Article

Cognitive, Emotional and Behavioural Functioning of Adolescents: A Jordanian Cross-Sectional Study

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Abstract

Adolescence is a transitional period characterised by significant biological and psychological changes that profoundly impact individuals' overall well-being. This study aimed to assess the psychological functioning of adolescents in Jordan through a correlational analysis, focusing on the relationship between various demographic factors and cognitive, emotional and behavioural well-being. A descriptive correlational study was conducted with 363 adolescents selected using a stratified sampling method. The participants filled out the Youth Self-Report Pediatric Symptom Checklist (Y-PSC). The data was analysed using basic statistics, *t*-tests, and multiple regression. The results showed that the mean score for the Y-PSC was 27.50 (SD = 20.14). Specifically, the mean score for the attention subscale was 4.65 (SD = 5.63); for the internalising subscale it was 3.91 (SD = 3.00); and for the externalising subscale it was 4.90 (SD = 4.22). According to the Y-PSC and its subscales, the following proportions of the sample exhibited psychological impairment: 36.6% (n = 133) on the Y-PSC total score; 21.5% (n = 77) on the attention subscale; 37.7% (n = 135) on the internalising subscale; and 29.8% (n = 107) on the externalising subscale. Male gender, lower family income, lower maternal education level, having a chronic disease, and age were significant predictors of poor psychological functioning in adolescents, as indicated by significant differences in the Y-PSC scores ($p < .05$). Thus, the study found that Jordanian adolescents experience higher levels of psychosocial issues compared to adolescents in other countries. Understanding the factors that contribute to these issues is crucial for helping adolescents transition to adulthood in a healthy manner. Further

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research in Jordan is needed to develop programmes that will promote better psychosocial health. In terms of originality, Jordan has been deeply affected by political instability, which has placed extra pressure on the country's mental health services. Therefore, the study has underscored the importance of identifying at-risk adolescents and enhancing their cognitive, emotional and behavioural well-being.

Keywords: adolescents; behavioural functioning; cognitive functioning; Jordan; mothers; psychosocial impairment

Background

Adolescence is a transitional stage marked by rapid biological and psychological changes that significantly impact the lives of individuals (Tsagem 2022). Globally, adolescent mental health has been recognised as a critical public health issue. The World Health Organization (WHO) reported that depression is one of the leading causes of illness among adolescents, and suicide is a major cause of death in this age group (Shorey, Ng and Wong 2022). Emotional and behavioural problems during adolescence pose challenges for families, schools and communities, as they contribute to poor educational outcomes, including lower academic achievement and increased dropout rates (Hameed et al. 2024; Lawrence and Adebowale 2023).

Across different regions, the prevalence of adolescent mental health problems varies based on sociopolitical, economic and cultural factors. Studies from Europe and North America have consistently shown that externalising behaviours, such as aggression and impulsivity, tend to increase the likelihood of delinquency and criminal activity, while internalising problems, such as anxiety and depression, are likely to hinder academic and social functioning (Plenty, Magnusson and Låftman 2021; Sørlie 2021). In low- and middle-income countries, adolescent psychological health is often shaped by additional stressors, including political instability, poverty and inadequate healthcare access (Clemens, Von Hirschhausen and Fegert 2022). However, research on the psychosocial functioning of children and adolescents in the developing world is still in its infancy.

The Middle East, including Jordan, has faced significant challenges due to conflict-driven displacement, economic hardship, and rapid population growth, all of which have placed pressure on health, education and public services (Shanneik 2021). Jordan, in particular, has been impacted by ongoing regional conflicts, leading to an influx of refugees and increasing strain on national resources. Adolescents aged 10–18 years constitute 20.5% of Jordan's population (Jordan Department of Statistics 2022). Moreover, their mental and psychological health has been identified as a major public health concern. National studies indicate that 14% of Jordanian adolescents report having at least one chronic disease, while 15% experience mental health problems (Dardas et al. 2018). A scoping review from Jordan found that the prevalence rates ranged from 7.1% to 73.8% for depression; 16.3% to 46.8% for anxiety; 13.0% to 40.6% for ADHD; 11.7% to 55.2% for overall emotional and behavioural difficulties; 16.25%

to 65.1% for PTSD; and 12% to 40.4% for eating disorders (AlHamawi et al. 2023). In another national study that included only female adolescents in public schools in Jordan, the rates of anxiety and depression were 25.7% and 21%, respectively (AlAzzam et al. 2021). These are alarming rates of mental illness among adolescents, who account for a large proportion of the population. Furthermore, adolescents in Jordan have low levels of knowledge about mental health issues and exhibit negative attitudes toward individuals with mental health illnesses (AlAzzam and Abuhammad 2021). This information increased the challenges in studying the health problems in said population.

