, or when these relationships are less satisfying than they wish (Al-Kadoumi, Sawalha, & Momani, 2012; Diener, 2006; Russell, Peplau, & Cutrona, 1980).

Loneliness has been studied among adolescents (Ha, Overbeek, de Greef, Scholte, & Engels, 2010; e.g., Neto, 1992, 2002; Neto & Pinto, 2003), and university students (Abdullah, 2011; Aljabari, 2012; e.g., Neto, 2006). Loneliness among late adolescents came as a major problem, and it is higher among university students than any other age group (Medora & Woodward, 1986; Russell et al., 1980).

There is some evidence that Arabic students have many psychological, social and relationships problems at university (Al-Kadoumi et al., 2012). Their relationships, roles, and

personal identities suffer a significant change during this time. Students share their activities and exchange their values with friends with whom they spend more time than they do with their families (Al-Kadoumi et al., 2012; Gizir, 2005; Heinrich & Gullone, 2006).

Regarding the association of loneliness with gender, some studies indicate no gender differences (Aljabari, 2012; Al-Kadoumi et al., 2012; Alqeeq, 2011; Migdady, 2008; Peplau et al., 1982; Shireen & Ibraheem, 2014; Wright, King, & Rosenberg, 2014), other studies show that males reported higher level of loneliness than females do (Demrl, 2007; Karaoğlu, Avşaroğlu, & Deniz, 2009; Russell et al., 1980; Salimi, 2011; Tümkaya, Aybek, & Çelik, 2008), and other studies have revealed that females feel lonelier than males (Abdullah, 2011; Al Khatib, 2012; Medora & Woodward, 1986; Ozben, 2013). These diverse of the studies result highlight among the unclear relationship between loneliness and gender.

Love and Satisfaction with love life are two important indicator factors for loneliness. Along the last three decades love has been the focus of a growing interest in psychology research on interpersonal relationship (Djikic & Oatley, 2004; Katalo, 2015). Love is a phenomenon which combines cognitions, emotions and behaviors. Researchers are interested in understanding social and psychological effects of love among people in love (Neto, 2005; Sirin & Ummet, 2015). However, there is a large gap in the literature about love and romantic relationships in the Arab world, since these issues are considered a sensitive topic, that has not been researched as well in Islamic countries. In daily life it is uncommon to talk about emotions in general and love in particular, even among relative and friends (Abu-Rabia-Queder, 2007; Oghia, 2015).

Recently love has been examined with its various aspects in psychology for youth people in western countries, but after review of the literature in Arab world as well as in Palestine love has not been clearly studied. In the Muslim nations of the Middle East, there is very little information about romantic behavior and also about intimate contact which is it socially unacceptable. Regarding to the world changes, in the Muslim world romantic relationships became a social fact. The young people want love in their lives, so the academic institutions can get opportunities for them to observe each other and exchange a few words (Friedland, Afary, Gardinali & Naslund, 2016). A cross-cultural difference in love such as religion, values, insecurity and instability, despite of the nature of Arab and Islamic nations

which have several social, political, religious and cultural factors that make love privacy and forbidden.

Most of the Arabic cultures impose restrictions on women and men romantic relationships (Ilhub is the most common word used in Arabic for “love”) before marriage. As in many collectivistic societies, marriage is social issue because the family who can decides about their individuals who they can marry, not themselves who can take this decision (Abu-Rabia-Queder, 2007; Karandashev, 2017). In western cultures people are free to engage in romantic relationships even without marriage. As this is forbidden by Islam rules, there are no scientific studies published about love and its effects on mental health among unmarried people in Palestine (Abu-Rabia-Queder, 2007; Karandashev, 2017; Katalo, 2015; Sirin & Ummet, 2015). Among the Islamic and Arabic countries there are differences in religious, and beliefs related to love. For example, in Palestine married people were less likely to be in love before marriage comparing with Turkish people (Friedland et al., 2016). However, marriages based in love are increasing among youth in Arab countries (Oghia, 2015).

People have different approaches and attitudes to love. Love has been studied in different ways by different researchers and scholars who defined it and measured by several scales. According to Lee's (1973) love is a multidimensional construct, with six different attitudes toward love: passionate love (Eros, state of intense longing for union with another person, it is a romantic love), game-playing love (Ludus, love is seen like a game), friendship love (Storge, love only happens after friendship), practical love (Pragma, lovers looking for useful and suitable partners), possessive love (Mania, lovers are very jealous of their beloved, it is possessive), and altruistic love (Agape, it is described as all-giving or selfless love)

This research extends to the existing investigation by focusing on university students', more specifically, attempts to understand love styles in university students. University students usually fall in love during their university life (Nan-Li, 2008). Generally, the first time that the university students fall in love during their academic life, they know very well what they feel experiences, but they know little about passionate love and other realistic feelings that may occur later (Hatfield & Sprecher, 1986). University life is the student's opportunity to meet and communicate with people from different cultures and backgrounds. These communications of socio-cultural knowledge, including the exchange of their beliefs, feelings, which gave them some information about human needs like love (Kline, Horton, &

Zhang, 2008). Romantic relationship becomes important during university and contributes to subjective well-being (Ha et al., 2010; Katalo, 2015).

Love includes positive emotions, the studies which focused on positive emotions, as being in love, found significant associations to happiness and satisfaction with life (Katalo, 2015). Love also includes negative emotions, as several studies have found, negative emotions like depression (Sirin & Ummet, 2015).

There is some evidence that loneliness is negatively correlated with Eros love style for males and females, and positively correlated with Pragma for females and Ludus for males (Neto & Pinto, 2003; Rotenberg & Korol, 1995), although researchers didn't find any evidence to support the association between loneliness and love attitudes (Damsteegt, 1992).

Regarding the association love styles with gender some studies suggest that males present more Ludic, Storgic, Pragmatic and Agapic (Bailey, Hendrick, & Hendrick, 1987; Bugay & Tezer, 2008; Hendrick & Hendrick, 1986; Hendrick, Hendrick, Foote, & Slapion-Foote, 1984; McGuirk & Pettijohn, 2008; Neto & Pinto, 2003; Rotenberg & Korol, 1995; Sprecher & Toro-Morn, 2002; Worobey, 2001), and Erotic love styles (Hendrick, Hendrick, Foote, & Slapion-Foote, 1984) than females do.

However, other studies found that females were more Storgic, Pragmatic, Manic and Erotic in their love styles (Bailey et al., 1987; Hendrick & Hendrick, 1986; Hendrick, et al., 1984; Rotenberg & Korol, 1995; Worobey, 2001) than males. Katalo (2015), using a different scale, also found that married university female students scored higher in feeling of love than male students in Palestine. Other researchers found no statistically significant differences by gender in all love styles (Sirin & Ummet, 2015), and in Storge and Agape (Bailey et al., 1987).

Satisfaction with love life has been developed by (Neto, 2005) from the original satisfaction with life (Diener, Emmons, Larsen, & Griffin, 1985), which has been classified as one of the subjective well-being components, it is a cognitive evaluation of individual's life satisfaction with respect to their family, work, health and self (Diener et al. 1999). However, the satisfaction with love life focusing on the differentiation between satisfaction with individual's love life in general and the actual enjoyment associated with love, after it has been replaced the word life to the love life in the new five items (Neto, 2005).

Satisfaction with love life is a global cognitive dimension of individuals' love life (Diener, et al., 1985; Neto, 2005) that has been recently studied within the framework of

Positive Psychology (Neto & Pinto, 2015). Neto (2005) defined Satisfaction with Love Life as “a global cognitive evaluation by the person of his or her love life in which the criteria for the judgment are up to the individual” (p. 4).

There are a few studies about the association between loneliness and satisfaction with love life. Loneliness is negatively associated with satisfaction with love life among university students (Neto, 2005). Satisfaction with love life was positively correlated with Eros and Agape love styles (Neto, 2005).

The aim of the present study is to clarify the associations between loneliness, love styles and satisfaction with love life among university students in Palestine.

This study examines the relationships among these variables separately by gender and together. Moreover, this study examined whether these variables contribute to explain loneliness. This study will provide the information and knowledge for additional understanding of university students’ characteristics and about the current condition in the Arab culture in light of the scarcity and lack of research in this field in Palestine.

### **Statement of the Problem**

The most important determinant of loneliness among university students is social relationships, since studies have shown that the students with weak social relationships feel more loneliness than others (Al-Kadoumi et al., 2012). Loneliness has been associated with other individual factors, such as love styles and satisfaction with love life. Neto and Pinto (2003) found that loneliness was positively correlated with Ludus for males and with Pragma for females, and negatively correlated with Pragma for females. They have also found gender differences on Ludus, Storge, Pragma and Agape love styles. Therefore, the main objective of the current study is to examine the relationship between loneliness, love attitudes, and satisfaction with love life among An-Najah national University students in Palestine.

An extensive search of the literature failed to find any published study on loneliness and its relationship with love styles and satisfaction with love life undertaken with a Palestinian sample. The purpose of the present study is to examine the gender differences in loneliness as well as to explore the association between loneliness, love styles and satisfaction with love life in a sample of Palestinian university students. We will explore also the predictors of loneliness.

In accordance with this purpose, one research question and three hypotheses were formulated:  
RQ1: Are there significant differences in the degree of loneliness, love styles and satisfaction with love life according to gender?

Hypothesis 1: Loneliness and Eros, Storge, and Pragma love styles will be negatively associated.

Hypothesis 2: Loneliness will be negatively associated with satisfaction with love life.

Hypothesis 3: Satisfaction with Love life will predict loneliness beyond the love styles.

## **Methods**

### *Participants*

A total of 500 university students, who were enrolled in different courses and different faculties of An-Najah National University in Nablus, Palestine, participated in the study in the academic year 2016-2017. Regarding gender, 63.6% of surveyed university students (318) were female, 36.4% (182) were male. The age of the participants ranged from 18 to 26 years (63.4% of participants were 18 to 21 years old, and 36.6% were 22 to 26 years old). Thirty-six percent were attending a course in sciences and 64% in humanities. About 13.2% of the participants were in the fifth year, 39.2% in the fourth year, 17.2% in the third year, 14.4% in the second year, and about 16% in the first year. Furthermore, 48.6% of the participants were living in villages, about 46.0% in cities, and 5.4% in refugee camps. About 38.6% of the participants' families had a monthly income ranging between 2001-4000 NS (500-1000 USD). Regarding family size, about 8.4% had three members, 59.8% had four to seven members, and about 32.4% had eight or more members. More than 89.8% of the participants' families live in their own houses. (See Table 1)

### *Measures*

*Demographic Information Form.* This form was used to gather detailed information on basic demographics such as student's age and gender, family income, family size, housing conditions, place of residence, accommodation, faculty, and study level attended by students.  
*The Revised UCLA Loneliness Scale.* UCLA was developed by Russell, Peplau and Cutrona (1980). It is a 20-item measure of loneliness, comprised of 10 positively stated items (1, 4, 5,

6, 9, 10, 15, 16, 19, 20) and 10 negatively stated items (2, 3, 7, 8, 11, 12, 13, 14, 17, 18), that are assessed with a 4-point Likert-scale (1=*never*, 4 = *often*). One example item is “There is no one I can turn to”. Items are summed up to produce a total score. The total score ranges from 20 to 80, higher values indicating greater loneliness. The Arabic version of the loneliness scale was adapted by Al-Omari and Jaradat (2013) and by Asaad (2010) in Jordan. We administered the Al-Omari and Jaradat (2013) version, and the Cronbach alpha for the current study was 0.85.

*The Satisfaction with Love Life Scale (SWLLS)*. SWLLS was developed by Neto (2005). It comprises five items, that are assessed with a 7-point Likert-scale (1 = *strongly disagree*, 7 = *strongly agree*). These items assess the subjective evaluation of his or her own love life. One example item is “I am satisfied with my love life”. Cronbach alpha for the current study was 0.83.

*The Love Attitudes Scale (LAS)*. LAS was developed by Hendrick and Hendrich (1986). The scale is based on Lee's (1973) color of love model, which proposed a typology of six major love styles namely: Eros, Ludus, Storge, Pragma, Mania, and Agape. It is a 42-items self-report questionnaire, organized in six love styles, each style measured by seven items, that are rated on a 5-point Likert scale (1= *strongly disagree*, 5= *strongly agree*). Example items are the following “My lover and I became emotionally involved rather quickly” (Eros), “I can get over love affairs pretty easily and quickly” (Ludus), “The best kind of love grows out of a long friendship” (Storge), “I try to plan my life carefully before choosing a lover” (Pragma), “I cannot relax if I suspect that my lover is with someone else” (Mania), and “I would rather suffer myself than let my lover suffer” (Agape). Cronbach alpha for the current study was 0.95 for Eros, 0.78 for Ludus, 0.74 for Storge, 0.86 for Pragma, 0.77 for Mania, and 0.85 for Agape.

### *Procedure*

The data was gathered from a sample of undergraduate students from several faculties at An-Najah National University, Palestine. The measures were administered to the participants during a class time by the first author. The purpose of the study was explained to the students. Participants were asked not to write their names or identifying information on

any of the questionnaires, to ensure their anonymity. Completing the questionnaire package took students approximately one hour.

### *Data analysis*

Data was analyzed using descriptive and inferential statistics. Independent sample t-test was employed on independent groups in order to identify the differentiation status of the university students on loneliness levels, satisfaction with love life and love styles depending on some variables such as gender, age, faculty and housing conditions. One-way ANOVA was used to test the differentiation status of the university students depending on socio-demographic variables. Bivariate correlation coefficient was used to analyse the relationship between the level of loneliness, satisfaction with love life and love styles. Multiple linear regression analysis was used to test for the predicted effect of love styles and satisfaction with love life in university students' feeling of loneliness.

## **Results**

The means, standard deviations and  $t$  values for the measures under study, by gender are presented in Table 2. The results show that there were no significant differences between male and female students regarding loneliness,  $t(498) = 1.51, p > .05$ . There were no significant differences in loneliness between 18 to 21 and 22 to 26 age groups,  $t(498) = -.63, p > .05$ , and between students from sciences and humanities faculties,  $t(498) = -.128, p > .05$ . There were no significant differences in loneliness between the three family size groups (3, 4-7, 8 and more),  $F(2,497) = .21, p > .05$ , and between the four income family groups,  $F(3, 496) = .62, p > .05$ . Finally, there were no significant differences according to place of residence (village, city and refugee camp) in loneliness,  $F(1, 498) = .02, p > .05$ .

There were no significant differences between male and female students regarding Eros, Storge, Pragma, and Agapa love styles,  $t(498) = .60, p > .05$ ;  $t(498) = .80, p > .05$ ;  $t(498) = -1.66, p > .05$ ;  $t(498) = 1.29, p > .05$ , respectively. Ludus love style was higher in male than in female students,  $t(498) = 2.7, p < .05$ . Mania love style was higher in female than male students, the differences is being marginally significant  $t(498) = -1.96, p = .05$ . Female students were higher in satisfaction with love life than male students,  $t(498) = -2.07, p < .05$ . (see Table 2)

The correlations among loneliness, love styles, and satisfaction with love life across participants are presented in Table 3.

There was a moderate negative correlation between loneliness and satisfaction with love life ( $r = -.40, p < .05$ ), and with Eros ( $r = -.20, p < .05$ ), Storge ( $r = -.12, p < .05$ ) and Pragma ( $r = -.20, p < .05$ ) love styles. There was a positive but no significant correlation between loneliness and Ludus and Mania love styles. Satisfaction with love life was positively correlated with Eros ( $r = .27, p < .05$ ), Storge ( $r = .20, p < .05$ ), Pragma ( $r = .31, p < .05$ ), Agape ( $r = .16, p < .05$ ) love styles, and negatively correlated with Ludus love style ( $r = .11, p < .05$ ).

In order to test our third hypothesis, and to investigate the predictive value of love styles (Eros, Ludus, Storge, Pragma, Mania and Agape) and satisfaction with love life in loneliness, a multiple regression analysis was conducted. Predictors entered the analysis in two steps. In the first step Eros, Ludus, Storge, Pragma, Mania and Agape love styles were entered. In the second step satisfaction with love life was added. The results are presented in Table 4.

As presented in the Table 4, in the first step Eros, Ludus, Pragma and Mania love styles explained 9% of the variation in university student's loneliness score, and the contribution was statistically significant. Eros ( $\beta = -.25, p < .01$ ) and Pragma love style ( $\beta = -.18, p < .01$ ) were negative predictors of loneliness, Ludus ( $\beta = .10, p < .05$ ), and Mania ( $\beta = .12, p < .05$ ) were positive predictors of loneliness. Neither Storge nor Agape were predictors in the regression model. In the second step, satisfaction with love life was added and significantly contributed to loneliness, accounting for 18% of the variation in university student's loneliness. Eros love style ( $\beta = -.14, p < .05$ ), and satisfaction with love life ( $\beta = -.34, p < .001$ ). Satisfaction with love life had the highest unique significant ( $\beta = -.61, p < .001$ ) contribution in predicting loneliness. Furthermore, results of multiple regression analysis revealed that satisfaction with love life explained 16% variance in university student's loneliness.

