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# Social support and adolescent mental health and well-being among Jordanian students

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**ABSTRACT**

Social support from family, friends, and others enhances the quality of life and acts as an important protective mechanism against mental health problems. The purpose of this study is to investigate how social support is related to mental health outcomes among Jordanian adolescents. Data were collected in 2020 from public and private schools in Irbid governorate, Jordan. Multistage cluster sampling was used to recruit students from 8th – 12th grades (N = 2741; ages 13–18 years). The study finds social support is related to higher levels of life satisfaction and self-esteem. The negative association between social support and depressive symptoms is also significant. Our findings underscore the importance of the role of social support, especially support from family. This support is important to adolescents' mental health and underscores the importance of policy-makers giving greater attention to the family dynamic and its impact on student well-being.

## Introduction

Adolescence is the most important period of life; health attitudes and behaviours during these formative years' impact morbidity and mortality across the life course (Henriksson et al., 2017). The adolescence period is a life stage that includes those aged from 10 to 19 as defined by the World Health Organization (Delisle, 2005). During this period, there are rapid changes across multiple personal dimensions including physical (sexual, biochemical), psychological (mental, emotional, moral, self-esteem), cognitive, and social (cultural, professional) (Kar et al., 2015). Successful and harmonious adolescent development needs not only a physically fit body, but also an appropriately maintained one through the socio-emotional support provided by family, peers, teachers, and the larger community. Despite an increased need for autonomy, social support, both from peers and adults, remains an important contributor to adolescent well-being (Balázs et al., 2017). Adolescents who fail to adapt to these needs have a higher risk of unhealthy behaviours such as tobacco use, alcohol abuse, aggression, and unhealthy diets (Özdemir et al., 2016) as well as mental health problems such as depression and anxiety (Bernaras et al., 2019). Detecting these associations is important since they have the potential to both positively and negatively impact adolescents' future life course trajectory (Sawyer et al., 2018).

Monitoring mental health is of particular concern; mental disorders occur in every community regardless of culture, demographics, and/or socioeconomic groups (Edwards et al., 2016). Mental disorders not only impact adolescents directly but also the lives of their caregivers: having an

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adolescent with mental disorders is highly stressful and places a significant burden on the family members. These burdens can be physical, psychological, and economic which in turn, have a negative impact on the family, peer network, and the larger community as a whole (Souza et al., 2017).

Therefore, promoting adolescents' mental health and well-being is one of the most important challenges facing communities around the world when it comes to the prevention of physical and mental health problems later on in adulthood. Additional research is needed to continue to detect factors associated with adolescent mental health and well-being, social support, and social network functioning. It believes one of the most important public health priorities worldwide (Camara et al., 2017; McKay & Andretta, 2017). Particularly, since during adolescence there is a restructuring of the role of social connections (peers, parents) and we should know more about resilient adolescents for whom this process seems most successful (Tomás et al., 2020). Social support has been defined as assistance that can be useful, either through a material or emotional assistance to a person including that which comes from the family, friends, school staff, social organizations, and online social networks (Camara et al., 2017; Olsson et al., 2016). The lack of social support in any of these dimensions may lead to an increased risk of poor mental health outcomes among adolescents (Ringdal et al., 2020; Ronen et al., 2016).

Depression is one of the most important mental health outcomes impacting disease and disability worldwide particularly among adolescents aged 10–19 years with estimates of more than 264 million people worldwide being affected (World Health Organization [WHO], 2020). The World Health Organization has identified depression as an illness that appears when there is a set of features persistent sadness and a loss of interest in activities that you normally enjoy, accompanied by an inability to carry out daily activities, for at least two weeks (World Health Organization [WHO], 2017). Many studies have found evidence that social support is negatively associated with depressive symptoms (Chang et al., 2018; Kievit et al., 2016). Namely, adolescents who report more social support from family, friends, and others report fewer depressive symptoms (Ren et al., 2018). Zhang et al. (2015) found that improved adolescents' self-esteem and decreased negative cognition by social support is related to lower depressive symptoms (Zhang et al., 2015).

