Research Articles

Loneliness, Love Attitudes and Satisfaction With Love Life Among University Students in Palestine: Gender Differences

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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

Loneliness is one of the most prevalent issues in modern society, affecting both young and elderly people. It is a negative experience (Ang, 2016; de Jong Gierveld, Van Tilburg, & Dykstra, 2016; Diener, 2006), Many researchers have researched it as a universal phenomenon in recent years. Regardless of gender, age, or marital status, everyone experiences some degree of loneliness at some point in their lives (Demrl, 2007; Medora & Woodward, 1986; Neto & Barros, 2000; Perlman & Peplau, 1984).

Loneliness is a difficult and painful emotion. Loneliness is reliant on a social network and peer reinforcement. When people experience a disconnect between their ideal and actual social relationships, or when they are dissatisfied with their current relationships, they are more likely to feel lonely (Ang, 2016; Bauminger & Kasari, 2000; Peplau & Perlman, 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.

It is well understood that social relationships are extremely important in human life. There is an association between satisfying social relationships and good mental health, since people who have problems with their interpersonal relationships are more likely to suffer from psychological issues like 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, when the people have few social relationships or when these relationships are less satisfying than they wish, they feel lonely (Al-Kadoumi, Sawalha, & Momani, 2012; Diener, 2006; Russell, Peplau, & Cutrona, 1980).

Regarding loneliness, it has been studied in various groups of society, for instance, 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). According to researchers' findings, 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).

About Arabic students there is some evidence that Arabic students have many psychological, social and global relationships problems at university (Al-Kadoumi et al., 2012). Their relationships, roles, and personal identities suffer a significant change during the university stage. Furthermore, there are association between many variables like gender, age, academic performance, faculty and university students' responses related to their problems such as, relationships, exams, social activities and assignments (Al-Kadoumi et al., 2012; Gizir, 2005; Heinrich & Gullone, 2006; Stankovska, Angelkovska, & Grncarovska, 2016).

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 & Perlman, 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.

Loneliness is influenced by two essential indicators: love and satisfaction with love life. Over the last three decades, love has sparked a surge of interest in interpersonal relationship psychology studies (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 significant gap in the literature on love and romantic relationships in the Arab world, owing to the fact that these topics are considered sensitive and have not been thoroughly researched in Islamic countries. Even among relatives and friends, it is unusual to speak about emotions in general and love in particular in everyday life (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. There is very little information about romantic conduct and intimate contact in Muslim countries in the Middle East, which is socially unacceptable. As the world has changed, romantic relationships have become a social reality in the Muslim world. Young people want love in their lives, so academic institutions should provide opportunities for them to experience and converse with one another (Friedland, Afary, Gardinali, & Naslund, 2016). Despite

the fact that Arab and Islamic countries have a variety of social, political, religious, and cultural fads, there is a cross-cultural disparity in love, such as faith, beliefs, uncertainty, and instability.

Before marriage, most Arabic cultures place constraints on women and men's romantic relationships (Ilhub is the most popular Arabic word for "love"). Marriage, as in many collectivist cultures, is a collective problem since it is the family who determines who their members will marry, not the people themselves (Abu-Rabia-Queder, 2007; Karandashev, 2017). People in Western cultures are free to have intimate relationships even though they are not married. 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). There are religious and belief gaps between Islamic and Arabic countries when it comes to love. In comparison to Turkish people, married people in Palestine were less likely to be in love before marriage (Friedland et al., 2016). Marriages based on love, on the other hand, are becoming more common among Arab youth (Oghia, 2015).

Love is approached and viewed differently by different people. Love has been studied in a variety of ways by various researchers and scholars who have described it and measured it using a variety of 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 study adds to previous studies by concentrating on university students' attempts to consider love styles. During their university years, university students often fall in love. (Nan-Li, 2008). In general, as university students fall in love for the first time during their academic life, they have a good understanding of how they feel, but they have little understanding of romantic love and other practical feelings that might occur later (Hatfield & Sprecher, 1986). University life provides students with the ability to interact with people from various cultures and backgrounds. These exchanges of socio-cultural experience, which included their values and emotions, provided them with information about human needs such as love (Kline, Horton, & Zhang, 2008). During university, romantic relationships become more important and lead to subjective well-being (Ha et al., 2010; Katalo, 2015).