## Discussion

One of the main purposes of this study was to test the gender differences in loneliness, love styles and satisfaction with love life among university students in Palestine, and to test

the association between loneliness and other variables. The general findings of present the study are consistent with other studies, these results both contradict and support some of the hypotheses.

There were no statistically significant differences in loneliness among university students according to gender. These results are in line with the previous research showing no gender difference in loneliness (Aljabari, 2012; Al-Kadoumi et al., 2012; Alqeeq, 2011; Migdady, 2008; Peplau et al., 1982; Shireen & Ibraheem, 2014; Wright et al., 2014). Loneliness is a common phenomenon experienced by university students, regardless of gender (Migdady, 2008). They are living together as a group in the same educational and social environment, interacting between females and males, making new friends, as well as exchange activities and information, which related to the social conditions and cultural background, which contributes to increased social interaction among them, and protect them from loneliness (Aljabari, 2012; Alqeeq, 2011; Migdady, 2008; Shireen & Ibraheem, 2014). In general, in the Palestinian society there is no differences or discrimination between males' and females' regarding to the cultural and educational background, they are both experiencing and living almost similar situations which is reflected at the level of the loneliness without gender differences (Alqeeq, 2011).

Several studies conflicts with the current study findings, study results from (Demrl, 2007; Karaoğlu et al., 2009; Russell et al., 1980; Salimi, 2011; Tümkaya et al., 2008) that found gender differences in loneliness show that males report significantly higher levels of loneliness than females do, although some studies have investigated that females report higher levels of loneliness than males (Abdullah, 2011; Al Khatib, 2012; Medora & Woodward, 1986; Ozben, 2013). Might that occur to the gender-specific socialization of females and males, males are emotionally independent, and they tend to their partners for support, but females are more complex socialized in their needs, and might the relationship with male is not enough. This is reflected even in the differences of loneliness among university females and males (de Jong Gierveld, Van Tilburg & Dykstra, 2016).

There are only two love styles were across genders, that males were more ludic in their love than females, which is in accordance with the results among U.S.A university students (Bailey, Hendrick, & Hendrick, 1987; Damsteegt, 1992; Hendrick et al, 1984; Sprecher &

Toro-Morn, 2002; Worobey, 2001). Females were more manic in their love than males, which is in agreement with the results (Bailey, et al., 1987; Hendrick, et al., 1984; Worobey, 2001).

As hypothesized, Loneliness was found to be negatively correlated with Eros, Storge and Pragma love styles. These results are in agreement with Neto and Pinto (2003) and Rotenberg and Korol (1995). When they have a romantic (Eros), friendship (Storge) and practical (Pragma) love styles, they have lower level of loneliness. This is also in accordance with Deniz, Hamarta, and Ari (2005) who found significantly higher level of loneliness among Turkish university students who do not have a romantic relationship than others who are in love. Additionally, lonely people have difficulties in developing and maintaining romantic relationships (Rotenberg & Korol, 1995).

As hypothesized, in the current study, a significant correlation between loneliness and satisfaction with love life was detected. Loneliness was found to be negatively correlated with satisfaction with love life. A significant relationship between loneliness and satisfaction with love life has been revealed by some studies. These studies suggest that satisfaction with love life appear to decrease one's sense of loneliness. This result is in agreement with Neto and Pinto (2015) who found a negative correlation between romantic loneliness and satisfaction with love life. The negative correlation means that when the students were in love and satisfied with their love life, their feeling in loneliness decreased. It makes sense that the students would be less lonely if he or she has a romantic relationship and also satisfied about his love life.

As hypothesized, the predictive role of the study variables regarding university student's loneliness was examined. The results of the multiple regression analysis indicated that Eros, Ludus, Pragma and Mania love styles, and satisfaction with love life were significant predictors for university student's loneliness. Storge and Agape love styles were not predictors.

There may be other variables that could be explaining the remaining variance in university student's loneliness scores. In the literature, some other factors were found to be related to the university student's loneliness such as self-disclosure (Al-Omari & Jaradat, 2013), perceived social support (Salimi & Bozorgpour, 2012), and life satisfaction (Ozben, 2013).

The findings of the present study indicate that satisfaction with love life, Eros, Ludus, Pragma and Mania love styles are important predictors of university students' loneliness. The lack of emotions like love and low level of satisfaction about love life may serve as a personal exposure factor to loneliness, and negative effects among the university students. However, one should keep in mind that the Palestinian university students who living at risk for increasing the possibility of developing loneliness regarding to their bad life conditions under continuous conflicts since long time in Palestine as a result of the Israeli occupation and insecure environment, even that the mean level of loneliness among the students are less than 40 on the UCLA scale, which have 20 items with score range of (20 – 80), higher score indicating a higher level of loneliness, that means the loneliness mean is almost low, so may that means they have high level of resilience to deal their life events. Students were more likely to be not lonely if they had a romantic relationship and felt as if they had satisfaction with their love life. Therefore, more importance should be given to this promotion of satisfaction with love life and love styles to decrease the levels of the university students' loneliness feelings (Al Khatib, 2012).

### **Limitations and implications**

This study contributed to an increase of the understanding of loneliness and its association with love styles and satisfaction with love life among Palestinian university students. The results have implications for the decrease of university students' loneliness. Although the research has reached its aims there were some unavoidable limitations. First of all, data collection was conducted among university students at An-Najah national university during a short period of time in their classes. Some students became annoyed with the length of the questionnaires used in the study and found them difficult to answer by focusing on all items. Second, the sample was from only one university in Palestine, and although this is the larger one, might not represent the majority of the university students in Palestine Third, a qualitative study may be able to provide more information in the subject of loneliness and love styles, because this kind of study able to ask more direct questions about both loneliness and love styles which can be answering and discussion in different way. Fourth, loneliness, love and satisfaction with love life were measured at one time, that means may does not allow for examination the levels and patterns in loneliness love and satisfaction with love life. Finally,

the questionnaires were designed to measure the students' loneliness, love styles and satisfaction with love life, and gives useful information about these subjects, especially love styles among university students, which have a few information in Palestine. Even the students may make their real feeling and answers different from what they already answered. In spite of these limitations, the results of this study are suitable for use in research and social counseling with Palestinian university students.

The current study significantly added to the literature into essential ideas about the association between loneliness, love styles, and satisfaction with love life among Palestinian university students. It is possible to say that the current study findings about loneliness, love styles and satisfaction with love life improvement programs may have a preventive function if it applied by counseling services to the university students. Counsellors may teach the students useful social skills to increase the possibility of developing their relationships. By increasing the social activities, awareness programs and knowledge through training courses and educational lectures about nature of their relationships which may can increase the students' satisfaction and decrease loneliness.

More indicators of individual and social are required that will allow for more researches of the individual and cultural level of values and other variables on loneliness, love styles and satisfaction with love life among the Palestinian population. However there is a scarcity of studies examining loneliness, love, and satisfaction with love life, and it will be useful to put a basic for another future research based on the current study results, that help the people how to respond to the loneliness. It will be also useful for the counselors and the psychologists by makes important interventions aimed at reducing loneliness and it is causes through improvement individual love attitudes and increasing satisfaction with love life. Future research needs to explain the reliability of Ludic love style according to gender differences in university students, which the current study found that males were more Ludic than females.

#### **Compliance with Ethical Standards:**

This study has no funding.

**Ethical approval:**

The research project was not assessed by an ethics committee as in An-Najah University no ethics committee exists.

Permission from the administration of An-Najah National University was obtained to allow the researcher to enter the classrooms to conduct data collection.

All ethical procedures regarding data collection were followed. Informed consent was obtained from all individual participants included in the study.

They completed the questionnaires during their classes in the presence of the researcher. The questionnaires were presented in Arabic for all participants. This was considered an adequate procedure, as all participants were fluent in Arabic

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Table 1  
*Demografic Characteristic of the Participants*

| Demographic variables |                  | Frequency | Percentage |
|-----------------------|------------------|-----------|------------|
| Gender                | Males            | 182       | 36.4       |
|                       | Females          | 318       | 63.6       |
| Age                   | 18-21            | 317       | 63.4       |
|                       | 22-26            | 183       | 36.6       |
| Monthly family income | 2000NS and less  | 80        | 16.0       |
|                       | 2001-4000NS      | 193       | 38.6       |
|                       | 4001-6000        | 152       | 30.4       |
|                       | More than 6000NS | 75        | 15.0       |
| Housing conditions    | Owner            | 449       | 89.8       |
|                       | Tenant           | 51        | 10.2       |
| Place of residence    | Village          | 243       | 48.6       |
|                       | City             | 230       | 46.0       |
|                       | Camp             | 27        | 5.4        |
| Faculty               | Scientific       | 180       | 36.0       |
|                       | Humanity         | 320       | 64.0       |
| Study level           | First year       | 80        | 16.0       |
|                       | Second year      | 72        | 14.4       |
|                       | Third year       | 86        | 17.2       |

|             |     |      |
|-------------|-----|------|
| Fourth year | 196 | 39.2 |
| Fifth year  | 66  | 13.2 |

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Table 2

*Descriptive Statistics of the Major Study Variable's*

|        | Total<br>(n=500)<br><i>M(SD)</i> | Min-<br>Max | Male<br>(n=182)<br><i>M(SD)</i> | Female<br>(n=318)<br><i>M(SD)</i> | <i>t</i><br>( <i>df</i> =498) | Sig |
|--------|----------------------------------|-------------|---------------------------------|-----------------------------------|-------------------------------|-----|
| UCLA   | 37.9(9.1)                        | 20-75       | 38.7(9.6)                       | 37.4(8.8)                         | 1.51                          | .13 |
| Eros   | 21.2(8.4)                        | 7-35        | 21.5(7.6)                       | 21.0(8.8)                         | .60                           | .55 |
| Ludus  | 16.5(5.8)                        | 7-35        | 17.5(5.1)                       | 16.0(6.1)                         | 2.7                           | .01 |
| Storge | 22.0(5.6)                        | 7-35        | 22.3(5.8)                       | 21.9(5.4)                         | .80                           | .42 |
| Pragma | 24.8(6.2)                        | 7-35        | 24.2(5.7)                       | 25.1(6.5)                         | -1.66                         | .09 |
| Mania  | 20.5(5.7)                        | 7-34        | 19.9(5.4)                       | 20.9(5.9)                         | -1.96                         | .05 |
| Agape  | 23.0(6.3)                        | 7-35        | 23.5(6.0)                       | 22.8(6.5)                         | 1.29                          | .19 |
| SWLLS  | 24.4(5.1)                        | 5-35        | 23.7(5.3)                       | 24.7(5.0)                         | -2.07                         | .04 |

Table 3

*Correlations Among all Variables*

|           | UCLA   | Eros  | Ludus | Storge | Pragma | Mania | Agape |
|-----------|--------|-------|-------|--------|--------|-------|-------|
| 1. UCLA   | 1      |       |       |        |        |       |       |
| 2. Eros   | -.20** | 1     |       |        |        |       |       |
| 3. Ludus  | .03    | .36** | 1     |        |        |       |       |
| 4. Storge | -.12** | .51** | .31** | 1      |        |       |       |
| 5. Pragma | -.20** | .32** | .08   | .50**  | 1      |       |       |
| 6. Mania  | .03    | .44** | .32** | .47**  | .34**  | 1     |       |
| 7. Agape  | -.07   | .50** | .09   | .48**  | .42**  | .60** | 1     |
| 8. SWLLS  | -.40** | .27** | -.11* | .20**  | .31**  | -.00  | .16** |

\*  $p < .05$ . \*\*  $p < 0.01$ .

Table 4

*Multiple Linear Regression Analysis Results for Study Variables*

|            | <i>B</i> | <i>SE</i> | $\beta$ | <i>t</i> | <i>P</i> |
|------------|----------|-----------|---------|----------|----------|
| Step 1     |          |           |         |          |          |
| (Constant) | 42.5     | 2.1       |         | 20.2     | .00      |
| 1. Eros    | -.27     | .06       | -.25    | -4.47    | .00      |
| 2. Ludus   | .16      | .08       | .10     | 2.03     | .04      |
| 3. Storge  | -.03     | .09       | -.02    | -.34     | .73      |
| 4. Pragma  | -.26     | .08       | -.18    | -3.49    | .00      |
| 5. Mania   | .19      | .09       | .12     | 2.02     | .04      |
| 6. Agape   | .08      | .09       | .06     | .96      | .34      |
| Step 2     |          |           |         |          |          |
| (Constant) | 54.9     | 2.59      |         | 21.2     | .00      |
| 1. Eros    | -.15     | .06       | -.14    | -2.58    | .01      |
| 2. Ludus   | .05      | .07       | .03     | .63      | .53      |
| 3. Storge  | .01      | .09       | .01     | .12      | .90      |
| 4. Pragma  | -.14     | .07       | -.09    | -1.84    | .07      |
| 5. Mania   | .08      | .09       | .05     | .90      | .37      |
| 6. Agape   | .08      | .08       | .06     | .96      | .34      |
| 7. SWLLS   | -.61     | .08       | -.34    | -7.54    | .00      |

Note step 1.  $N = 500$ ,  $R = .30$ ,  $R^2 = .09$ ,  $F(6,493) = 7.84$ ,  $p < .001$ .

Note. step 2  $N = 500$ ,  $R = .43$ ,  $R^2 = .18$ ,  $F(7,492) = 15.589$ ,  $p < .001$ .

## **CHAPTER V**

### **STUDY 3: PSYCHOMETRIC ANALYSIS OF THE SHORT FORM UCLA LONELINESS SCALE (ULS-6) AMONG PALESTINIAN UNIVERSITY STUDENTS**

**STUDY 3**  
**Psychometric Analysis of the Short-form UCLA Loneliness Scale (ULS-6) among  
Palestinian University Students**

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## **Psychometric Analysis of the Short-form UCLA Loneliness Scale (ULS-6) among Palestinian University Students**

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The purpose of this research was to analyze the psychometric characteristics of the short-form UCLA Loneliness Scale (ULS-6) among Palestinian university students. The sample consisted of 288 university students (56% women and 44% men), aged 18-22 years. The psychometric characteristics of the ULS-6 were examined using confirmatory factor analysis, reliability analysis, and criterion-related validity methods. The unidimensionality of the ULS-6 was supported among Palestinian university students. The ULS-6 showed good psychometric characteristics, with adequate internal consistency. In addition, the ULS-6 was negatively correlated with significant others support, family support, friends support, self-esteem and satisfaction with life. The results of the present study suggested that the Arabic version of the ULS-6 constitutes a concise psychometrically sound tool to assess loneliness.

**Keywords:** Loneliness, Confirmatory factor analysis, Short-form UCLA Loneliness Scale, ULS-6.

Loneliness is a common phenomenon. Data collected from a newspaper survey in the United States with a sample of 25,000 people showed that 78% felt lonely occasionally, 15% felt lonely most or all the time, and only 6% said they never felt lonely (Rubenstein, Shaver, & Peplau, 1979). More recently, one question statement about the feelings of loneliness was used in a sample of 384 Pakistani participants and 88.3% reported feelings of loneliness (Ahmed, Chaudhry, Afzar, & Farooq, 2015). Based on various surveys, Heinrich and Gullone (2006) concluded that “approximately 15-30% of people experience persistent feelings of loneliness” (p. 700). Loneliness is experienced by many university students (Wiseman et al., 2006) and it is one of the most prominent concerns reported by them (Nicpon et al., 2006).

There is no consensus on the definition of loneliness, reflecting the different ways in which it is conceptualized. For the cognitive perspective the loneliness involves the perception of “a discrepancy between two factors, the desired and the archived pattern of social relations” (Peplau & Perlman, 1982, p. 5). For example, in one of the earliest definitions of this construct, Lopata (1969) defined loneliness as “a wish for a form or level of interaction different from the one presently experienced” (p. 250). According to Perlman and Peplau (1982, p. 31) “loneliness is the unpleasant experience that occurs when a person’s network of social relations is deficient in some important way, either quantitatively or qualitatively”. More recently, another definition of loneliness was advanced by Asher and Paquette (2003) as “the cognitive awareness of a deficiency in one’s social and personal relationships, and ensuing affective reactions of sadness, emptiness, or longing” (p. 75).

There are three relevant aspects outlined by these definitions. First, these definitions, as the majority of the definitions of loneliness, stress the perceived deficits in social relationships. Evidence has shown that loneliness is dependent on social network. When people are satisfied with their social network they are more likely to feel less loneliness. People who have difficulties getting satisfying relationships within their social network are more likely to experience maladjustments like loneliness. Second, loneliness is a subjective experience of not having the type of relationships one desires. However, it is possible to have a low frequency of social relationships without feeling lonely (Cacioppo & Hawley, 2009; Neto, 2014b). “People can be alone without being lonely, or lonely in a crowd” (Peplau & Perlman, 1982, p. 23). For instance, one can have many friends or a romantic relationship and

still feel lonely. Third, loneliness is an unpleasant experience with potential serious outcomes (Rokach & Neto, 2005).

Loneliness has been related to poor physical and mental health (Luanaigh & Lawlor, 2008; Hawley & Cacioppo, 2010). Furthermore, it is also associated with an increased risk of suicide and mortality (Chen, Hicks & While, 2014; Holt-Lunstadt, Smith, Baker, Harris, & Stephenson, 2015).