It is also important to note that mental health research also includes positive aspects of mental health besides problems, namely, indicators of mental well-being such as life satisfaction or self-esteem. In terms of satisfaction with life, it has been defined as satisfaction with all dimensions of life on past and future, with an underlying desire to change or improve views and life for individuals (E. Diener et al., 1999). Several studies report a strong relationship between social support and adolescents' satisfaction with life (e.g. Khan, 2015; You et al., 2018). Calmeiro et al. (2018) found that school connectedness and family support were the strongest predictors of adolescents' life satisfaction (Calmeiro et al., 2018). Likewise, research on adolescents aged 14–18 years reported that those with better social support from parents and teachers were significantly associated with higher life satisfaction (Blau et al., 2018).

Another positive mental health indicator is self-esteem. It is defined as an attitude that a person has towards himself or herself which includes a set of personal features such as self-belief, emotions, behaviour, and physical characteristics that remain stable (Kumar et al., 2014). Studies have reported that a higher level of social support is associated with a higher level of adolescents' self-esteem (Bhat, 2017; Bum & Jeon, 2016; Kumar et al., 2014; Tahir et al., 2015). Additional evidence from a longitudinal study that followed adolescents during grades 8–12 reported that adolescents' self-esteem reliably predicted increased levels of social support quality and network size across time (Marshall et al., 2014).

Since the role of social support and social networks may vary a great deal depending on cultural issues, it is worth examining these issues under a variety of sociocultural circumstances, particularly those that examine these relationships beyond the mainstream American and European studies. There is a significant difference between Jordanian (Arabic) culture and Western culture, and these cultural differences in values and beliefs can directly impact the perception and management of mental illness

among Jordanians (Dardas & Simmons, 2015). In Jordan, a study was conducted to establish estimates of the prevalence of depressive symptoms, and their correlates with life satisfaction among adolescents. Results showed that adolescents who had a low level of life satisfaction were more likely to have a high level of depressive symptoms, and life satisfaction was the strongest correlate of depressive symptoms among Jordanian adolescents (Zawawi & Hamaideh, 2009). In another Jordanian study, researchers found that good parental connectedness coupled with ease of communication with parents was positively associated with higher well-being among Jordanian adolescents (Arabiat et al., 2018). Likewise, a high level of self-esteem played an important role in Jordanian adolescent life, which protected them from both mental and eating disorders (Alfoukha et al., 2017). It is also worth mentioning that while most Jordanian adolescents reported moderate self-esteem (Alfoukha et al., 2017), a recent Jordanian study found a high prevalence of mental illness, particularly depression among the Jordanian population (Latefa Ali Dardas et al., 2018). Cultural variations may also affect the different roles that social networks might play during adolescence. Social support, especially from family, plays a protective role against Jordanian adolescents' depressive symptomatology (Ismayilova et al., 2012).

Besides these psychological variables, many factors explain the gender differences including biological (such as hormones and their effects on endocrinology and neurobiology), psychosocial (such as social roles and handling life stress (Yoon & Kim, 2018) we should take into account. Literature findings reported gender differences in depressive symptomatology and the gender difference in depression represents a health disparity, especially among adolescents (B.F. Piko & Balázs, 2012; Hyde & Mezulis, 2020). In terms of self-esteem, many studies reported gender differences providing evidence that males tend to have higher self-esteem (Bleidorn et al., 2016; Orth & Robins, 2014). In addition, studies usually report gender differences in life satisfaction, namely, a lower life satisfaction for girls (Goldbeck et al., 2007), although others described the lack of gender differences (Chui & Wong, 2016), and an Arabic study (Al-Attiyah & Nasser, 2016) found that young females were more satisfied with their lives than males. Also, in many studies, gender differences appear in social support (Hameed et al., 2018; Talwar et al., 2013). In a study of school students from Iran, female students had more emotional behavioural disturbances and higher levels of social support than males, also female students had low self-esteem than males (Hameed et al., 2018).