Positive emotions, such as being in love, were found to have important associations with happiness and life satisfaction in research that focused on positive emotions (Katalo, 2015). As numerous studies have discovered, love also contains negative feelings such as 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 et al., 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., 1985). 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 person's global cognitive assessment of his or her love life, with the requirements for judgment set by the individual.

There have been a few studies on the association between loneliness and love life satisfaction. Loneliness is linked to dissatisfaction with one's love life among university students (Neto, 2005).

The aim of this study is to determine the relationships between loneliness, love styles, and satisfaction with love life among Palestinian university students. The relationships between these variables are examined separately by gender and together in this analysis. Furthermore, this research looked into whether these factors play a role in explaining loneliness. In view of the scarcity and lack of studies in this area in Palestine, this study will provide additional information and awareness about the characteristics of university students as well as the current state of Arab culture.

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 Eros for males and 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: For both gender Loneliness and Eros, Storge, and Pragma love styles will be negatively associated.

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

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

Method

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 (see Table 1).

Table 1

Demographic Characteristic of the Participants

Demographic variable	Frequency	Percentage
Gender		
Males	182	36.4
Females	318	63.6
Age		
18–21	317	63.4
22–26	183	36.6
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

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 (University of California, Los Angeles) Loneliness Scale 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, 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's alpha for the current study was .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's alpha for the current study was .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 at 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's alpha for the current study was .95 for Eros, .78 for Ludus, .74 for Storge, .86 for Pragma, .77 for Mania, and .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 1 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 analysis of variance (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

Means and standard deviations of UCLA, SWLLS, and love attitudes by gender were calculated. Kurtosis and skewness coefficients were checked to assess univariate normality because multivariate analysis of variance (MANOVA) requires normally distributed data (Gravetter & Wallnau, 2000). According to Garson (2012) skewness and kurtosis coefficients between +1 and −1 are considered to indicate that data are normally distributed (see Table 2).

Table 2

Means, Standard Deviations, and Normality Tests of the Study Variables (N = 500)

Variable	Male (*n* = 182)						Female (*n* = 318)					
	M	*SD*	Ku	KuSE	Sk	SkSE	*M*	*SD*	Ku	KuSE	Sk	SkSE
UCLA	38.73	9.56	.50	.39	.50	.18	37.45	8.83	.10	.27	.50	.14
SWLLS	23.74	5.30	.58	.36	−.72	.18	24.72	5.02	−.02	.27	−.66	.14
Eros	21.50	7.63	−.52	.36	−.27	.18	21.03	8.76	−.98	.27	−.21	.14
Ludus	17.47	5.13	−.58	.36	−.14	.18	16.00	6.13	.03	.27	.46	.14
Storge	22.31	5.84	−.27	.36	−.27	.36	21.90	5.44	.30	.27	−.37	.14
Pragma	24.16	5.67	.008	.36	−.23	.18	25.13	6.51	.19	.27	−.70	.14
Mania	19.87	5.44	.21	.36	−.15	.18	20.92	5.87	−.16	.27	−.25	.14
Agape	23.52	6.00	.33	.36	−.27	.18	22.75	6.52	.02	.27	−.30	.14

Note. M = Mean; SD = Standard deviation; Ku = Kurtosis; KuSE = Kurtosis standard error; Sk = Skewness; SkSE = Skewness standard error; SWLLS = Satisfaction with Love Life scale; UCLA = (University of California, Los Angeles) Loneliness scale.

As presented all study variables did not violate the normality assumption, where skewness and kurtosis coefficients ranged between +1 and −1 which indicate that data were normally distributed by gender. Furthermore, the study checked the normality assumption for all variables for whole sample (*N* = 500) and no variable violated normality assumption. Accordingly, using MANOVA is possible.

Preliminary tests were conducted to check assumptions of multicollinearity and homogeneity of variance for all dependent variables. In order to test the absence of multicollinearity between the study variables, Pearson correlation coefficients were computed to investigate the pattern of correlations between the study variables because conducting MANOVA requires that the dependent variables should all be moderately related, and any correlation over .80 indicates to the presence of multicollinearity (Tabachnick & Fidell, 2007). Therefore, correlation coefficients between dependent variables were checked by gender (see Table 3).