Self-esteem is widely seen as indicating feelings of personal worth, constituting a core aspect of well-being. Satisfaction with life is a global evaluation of one's life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985). Past literature has revealed that self-esteem and satisfaction with life were associated with low loneliness (e.g., Ben-Zur, 2012; Henrich & Gullone, 2006; Goodwin, Cook, & Yung, 2001; Neto & Barros, 2000). Perceived social support refers to "an individual's perceptions of general support or specific supportive behaviors (available or acted on) from people in their social network, which enhances their functioning and/or may buffer them from adverse outcomes" (Demaray & Malecki, 2002, pp. 306-307). Loneliness was found to be negatively associated with perceived support from significant others, family, and friends (Zarei, Memari, Moshayedi, & Shayestehfar, 2016).

Given that loneliness is a risk factor to the health and the well-being of people, it is necessary to develop interventions to reduce this phenomenon. Measurement of the level of loneliness experienced is necessary to develop strategies to attempt to lessen suffering in people. One way of measuring loneliness is through the use of self-report scales. Several scales have been developed to measure loneliness (Robinson, Shaver, & Wrightsman, 1991). The scales developed to measure loneliness are based either on a unidimensional or multidimensional conceptual approach (Neto, 2014a). For the former approach loneliness involves a "core sense of being lonely which is undifferentiated in nature, and is experienced and understood in the same way by all lonely people" (Allen & Oshagan, 1995, p. 185). Within this approach loneliness varies primarily in its intensity. For the multidimensional approach loneliness involves various experiences or types (e.g., Weiss, 1973; DiTommaso, Brennen, & Best, 2004). For example, Weiss (1973) described two types of loneliness: emotional and social loneliness. Emotional loneliness refers to the absence of an attachment figure and social loneliness refers to the lack of an accessible social network.

The revised University of California, Los Angeles (R-UCLA) Loneliness Scale (Russell, Peplau, & Cutrona, 1980) is one of the most widely employed measures of loneliness and has been used for several decades. Many scholars consider the R-UCLA Loneliness Scale as the most psychometrically sound measure of loneliness available (e.g., Hartshorne, 1993). It was based on a conceptualization of loneliness “as a unidimensional emotion response to a discrepancy between desired and achieved levels of social contact” (Robinson et al., 1991, p. 250). R-UCLA revealed high internal consistency ( $\alpha = .94$ ) and evidenced concurrent and discriminant validity (Russell et al., 1980). Russell et al. (1980) state, “The construct validity of the revised scale is established by relating loneliness scores to the experience of affects that have been linked both empirically and theoretically to loneliness” (p. 473). The total score is related to measures of depression, social self-esteem, anxiety, and self-rated feelings of abandonment, emptiness, hopelessness, isolation, and social dissatisfaction. The discriminant validity was demonstrated as loneliness was showed to be a distinct psychological experience from social desirability, social risk taking, negative emotional states, and affiliative motivation (Russell et al., 1980). The R-UCLA has been adapted in various cultures, such as Persian (Hojat, 1982), German (Lamn & Stephan, 1987), Portuguese (Neto, 1989), and French (Grâce, Joshi, & Pelletier, 1993).

Although findings from past studies (e.g., Russell, 1982) showed a satisfactory internal consistency of the R-UCLA, the factor structure of this scale demonstrated to be somewhat controversial (Hartshorne, 1993). Diverse studies showed that the scale was multidimensional. For instance, Austin (1983) using principal-components analysis with varimax rotation found three factors among American college students. Knight and colleagues (1988) using a similar method found three factors among adults from New Zealand. Neto (1992) found a five-factor solution which accounted for 54.5% of the variance among Portuguese adolescents. This factor structure was very similar to that evidenced by Hojat (1982) among Iranian students.

A recent shift towards the use of measures with fewer items has occurred (Schweizer, 2011). Among the useful applications for short measures, Gosling, Rentfrow, and Swann (2003, p. 505) refer “large-scale surveys, pre-screening packets, longitudinal studies, and experience-sampling studies”. In particular, a short-form of the revised UCLA Loneliness Scale (Russell et al., 1980) was developed (ULS-6; Neto, 1992; 2014a).

The ULS-6 includes 6 items (see Table 1) which were selected by means of exploratory factor analysis conducted with the items of the R-UCLA (Neto, 1992). The items selected loaded substantially on the first factor. These statements seem to include the core of loneliness conceptualised as the distance between perceived relationships and desirable relationships. The score from the ULS-6 correlated highly with the score from the longer scale ( $r = .87$ ). Cronbach's alpha of the ULS-6 was .77. The ULS-6 score correlated with other psychological variables in a very similar way to the longer scale. Therefore, this economic tool of loneliness evidenced to be reliable and valid similarly to the longer scale.

The ULS-6 has been utilized primarily with youths (e.g., Neto, 1992) and university students (e.g., Neto, 2006). The ULS-6 has also been used with migrant people, presenting acceptable psychometric properties (Neto, 2002; 2016). Recently, additional empirical demonstration of the satisfactory psychometric properties of this measure was obtained among old people (Neto, 2014a).

In summary, previous studies using the ULS-6 showed adequate reliability and validity in the Portuguese culture. Evidence showed a unidimensional factor loading. The purpose of the current research is to analyse the psychometric characteristics of the ULS-6 among Palestinian university students. We are going to test the factorial structure, the reliability, and the criterion-related validity of the measure. In order to examine the criterion-related validity, correlations between ULS-6 and indicators of psychological functioning such as self-esteem and satisfaction with life and perceived social support will be scrutinized. This set of constructs was selected because they display conceptual relationship with loneliness.

## **Method**

### *Participants*

The sample included 288 university students (161 females) enrolled at different faculties of An-Najah National University in Nablus, Palestine. The ages ranged from 18 to 22 years. Thirty-eight percent of the students were attending a course in science and 62% in humanities. Furthermore, 46% of the sample was living in villages, 47% in cities, and 7% in refugee camps.

## Material

The material included four scales, previously adapted for a Palestinian people, and background information.

(a) *The Revised UCLA Loneliness Scale (UCLA-R)*. The R-UCLA (Russell et al., 1980) was utilized to measure loneliness. This measure evaluates global subjective feelings of loneliness and social isolation and is one of the most widely used loneliness scales. This scale included 20 statements. Ten are formulated in a positive way (e.g., “I am an outgoing person”) and 10 in a negative way (e.g., “I am no longer close to anyone”). The items are assessed on a 4-point scale ranging from 1 (*never*) to 4 (*often*). Higher values denote higher loneliness. We used the Arabic version of this scale (Al-Omari & Jaradat, 2013). Cronbach standardized alpha for the current study was .85. The ULS-6 is constituted by six items of the UCLA-R. Five are formulated in a negative way, and one in a positive way (Neto, 1992).

(b) *Multidimensional Scale of Perceived Social Support (MSPSS)*. The 12-items MSPSS was used (Zimet, Dahlem, Zimet, & Farley, 1988) to assess social support from three distinct sources: friends, family, and significant others. The items are rated on a 7-point scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*). Each of the three sources of support was evaluated by four items. Higher scores of each of the subscales indicate more perceived support. We used the Arabic version of MSPSS (Abou-Hashem, 2010). Cronbach standardized alpha coefficients for friends’ support, family support and significant others support were .86, .86 and .89, respectively.

(c) *Satisfaction With Life Scale (SWLS)*. The SWLS (Diener, Emmons, Larsen, & Griffin, 1985) was used to assess satisfaction with individuals’ lives as a whole. The scale contains 5 items, which are rated on a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores indicate higher level of life satisfaction. We have used the Jaradat’s (2013) Arabic version of this scale. Cronbach standardized alpha for the current study was .79.

(d) *Self-Esteem Scale*. Self-esteem was assessed using the 10-item inventory from Rosenberg (1965). The items are assessed on a 4-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Higher scores indicate higher level of self-esteem. We used the Arabic version of this scale (Ghazal & Jaradat, 2009). Cronbach standardized alpha for the current study was .74.

(e) *Self-labelling item of loneliness*. One question was used to assess the frequency of the experienced loneliness: “I feel lonely even with other people”. The answers ranged from 1 (*never*) to 5 (*often*).

(f) *Demographic Background*. Information on background characteristics such as participants’ age, gender, place of residence, and faculty (science or humanities) attended by students was collected.

#### *Procedure*

The questionnaires were administered in classrooms of 25 and more university students at a time. Informed consent was obtained from all students before completing the questionnaires. Students were assured that participation was anonymous and voluntary, and that they could discontinue their participation at any time. The questionnaire was administered in Arabic. This was considered an adequate procedure as all participants were fluent in Arabic. The average time for filling out the questionnaire was 20 minutes.

#### *Data analysis*

Several data analyses were performed, such as exploratory factor analysis, confirmatory factor analysis (CFA), internal consistency, analyses of variance, and zero order correlations. The exploratory factor analysis was performed to examine the dimensionality of the R-UCLA Loneliness Scale. We used CFA to evaluate the adequacy of the one-factor-model for the ULS-6. The findings of CFA were assessed on the basis of several goodness-of-fit statistics such as goodness of fit index (GFI), comparative fit index (CFI), standardized root mean square residual (SRMR) and root mean square error of approximation (RMSEA). The use of diverse indices allows a more conservative and reliable assessment of the model fit. We performed Pearson correlation analysis to examine the correlations of ULS-6 with social support, self-esteem and life satisfaction. The data were analysed by means of the Statistical Package for Social Sciences (SPSS) version 21, except for confirmatory factor analysis. CFA was performed with Statistica (SEPATH). The significance level adopted in this study was 5%.

## Results

### *Preliminary Analyses*

As the ULS-6 was based on the R-UCLA, it was examined the psychometric properties of the R-UCLA Loneliness Scale, namely the internal consistency and the factorial structure. Cronbach's coefficient alpha of the R-UCLA was .85. To examine the factorial structure of the R-UCLA 20 items we performed an exploratory factor analysis (principal components) with varimax rotation. The number of factors was determined by a minimum eigenvalue of 1.00 or greater, followed by a minimum loading of .40 for the items in each factor. The factor analysis revealed a five-factor solution which accounted for 51.40% of the variance (see Table 2). Hence, once again the factor structure of the R-UCLA Loneliness Scale did not support the unidimensionality of this tool. It is worth to observe that four items of the Factor I are included in the ULS-6 ("I feel left out"; "I feel isolated from others"; "I am unhappy being so withdrawn"; and "People are around me but not with me.").

Insert Table 1 about here

### *Factor Analysis*

A CFA was performed on the raw data of the ULS-6 to test goodness of fit of the observed data for the one-factor model suggested by Neto (1992). The estimates of model fit were based on a maximum likelihood solution. No correlation between error terms was allowed. The  $\chi^2$  statistic was 21.47 ( $df = 9$ ) with the  $\chi^2/df$  ratio having a value of 2.39, less than 5, which indicates an acceptable fit (Kline, 2005). Examination of factor loadings showed that they ranged from .47 to .67. All were statistically significant ( $p < .001$ ). The values of the fit indexes were GFI = .98, CFI = .96, SRMR = .04, RMSEA = .07. Overall, the fit indices indicate that the model displayed an adequate fit for the sample (Bentler, 1990). So, the hypothesized unidimensionality of the ULS-6 was supported among Palestinian university students.

### *Reliability Analysis*

To verify the internal consistency of the ULS-6 scores, Cronbach's coefficient alpha and item-total correlations were conducted. Cronbach's alpha was .73, and corrected item-total

correlations ranged from .41 to .55. The mean inter-item correlation coefficient was .31. In effect, the ULS-6 demonstrates adequate internal consistency for the sample of Palestinian participants.

Insert Table 2 about here

#### *Descriptive Analyses and Effects of Demographic Factors*

Means and standard deviations of the ULS-6 items are presented in Table 1. The majority of the students displayed low levels of loneliness. Using one-way analyses of variance (ANOVA), the effects of gender, [ $F(1, 286) = 1.90, p = .17$ ], faculty, [ $F(1, 286) = .01, p = .93$ ], and place of residence, [ $F(2, 285) = 1.08, p = .34$ ], on loneliness were not statistically significant.

#### *Criterion-Related Validity*

As expected, the findings showed that the ULS-6 scores were related significantly to self-esteem, satisfaction with life and social support. In effect, the ULS-6 scores were significantly correlated with friends support ( $r = -.47, p < .001$ ), family support ( $r = -.48; p < .001$ ), and significant others support ( $r = -.47, p < .001$ ). So higher levels of social support from all three sources (family, friends, and significant others) were negatively related to loneliness. Furthermore, the ULS-6 scores were significantly correlated with self-esteem ( $r = -.54; p < .001$ ), and with satisfaction with life ( $r = -.40; p < .001$ ). The less self-esteem and life satisfaction students reported, the more likely they were to be lonely. The direction of all correlations was consistent with the predictions aforementioned.

An identical pattern of correlations was found between the scores of the longer scale and this set of measures conceptually related to loneliness. The R-UCLA Loneliness Scale scores correlated negatively and significantly with friends support ( $r = -.60; p < .001$ ), family support ( $r = -.56; p < .001$ ), significant others support ( $r = -.59; p < .001$ ), self-esteem ( $r = -.62; p < .001$ ), and satisfaction with life ( $r = -.46; p < .001$ ).

The relation of the ULS-6 to the longer scale was also approached. These two scales were significantly associated ( $r = .87, p < .001$ ). This set of findings shows that the short form meets criterion validity standards.

One question assessing directly the level of loneliness was used in the development of the UCLA tool (Russell et al., 1978) and remains to be utilized to demonstrate whether scales proved to be valid (Hughes, Waite, Hawley, & Cacioppo, 2004; Neto, 2014a). The self-

reported question about current loneliness was also used in this research and was significantly related to the ULS-6 ( $r = .55, p < .001$ ).

## **Discussion**

The results of this research indicate that the ULS-6 is a psychometrically sound tool among Palestinian university students. CFA of the ULS-6 was conducted to examine whether the one-factor model was confirmed. This analysis showed similar results to those obtained by the Portuguese version of the ULS-6 (Neto, 1992; 2014a). The ULS-6 in this study supported the proposed one-dimensional structure. With regard to reliability, the internal consistency coefficient seems adequate (.73). This value is similar to that found in a Portuguese sample (.77) (Neto, 1992). However, it's worth to refer that there is no consensus in the literature about the appropriate alpha coefficient. For example, Cronbach (1990) recommended the alpha Cronbach to be above .80, and Nunnally (1978) considered a reliability of .90 the minimum that should be tolerated. However, Kline (2005) argued that the diverse content that includes psychological constructs means that a less stringent coefficient is more appropriate. In this line, the cut-off of .70 is often recommended (e.g., Chicchetti, 1994).

The correlation between the R-UCLA and the ULS-6 was high (.87). This value is the same found in a Portuguese sample (Neto, 1992). However, this high correlation is not in itself enough to justify the use of the ULS-6 given that the ULS-6 items are a subset of the R-UCLA.

As expected, loneliness measured with the ULS-6 evidenced significant negative correlations with self-esteem and life satisfaction. These results are consistent with past empirical research (Neto, 1995; Goodwin et al., 2001; Pinquart & Sörensen, 2001; Cacioppo et al., 2006; DiTommaso, Brannen, & Best, 2004).

For example, low self-esteem emerged as the strongest predictor of loneliness among Ukrainian migrants living in Portugal (Neto & Costa, 2015). In a meta-analytic study self-esteem emerged as one of the most powerful predictors of loneliness with a large effect size (Mahon et al., 2006). Individuals more likely to feel low self-esteem may blame themselves for having low social contact, and thus reinforce their loneliness (Perlman & Peplau, 1981).

In developing the original UCLA Loneliness Scale, Russell et al., (1978) found that loneliness was correlated negatively and significantly with self-ratings of satisfaction.

Low life satisfaction was associated with loneliness among Venezuelan migrants living in Portugal (Guédez & Neto, 2014) and among youths from returned migrant families (Neto, 2016).

In addition, the more social support students received from friends, family and significant others, the less they experienced loneliness. People receiving more support reported less loneliness (Zhao, Kong, & Wang, 2013; Chen, Hicks, & While, 2014; Henninger, Eshbaugh, Osbeck, & Madigan, 2016). In a meta-analysis social support emerged as a significant predictor of loneliness with a medium effect size (Mahon, 2006). This is consistent with studies which demonstrated that perceived social support is a relevant construct in reducing loneliness (Adamczyk, 2016; Chen et al., 2014). In sum, the pattern of correlations found between loneliness and self-esteem, satisfaction with life and social support is consistent with the predictions, suggesting that the ULS-6 fulfils the validity criterion.

The present study has limitations which need to be reported along with suggestions for further research. First, the assessment of the stability of the ULS-6 over time was not evaluated. Future work should yield evidence of the temporal stability. Second, loneliness was assessed with a self-report method. In future work, other methods of evaluation should be used. Third, the sample was constituted only by university students and hence was not necessarily representative of the Palestinian people. It would be important to evaluate the psychometric characteristics of the ULS-6 among more diverse Palestinian groups including samples of psychiatric and older people in order to better check for the generalizability of the ULS-6. Despite these limitations, the ULS-6 seems suitable for use in research and clinical work with Palestinian university students, having in mind that some caution should be recommended, given the discussion presented above about the alpha coefficient cut-off. With participants' time at a premium in most investigation, the ULS-6 represents an alternative to longer scales.