These results underscore the importance of conducting new research that examines the intersection between mental health and well-being (such as depressive symptoms, satisfaction with life, self-esteem) among diverse student populations. Extant literature suggests, social support from family, friends, and significant others is an important contributor to the health and well-being of adolescents in serving as a protective factor. It is even more important to examine associations between mental health indicators and these social support variables among Jordanian adolescents, partly because fewer studies have investigated these associations thus far and we know considerably less about the cultural aspects that could be important to these intersecting relationships. In addition, these results may raise awareness of mental health needs and possibly lead to establishing intervention programs and policies to improve mental health and well-being among Jordanian adolescents. Therefore, in this study, we aim to examine Jordanian adolescents' mental health and well-being including their depressive symptoms, self-esteem, and life satisfaction. Besides descriptive statistics, bidirectional associations and multiple regression models are used to detect relationships between these mental health outcomes and their associations with social support from family, friends, and significant others. Since previous research results found gender differences in both the dependent and independent variables, we have also included analyses by gender.

## Methods

### *Participants and study characteristics*

A descriptive, cross-sectional design was constructed for the 2020 data collection. This research and all study procedures were approved by the Institutional Review Board (IRB) at the University of

Szeged, Hungary, and the Ministry of Education in Jordan, and informed consent that required parents/guardians' signature was obtained. Data were collected from public and private schools in Irbid governorate located in northern Jordan affiliated with the Jordanian Ministry of Education. Multistage cluster sampling was used to recruit students from the 8th to 12th grades. Data were collected by a self-administered, online questionnaire which was given to 2741 students (13–18 years old). Socioeconomic variables included age, gender, class, family affluence (assessed by the students), number of siblings, father, and mother education (7 Questions).

## *Measurements*

Social support was measured by the adapted Arabic version of The Multidimensional Scale of Perceived Social Support (MSPSS) (Merhi & Kazarian, 2012; Zimet et al., 1988) which contains 12 items. Participants were asked about how they feel about statements like 'My family tries to help me' (family support); I can count on my friends when things go wrong (friend support); There is a special person who is around when I am in need (support from significant others). The answers were evaluated on a Likert-type scale from 1 = very strongly disagree to 7 = very strongly agree. The (MSPSS) was shown to be a valid and reliable measure of perceived social support. The internal consistency of Arabic translation of the MSPSS was high (α = .87) (Merhi & Kazarian, 2012), a value comparable to the reliabilities reported by Zimet et al. (1988). The Cronbach's alpha values of reliability with the current sample were the following: α = .87 (for family support); α = .87 (for friend support); and α = .88 (for support from significant others).

Life satisfaction was measured by an Arabic adapted version of the Diener's Satisfaction with Life Scale (Abdallah, 1998; E. D. Diener et al., 1985). This scale contains 5 items designed to measure global cognitive judgements of one's life satisfaction (not a measure of either positive or negative affect). Participants indicate how much they agree or disagree with each of the 5 items using a 7-point scale that ranges from 1 (strongly disagree) to 7 (strongly agree). Diener's Satisfaction with Life Scale Scale has been demonstrated to have good validity and reliability with Arabic-speaking sample (Abdallah, 1998). The scale was reliable with a Cronbach's alpha = .86

The students' self-esteem was measured by an Arabic adapted version of the Rosenberg's Self-Esteem Scale (Rosenberg, 1965; Zayed et al., 2019) which contains 10 items that measure global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be unidimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. Rosenberg's Self-Esteem Scale has been demonstrated to have good validity and reliability across many different samples of Arabic (Zayed et al., 2019) and the world (Supple & Plunkett, 2011). This scale was reliable with a Cronbach's alpha = .68 with the current sample.

As a measurement of depressive symptomatology, an Arabic adapted version of the Center for Epidemiological Studies Depression Scale for Children (CESDC) (Abdo, 2016: Shahid et al., 2011) was used. The instrument contains 20 items. Each response to an item is scored as follows: 0 = 'not at all', 1 = 'a little', 2 = 'some', 3 = 'a lot'. The scale is having been demonstrated to have good validity and reliability with Arabic speaking sample (Abdo, 2016). The scale reliable with a Cronbach's alpha = .84.