Table 3

Correlations Among All Variables

Variable	UCLA	SWLLS	Eros	Ludus	Storge	Pragma	Mania	Agape
Male (*n* = 182)								
UCLA	1							
SWLLS	−.345**	1						
Eros	−.200**	.338**	1					
Ludus	−.180**	−.155*	.257**	1				
Storge	−.157*	.253**	.507**	.297**	1			
Pragma	−.204**	.244**	.379**	.075	.558**	1		
Mania	.055	.060	.330**	.327**	.418**	.316**	1	
Agape	−.101	.317**	.545**	.067	.505**	.418**	.463**	1
Female (*n* = 318)								
UCLA	1							
SWLLS	−.437**	1						
Eros	−.205**	.243**	1					
Ludus	−.054	−.075	.338**	1				
Storge	−.103	.192**	.510**	.315**	1			
Pragma	−.189**	.336**	.303**	.093	.482**	1		
Mania	−.017	−.052	.500**	.336**	.511**	.350**	1	
Agape	−.061	.076	.476**	.087	.464**	.424**	.672**	1

Note. SWLLS = Satisfaction with Love Life scale; UCLA = (University of California, Los Angeles) Loneliness scale.
*p < .05. **p < .01.

As shown all correlation coefficients ranged between weak to moderate values for males and females which indicate the absence of multicollinearity among the study variables.

The assumptions of homogeneity of variances was assessed. Levene's test was used to verify the equality of variances in all dependent variables by gender. Levene's test results revealed that the homogeneity of variances was met (p > .05).

The results indicated that there were no violations of the MANOVA assumptions. Wilks's lambda was used to evaluate all multivariate effects and effect sizes for *F*-statistics were expressed as partial eta-squared. According to Tabachnick and Fidell (2007) effect size based on eta-squared η_p^2 = .01 corresponds to a small effect, η_p^2 = .09 corresponds to a medium effect, and η_p^2 = .25 represents a large effect (see Table 4).

Table 4

Results of One-Way MANOVA of the Effect of Gender on UCLA, SWLLS, and Love Attitudes

	Gender							
	Male		**Female**					
Dependent variable	*M*	*SD*	*M*	*SD*	Wilks' Lambda	*F* (*df* = 1, 500)	*p*	η_p^2
UCLA	38.73	9.56	37.45	8.83	.932	2.274	.132	.005
SWLLS	23.74	5.30	24.72	5.02	.932	4.300	.039*	.009
Eros	21.50	7.63	21.03	8.76	.932	0.363	.547	.001
Ludus	17.47	5.13	16.00	6.13	.932	7.432	.007**	.015
Storge	22.31	5.84	21.90	5.44	.932	0.644	.432	.001

Dependent variable	Gender				Wilks' Lambda	F (df = 1, 500)	p	η_p^2
	Male		Female					
	M	SD	M	SD				
Pragma	24.16	5.67	25.13	6.51	.932	2.763	.097	.006
Mania	19.87	5.44	20.92	5.87	.932	3.833	.051	.008
Agape	23.52	6.00	22.75	6.52	.932	1.686	.195	.003

Note. M = Mean; SD = Standard deviation; SWLLS = Satisfaction with Love Life scale; UCLA = (University of California, Los Angeles) Loneliness scale.

*p < .05. **p < .01.

Overall MANOVA revealed statistically significant minor effect of gender in SWLLS, $F(1, 500) = 4.300$, $p > .05$, $\eta_p^2 = .009$, in favor to females, and MANOVA revealed statistically significant small effect in Ludus love style, $F(1, 500) = 7.432$, $p > .01$, $\eta_p^2 = .015$, in favor to males. Meanwhile, Gender did not affect the remaining dependent variables indicating no significant differences found between males and females in UCLA, Eros, Storge, Pragma, Mania, and Agape love styles.

In order to test the 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 by gender. The results are presented in Table 5.

Table 5

Multiple Linear Regression Analysis Results for Study Variables

Variable	β	SE	Standardized β	t	p	F	p	R^2	Adjusted R^2
Male (n = 182)									
Constant	48.71	4.68				5.65	.000**	.185	.153
SWLLS	−0.45	0.14	−0.25	−3.24	.001**				
Eros	−0.20	0.11	−0.16	−1.79	.075				
Ludus	0.35	0.15	0.19	2.36	.019*				
Storge	−0.17	0.16	−0.10	−1.06	.290				
Pragma	−0.19	0.14	−0.11	−1.33	.185				
Mania	0.16	0.15	0.09	1.06	.289				
Agape	0.18	0.15	0.11	1.19	.235				
Female (n = 318)									
Constant	57.73	3.14				11.56	.000**	.207	.189
SWLLS	−0.72	0.10	−0.41	−7.08	.000**				
Eros	−0.011	0.07	−0.11	−1.62	.106				
Ludus	−0.09	0.09	−0.06	−1.06	.288				
Storge	0.10	0.11	0.06	0.940	.348				
Pragma	−0.07	0.09	−0.05	−0.854	.394				
Mania	0.03	0.12	0.02	0.229	.819				
Agape	0.01	0.10	0.01	0.128	.899				

Note. M = Mean; SE = Standard error; SWLLS = Satisfaction with Love Life scale.