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Table 1 Varimax rotated factors of the R-UCLA Loneliness Scale

| Items              | Factor 1 | Factor II | Factor III | Factor IV | Factor V |
|--------------------|----------|-----------|------------|-----------|----------|
| 1                  |          | .66       |            |           |          |
| 2                  |          |           |            | .68       |          |
| 3                  |          |           |            | .69       |          |
| 4                  |          |           |            |           | .84      |
| 5                  |          | .55       |            |           |          |
| 6                  |          | .50       |            |           |          |
| 7                  |          |           |            | .47       |          |
| 8                  |          |           |            | .53       |          |
| 9                  |          | .59       |            |           |          |
| 10                 |          |           | .47        |           |          |
| 11                 | .54      |           |            |           |          |
| 12                 | .53      |           |            |           |          |
| 13                 | .76      |           |            |           |          |
| 14                 | .60      |           |            |           |          |
| 15                 |          | .66       |            |           |          |
| 16                 | .43      |           |            |           |          |
| 17                 | .50      |           |            |           |          |
| 18                 | .61      |           |            |           |          |
| 19                 |          |           |            | .77       |          |
| 20                 |          |           | .83        |           |          |
| Eigenvalue         | 5.32     | 1.63      | 1.21       | 1.08      | 1.04     |
| Explained variance | 26.62    | 8.14      | 6.05       | 5.41      | 5.19     |

*Table 2 Means (M), standard deviations (SD), and corrected item-total correlations of the ULS-6 among Palestinian students*

|                                                   | <i>M</i> | <i>SD</i> | Corrected item-<br>total correlations |
|---------------------------------------------------|----------|-----------|---------------------------------------|
| 1 I lack companionship.                           | 1.87     | .95       | .41                                   |
| 2 I feel part of a group of friends. <sup>a</sup> | 1.74     | .93       | .41                                   |
| 3 I feel left out.                                | 1.95     | .87       | .46                                   |
| 4 I feel isolated from others.                    | 1.79     | .89       | .55                                   |
| 5 I am unhappy being so withdrawn.                | 1.62     | .88       | .50                                   |
| 6 People are around me but not with me.           | 2.09     | .90       | .49                                   |

<sup>a</sup> Item should be reversed before scoring.

## **CHAPTER VI**

### **STUDY 4: THE PREDICTOR VARIABLES OF SOCIAL - EMOTIONAL LONELINEES AMONG THE PALESTINIAN UNIVERSITY STUDENTS**

The Predictor Variables of Social-Emotional Loneliness Among the Palestinian University  
Students

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## **Abstract**

The purpose of this study was to examine the predictive role of life satisfaction, perceived social support, psychological problems, self-esteem and parenting styles on social-emotional loneliness among Palestinian university students in the West Bank. Participants were 500 volunteer undergraduate students (36.4% males and 63.6% females), ranging from 18 to 26 years of age. Data was collected using the Social Emotional Loneliness Scale, Satisfaction with Life Scale, Multidimensional Scale of Perceived Social Support, Psychological Problems Scale, Self-esteem Scale, Parenting Styles Scale and a Demographic Information Form. There was significant gender differences towards social emotional loneliness, male students being high in social, romantic and family loneliness than female students. Results showed that students who had higher social-emotional loneliness, felt less satisfied with their life and perceived less support from friends, family and significant others and high self-esteem. Furthermore, students who had high social-emotional loneliness also presented more psychological problems. These results indicated that the strongest predictor of social loneliness was friends' support, the strongest predictor of romantic loneliness was significant others' support, and the strongest predictor of family loneliness was family support.

*Keywords:* Social-emotional loneliness, life satisfaction, perceived social support, psychological problems, self-esteem, parenting styles.

# The Predictor Variables of Social-Emotional Loneliness Among the Palestinian University Students

## Introduction

Loneliness is a complex and multidimensional phenomenon. It is an unpleasant individual experience, which affects individuals in different ways and varying levels of strength. One from four people suffers loneliness along his/her life (Duru, 2008; Peplau & Perlman, 1982; Rafiee, & Chehreii, 2016). Despite loneliness is experienced by everyone, males, females, children, adults and elderly in some stage of their life, it varies in severity from person to person, depending on the conditions and causes (Bozorgpour, & Salimi, 2012; Salimi, 2011). Recent studies indicate that there are different types of loneliness like social loneliness that happen when the individuals have a lack of social network, and emotional loneliness that happen when the individuals lack intimate relationships (Tümkeya, Aybek & Çelik, 2008; Weiss, 1973). Furthermore, the individuals who suffer from social loneliness tend to be more passive than other individuals who suffer from emotional loneliness (Chen & Chung, 2007).

Being in connection with other people is an innate human desire. Loneliness may be a result of the lack or of relationships (Wright, King, & Rosenberg, 2014), or the feeling of dissatisfaction with their relationships (Neto, 2015), or the need for intimacy. Loneliness is associated with psychological difficulties like lack of social relationships or loss of intimate relations. The level of loneliness is higher when interpersonal needs are not satisfied (Duru, 2008). The social support that occurs within social relationships tends to be an important predictor of decrease loneliness and increase satisfaction about social relationships (Pamukçu & Meydan, 2010; Segrin & Passalacqua, 2010). Furthermore, perceived social support and self-esteem may decrease loneliness (Bozorgpour, & Salimi, 2012; Duru, 2008; Goodwin, Cook, & Yung, 2001; Kapıkıran, 2013; Kong, & You, 2013; Shahini, Asayesh, Ghobadi, & Sadeghi, 2013; Yaacob, uhari, Talib, & Uba, 2017; Yılmaz, Yılmaz, & Karaca, 2008).

Parenting styles are a critical factor that may be responsible for creating feelings of loneliness. Parenting styles are likely to play an important role in shaping children's personality, and may reduce the feelings of loneliness (Lalifaz, & Askari, 2008; Rafiee, &

Chehreii, 2016; Turkmen, & Demirli, 2011). Children of permissive and authoritative parents were reported to be more satisfied with their lives and have higher levels of self-esteem than children who perceive their parents as having an authoritarian parenting style (Roboteg-saric & Sakic, 2014).

The literature shows that loneliness is related to the social aspects of life as well as to the psychological and physical aspects (Duru, 2008). It is estimated that 60.2 % of university students in Turkey experience loneliness (Özdemir & Tuncay, 2008). In Jordan 21.6 % of university students feeling lonely (Hamdan-Mansour & Marmash, 2007). In Iran the moderate loneliness has been reported to be found in 50.5% of university students (Alaviani, Parvan, Karimi, Safiri, & Mahdavi, 2017). In Nigeria 19.0% of the university students felt frequent loneliness (Okwaraji, Onyebueke, Nduanya, & Nwokpoku, 2017). Loneliness is one of the major crises during the university life (Rafiee, & Chehreii, 2016). University students during this period have to deal with their own developmental issues. The university environment may cause anxiety or stress among the students, and some psychological troubles are common during this period. Moreover, when the university students don't receive satisfactory protective mental health services, they will be at risk for the mental disorders, and may cause them to feel loneliness, and affects of their life satisfaction (Tümkiye et al., 2008). During this transition life period, loneliness is a common phenomenon among university students as a result of moving from home to university and trying to develop new social networks (Baguy, 2007; Ozben, 2013), especially if they don't have an intimate relationship (Ozben, 2013). However, when the perceived circumstances of an individual's life are in line with their own standard they will be satisfied with their lives, and likely to feel less loneliness than others who non satisfied as several studies examined loneliness among university students in respect to life satisfaction (Bozorgpour, & Salimi, 2012; Ditommaso, Brannen, & Best, 2004; Goodwin et al., 2001; Kapıkıran, 2013; Kong, & You, 2013; Neto, 2015; Salimi, 2011; Shahini et al. , 2013; Ozben, 2013).

Some research among males and females indicated that males have high level of social loneliness comparing with females because males present difficulties in establish social contacts (Tümkiye et al., 2008). The results reported in the literature regarding gender differences in social emotional loneliness among university students are conflicting. In a first

group of studies conducted in Iraq (Aljabari, 2012), Gaza (Alqeeq, 2011), Turkey (Ekinici et al., 2015), Biskra (Merrakchi, 2014), Jordan (Migdady, 2008), Portugal and Angola (Neto & Barros, 2003) loneliness did not differ according to gender. In a second group of studies performed in Iran (Bozorgpour & Salimi, 2012; Salimi, 2011) Saudi Arabia (Addelaim, 2002), Turkey (Ceyhan et al., 2011; Demrl, 2007; Ozben, 2013; Tümkaya et al., 2008), and Algeria (Ibriam, 2013), results pointed out to higher emotional loneliness among male university students. Finally, in a third group of studies conducted in Iraq (Abdullah, 2011), United Arab Emirates (Al Khatib, 2012), Turkey (Bugay, 2007), and Jordan (Mustafa & Alshrefen, 2012) results revealed higher loneliness among female university students. These conflicting results may indicate that loneliness is more a product of individual's personal life experiences than their gender specific experiences (Akbag, & Imamoglu, 2010).

According to previous research about the relation between loneliness and several variables, although parenting styles play an important role in children's social relationship, researchers studied its relationship with loneliness. So, it is very important to understand which parenting variables contribute to social-emotional loneliness among the Palestinian university students. In addition, when investigated Palestinian literature, there is no study related to life satisfaction, perceived social support (family, friends, significant others), psychological problems, self-esteem and parenting styles (permissive, authoritarian, authoritative) and social-emotional loneliness. In the light of the literature the purpose of this study was to determine how university students' social-emotional loneliness are predicted by their level of life satisfaction, perceived social support (family, friends, significant others), psychological problems, self-esteem and parenting styles (permissive, authoritarian, authoritative).

Three research questions and one hypothesis listed below were examined in this study:

RQ1. Are there significant differences in the degree of life satisfaction, perceived social support (family, friends, significant others), psychological problems, self-esteem, parenting styles (permissive, authoritarian, authoritative) and social, romantic and family loneliness in accordance with gender of students?

RQ2. Are there significant relationships between students' life satisfaction, perceived social support (family, friends, significant others), psychological problems, self-esteem, parents' styles (permissive, authoritarian, authoritative) and social, romantic and family loneliness?

RQ3. Considering life satisfaction, perceived social support (family, friends, significant others), psychological problems, self-esteem, and parenting styles (permissive, authoritarian, authoritative) which is the strongest predictor of the social, the romantic and the family loneliness?

Hypothesis 1: Social, romantic and family loneliness would be predicted differentially by students' life satisfaction, perceived social support from friends, family and significant others, self-esteem, parents' styles (permissive, authoritarian, authoritative), and psychological problems.

## **Methods**

### *Participants*

The study population included the students of An-Najah National University. Participants were 500 (318 females and 182 males) undergraduate students from An-Najah National University in Nablus, Palestine, in the academic year 2016-2017. The age of the participants ranged from 18 to 26 years (63.4% of participants were 18 to 21 years old, and 36.6% were 22 to 26 years old). About 38.6% of the participants' families had a monthly income ranging between 2001-4000 NS (500-1000 USD). More than 89.8% of the participants' families live in their own houses. Approximately 48.6% of the participants were living in villages, 46.0% in cities, and 5.4% in refugee camps. Regarding family size, about 8.4% had three members, 59.8% had four to seven members, and about 32.4% had eight or more members. Furthermore, 13.2% of the participants were in the fifth year, 39.2% in the fourth year, 17.2% in the third year, 14.4% in the second year, and about 16% in the first year (cf. Table 1).

Insert Table 1 about here.

## Measures

*Demographics.* This included gender, age, monthly family income, housing conditions, place of residence, family size, and study level.

*Satisfaction with Life Scale (SWLS).* The SWLS is a self-report scale developed by Diener et al. (1985) to measure global life satisfaction, or satisfaction with individual's subjective life as a whole. It is used in several age groups because of its brevity, reliability and validity (Neto, 2005). It includes five items with a 7-point Likert-scale (1 = *strongly disagree*, 7 = *strongly agree*). One example item is "In most ways my life is close to my ideal". Abdallah (1998) analyzed the reliability and validity of this scale with Palestinian university students, and found a coefficient alpha of .79. We have used the Jaradat (2013) version, and the Chronbach alpha for the current study was .76.

*Multidimensional Scale of Perceived Social Support (MSPSS).* The MSPSS was developed by Zimet et al. (1988). It is a self-report measure that evaluates the social support in three domains: family (FA) one example item is "My family really tries to help me", friends (FR) one example item is "I can talk about my problems with my friends.", and significant others (SO) one example item is "There is a special person who is around when I am in need.". The 12 items are assessed with a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). High scores indicate high levels of perceived social support. The reliability and validity of the MSPSS have been showed across several groups. We used the Arabic version of MSPSS adapted by Abou-hashem (2010) in Egypt. Cronbach alpha coefficients for the current study are .91, .85, .85 and .88, for the total scale, family support, friends support, and significant others support, respectively.

*Psychological Problems Scale (PPS).* The PPS was developed to measure depression, anxiety and psychosomatic symptoms (Berry, Phinney, Sam, & Vedder, 2006; Neto, 2009). It consists of 15 items, five items for each dimension. An example item for depression is "I feel unhappy and sad", for anxiety is "My thoughts seem to be mixed up", and for psychosomatic symptoms is "I feel sick in the stomach". All items are assessed with a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). Factor analyses showed that the 15 items constitute a single factor (Neto, 2009). Cronbach alpha coefficients for the current study is .92.

*The Rosenberg Self-Esteem Scale (RSES).* The RSES is one of the most popular self-esteem scales (Rosenberg, 1965). It was developed to measure adolescents' global feelings of self-

acceptance or self-worth, and it is the standard against which other self-esteem measures are compared (Dwairy, 2004). It is a self-report instrument used for evaluating individual self-esteem, both negative and positive feelings (Gray-Little, Williams, & Hancock, 1997; Rosenberg, 1965). The 10-items are rated on a 4-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). High scores indicate high self-esteem. One example item is “I feel that I have a number of good qualities”. Cronbach’s alphas of the RSES in several samples ranged from .77 to .88 (Dwairy, 2004). We used the Arabic version of this scale (Ghazal & Jaradat, 2009). Cronbach standardized alpha for the current study was .73

*The Social and Emotional Loneliness Scale for Adults - Short Form (SELSA-S*; DiTommaso et al., 2004). The SELSA-S is a multidimensional measure of loneliness. It consists of 15 items designed to measure social romantic and family, romantic loneliness, one example item is “I wish I had a more satisfying romantic relationship”, and social loneliness, one example item is “I am able to depend on my friends for help”, and family loneliness, one example item is “I feel part of my family”. The items are rated on a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). High scores indicate high levels of emotional and social loneliness. The three subscales of SELSA-S present high internal reliability, with Cronbach's alphas ranging from .87 to .90, and have been shown to be a valid measure of loneliness (DiTommaso et al., 2004). Cronbach alpha coefficients for the current study, for the total scale, social, family and romantic are .79, .70, .79 and .61, respectively.

*Parental Authority Questionnaire (PAQ*; Buri, 1991). The PAQ is a multidimensional measure of parenting styles. It consists of 30 items designed to measure parental authority or disciplinary practices from the point of view of the child (of any age). In the original version of the scale 10 items are included in each of the three parenting styles. In the current study reliabilities for each dimension were tested, and the results indicated that some items damage the Cronbach alpha coefficients, and consequently were deleted from the final dimension scores. Being so, the permissive dimension included only 7 items (1, 6, 14, 17, 19, 21, and 24), the authoritarian dimension included also 7 items (2, 3, 7, 9, 12, 16, and 18), and the authoritative dimension included 8 items (4, 5, 8, 11, 15, 20, 23, and 30). One example item for the authoritarian dimension is “My parents did not allow me to question any decision they had made.”, for the permissive dimension is “My parents do what children in the family want when making family decisions”, and for the authoritative dimension is “If my parents made a

decision in the family that hurts me, they are willing to discuss that decision with me and to admit if they made a mistake”. The items were rated on a 7-point scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Al Khalili (2005) version adapted for Arabic culture was used on the current study. He analyzed the reliability and validity of this version on a sample of Palestinian university students and found alpha coefficients for permissive style, authoritarian style and authoritative styles of .73, .83, and .82, respectively. Cronbach alpha coefficients for the current study are .61, .65, and .82, for permissive style, authoritarian style and authoritative styles, respectively, including only the above-mentioned items.

### *Procedures*

Permission from the administration of An-Najah National University was obtained to allow the researcher to enter the classrooms to conduct data collection. Participants for the current study were recruited during August/September 2016.

All ethical procedures regarding data collection were followed. Participants signed an informed consent form. They completed the questionnaires during their classes in the presence of the researcher. The questionnaires were presented in Arabic for all participants. This was considered an adequate procedure, as all participants were fluent in Arabic. It took approximately 50 minutes to complete the full set of questionnaires.

### *Data analyses*

In this study, data were analyzed using descriptive statistics, independent sample t-test and one-way ANOVA to test differences among groups defined by sociodemographic variables, and bivariate correlations to examine the association among variables. Additionally, hierarchical multiple regression analysis was used to identify the independent variables that are important in predicting university students’ social emotional loneliness.