## *Study procedure*

First, researchers provided a simple explanation of the importance of research, while explaining that students had the freedom to opt in the research without any pressure from school or parents, and they have the right to refuse to answer any question, while also having the freedom to opt-out of the study at any time without penalty. All students recruited for the study were invited to voluntarily assent and obtain signed consent forms from their parents. On the following day, written consent forms, which were signed by parents, were collected from students by the researchers. Data was

collected in the computer labs during the leisure or sports classes for the students through an online survey developed by the researcher using Google drive forms.

### *Statistical analysis*

Data were analysed using IBM, SPSS statistics version 25. Descriptive statistics were used to describe the study demographics using frequencies (n), and percentages (%). Bivariate correlations between the main measures were calculated. Finally, multiple linear regression analysis (stepwise method) was used to fit regression models by removing the weakest correlated variables. This analysis aimed to manage potential predictor variables by fine-tuning the model to choose the best predictor variables from the available options.

## Results

Results of descriptive statistics for mental health and well-being variables by gender appear in Table 1. Relative to males, higher levels of social support from others ($t$(2739) = 9.50, $p$ = .000), social support from family ($t$(2739) = 5.44, $p$ = .000), social support from friends ($t$(2739) = 5.17, $p$ = .000), satisfaction with life ($t$(2739) = 7.36, $p$ = .000), self-esteem ($t$(2739) = 9.12, $p$ = .000) were reported by female participants. On the other hand, no gender differences were found in levels of depressive symptomatology.

Table 2 presents the results of correlation analysis for the whole sample. Satisfaction with life was positively associated with all types of social support; but the strongest correlation was found with family support (r = .63; p = .000). Likewise, self-esteem was positively associated with all types of social support, and the strongest correlation was again found with family support (r = .42; p = .000). Also, depressive symptomatology was negatively associated with all types of social support; and the strongest correlation was once again found with family support (r = - .46; p = .000). Furthermore, depressive symptomatology was negatively related to the life satisfaction variable (r = −.47; p = .000) and to self-esteem variables (r = −.46, p = .000).

In Table 3, correlation coefficients are shown for girls and boys separately. These correlations show that all types of social support were positively associated with satisfaction with life, and self-esteem. In the case of the latter variable, the strongest correlation was found with family support both among boys (r = - .40; p = .000) and girls (r = .42; p = .000). In terms of depressive symptomatology, it was negatively associated with all types of social support, but the strongest

**Table 1.** Descriptive statistics for variables of mental health and well-being by gender (N = 2741).

| Mental health and well-being indicators | Females (Mean, SD) | Males (Mean, SD) | t-value and significance |
|---|---|---|---|
| Social support – Others | 22.31 (6.78) | 19.80 (7.03) | 9.50 (p = .000) |
| Social support – Family | 21.75 (6.45) | 20.39 (6.63) | 5.44 (p = .000) |
| Social support – Friends | 19.52 (6.89) | 18.16 (6.88) | 5.17 (p = .000) |
| Life Satisfaction | 24.35 (7.79) | 22.12 (8.05) | 7.36 (p = .000) |
| Self-esteem | 30.84 (4.51) | 29.26 (4.59) | 9.12 (p = .000) |
| Depressive symptomatology | 25.76 (10.67) | 25.17 (9.43) | 1.52 (p = .129) |

**Table 2.** Correlation matrix for bivariate relationships in the whole sample (N = 2741).

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Social support – Others | _ | .61* | .67* | .50* | .33* | −.32* |
| 2. Social support – Family | _ | _ | .50* | .63* | .42* | −.46* |
| 3. Social support – Friends | _ | _ | _ | .43* | .26* | −.28* |
| 4. Life Satisfaction | _ | _ | _ | _ | .37* | −.47* |
| 5. Self-esteem | _ | _ | _ | _ | _ | −.46* |
| 6. Depressive symptomatology | _ | _ | _ | _ | _ | _ |

*p < .001

**Table 3.** Correlation matrix for bivariate relationships by gender.

|  | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Social support – Others | _ | .52** | .62** | .39** | .28** | −.29** |
| 2. Social support – Family | .70** | _ | .41** | .61** | .42** | −.48** |
| 3. Social support – Friends | .71** | .58** | _ | .36** | .22** | −.23** |
| 4. Life Satisfaction | .57** | .64* | .47** | _ | .34** | −.50** |
| 5. Self-esteem | .34** | .40** | .27** | .37** | _ | −.46** |
| 6.Depressive symptomatology | −.38** | −.45** | −.35** | −.45** | −.49** | _ |

Correlation coefficients. Girls above diagonal and boys below. *p < .05;**p < .01;***p < .001.

correlation was found with family support both among boys (r = - .45; p = .000) and girls (r = - .48; p = .000). Furthermore, depressive symptomatology was negatively associated with the life satisfaction variable and self-esteem variables among both boys and girls.