*p < .05. **p < .01.

As presented in Table 5, in the males' group SWLLS and Ludus love style explained 15% of the variation in university male students' loneliness score, and the contribution was statistically significant. SWLLS (β =

−0.25, *p* < .01) was negative predictor of loneliness while and Ludus (β = 0.19, *p* < .05) was positive predictor of loneliness. Neither Eros nor Storge nor Pragma nor Mania nor Agape were predictors in the regression model. In the females' group, SWLLS explained 19% of the variation in university female students' loneliness score, and the contribution was statistically significant. SWLLS (β = −0.41, *p* < .01) was negative predictor of loneliness. Meanwhile, love styles were not able to predict loneliness.

Discussion

One of the main purposes of this research was to examine gender differences in loneliness, love styles, and satisfaction with love life among Palestinian university students, as well as the relationship between loneliness and other variables. The overall findings of this research are consistent with those of other studies; however, some of the conclusions are contradicted or supported by the findings.

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 & Perlman, 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, there are no gaps or inequality between males and females in terms of cultural and educational backgrounds in Palestinian society; they are all experiencing and living almost identical conditions, which is expressed at the level of loneliness without gender differences (Alqeeq, 2011).

Several studies conflict with the current study findings, study results from (Demrl, 2007; Karaoğlu et al., 2009; 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 high levels of loneliness than males (Abdullah, 2011; Al Khatib, 2012; 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 et al., 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 USA university students (Avinash, Kalra, Subramanyam, Shah, & Kamath, 2015; Bailey et al., 1987; Damsteegt, 1992; Hendrick et al., 1984; Sharma & Khandelwal, 2014; Sprecher & Toro-Morn, 2002; Tehrani & Yamini, 2020; Worobey, 2001).

As hypothesized, for both gender Loneliness was found to be negatively correlated with Eros, Storge, Ludus and Pragma love styles. These results are in agreement with Neto and Pinto (2003) and Tehrani and Yamini (2020). 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, and the students who had no romantic relationship reported high level of loneliness (Özdemir & Tuncay, 2008; Seepersad, Choi, & Shin, 2008).

As hypothesized, for both gender 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 indicates that when students were in love and satisfied with their romantic lives, they felt less lonely. It stands to reason that if a student is in a loving relationship and is satisfied with his or her love life, he or she will be less lonely.

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

Other factors may be accounting for the remaining variation in loneliness scores among university students. Other causes, such as self-disclosure, have been linked to university student loneliness in the literature (Al-Omari & Jaradat, 2013), perceived social support (Bozorgpour & Salimi, 2012; Henninger, Eshbaugh, Osbeck, & Madigan, 2016), and life satisfaction (Ozben, 2013).

According to the results of this research, satisfaction with one's love life, Ludus love styles are significant predictors of loneliness among university students. Loneliness and negative effects among university students can be exacerbated by a lack of emotions such as passion and a low level of satisfaction with love life. However, it is important to remember that Palestinian university students are at risk of developing loneliness as a result of their poor living conditions in Palestine, which have been exacerbated by the Israeli occupation and insecure environment for a long time, 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. As a result, more emphasis should be placed on promoting satisfaction with love life and love styles in order to reduce the levels of loneliness among university students (Al Khatib, 2012). In terms of university students' satisfaction with their love lives, it was a strong negative predictor of loneliness, meaning students who reported a high level of satisfaction with their love lives reported a lower level of loneliness (Nazzal, Cruz, & Neto, 2019). That is to say, if you are satisfied with your love life, it is a strong indication that you will enjoy your family, social relationships, and work, all of which have positive effects and reflect positively on mental health, and you will report less loneliness and other psychological problems.

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 question-naires 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 loneli-ness, 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 the studies in Palestinian society which is 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 re-search 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.

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Competing Interests

The authors have declared that no competing interests exist.

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Ethics 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.

Author Note

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