## **Results**

The means, standard deviations and *t* values for the measures under study are presented in Table 2. The results show that social, romantic and family loneliness was higher in male than in female students,  $t(498) = 2.26, p < .05$ ,  $t(498) = 2.94, p < .05$ ,  $t(498) = 2.26, p < .05$ , respectively.

There were no significant differences in loneliness between 18 to 21 and 22 to 26 age groups,  $t(498) = -.63, p > .05$ , and between the three family size groups (3, 4-7, 8 and more),  $F(2, 497) = .21, p > .05$ , and between the four income family groups,  $F(3, 496) = .62, p > .05$ . Finally, there were no significant differences according to place of residence (village, city and refugee camp) in loneliness,  $F(1, 498) = .02, p > .05$ .

Female students were higher in satisfaction with life than male students,  $t(498) = -2.34, p < .05$ . Family support and significant others support was higher in female than male students,  $t(498) = -2.62, p < .05$ ,  $t(498) = -2.29, p < .05$ , respectively. There were no significant differences between male and female students regarding friend's support,  $t(498) = -1.32, p > .05$ , psychological problems,  $t(498) = -1.17, p > .05$ , self-esteem,  $t(498) = -.19, p > .05$ , and permissive, authoritarian and authoritative parenting styles,  $t(498) = .05, p > .05$ ;  $t(498) = -.93, p > .05$ ;  $t(498) = 1.96, p > .05$ , respectively (see Table 2).

Insert Table 2 about here.

The correlations among social, romantic and family loneliness, satisfaction with life, family support, friends support, and significant others support, psychological problems, self-esteem, and permissive, authoritarian, and authoritative parenting styles across participants are presented in Table 3.

There was a negative correlation between social loneliness ( $r = -.26, p < .05$ ), romantic loneliness ( $r = -.25, p < .05$ ), and family loneliness ( $r = -.37, p < .05$ ), and satisfaction with life. There was a negative correlation between social loneliness ( $r = -.40, p < .05$ ), romantic loneliness ( $r = -.23, p < .05$ ), and family loneliness ( $r = -.68, p < .05$ ), and family support. There was a negative correlation between social loneliness ( $r = -.58, p < .05$ ), romantic loneliness ( $r = -.23, p < .05$ ), and family loneliness ( $r = -.41, p < .05$ ), and friends support. There was a negative correlation between social loneliness ( $r = -.44, p < .05$ ), romantic loneliness ( $r = -.48, p < .05$ ), and family loneliness ( $r = -.40, p < .05$ ), and significant others support. There was a negative correlation between social loneliness ( $r = -.40, p < .05$ ), romantic loneliness ( $r = -.26, p < .05$ ), and family loneliness ( $r = -.38, p < .05$ ), and self-esteem. There was a negative correlation between social loneliness ( $r = -.36, p < .05$ ), romantic loneliness ( $r = -.25, p < .05$ ), and family loneliness ( $r = -.40, p < .05$ ), and permissive parenting styles. There was a negative correlation between social loneliness ( $r = -.37, p < .05$ ),

romantic loneliness ( $r = -.25, p < .05$ ), and family loneliness ( $r = -.59, p < .05$ ), and authoritative parenting styles. There was a negative but not significant correlation between romantic loneliness and authoritarian parenting style.

There was a positive correlation between social loneliness ( $r = .31, p < .05$ ), romantic loneliness ( $r = .15, p < .05$ ), and family loneliness ( $r = .31, p < .05$ ), and psychological problems. There was a positive correlation between romantic loneliness ( $r = .15, p < .05$ ), and family loneliness ( $r = .23, p < .05$ ), and authoritarian parenting styles (see Table 3).

Insert Table 3 about here.

Hierarchical multiple regression analysis were performed in order to determine the predictive role of life satisfaction, perceived social support (family, friends, significant others), psychological problems, self-esteem and parenting styles (permissive, authoritarian, authoritative) for social-emotional loneliness (social loneliness, romantic loneliness, family loneliness). Results are presented in Table 4. R values are significantly different at the end of each step.

Results showed that at Step 1 friends' support (negatively), significant others' support (negatively), and psychological problems (positively) predicted significantly social loneliness. These significant independent variables predicted 36.8% of the variance in social loneliness. At Step 2, friends' support (negatively), psychological problems (positively), and self-esteem (negatively) predicted significantly social loneliness, these significant independent variables predicted 39.1% of the variance in social loneliness. At Step 3, friends' support (negatively), psychological problems (positively), self-esteem (negatively), authoritarian parenting style (positively), and authoritative parenting style (negatively) predicted significantly social loneliness, these significant independent variables predicted 41.1% of the variance in social loneliness. Based on these results; the strongest predictor of social loneliness was friends' support (negatively).

In relation to romantic loneliness; results showed that at Step 1 only significant others' support (negatively) predicted significantly romantic loneliness, and this significant independent variable predicted 22.9% of the variance in romantic loneliness. At Step 2, significant others' support (negatively) and self-esteem (negatively) predicted significantly romantic loneliness, and these significant independent variables predicted 23.7% of the

variance in romantic loneliness. At Step 3, family support (positively); friends' support (positively), and significant others' support (negatively) predicted significantly romantic loneliness, and these significant independent variables predicted 24.4% of the variance in romantic loneliness. Based on these results; the strongest predictor of romantic loneliness was significant others' support (negatively).

In relation to family loneliness; results showed that at Step 1 family support (negatively) and psychological problems (positively) predicted significantly family loneliness, and these significant independent variables predicted 45.6% of the variance in family loneliness. At Step 2, family support (negatively) and self-esteem (negatively) predicted significantly family loneliness, and these significant independent variables predicted 47.9% of the variance in family loneliness. At Step 3, family support (negatively), self-esteem (negatively), authoritarian parenting style (positively), and authoritative parenting style (negatively) predicted significantly family loneliness, and these significant independent variables predicted 52.4% of the variance in family loneliness. Based on these results; the strongest predictor of family loneliness was family support (negatively).

Insert Table 4 about here.

## **Discussion**

The current study found that, the male university students had higher levels of social loneliness, romantic loneliness, and family loneliness than female students. This finding is supported by previous findings (Salimi, 2011; Tmkaya et al., 2008; Ozben, 2013). The higher levels of loneliness experienced by male students might be the result of lower levels of life satisfaction and support from family and significant others (Ozben, 2013). It is possible that females experience less loneliness than males because they talk and share their feelings more openly with their friends than males do. Another explanation is that females receive more social support from their social networks than males receive (Salimi, 2011; Tmkaya et al., 2008). Moreover, females have lower levels of emotional and social loneliness, because their social relationships are more supportive, and their intimate relationships are deeper than males (Weiss; 1973).

Another purpose of this study was to analyze the association between social-emotional loneliness (social, romantic, family) and other psychological variables. Our results are in accordance with researchers who found a negative association between loneliness and life satisfaction (Goodwin et al., 2001; Neto, 2015). According to Perlman and Peplau (1981) lonely people have problems introducing themselves and participating in works group, and low self-esteem, this negative evaluation lead to dissatisfaction with their life.

The results also show that the associations between satisfaction with life, perceived social support (family, friends, significant others) self-esteem, psychological problems, parenting styles (permissive, authoritarian) and social-emotional loneliness (social, romantic, family) are significant. The significant negative relationship between loneliness and self-esteem, life satisfaction and perceived social support (family, friends, and significant others) indicate that individuals with high life satisfaction and high social support are able to feel high self-esteem, which may lower their psychological problems and loneliness. This association is in agreement with (Civitci, Civitci, & Fiyakali, 2009; Kong, & You, 2013; Shahini et al., 2013; Shiguang, Ruidong, Yufeng, & Rui, 2015; Yaacob et al., 2017).

The findings of this study also showed that socio-emotional loneliness (social, romantic, family) was negatively correlated with support by family, friends and significant others. To be specific, social loneliness was strongly correlated with friends' support, romantic loneliness was strongly correlated with significant others support, and family loneliness was strongly correlated with family support.

The results are in line with previous research findings which show that there are significant relations between the social support and loneliness (DiTommase et al., 2003; Duru, 2008). Social support also plays an important role in reducing loneliness among university students (Yılmaz et al. 2008), and as a predictive variable against loneliness. Social support negatively correlated with loneliness, which means that the individuals who perceived to have good social support feel less loneliness, comparing with others who perceived a lack of social support (Shiguang et al., 2015). Social support allows individuals to get a positive view about their lives (Kapıkıran, 2013).

Students' relationships with their parents are important, and the family loneliness was strongly correlated with the relationships with their parent's relationship (DiTommaso et al,

2004; Shen, & 沈君, 2005). There is an association between parenting style (permissive, authoritarian, and authoritative) and loneliness of students. This result is consistent with Rafiee and Chehrei (2016). It is possible that the intimate relationships between parents and children lead to reduce their feeling in loneliness, because the way children live is affected by parenting styles (Rafiee, & Chehrei, 2016; Turkmen, & Demirli, 2011). Furthermore, loneliness is affected by parenting style, Jackson (2007) found a strong relation between loneliness and parents care. The negative association between authoritative parenting style and loneliness creates a balance between both control and nurturing (Dwairy, 2004). Students who perceived their parents as having an authoritative style have a more adjusted psychological development and face less psychological problems, and lower loneliness than students who perceived their parents as authoritarian or permissive (Dwairy et al. 2006; Jackson, Pratt, Hunaberg, & Pancer, 2005).

The students in romantic relationship were less likely to feel loneliness than other students who are not in romantic relationships (Deniz, Hamatra, & Ari, 2005).

Moreover, the results revealed that friends support was the most powerful negative predictor of social loneliness, significant others support was the strongest negative predictor of romantic loneliness, and family support was the strongest negative predictor of family loneliness. Self-esteem also significantly predicted loneliness. This result is consistent with previous research (Kong, & You, 2013; Neto, 2002; Pamukçu & Meydan, 2010; Shiguang et al., 2015). Authoritarian and authoritative parenting styles could predict social and family loneliness, this finding is consistent with Turkmen, & Demirli (2011), and with Lalifaz, & Askari (2008) who found authoritative parenting style could predict significantly loneliness among girl students.

Regarding the role of perceived social support in predicting loneliness, the current study findings show that perceived social support (family, friends, significant others) were the most powerful negative predictor of social emotional loneliness (family, social, romantic) respectively, these findings are in line with some researchers which showed that perceived social support is negatively correlated with the level of loneliness among university students, which means that perceived social support is a critical variable in predicting loneliness. As a result, it is expected that students with high social support from family, friends and significant

others will likely experience a lower level of loneliness. Students who have lack social support (family, friends, significant others), low self-esteem and elevated level of psychological problems may feel more loneliness. This result is supported by the findings of other researches results (Kapıkıran, 2013; Pamukçu & Meydan, 2010; Yılmaz et al., 2008).

### **Limitations and strengths**

The present study has some limitations. The first one is that the study sample was university students who living in Palestine, which limits the generalizability of the study results. The second limitation is that the data was collected using only one informant with self-report questionnaires. Finally, a third limitation concerns the possibility that the students may not respond with enough accuracy and honesty, because of the length of the evaluation protocol. However, this study has some strengths aspects; the sample study consisted of 500 respondents which considered big sample size to generalize on students population. On the other hand, the study variables which chosen in this study were rarely targeted in Arabic literature.

### **Conclusion**

We think that it is very useful to work and increase perceived social support and self-esteem to decrease the loneliness and to protect the university students from it. It is necessary to develop the social skills of the university students. The university counseling centers can play an important role to facilitate perceived social support for the students in their university. It's necessary also to hold workshops for parents to make them aware of their parenting styles and the impact they may have on their children, namely on loneliness.

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Table 1

*Demographic Characteristic of the Participants.*

| Demographic variables |                  | Frequency | Percentage |
|-----------------------|------------------|-----------|------------|
| Gender                | Males            | 182       | 36.4       |
|                       | Females          | 318       | 63.6       |
| Age                   | 18-21            | 317       | 63.4       |
|                       | 22-26            | 183       | 36.6       |
| Monthly family income | 2000NS and less  | 80        | 16.0       |
|                       | 2001-4000NS      | 193       | 38.6       |
|                       | 4001-6000        | 152       | 30.4       |
|                       | More than 6000NS | 75        | 15.0       |
| Housing conditions    | Owner            | 449       | 89.8       |
|                       | Tenant           | 51        | 10.2       |
| Place of residence    | Village          | 243       | 48.6       |
|                       | City             | 230       | 46.0       |
|                       | Camp             | 27        | 5.4        |
| Family size           | 3                | 42        | 8.4        |
|                       | 4- 7             | 296       | 59.2       |
|                       | 8 and more       | 162       | 32.4       |
| Study level           | First year       | 80        | 16.0       |
|                       | Second year      | 72        | 14.4       |
|                       | Third year       | 86        | 17.2       |
|                       | Fourth year      | 196       | 39.2       |
|                       | Fifth year       | 66        | 13.2       |

Table 2

*Descriptive Statistics of the Major Study Variables*

|                            | Total<br>( <i>n</i> =500)<br><br><i>M</i> ( <i>SD</i> ) | Min-<br>Max | Male<br>( <i>n</i> =182)<br><br><i>M</i> ( <i>SD</i> ) | Female<br>( <i>n</i> =318)<br><br><i>M</i> ( <i>SD</i> ) | <i>t</i><br><br>( <i>df</i> =498) | Sig  |
|----------------------------|---------------------------------------------------------|-------------|--------------------------------------------------------|----------------------------------------------------------|-----------------------------------|------|
| SELSA                      | 44.5(14.0)                                              | 15-94       | 47.2(13.9)                                             | 42.9(13.9)                                               | 3.33                              | .001 |
| Social loneliness          | 14.7(5.8)                                               | 5-32        | 15.4(6.0)                                              | 14.2(5.7)                                                | 2.26                              | .02  |
| Romantic loneliness        | 17.0(6.6)                                               | 5-35        | 18.2(6.1)                                              | 16.4(6.7)                                                | 2.94                              | .00  |
| Family loneliness          | 12.8(6.2)                                               | 5-35        | 13.6(6.5)                                              | 12.3(6.0)                                                | 2.26                              | .02  |
| Satisfaction with life     | 23.8(6.0)                                               | 5-35        | 22.7(6.1)                                              | 24.3(5.8)                                                | -2.34                             | .02  |
| Family support             | 22.2(5.4)                                               | 4-28        | 21.4(5.8)                                              | 22.7(5.1)                                                | -2.62                             | .00  |
| Friends support            | 21.5(5.3)                                               | 4-28        | 21.1(5.5)                                              | 21.8(5.2)                                                | -1.32                             | .19  |
| Significant others support | 23.2(5.4)                                               | 4-28        | 22.4(5.6)                                              | 23.6(5.3)                                                | -2.29                             | .02  |
| Psychological problems     | 36.9(12.8)                                              | 15-72       | 36.0(13.6)                                             | 37.4(12.3)                                               | -1.17                             | .24  |
| Self-esteem                | 31.1(4.4)                                               | 17-40       | 31.1(4.8)                                              | 31.0(4.2)                                                | .20                               | .84  |
| Permissive style           | 22.4(4.2)                                               | 9-34        | 22.2(4.5)                                              | 22.4(4.1)                                                | -.49                              | .63  |
| Authoritarian style        | 19.6(4.6)                                               | 7-34        | 19.6(4.7)                                              | 19.5(4.6)                                                | .19                               | .85  |
| Authoritative style        | 28.7(5.7)                                               | 11-40       | 27.8(5.9)                                              | 29.1(5.3)                                                | -2.46                             | .01  |

Table 3

Correlations Among all Variables

|                               | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9     | 10     | 11    | 12 |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|----|
| 1. Social loneliness          | 1      |        |        |        |        |        |        |        |       |        |       |    |
| 2. Romantic loneliness        | .29**  | 1      |        |        |        |        |        |        |       |        |       |    |
| 3. Family loneliness          | .53**  | .26**  | 1      |        |        |        |        |        |       |        |       |    |
| 4. Satisfaction with life     | -.26** | -.25** | -.37** | 1      |        |        |        |        |       |        |       |    |
| 5. Family support             | -.40** | -.23** | -.68** | .47**  | 1      |        |        |        |       |        |       |    |
| 6. Friends support            | -.58** | -.23** | -.41** | .37**  | .55**  | 1      |        |        |       |        |       |    |
| 7. Significant others support | -.44** | -.48** | -.40** | .38**  | .54**  | .60**  | 1      |        |       |        |       |    |
| 8. Psychological problems     | .31**  | .15**  | .31**  | -.38** | -.35** | -.29** | -.27** | 1      |       |        |       |    |
| 9. Self-esteem                | -.40** | -.26** | -.38** | .37**  | .36**  | .34**  | .44**  | -.43** | 1     |        |       |    |
| 10. Permissive style          | -.36** | -.25** | -.40** | .33**  | .44**  | .37**  | .35**  | -.16** | .30** | 1      |       |    |
| 11. Authoritarian style       | -.15** | -.00   | .23**  | -.03   | -.14** | -.08   | .02    | .20**  | -.06  | -.14** | 1     |    |
| 12. Authoritative style       | -.37** | -.25** | -.59** | .34**  | .58**  | .39**  | .41**  | -.14** | .31** | .61**  | -.11* | 1  |

\*  $p < 0.05$  level, \*\*  $p < 0.01$  level (2-tailed).