In Table 4, multiple regression analysis for self-esteem with other study variables is shown for the whole sample and then for boys and girls separately. The following variables were included in the models: age, gender (except for models by gender), social support from family, social support from friends, and social support from others. In this model, self-esteem has a strong association with support from both families and others. On the other hand, friends' support was not significantly related to self-esteem; therefore, we eliminated this variable from the final model. Higher levels of social support from the adolescents' families and others are associated with higher levels of self-esteem. These two variables explained 17% of the total variation in girl's self-esteem, while $R^2$ for the whole sample and boys was approximately 18%.

In Table 5, multiple regression analysis for life satisfaction with other study variables is shown for the whole sample as well as boys and girls separately. Variables included in models: age, gender (except for models by gender), social support from family, social support from friends, and social support from others. In this model, life satisfaction has a strong association with all types of social support for both the whole sample and boys. On the other hand, life satisfaction has a strong association with social support from family and social support from friends for girls. Girls who have

**Table 4.** The role of social support in adolescents' self-esteem: Multiple linear regression analysis (stepwise method).

| Whole sample | | | Girls | | | Boys | | |
|---|---|---|---|---|---|---|---|---|
| Variable | β (p-value) | SE | Variable | β (p-value) | SE | Variable | β (p-value) | SE |
| Social support – Family Social support _others | .34 *** .12*** | .015 .014 | Social support – Family Social support _others | .37*** .09** | .020 .019 | Social support – Family Social support _others | .32 ** .12** | .024 .022 |
| $R^2$ | .18*** | | $R^2$ | .18*** | | $R^2$ | .17 *** | |
| Constant | 23.290*** | | Constant | 23.855*** | | Constant | 23.260*** | |

Standardized regression coefficients (β). Stepwise regression models. SE: Standard Error. *p < .05; **p < .01; ***p < .001.

**Table 5.** The role of social support in adolescents' life satisfaction: Multiple linear regression analysis (stepwise method).

| Whole sample | | | Girls | | | Boys | | |
|---|---|---|---|---|---|---|---|---|
| Variable | β (p-value) | SE | Variable | β (p-value) | SE | Variable | β (p-value) | SE |
| Social support- Family Social support - others Social support - Friends | .51 *** .12*** .09*** | .023 .025 .023 | Social support – Family Social support - Friends | .55*** .14*** | .028 .026 | Social support – Family Social support - others Social support - Friends | .45 *** .21*** .07** | .035 .038 .034 |
| $R^2$ | .42*** | | $R^2$ | . 39*** | | $R^2$ | .44*** | |
| Constant | 5.320*** | | Constant | 6.848*** | | Constant | 4.786*** | |

Standardized regression coefficients (β). Stepwise regression models. SE: Standard Error. *p < .05; **p < .01; ***p < .001.

Table 6. The role of social support in adolescents' depressive symptomatology: Multiple linear regression analysis (stepwise method).

| Whole sample | | | Girls | | | Boys | | |
|---|---|---|---|---|---|---|---|---|
| Variable | β (p-value) | SE | Variable | β (p-value) | SE | Variable | β (p-value) | SE |
| Social support-Family Social support - Friends | −.43*** -.07** | .030 .028 | Social support – Family Social support - others | −.45*** -.059** | .046 .043 | Social support – Family Social support - Friends | −.38*** -.13*** | .042 .040 |
| $R^2$ | .22*** | | $R^2$ | .23*** | | $R^2$ | .26*** | |
| Constant | 41.093*** | | Constant | 44.021*** | | Constant | 39.407*** | |

Standardized regression coefficients (β). Stepwise regression models. SE: Standard Error. *p < .05; **p < .01; ***p < .001.

higher support from family and friends also have a higher level of life satisfaction. These two variables explained 39% of the total variation in girls' life satisfaction.