Table 4

*Hierarchical Multiple Regression Analysis for Variables Predicting Socio-Emotional Loneliness*

| Independent Variables  | Dependent variables |                |                |                     |                |                |                   |                |                |
|------------------------|---------------------|----------------|----------------|---------------------|----------------|----------------|-------------------|----------------|----------------|
|                        | Social loneliness   |                |                | Romantic loneliness |                |                | Family loneliness |                |                |
|                        | Step 1 $\beta$      | Step 2 $\beta$ | Step 3 $\beta$ | Step 1 $\beta$      | Step 2 $\beta$ | Step 3 $\beta$ | Step 1 $\beta$    | Step 2 $\beta$ | Step 3 $\beta$ |
| Family support         | -0.048              | -0.054         | 0.029          | 0.030               | 0.065          | 0.116*         | -0.625**          | -0.608**       | -0.453**       |
| Friends support        | -0.454**            | -0.453**       | -0.434**       | 0.081               | 0.092          | 0.106*         | -0.032            | -0.025         | -0.009         |
| Significant others sup | -0.106*             | -0.058         | -0.060         | -0.532**            | -0.503**       | -0.497**       | -0.020            | 0.026          | 0.025          |
| Psychological problems | 0.134**             | 0.090*         | 0.096*         | 0.041               | -0.001         | 0.012          | 0.077*            | 0.027          | 0.041          |
| Life satisfaction      |                     | 0.064          | 0.075          |                     | -0.107*        | -0.092         |                   | -0.022         | -0.017         |
| Self esteem            |                     | -0.188**       | -0.166**       |                     | -0.059         | -0.041         |                   | -0.146**       | -0.113**       |
| Permissive style       |                     |                | -0.081         |                     |                | -0.092         |                   |                | 0.039          |
| Authoritarian style    |                     |                | 0.071*         |                     |                | 0.007          |                   |                | 0.117**        |
| Authoritative style    |                     |                | -0.099*        |                     |                | -0.049         |                   |                | -0.297**       |

Notes:  $R^2 = .368$  for Step 1;  $R^2 = .391$  for Step 2;  $R^2 = .411$  for Step 3 for social loneliness;  $R^2 = .229$  for Step 1;  $R^2 = .237$  for Step 2;  $R^2 = .244$  for Step 3 for romantic loneliness;  $R^2 = .465$  for Step 1;  $R^2 = .479$  for Step 2;  $R^2 = .524$  for Step 3 for family loneliness.

## **CHAPTER VII**

### **STUDY 5: PSYCHOLOGICAL PROBLEMS AMONG THE PALESTINIAN UNIVERSITY STUDENTS IN THE WEST BANK**

## **STUDY 5**

Psychological problems among the Palestinian university students on the West Bank

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# Psychological problems among the Palestinian university students on the West Bank

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### **Abstract**

The aim of this study was to investigate the prevalence of psychological problems among Palestinian university students on the West Bank. The sample consisted of 254 volunteer undergraduate students (50.4% males and 49.6% females). Data was collected using Psychological Problems Scale, Multidimensional Scale of Perceived Social Support (MSPSS), and a Demographic Information Form. The study showed that anxiety score ( $M = 2.83$ ;  $SD = .92$ ) was significantly higher than depression ( $M = 2.55$ ;  $SD = .95$ ), and psychosomatic symptoms ( $M = 2.57$ ;  $SD = .87$ ) scores. Anxiety and psychosomatic symptoms were significantly higher among female students than males. Furthermore, anxiety and depression were negatively correlated with perceived social support from friends, family and significant others.

**Keywords:** Anxiety, Depression, Psychosomatic symptoms, Perceived social support, University Students, Palestine.

## **Introduction**

Palestine is one of the Middle East countries which have been exposed to military violence and human rights abuse since 1948 (Punamäki, Komproe, Qouta, Elmasri, & de Jong, 2005). This study focuses on the psychological problems among Palestinian university students on the West Bank as a result of traumatic life events.

Several studies indicate high prevalence of mental health problems among university and college students and it is increasing concern worldwide (Saleem, Mahmood, & Naz, 2013; Zivin, Eisenberg, Gollust, & Golberstein, 2009). While in university young adults have to face and adapt to a new and challenging social network which may contribute to turn they more vulnerable for developing mental health problems (Saleem, Mahmood, & Naz, 2013). Also, the traumatic life events resulting from the Israeli occupation, such as killing, demolition of homes, bombing and destruction, lead to depression, anxiety, post-traumatic stress disorder and other mental disorders among Palestinian people (Assaf, 2002).

Perceived social support is an important factor for reducing psychological problems. Several studies have found an association between low levels of social support and poor mental health (Duru, 2007; Oni, 2010). For example, lack of social support is one of the independent risk factor for depression, meaning that the students who had low social support had higher depression. However, social support has buffering effects on depression among university students (Laurence, Williams, & Eiland, 2009; Oni, 2010).

In relation to gender, some studies suggest that female students score higher than male students in depression and anxiety (Bayram & Bilgel, 2008; Dyrbye, 2006; Raypa, 2012; Rosenthal, 2000). However other scholars found no gender differences on depression among university students (Alansari, 2006; Dorahy, 2000; Hamdan-Mansour et al., 2009). Some studies found that the educational strategies that used by the cultural and sometimes parenting styles may be related to anxiety, depression and other mental health problems as well (Abadsa & Thabet, 2012).

Several studies suggest high rates depression and anxiety, among university students all over the world and especially in Turkey (Bayram, 2008; Chia & Graves, 2016; Daniel, 2013; Jenkins, 2013; Ovuga, Boardman, & Wasserman, 2006; Wong et al., 2006), 8% of university students had depressive feelings in Jordan (Hamdan-Mansour & Marmash, 2007), 75% of the university students had some degree of depressive symptoms in Jordan (Hamdan-Mansour et al., 2009). 27.5% of students had depressive symptoms and anxiety in Hong Kong (Wong et al., 2006). 15.6% undergraduate's students had depressive

or anxiety disorder in U.S.A (Eisenberg, Gollust, Golberstein, & Hefner, 2007), third of the students had mental health problems in U S A (Zivin et al., 2009), in Malaysia 34.4% of university students showed mental health problems (Nordin, Abu Talib, & Yaacob, 2009).

Even though there is high prevalence of psychological problems among university students, there are a few studies about the prevalence of psychological problems in Palestine, however Abadsa and Thabet (2012) found higher prevalence of depression, anxiety and PTSD adult population in Gaza in Palestine. The aim of the current study was to investigate the prevalence of psychological problems among Palestinian university students on the West Bank according to gender, age, faculty, university, parental education level, monthly family income and place of residence. Based on the literature reviewed above, we advance one research question (RQ1) and three hypotheses.

*RQ1:* Are there significant differences in the degree of psychological problems according to gender, age, faculty, university, family income, parents' level of education, and place of residence?

*Hypothesis 1:* There will be a significant negative correlation between anxiety and perceived social support from friends, family and significant others.

*Hypothesis 2:* There will be a significant negative correlation between depression and perceived social support from friends, family, and significant others.

*Hypothesis 3:* There will be a significant negative correlation between psychosomatics symptoms and perceived social support from friends, family, and significant others.

## **Method**

### **Participants**

Data from 254 (126 females and 128 males) undergraduate students from two universities on the West Bank in Palestine were used in this study. The age of the participants ranged from 18 to 26 years, 41.3% of participants were 18 to 21 years and 58.7% were 22 to 26 years of age. Eighty-seven percent were attending the An-Najah National University and 19.3% were attending the Arab American University, 27 % were attending a course in sciences and 73% in humanities. Regarding parental education, 20.1% of the parents did not finish secondary school, 37.4% hold secondary school, and 42.5% hold a bachelor degree or higher. Regarding monthly family income, about 37% of the participants' families had a monthly income ranging between 500-1000 USD.

Furthermore, 52.4% of the participants were living in villages, about 42.5% in cities, and 5.1% in refugee camps. More than 89.8% of the participants' families had their own houses (See Table 1).

Insert Table 1 about here.

## Measures

Three self-report instruments were used to collect data: Psychological Problems Scale (Berry et al., 2006; Neto, 2009), Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, S & Farley, 1988), and Demographic Information Form. *Psychological problems scale*. This scale consists of 15 items and was designed to measure depression, anxiety and psychosomatic symptoms (Berry et al., 2006; Neto, 2009).

Participants responded on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

*Multidimensional Scale of Perceived Social Support (MSPSS)*. The MSPSS was developed by Zimet, et al. (1988). It is a 12-item scale that measures perceived support from three domains: family (FA), friends (FR), and a significant others (SO). Participants completed the MSPSS items on a 7-point Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). We used the Arabic version of MSPSS adapted by Abou-hashem (2010) in Egypt. A Chronbach alpha .89 was found for the total scale, .83 for friend's support, .78 for family support, and .81 for significant others support.

*Demographic Information Form*. This form was used to obtain detailed information on basic demographics such as age, gender, family income, parents' level of education, housing conditions, university, faculty, and place of residence.

## Procedure

Informed consent was obtained from all participants before completing the measures. Participants were assured of the confidentiality of their responses. The questionnaires were presented in Arabic to all participants. This was considered an adequate procedure as all participants were fluent in Arabic. It took approximately 15 minutes to complete the full set of questionnaires.

## Data analysis

Data were analyzed using descriptive statistics, independent sample *t*-test and one-way ANOVA to test differences among groups defined by sociodemographic variables, and bivariate correlation analysis to examine the association between anxiety, depression and psychosomatic symptoms, and perceived social support.

## Results

We performed a principal component analysis to explore the structure of the psychological problems scale. Three eigenvalues were greater than one, and scree test also suggested the extraction of three factors. Table 2 shows the varimax-rotated, exploratory factor analysis. The first factor contains five items expressing Anxiety; alpha coefficient is .76. The second factor includes also five items expressing Depression; alpha coefficient is .81. The third factor is composed by four items expressing psychosomatic symptoms. Since item 15 loaded  $> .40$  on the first factor and on the third factor, it was excluded from further analysis alpha is .68.

Insert Table 2 about here.

Means and standard deviations for the major study variables are presented in Table 3. Results show that there was a statistically significant difference in anxiety according to gender,  $t(252) = -2.84, p < 0.01$ , female students showed higher anxiety than male. Psychosomatic symptoms were also higher in female than male students,  $t(252) = -3.75, p < 0.01$ . There was no statistically significant gender differences in depression,  $t(252) = -1.01, p > 0.05$ , and in perceived social support from friends,  $t(252) = -1.28, p > 0.05$ . Females presented higher perceived social support from family,  $t(252) = -2.54, p < 0.05$ , and from significant others,  $t(252) = -3.96, p < 0.01$  than males.

Concerning age, there was no significant differences between 18 to 21 and 22 to 26 age groups in anxiety,  $t(252) = 1.14, p > 0.05$ , psychosomatic symptoms,  $t(252) = .64, p > 0.05$  and depression,  $t(252) = -.60, p > 0.05$ . There were no significant differences between student's university affiliation in anxiety,  $t(252) = -1.23, p > 0.05$ , psychosomatic symptoms,  $t(252) = -1.0, p > 0.05$  and depression,  $t(252) = .07, p > 0.05$ . However, there were significant differences according to parental education level in anxiety,  $F(2,251) = 4.38, p < 0.05$ , psychosomatic symptoms,  $F(2,251) = 3.52, p < 0.05$ , and depression,  $F(2,251) = 4.78, p < 0.01$ .

Insert Table 3 about here.

To test the hypotheses 1, 2 and 3 correlation analyses were conducted (See Table 4). The findings indicate that there were significant correlations among anxiety, depression, perceived social support from friend, family and significant others ( $p < 0.05$ ). More specifically there was a strong positive correlation between anxiety and depression ( $r = .61$ ), a moderate positive correlation between anxiety and psychosomatic symptoms ( $r = .49$ ), and moderate negative correlations between depression and support from friends ( $r = -.32$ ), family ( $r = -.33$ ), and significant others ( $r = -.36$ ). There were modest negative correlations between anxiety and support from friends ( $r = -.17$ ), family ( $r = -.16$ ), and significant others ( $r = -.15$ ).

Insert Table 4 about here.

## Discussion

The current study was designed to investigate the prevalence of psychological problems among Palestinian university students on the West Bank. The study showed that the mean scores for anxiety was 2.83, for depression was 2.55 and for psychosomatic symptoms was 2.57. It can be observed that these values are below the midpoint of the scale ( $< 3$ ).

Anxiety and psychosomatic symptoms were statistically higher in females than in males. This result is supported by some previous studies in Gaza (Abadsa & Thabet, 2012), Turkey (Bayram & Bilgel, 2008), U S A and Canada (Dyrbye, Thomas, & Shanafelt, 2006), U.S.A (Jenkins et al., 2013; Rosenthal & Schreiner, 2000; Ryba & Hopko, 2012). In Palestine, being an Arabic country, females get used to stay close with their mothers almost all the time since childhood. As a result, they are given less responsibility and freedom than males. Females reported higher dependence on their families than males. University life challenges females' sense of independence more than males and, as a result, they report higher levels of anxiety and psychosomatic symptom. This result suggests that universities need to consider specific issues and strategies to improve female students' well-being (Alansari, 2006).

On the other hand no significant gender differences were found on depression among university students. This result is supported by some previous studies in Lebanon, Tunisia, Palestine, U.A. Emirates, Yemen, Jordan, and Sudan (Alansari, 2006), Palestine (Assaf, 2002), Turkey (Bayram & Bilgel, 2008), Australian, Ghanaian, Nigerian, Northern

Irish, and Swaziland (Dorahy, 2000), and in Jordan (Hamdan-Mansou et al., 2009). However, Abadsa and Thabet (2012) found that depression was statistically higher in females than in males in Gaza.

As hypothesized, the results showed that between anxiety and depression was negatively and significantly related to perceived social support from friends, family and significant others. This means that when perceived social support increases, anxiety and depression decreases. When people perceive a good support from their social network they will experience less psychological problems than others with low perceived social support from their social network. It is happened also with the university students who reported lower levels of supportive from their social network also reported higher levels of anxiety and depression, that anxiety and depression are related (Serin, Serin & Özbaş, 2010; Zhou, 2013). Perceived social support, depression, and anxiety among university students are highly interrelated and it may contribute of improving their psychological and social life (Guney, Kalafat & Boysan, 2010).

Thus, the rise in perceived social support from friends, family, and significant others will lead to low level of anxiety and depression and other psychological problems, improving psychological wellbeing among students. Psychological counseling centers at universities have a lot of responsibilities and activities in helping students who need psychological counseling. Local institutions and associations will also help in cooperation with the universities in their common activities (Alansari, 2006; Laurence, et al., 2009; Zhou, 2013).

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*Table 1**Socio-Demographic Characteristics of the Study.*

| Demographic variables       |                     | Frequency | Percentage |
|-----------------------------|---------------------|-----------|------------|
| Gender                      | Males               | 128       | 50.4       |
|                             | Females             | 126       | 49.6       |
| Age                         | 18-21               | 105       | 41.3       |
|                             | 22-26               | 149       | 58.7       |
| Parental Educational levels | Less than secondary | 51        | 20.1       |
|                             | Secondary           | 95        | 37.4       |
|                             | Bachelor and more   | 108       | 42.5       |
| Monthly Family Income       | 500\$ and less      | 77        | 30.3       |
|                             | 500-1000\$          | 94        | 37.0       |
|                             | More than 1000\$    | 79        | 31.5       |
| Place of Residence          | Village             | 133       | 52.4       |
|                             | City                | 108       | 42.5       |
|                             | Refugee camp        | 13        | 5.1        |
| University                  | An-Najah            | 205       | 80.7       |
|                             | Arab American       | 49        | 19.3       |
| Faculty                     | Sciences            | 68        | 26.8       |
|                             | Humanities          | 185       | 72.8       |

*Table 2*

*Varimax Rotated Three Factors Solution of the Psychological Problems Scores*

| Items              | Factor 1 | Factor 2   | Factor 3                  |
|--------------------|----------|------------|---------------------------|
|                    | Anxiety  | Depression | Psychosomatic<br>symptoms |
| .1                 | .63      |            |                           |
| .2                 | .64      |            |                           |
| .3                 | .68      |            |                           |
| .4                 | .61      |            |                           |
| .5                 | .66      |            |                           |
| .6                 |          | .57        |                           |
| .7                 |          | .79        |                           |
| .8                 |          | .60        |                           |
| .9                 |          | .75        |                           |
| .10                |          | .69        |                           |
| .11                |          |            | .56                       |
| .12                |          |            | .77                       |
| .13                |          |            | .77                       |
| .14                |          |            | .56                       |
| .15                |          |            | .45                       |
| Eigenvalue         | 5.43     | 1.78       | 1.03                      |
| Explained Variance | 36.20    | 11.71      | 6.69                      |

Table 3

*Descriptive Statistics of the Major Study Variables, and Independent Sample t-Test Performance Scores of Students with Gender.*

|                            | <u>Total n=254</u> | Min-Max | <u>Male n=128</u> | <u>Female n=126</u> | <i>t</i> | Sig |
|----------------------------|--------------------|---------|-------------------|---------------------|----------|-----|
|                            | <i>M(SD)</i>       |         | <i>M(SD)</i>      | <i>M(SD)</i>        |          |     |
| Anxiety                    | 2.83(.92)          | 1-5     | 2.67(.82)         | 2.99(.98)           | -2.84    | .01 |
| Depression                 | 2.55(.95)          | 1-5     | 2.49(.84)         | 2.61(1.05)          | -1.01    | .31 |
| Psychosomatic symptoms     | 2.57(.87)          | 1-5     | 2.37(.74)         | 2.77(.94)           | -3.75    | .00 |
| Friends support            | 20.4(4.70)         | 4-28    | 20.1(4.9)         | 20.8(4.5)           | -1.28    | .20 |
| Family support             | 21.6(4.72)         | 4-28    | 20.9(4.7)         | 22.3(4.7)           | -2.54    | .01 |
| Significant others support | 21.9(4.80)         | 4-28    | 20.8(5.0)         | 23.1(4.3)           | -3.96    | .00 |
| Perceived social support   | 64.0(11.9)         | 16-84   | 61.7(12.3)        | 66.3(11.0)          | -3.11    | .00 |

Table 4

Correlations Among Variables ( $n = 254$ ).

|                               | 1      | 2       | 3   | 4      | 5      |
|-------------------------------|--------|---------|-----|--------|--------|
| 1. Anxiety                    |        |         |     |        |        |
| 2. Depression                 | .61*** |         |     |        |        |
| 3. Psychosomatic symptoms     | .49*** | .32     |     |        |        |
| 4. Friends support            | -.17** | -.32*** | .02 |        |        |
| 5. Family support             | -.16*  | -.33*** | .01 | .49*** |        |
| 6. Significant others support | -.15*  | -.36*** | .00 | .58*** | .57*** |

\*  $p < .05$  \*\*  $p < .01$ . \*\*\* $p < 0.001$ .

## **CHAPTER VIII**

### **DISCUSSION AND CONCLUSION**

## **Discussion**

In the present dissertation, five studies have been conducted by focusing on loneliness as a common and dependent substantial factor in light of different independent factors. In these studies; the researcher examined the gender differences in loneliness among the Palestinian university students in all studies and tested the impacts of perceived social support (family, friends, significant others), satisfaction with life, psychological problems, love, self-esteem, satisfaction with love life, and parenting styles (permissive, authoritarian, authoritative) on loneliness (social, romantic, family).

This section will discuss the results of the present dissertation. Conclusion and implications of the findings will be discussed also, and suggestions for future studies will be presented.

Many results were obtained; male university students tended to report higher levels of loneliness comparing with female students in total and sub-scores (social loneliness, romantic loneliness, and family loneliness). This result is supported by previous findings (Bozorgpour & Salimi, 2012; DiTommaso, Brannen-McNulty, Ross, & Burgess, 2003; Ozben, 2013; Salimi, 2011). The researcher refers this result that females tend to be more socially than males and may therefore males do not care to maintain their friendships or protect their romantic relationship, comparing with females which leading to more loneliness. Moreover, male students have fewer social network ties, they are facing difficulties in building satisfying relationships; they have fewer skills in social interaction or obtaining social supports, and they do not care about intimate relationships (Aljabari, 2012; Demrl, 2007; Ibraiam, 2013; Ozben, 2013; Salimi, 2011; Sawir et al., 2008; Shen, 2005; Tümkaya et al., 2008).

On the other hand, conflicting results were shown in the previous studies regarding gender differences in loneliness; some studies found no gender differences in loneliness (Chang, 2018; Ekinici et al., 2015; Merrakchi, 2014; Shen, 2005; Shireen & Ibraheem, 2014; Wright et al., 2014). However, other studies found female students report higher levels of loneliness than male students (Bugay, 2007; Mustafa & Alshrefen, 2012; Yaacob, Juhari, Talib, & Uba, 2017).

Another purpose of this study was to test the association between loneliness and other psychological variables. The results showed that loneliness is negatively correlated with satisfaction with life, this result is consistent with Ozben (2013) and Shahini et al. (2013)

studies. Loneliness negatively correlated with support from family, friends and significant others, this result is supported by (Yılmaz et al., 2008). Loneliness was also found to be negatively correlated with Eros, Storge and Pragma love styles. These results are consistent with study of Neto and Pinto (2003) regarding love styles and satisfaction with love life. Furthermore; self-esteem negatively correlated with loneliness. This result is supported by some studies (Cacioppo et al., 2006; DiTommaso, Brannen, & Best, 2004) too.

Loneliness was found to be negatively correlated with satisfaction with love life. This result has been revealed by some studies which suggest that satisfaction with love life appear to decrease one's sense of loneliness. This result is in agreement with Neto and Pinto (2015) who found a negative correlation between romantic loneliness and satisfaction with love life. The negative correlation means that when the students were in love and satisfied with their love life, their feeling in loneliness decreased. It makes sense that the students would be less lonely if he or she has a romantic relationship and also satisfied about his love life.

The findings indicated that decreasing in perceived social support from family, friends and significant others, unsatisfying with life and with love life, low self-esteem, not having intimate relationships are risk factors for loneliness among university students.

University students who have positive experiences in his social network and intimate relationships feel less loneliness, and the students who were rejected from their friends, or did not have intimate relationships are more likely to feel higher levels of loneliness, that to say good and positive social networks could be protective factors against loneliness among university students (Bozorgpour & Salimi, 2012; Deniz, Hamatra, & Ari, 2005; Shen, 2005). Moreover, students with higher self-esteem, have lower loneliness (Yaacob et al., 2017).

Moreover, positive correlation was found between loneliness and psychological problems. This result is consistent with Aljabari (2012) study. Students who reported high psychological problems also reported high loneliness. That means individuals with good psychological well-being feel less lonely than others (Aljabari, 2012; Migdady, 2008). The result also showed that there is significant relationship between parenting style (permissive, authoritarian, and authoritative) and loneliness and this result is consistent with Rafiee and Chehrei (2016) study.

There is an association between parenting style (permissive, authoritarian, and authoritative) and loneliness of students. This result is consistent with Rafiee and Chehrei (2016). It is possible that the intimate relationships between parents and children lead to

reduce their feeling in loneliness, because the way children live is affected by parenting styles (Rafiee, & Chehreii, 2016; Turkmen, & Demirli, 2011). The negative association between authoritative parenting style and loneliness creates a balance between both control and nurturing (Dwairy, 2004). Students who perceived their parents as having an authoritative style have a more adjusted psychological development and face less psychological problems, and lower loneliness than students who perceived their parents as authoritarian or permissive (Dwairy et al. 2006; Jackson, Pratt, Hunaberg, & Pancer, 2005).

The results of the multiple regression analysis indicated that satisfaction with life, perceived social support from friends and significant others, Eros, Ludus, Pragma and Mania love styles, and satisfaction with love life were significant predictors for university student's loneliness. Self-esteem also significantly predicted loneliness. When the students have Eros, Storge and Pragma love styles, and satisfactory social relationships, they have lower level of loneliness (Neto & Pinto, 2003; Zhao et al., 2018). And even the satisfaction with love life appears to decrease one's sense of loneliness. The lack of emotions like love and low level of satisfaction about love life may serve as a personal exposure factor to loneliness among the university students (Al Khatib, 2012).

Individuals who perceive support from their social networks tend to feel less lonely, and when the satisfaction with their lives increasing loneliness decreasing (Eshbaugh, 2008; Salimi & Bozorgpour, 2012; Shahini et al., 2013).

Moreover, the results showed that support from friends was the most powerful negative predictor of social loneliness, support from significant others was the strongest negative predictor of romantic loneliness, and support from family was the strongest negative predictor of family loneliness. This result is supported by Shen (2005). Defecating in close friendship plays an important role in predicting social loneliness (DiTommaso et al., 2004; Shen, 2005).

Regarding the role of parenting styles in predicting loneliness, the current study findings show that authoritarian and authoritative parenting styles could predict social and family loneliness, this finding is consistent with Turkmen, & Demirli (2011), and with Lalifaz, & Askari (2008) who found authoritative parenting style could predict significantly loneliness among girl students.

## CONCLUSION

Loneliness one of psycho-social problems that faced by university students and affected by different variables such as psychological problems, authoritarian and authoritative parenting styles, life satisfaction, social support, love, love life satisfaction, and self-esteem. Conflicting findings were obtained in several studies that interested in loneliness and factors affect it due to culture, sample population, methodology, and measurement method.

Further, research in this area would enable counseling centers to develop the early intervention services by being able to identify the lonely students or who are at risk of loneliness by present the psychological and social support and counseling services.

The present study is a quantitative study which has examined the feelings of loneliness among Palestinian university students. The results indicated the importance of gender differences, kinds of loneliness and the relationships between life satisfaction, perceived social support (family, friends, significant others), psychological problems, self-esteem, love life satisfaction, parenting style (permissive, authoritarian, authoritative), love Attitudes, and loneliness. Moreover, the predictors of loneliness.

These relationships may be indications that the Palestinian people lives are undergoing changes, following the political, social, and economic changes.

The results show that perceived social support predicted lower level of loneliness. Even so, the poor social network may put the individuals at risk for loneliness, dissatisfaction with life and low self-esteem also involved in determining the level of loneliness.

The study offers researchers a useful framework for understanding the causes and the development of loneliness, and providing further insight for future studies.

The future research is necessary to clarify the causes of these relationships, this investigation will highlight the possible value of improving the students' self-esteem and also developing their social network to prevent the loneliness.

## **Implications and Recommendations**

Loneliness is a common phenomenon among individuals and it is one of the psycho-social problems faced by counsellors at the universities. There are many factors associated with loneliness, so it is vital for counsellors to understand the context of loneliness in order to deal with this problem among students and also to be more supportive for them (Demrl, 2007).

One of the counselor's missions is to help students through enhancing and developing their social skills to maintain their social network (friends and families). In the current study, the researcher examines the impact of social support, self-esteem, satisfaction with life, and parenting styles on students' loneliness. The results indicated that loneliness is higher among male students. Moreover, some independent variables such as psychological problems, authoritarian and authoritative parenting styles affect loneliness positively. On the other hand, some independent variables such as life satisfaction, social support, love, love life satisfaction, and self-esteem affect loneliness negatively. Students who feel loneliness more likely to suffer from lacking in social support, have low self-esteem, unsatisfied with their lives, have high level of psychological problems, and more likely to live in strict families.

Based on these findings, it can be concluded that loneliness prevention and treatment programs should create strategies to improve self-esteem, satisfaction with life, social support and satisfaction with life to protect students from loneliness and reduce it and to control their psychological problems and to be aware about the impact of parenting styles on their personalities.

Consequently, university counselors and academic staff have to be more attentive about the lonely students in their classes. University counselors and academic staff can also help their students to develop social skills, enhance their self-esteem and support them. The findings may provide valuable information to the university counselors, academic staff, families to understand the nature of loneliness, to aware about factors affect it positively and negatively, and support the students who are at risk of loneliness.

Based on the findings, there are several recommendations can be presented; first, this study can be replicated with different individuals from different developmental stages such as children, adults, and elderly. Second, highlighting on other factors that may affect loneliness and investigating their impacts on loneliness such as social skills, marital status, economic level, academic achievement, happiness, and resilience. Third, in the current

study, since the sample size was small, therefore, further studies are needed to investigate the impact of some factors on loneliness with bigger sample size. Fourth, the present study used self-reports questionnaires; future studies may be conducted using qualitative method based on interviews.

Fifth, conducting workshops for academic staff and parents; to increase the awareness of factors that affect loneliness among university students. Finally, different assessment techniques could be using, the perceptions of academic staff, parents, friends, and university counselors about loneliness should be investigated to determine the prevalence of loneliness.

In Western countries several studies have been done about loneliness, while there are a few studies that conducted in Palestine. Thus, this study may fill research gap by examining the impact of some factors on loneliness among Palestinian university students.

## **Limitations**

Despite this study tried to understand the degree of loneliness and factors that affect it among Palestinians university students. However, there is need to answer further questions in future research.

First, the participants in the current study were Palestinian students, and these results may not generalize to other ethnic groups.

Second, the current study is a quantitative study using self-report questionnaires. Therefore, qualitative study should be conducted in future study.

Third, because of the length of the questionnaires, the students may not respond with enough honesty which may affect study results.

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## **TABLES**

*Table 1**Characteristic of the Participants*

| Demographic variables     |                     | Frequency | Percentage |
|---------------------------|---------------------|-----------|------------|
| Gender                    | Males               | 128       | 50.4       |
|                           | Females             | 126       | 49.6       |
| Age                       | 18-21               | 105       | 41.3       |
|                           | 22-26               | 149       | 58.7       |
| Parental Education levels | Less than secondary | 51        | 20.1       |
|                           | Secondary           | 95        | 37.4       |
|                           | Bachelor and more   | 108       | 42.5       |
| Monthly Family Income     | 500\$ and less      | 77        | 30.3       |
|                           | 500-1000\$          | 94        | 37.0       |
|                           | More than 1000\$    | 79        | 31.5       |
| Place of Residence        | Village             | 133       | 52.4       |
|                           | City                | 108       | 42.5       |
|                           | Refugee camp        | 13        | 5.1        |
| University                | An-Najah            | 205       | 80.7       |
|                           | Arab American       | 49        | 19.3       |
| Faculty                   | Sciences            | 68        | 26.8       |
|                           | Humanities          | 185       | 72.8       |
| Housing Conditions        | Owner               | 228       | 89.8       |
|                           | Tenant              | 25        | 9.8        |
| Study level               | First year          | 11        | 4.3        |
|                           | Second year         | 54        | 21.3       |
|                           | Third year          | 55        | 21.7       |
|                           | Fourth year         | 134       | 52.8       |
| Accommodation             | Inside university   | 31        | 12.2       |
|                           | Outside university  | 222       | 87.4       |

Table 2

*The Instruments Description*

| The name                                                       | The author                         | Dimensions                                                                                                                                                     | Items    | Cronbach alpha                                                                          |
|----------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------|
| 1. Loneliness (UCLA)                                           | Russell, Peplau and Cutrona (1980) | One dimension                                                                                                                                                  | 20-item  | .81                                                                                     |
| 2. Satisfaction with Life Scale (SWLS).                        | Diener et al. (1985),              | One dimension                                                                                                                                                  | 5-item   | .79                                                                                     |
| 3. Multidimensional Scale of Perceived Social Support (MSPSS). | Zimet et al. (1988)                | Three dimensions <ul style="list-style-type: none"> <li>- Friends</li> <li>- Family</li> <li>- Significant others</li> </ul>                                   | 12-item  | Total = .89<br>Friends = .83<br>Family = .78<br>Significant others = .81                |
| 4. Psychological Problems Scale (PPS).                         | (Berry et al., 2006; Neto, 2009).  | Three dimensions <ul style="list-style-type: none"> <li>- Depression</li> <li>- Anxiety</li> <li>- psychosomatic symptoms</li> </ul>                           | 15-item  | Total = .87<br>Depression =.83<br>anxiety = .87<br>psychosomatic symptoms = 81          |
| 5. The Satisfaction with Love Life Scale (SWLLS)               | (Neto, 2005)                       | One dimension                                                                                                                                                  | 5-item   | .83                                                                                     |
| 6. The Love Attitudes Scale (LAS).                             | Hendrick and Hendrich, (1986).     | Six dimensions <ul style="list-style-type: none"> <li>- Eros</li> <li>- Ludus</li> <li>- Storge</li> <li>- Mania</li> <li>- Pragma</li> <li>- Agape</li> </ul> | 42-items | Eros = .95<br>Ludus = .78<br>Storge = .74<br>Mania = .86<br>Pragma = .77<br>Agape = .85 |
| 7. The Rosenberg Self-Esteem Scale (RSS).                      | (Rosenberg, 1965).                 | One dimension                                                                                                                                                  | 10-items | .74                                                                                     |

|                                                                        |                                      |                                                                                                                                                      |          |                                                                                  |
|------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------|
| 8. The short-form UCLA Loneliness Scale (ULS-6)                        | Russell, Peplau, and Cutrona, (1980) | One dimension                                                                                                                                        | 6-items  | .86                                                                              |
| 9. Social-emotional loneliness scale for adults - Short Form (SELSA-S) | DiTommaso, Brannen, and Best (2004)  | Three dimensions <ul style="list-style-type: none"> <li>- Social</li> <li>- Romantic</li> <li>- Family</li> </ul>                                    | 15-items | Total = .79<br>Social = .70<br>Romantic = .79<br>Family = .61                    |
| 10. Parental Authority Questionnaire(PAQ)                              | Buri, (1991).                        | Three dimensions <ul style="list-style-type: none"> <li>- Permissive style</li> <li>- Authoritarian style</li> <li>- Authoritative styles</li> </ul> | 30-items | Permissive style = .61<br>Authoritarian style = .65<br>Authoritative styles =.82 |