In Table 6, multiple regression analysis for depressive symptomatology with other study variables is shown for the entire sample as well as for boys and girls separately. Variables included in models: age, gender (except for models by gender), social support from family, social support from friends, and social support from others. In this model, depressive symptomatology has a strong negative association with social support from family and social support from friends among both the whole sample and the boys' subsample. Also, depressive symptomatology has a strong negative association with social support from family and social support from others among girls. Girls who have higher support from family and others tend to have a lower level of depressive symptomatology. These two variables explained 23% of the total variation in girls' depressive symptomatology.

## Discussion

The purpose of this paper was to investigate how social support (namely, support from family, friends, and significant others) was related to mental health outcomes in this sample of Jordanian adolescents. Despite a growing number of studies within the context of Arab culture (e.g. Alfoukha et al., 2017; Arabiat et al., 2018; Ismayilova et al., 2013; Zawawi & Hamaideh, 2009) we know very little about these associations compared to the mainstream American and European countries. We included not only an indicator of mental health problems (namely, depressive symptomatology) but also indicators of mental well-being (that is, life satisfaction and self-esteem) in our analysis.

Unlike many studies outside the Arab world (e.g. B.F. Piko & Balázs, 2012; Bleidorn et al., 2016; Goldbeck et al., 2007; Hyde & Mezulis, 2020; Orth & Robins, 2014), in our study girls reported higher levels of self-esteem, life satisfaction, and social support but no gender differences in depressive symptoms were detected. These findings are similar to other Arab and Iranian studies (Al-Attiyah & Nasser, 2016. Hameed et al., 2018) suggesting the role of culture.

In terms of life satisfaction, based on our reported results we conclude that adolescents' social support was positively associated with life satisfaction. This result is similar to what previous Jordanian and Arab research find where improvement in adolescent life satisfaction is positively related to social support from family, friends, and others (Alorani & Alradaydeh, 2018; Lopez-Zafra et al., 2019). Other studies from other contexts and cultures find support for a positive association between adolescents' social support and life satisfaction (Blau et al., 2018; You et al., 2018). Adolescents with better support from parents and teachers were significantly associated with higher levels of life satisfaction (Blau et al., 2018). Furthermore, adolescents' self-esteem and social support exhibit a positive association; this finding is consistent with other studies that have reported higher levels of social support associated with higher levels of adolescent self-esteem (Bhat, 2017; Bum & Jeon, 2016; Kumar et al., 2014; Tahir et al., 2015).

On the other hand, findings from the present study report a negative association between different types of social support and depressive symptoms. This finding is consistent with previous

studies which showed higher levels of adolescents' social support leading to lower levels of depressive symptoms (Chang et al., 2018; Kievit et al., 2016; Ren et al., 2018). Our finding is also consistent with another Jordanian study that found a negative association between social support and depressive symptoms (Al-Daasin, 2017).

Not surprisingly, mental health problems and well-being are strongly associated. In the examination of bivariate correlations, depressive symptomatology was negatively associated with life satisfaction and self-esteem among both boys and girls. These findings are similar to previous research results – higher levels of life satisfaction and self-esteem were seen as an important protection against depression symptoms for adolescents (Moksnes et al., 2016; Orth et al., 2014).

Consequently, all types of social support correlated with all indicators of adolescent mental health; positively with satisfaction with life and self-esteem, and negatively with depressive symptomatology was found among both boys and girls. These findings are similar to previous research results (e.g. Chang et al., 2018). However, these findings show that associations between social support from family, friends, and others and mental health indicators may be different according to the type/source of social support. First, the most relevant finding is that family support plays the most decisive role for both boys and girls. Previous studies found that positive family support may serve as a strong protective factor against adolescent depression both directly (Hazel et al., 2014) as well as indirectly through the general strengthening of self-esteem (Kumar et al., 2014) and life satisfaction (Blau et al., 2018). These findings are also consistent with a systematic review which reported that social support from family was most consistently found to be protective against depression in adolescents (86% of studies reported a significant association with family support) (Gariépy et al., 2016). Self-esteem also has a strong association with support from families and others, while satisfaction with life has a strong association with all types of social support for both the entire sample and boys. This finding is consistent with other research that finds a significant positive relationship between social support and life satisfaction among adolescents (Khan, 2015).