## **APPENDICES**

## Appendix 1: UCLA Loneliness Scale

Indicate how often each of the statements below is descriptive of you.

| Statement                                            | Often | Some times | Rarely | Never |
|------------------------------------------------------|-------|------------|--------|-------|
| I feel in tune with the people around me.            | 4     | 3          | 2      | 1     |
| I lack companionship.                                | 4     | 3          | 2      | 1     |
| There is no one I can turn to.                       | 4     | 3          | 2      | 1     |
| I do not feel alone.                                 | 4     | 3          | 2      | 1     |
| I feel part of a group of friends.                   | 4     | 3          | 2      | 1     |
| I have a lot in common with the people around me.    | 4     | 3          | 2      | 1     |
| I am no longer close to anyone.                      | 4     | 3          | 2      | 1     |
| Those around me do not share my interests and ideas. | 4     | 3          | 2      | 1     |
| I am an outgoing person.                             | 4     | 3          | 2      | 1     |
| There are people I feel close to.                    | 4     | 3          | 2      | 1     |
| I feel left out.                                     | 4     | 3          | 2      | 1     |
| My social relationships are superficial.             | 4     | 3          | 2      | 1     |
| No one really knows me well.                         | 4     | 3          | 2      | 1     |
| I feel isolated from others.                         | 4     | 3          | 2      | 1     |
| I can find companionship when I want it.             | 4     | 3          | 2      | 1     |
| There are people who really understand me.           | 4     | 3          | 2      | 1     |
| I am unhappy being so withdrawn.                     | 4     | 3          | 2      | 1     |
| People are around me but not with me.                | 4     | 3          | 2      | 1     |
| There are people I can talk to.                      | 4     | 3          | 2      | 1     |
| There are people I can turn to.                      | 4     | 3          | 2      | 1     |

## Appendix 2: Satisfaction with Life Scale (SWLS):

1 - Strongly disagree, 2 – Disagree, 3 - Slightly disagree, 4 - Neither agree nor disagree, 5 - Slightly agree, 6 – Agree, 7 - Strongly agree

| Statement                                                    | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|--------------------------------------------------------------|---|---|---|---|---|---|---|
| In most ways my life is close to my ideal.                   | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| The conditions of my life are excellent.                     | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| I am satisfied with my life.                                 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| So far I have gotten the important things I want in life     | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| If I could live my life over, I would change almost nothing. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

**Appendix 3: Multidimensional Scale of Perceived Social Support (MSPSS)**  
**(Zimet et al., 1988)**

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

1 - Strongly disagree, 2 – Disagree, 3 - Slightly disagree, 4 - Neither agree nor disagree, 5 - Slightly agree, 6 – Agree, 7 - Strongly agree

| Statement                                                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------------------------------------------------------------|---|---|---|---|---|---|---|
| There is a special person who is around when I am in need.           | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| There is a special person with whom I can share my joys and sorrows. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My family really tries to help me.                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I get the emotional help and support I need from my family.          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I have a special person who is a real source of comfort to me.       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My friends really try to help me.                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I can count on my friends when things go wrong.                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I can talk about my problems with my family.                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I have friends with whom I can share my joys and sorrows.            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| There is a special person in my life that cares about my feelings.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My family is willing to help me make decisions.                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I can talk about my problems with my friends.                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Appendix 4: Psychological Problems Scale (PPS).**

| Statements                                                        | 5 | 4 | 3 | 2 | 1 |
|-------------------------------------------------------------------|---|---|---|---|---|
| 1. I feel tired.                                                  | 5 | 4 | 3 | 2 | 1 |
| 2. I feel sick in the stomach.                                    | 5 | 4 | 3 | 2 | 1 |
| 3. I feel dizzy and faint.                                        | 5 | 4 | 3 | 2 | 1 |
| 4. I feel short of breath even when not exerting myself.          | 5 | 4 | 3 | 2 | 1 |
| 5. I feel weak all over.                                          | 5 | 4 | 3 | 2 | 1 |
| 6. I feel tense or keyed up.                                      | 5 | 4 | 3 | 2 | 1 |
| 7. I feel nervous and shaky inside.                               | 5 | 4 | 3 | 2 | 1 |
| 8. I feel restless.                                               | 5 | 4 | 3 | 2 | 1 |
| 9. I feel annoyed or irritated.                                   | 5 | 4 | 3 | 2 | 1 |
| 10. I am worried about something bad happening to me.             | 5 | 4 | 3 | 2 | 1 |
| 11. I feel unhappy and sad.                                       | 5 | 4 | 3 | 2 | 1 |
| 12. My thoughts seem to be mixed up.                              | 5 | 4 | 3 | 2 | 1 |
| 13. I worry a lot of the time.                                    | 5 | 4 | 3 | 2 | 1 |
| 14. I feel lonely even with other people.                         | 5 | 4 | 3 | 2 | 1 |
| 15. I lose interest and pleasure in things which I usually enjoy. | 5 | 4 | 3 | 2 | 1 |

### Appendix 5: The Satisfaction with Love Life Scale (SWLLS)

| Statement                                                           | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---------------------------------------------------------------------|---|---|---|---|---|---|---|
| 1. In most ways my love life is close to my ideal.                  |   |   |   |   |   |   |   |
| 2. The conditions of my love life are excellent.                    |   |   |   |   |   |   |   |
| 3. I am satisfied with my love life.                                |   |   |   |   |   |   |   |
| 4. So far I have gotten the important things I want in love life.   |   |   |   |   |   |   |   |
| 5. If I could live my love life over, I would change almost nothing |   |   |   |   |   |   |   |

## Appendix 6: The Love Attitudes Scale (LAS)

| Statements                                                                                     | 1 | 2 | 3 | 4 | 5 |
|------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 1. My lover and I were attracted to each other immediately after we first met.                 | 1 | 2 | 3 | 4 | 5 |
| 2. My lover and I have the right physical "chemistry" between us.                              | 1 | 2 | 3 | 4 | 5 |
| 3. Our lovemaking is very intense and satisfying                                               | 1 | 2 | 3 | 4 | 5 |
| 4. I feel that my lover and I were meant for each other.                                       | 1 | 2 | 3 | 4 | 5 |
| 5. My lover and I became emotionally involved rather quickly.                                  | 1 | 2 | 3 | 4 | 5 |
| 6. My lover and I really understand each other.                                                | 1 | 2 | 3 | 4 | 5 |
| 7. My lover fits my ideal standards of physical beauty/handsomeness.                           | 1 | 2 | 3 | 4 | 5 |
| 8. I try to keep my lover a little uncertain about my commitment to him/her.                   | 1 | 2 | 3 | 4 | 5 |
| 9. I believe that what my lover doesn't know about me won't hurt him/her.                      | 1 | 2 | 3 | 4 | 5 |
| 10. I have sometimes had to keep two of my lovers from finding out about each other.           | 1 | 2 | 3 | 4 | 5 |
| 11. I can get over love affairs pretty easily and quickly.                                     | 1 | 2 | 3 | 4 | 5 |
| 12. My lover would get upset if he/she knew of some of the things I've done with other people. | 1 | 2 | 3 | 4 | 5 |
| 13. When my lover gets too dependent on me, I want to back off a little.                       | 1 | 2 | 3 | 4 | 5 |
| 14. I enjoy playing the "game of love" with a number of different partners.                    | 1 | 2 | 3 | 4 | 5 |
| 15. It is hard to say exactly where friendship ends and love begins.                           | 1 | 2 | 3 | 4 | 5 |
| 16. Genuine love first requires <i>caring</i> for a while.                                     | 1 | 2 | 3 | 4 | 5 |
| 17. I expect to always be friends with the one I love.                                         | 1 | 2 | 3 | 4 | 5 |
| 18. The best kind of love grows out of a long friendship.                                      | 1 | 2 | 3 | 4 | 5 |
| 19. Our friendship merged gradually into love over time.                                       | 1 | 2 | 3 | 4 | 5 |
| 20. Love is really a deep friendship, not a mysterious, mystical emotion.                      | 1 | 2 | 3 | 4 | 5 |
| 21. My most satisfying love relationships have developed from good friendships.                | 1 | 2 | 3 | 4 | 5 |

|                                                                                                                                                            |   |   |   |   |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 22. I consider what a person is going to become in life before I commit myself to him/her.                                                                 | 1 | 2 | 3 | 4 | 5 |
| 23. I try to plan my life carefully before choosing a lover.                                                                                               | 1 | 2 | 3 | 4 | 5 |
| 24. It is best to love someone with a similar background.                                                                                                  | 1 | 2 | 3 | 4 | 5 |
| 25. A main consideration in choosing a lover is how he/she reflects on my family.                                                                          | 1 | 2 | 3 | 4 | 5 |
| 26. An important factor in choosing a partner is whether or not he/she will be a good parent.                                                              | 1 | 2 | 3 | 4 | 5 |
| 27. One consideration in choosing a partner is how he/she will reflect on my career.                                                                       | 1 | 2 | 3 | 4 | 5 |
| 28. Before getting very involved with anyone, I try to figure out how compatible his/her hereditary background is with mine in case we ever have children. | 1 | 2 | 3 | 4 | 5 |
| 29. When things aren't right with my lover and me, my stomach gets upset.                                                                                  | 1 | 2 | 3 | 4 | 5 |
| 30. When my love affairs break up, I get so depressed that I have even thought of suicide.                                                                 | 1 | 2 | 3 | 4 | 5 |
| 31. Sometimes I get so excited about being in love that I can't sleep.                                                                                     | 1 | 2 | 3 | 4 | 5 |
| 32. When my lover doesn't pay attention to me, I feel sick all over.                                                                                       | 1 | 2 | 3 | 4 | 5 |
| 33. When I am in love, I have trouble concentrating on anything else.                                                                                      | 1 | 2 | 3 | 4 | 5 |
| 34. I cannot relax if I suspect that my lover is with someone else.                                                                                        | 1 | 2 | 3 | 4 | 5 |
| 35. If my lover ignores me for a while, I sometimes do stupid things to get his/ her attention back.                                                       | 1 | 2 | 3 | 4 | 5 |
| 36. I try to always help my lover through difficult times.                                                                                                 | 1 | 2 | 3 | 4 | 5 |
| 37. I would rather suffer myself than let my lover suffer.                                                                                                 | 1 | 2 | 3 | 4 | 5 |
| 38. I cannot be happy unless I place my lover's happiness before my own.                                                                                   | 1 | 2 | 3 | 4 | 5 |
| 39. I am usually willing to sacrifice my own wishes to let my lover achieve his/hers.                                                                      | 1 | 2 | 3 | 4 | 5 |
| 40. Whatever I own is my lover's to use as he/ she chooses.                                                                                                | 1 | 2 | 3 | 4 | 5 |
| 41. When my lover gets angry with me, I still love him/her fully and unconditionally.                                                                      | 1 | 2 | 3 | 4 | 5 |
| 42. I would endure all things for the sake of my lover                                                                                                     | 1 | 2 | 3 | 4 | 5 |

**Appendix 7: The Rosenberg Self-Esteem Scale (RSS).**

| Statements                                                                    | 4 | 3 | 2 | 1 |
|-------------------------------------------------------------------------------|---|---|---|---|
| 1. On the whole, I am satisfied with myself.                                  | 4 | 3 | 2 | 1 |
| 2. At times I think I am no good at all.                                      | 4 | 3 | 2 | 1 |
| 3. I feel that I have a number of good qualities.                             | 4 | 3 | 2 | 1 |
| 4. I am able to do things as well as most other people.                       | 4 | 3 | 2 | 1 |
| 5. I feel I do not have much to be proud of.                                  | 4 | 3 | 2 | 1 |
| 6. I certainly feel useless at times.                                         | 4 | 3 | 2 | 1 |
| 7. I feel that I'm a person of worth, at least on an equal plane with others. | 4 | 3 | 2 | 1 |
| 8. I wish I could have more respect for myself.                               | 4 | 3 | 2 | 1 |
| 9. All in all, I am inclined to feel that I am a failure.                     | 4 | 3 | 2 | 1 |
| 10. I take a positive attitude toward myself.                                 | 4 | 3 | 2 | 1 |

### Appendix 8: The short-form UCLA Loneliness Scale (ULS-6)

| Statement                                 | Often | Some times | Rarely | Never |
|-------------------------------------------|-------|------------|--------|-------|
| 2. I lack companionship.                  | 4     | 3          | 2      | 1     |
| 5. I feel part of a group of friends.     | 4     | 3          | 2      | 1     |
| 11. I feel left out.                      | 4     | 3          | 2      | 1     |
| 14. I feel isolated from others.          | 4     | 3          | 2      | 1     |
| 17. I am unhappy being so withdrawn.      | 4     | 3          | 2      | 1     |
| 18. People are around me but not with me. | 4     | 3          | 2      | 1     |

## Appendix 9: Emotional Loneliness Scale for Adults - Short Form (SELSAS)

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

### Appendix 10: Parental Authority Questionnaire (PAQ)

| Statements                                                                                                                                                                                        | 5 | 4 | 3 | 2 | 1 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 1. While I was growing up my mother felt that in a well-run home the children should have their way in the family as often as the parents do.                                                     | 5 | 4 | 3 | 2 | 1 |
| 2. Even if her children didn't agree with her, my mother felt that it was for our own good if we were forced to conform to what she thought was right.                                            | 5 | 4 | 3 | 2 | 1 |
| 3. Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking any questions.                                                             | 5 | 4 | 3 | 2 | 1 |
| 4. As I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family                                              | 5 | 4 | 3 | 2 | 1 |
| 5. My mother has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable.                                                                | 5 | 4 | 3 | 2 | 1 |
| 6. My mother has always felt that what her children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want. | 5 | 4 | 3 | 2 | 1 |
| 7. As I was growing up my mother did not allow me to question any decision she had made.                                                                                                          | 5 | 4 | 3 | 2 | 1 |

|                                                                                                                                                                                       |   |   |   |   |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 8. As I was growing up my mother directed the activities and decisions of the children in the family through reasoning and discipline.                                                | 5 | 4 | 3 | 2 | 1 |
| 9. My mother has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to.                                         | 5 | 4 | 3 | 2 | 1 |
| 10. As I was growing up my mother did not feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them.                      | 5 | 4 | 3 | 2 | 1 |
| 11. As I was growing up I knew what my mother expected of me in my family, but I also felt free to discuss those expectations with my mother when I felt that they were unreasonable. | 5 | 4 | 3 | 2 | 1 |
| 12. My mother felt that wise parents should teach their children early just who is boss in the family.                                                                                | 5 | 4 | 3 | 2 | 1 |
| 13. As I was growing up, my mother seldom gave me expectations and guidelines for my behavior.                                                                                        | 5 | 4 | 3 | 2 | 1 |
| 14. Most of the time as I was growing up my mother did what the children in the family wanted when making family decisions.                                                           | 5 | 4 | 3 | 2 | 1 |
| 15. As the children in my family were growing up, my mother consistently gave us direction and guidance in rational and objective ways.                                               | 5 | 4 | 3 | 2 | 1 |
| 16. As I was growing up my mother would get very upset if I tried to disagree with her                                                                                                | 5 | 4 | 3 | 2 | 1 |

|                                                                                                                                                                                                                            |   |   |   |   |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 17. My mother feels that most problems in society would be solved if parents would not restrict their children's activities, decisions, and desires as they are growing up.                                                | 5 | 4 | 3 | 2 | 1 |
| 18. As I was growing up my mother let me know what behavior she expected of me, and if I didn't meet those expectations, she punished me.                                                                                  | 5 | 4 | 3 | 2 | 1 |
| 19. As I was growing up my mother allowed me to decide most things for myself without a lot of direction from her.                                                                                                         | 5 | 4 | 3 | 2 | 1 |
| 20. As I was growing up my mother took the children's opinions into consideration when making family decisions, but she would not decide for something simply because the children wanted it.                              | 5 | 4 | 3 | 2 | 1 |
| 21. My mother did not view herself as responsible for directing and guiding my behavior as I was growing up.                                                                                                               | 5 | 4 | 3 | 2 | 1 |
| 22. My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual children in the family.               | 5 | 4 | 3 | 2 | 1 |
| 23. My mother gave me direction for my behavior and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen to my concerns and to discuss that direction with me. | 5 | 4 | 3 | 2 | 1 |
| 24. As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for myself what I was going to do.                                                      | 5 | 4 | 3 | 2 | 1 |

|                                                                                                                                                                                                                            |   |   |   |   |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 25. My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to as they are growing up. | 5 | 4 | 3 | 2 | 1 |
| 26. As I was growing up my mother often told me exactly what she wanted me to do and how she expected me to do it.                                                                                                         | 5 | 4 | 3 | 2 | 1 |
| 27. As I was growing up my mother gave me clear direction for my behaviors and activities, but she was also understanding when I disagreed with her.                                                                       | 5 | 4 | 3 | 2 | 1 |
| 28. As I was growing up my mother did not direct the behaviors, activities, and desires of the children in the family.                                                                                                     | 5 | 4 | 3 | 2 | 1 |
| 29. As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority.                                                  | 5 | 4 | 3 | 2 | 1 |
| 30. As I was growing up, if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit it if she had made a mistake.                                              | 5 | 4 | 3 | 2 | 1 |