In terms of friend support, results are less decisive and more controversial than family support. For example, friends' support was not related to self-esteem in both genders. This finding is consistent with another study that found the correlation between family support and self-esteem was higher than other support scores (Kumar et al., 2014). On the other hand, life satisfaction has a strong association with social support from both family and friends, particularly among girls. This finding is consistent with findings of a study by B. F. Piko and Hamvai (2010): boys' satisfaction with life was associated with parental support, while girls' satisfaction with life was associated with the number of close friends (B. F. Piko & Hamvai, 2010). Also, depressive symptomatology has a negative association with social support from family and social support from friends in the entire sample and boys. This finding is consistent with another study that found both parental and peers support was, directly and indirectly, related to levels of depressive symptoms (Chang et al., 2018). Also, depressive symptomatology has a negative strong association with social support from family and others among girls. This finding is consistent with another study that reported girls' higher scores on the subscale of social support from significant others (Väänänen et al., 2014).

These findings draw our attention to the importance of restructuring social networks during adolescence which may also be influenced by cultural factors. Definitely, positive family environments may help enhance an adolescent's ability to cope with adverse situations by improving their self-esteem (Kumar et al., 2014) and life satisfaction (Blau et al., 2018) while also decreasing exposure to depressive symptomatology (Hazel et al., 2014). On another hand, adolescents also tend to develop more peer-based relationships (Piko et al., 2009). However, as it seems peer support might play a limited role as compared to family support since it is less secure and stable than those found with family members. Less secure attachment was related to lower levels of psychological well-being and adjustment and put adolescents at higher risk to experience depressive symptoms (Allen et al., 2007). One example is a gender difference in depressive symptoms: social support from friends can be protective for male adolescents which cannot be found among females.

In the Arab context in countries like Jordan, the family is the basic building block of society, and it is the first educational and cultural environment that embraces children. There are many dominant values of the Arab family including honour, obligations, responsibility, and unity (Tadmouri et al., 2004). Many studies suggest that the Arab family has the most important and basic role in acquiring and teaching values, ethics, beliefs, norms, and traditions (Barakat, 1993; Patai, 2002). Accordingly, the family unit as a whole is more important than the individuals who comprise it, and the importance of the individual comes from the importance of the family. Our findings appear to provide evidence to suggest this important relationship.

## Study limitations

There are some limitations to this study that must be taken into account in regards to how we are interpreting these findings. First, our study was cross-sectional which cannot provide a cause-and-effect relationship. Second, without clinical investigation, depression cannot be diagnosed; instead, we used the term depressive symptomatology as a continuous variable that better characterizes depressive symptomatology among non-clinical, healthy adolescents. Third, self-reporting bias, the subjectivity of participants, and their ability to read the questionnaire can be a self-reporting bias. Forth, the specific sample may lower the generalizability of the findings, although they provide excellent contribution to research in this cultural field as well as for multicultural societies. However, this study will hopefully trigger further studies that will contribute to a better understanding of how social support (support from family, friends, and significant others) is related to mental health outcomes among Jordanian adolescents. Finally, these findings also draw attention to the role of culture in interpreting the roles of different types of social support.

## Conclusion

In conclusion, our findings underscore the importance and the effective role of social support, especially from family, in influencing the mental health of adolescents, whether positive or negative. These results also draw our attention to cultural issues, such as differences in the roles of social network (e.g. family, peers) during adolescence and gender differences in levels of mental health indicators (e.g. girls' higher levels of subjective well-being). In addition, these findings might also serve as an alert to policymakers who might want to consider giving greater attention to the importance of the family environment – particularly for adolescent development and overall health and well-being. These findings can help health policy-makers and researchers in Jordan provide better and more effective interventions and prevention strategies against mental health problems experienced by Jordanian adolescents.

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## Disclosure statement

## Notes on contributors

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