The consequences of having behavioural and mental health problems are of great concern. For example, a dropout from secondary education was associated with externalising and internalising problems among male and female adolescents (Plenty, Magnusson and Låftman 2021). Externalising problems, which manifest as outward-directed behaviours, such as aggression, impulsivity and rule-breaking, were linked to increased risks of violent conduct and criminal behaviours (Sørlie 2021). On the other hand, internalising problems, which involve inward-focused distress, such as excessive sadness, anxiety, withdrawal and depression, were associated with emotional difficulties that may hinder social interactions, academic performance and overall well-being (Stone et al. 2025). Research suggests that externalising problems significantly predict school truancy, while both internalising and externalising issues negatively impact academic success (Plenty, Magnusson and Låftman 2021). However, behavioural and mental health disorders in adolescents are often underdiagnosed due to barriers, such as family reluctance to disclose mental health concerns; a lack of standardised screening tools; and inadequate training for healthcare professionals (Ticku et al. 2024; Yan et al. 2022). These factors increase the risk of undetected mental health issues among adolescents, highlighting the need for systematic screening to identify those requiring further evaluation and intervention.

Mothers play a crucial role in supporting the mental and psychological well-being of adolescents. They provide emotional support, guidance and socialisation skills that shape adolescents' cognitive and behavioural development (Akeyo, Mukadi and Nyanga'ra 2023). Research has shown that maternal perceptions of their children's psychological functioning influence the level of social and emotional support provided, which in turn affects adolescent well-being (Nunes et al. 2021). In Jordan, as in many Middle Eastern countries, child-rearing is deeply rooted in Islamic and Arabic cultural traditions, with mothers playing a central role in caregiving (Bawadi et al. 2022). Studies have indicated that Jordanian mothers tend to adopt more progressive parenting styles rather than authoritarian approaches, which fosters better mental health and self-confidence among their children (Al-Hassan et al. 2021). Given the significant role of mothers in adolescent development, examining how maternal characteristics influence adolescents' cognitive, emotional and behavioural functioning in Jordan was deemed to be a worthwhile endeavour.

The purpose of the current study was to contribute to the existing literature and provide additional evidence on the psychosocial functioning of adolescents in Jordan, a country facing unique political and economic challenges in the Middle East. Specifically, the study aimed to answer the following research questions:

1. What is the level of psychosocial functioning among adolescents in Jordan?
2. What are the levels of attention problems, internalising problems and externalising problems among these adolescents?
3. Is there a difference in adolescents' attention problems, internalising problems, externalising problems and overall psychosocial functioning based on their socio-demographic characteristics and those of their mothers?
4. What are the predictors of the psychosocial functioning of adolescents in Jordan?

Methodology

Study Design and Sampling

A descriptive correlational design was used to understand adolescents' psychological functioning in Jordan. The inclusion criterion was all adolescents who attended public schools and were aged between 10 and 18 years in Jordan. The Jordanian school system consists of both public and private schools, with public schools serving the majority of students. Approximately 70% of students in Jordan are enrolled in public schools, while 30% attend private schools (Jordan Department of Statistics 2022). Public schools are government-funded and provide free education, whereas private schools operate independently and often follow different curricula, including international programmes. The total number of students in the selected schools, ranging from 5th to 12th grade, was 2 315. The stratified sampling technique was employed to divide Jordan into three regions: north, middle and south. Following this, simple random sampling was used to select two public schools from each region. Within the selected schools, classrooms from 5th to 12th grade were randomly chosen, and students within these classrooms were invited to participate. To determine the required sample size, the G-Power statistical programme was utilised. With an effect size of 0.3, a power level of 0.80, and a significance level of 0.05, the programme calculated a minimum required sample size of 352 adolescents. Ultimately, 363 adolescents consented to participate and completed the questionnaires.

Measures

A self-administered demographic questionnaire was used, allowing the adolescents to complete the questionnaire independently. It included items on age, gender, monthly family income, place of residency, mother's education level, and mother's employment status (Di Giorgio et al. 2021; Lerner 2021). To ensure clarity, the adolescents were provided with simple explanations and examples where necessary. For questions about

their mother's education level and employment status, they were instructed to select the most appropriate response based on their knowledge or prior discussions at home. Additionally, for the question on chronic disease, an age-appropriate definition was provided, stating that it refers to long-term illnesses, such as asthma, diabetes or heart conditions, which require ongoing medical care. In terms of psychiatric chronic diseases, the researchers refer to disorders like depression, anxiety, bipolar disorder or schizophrenia.

The Arabic version of the Youth Self-Report Pediatric Symptom Checklist (Y-PSC) was used to screen the participants for cognitive, emotional and behavioural impairment among adolescents (Salah et al. 2013). The Y-PSC consists of 35 items with a range of scores from 0 to 70, using a three-point Likert scale ranging from 0 (never) to 2 (often). The Y-PSC includes three main subscales, namely: (a) the attention subscale (five items) to predict attention deficit hyperactivity disorder (e.g., "distracts easily"); (b) the internalising subscale (five items) to screen for depression and anxiety (e.g., "worries a lot"); and (c) the externalising subscale (seven items) to assess symptoms of conduct disorders, oppositional defiant disorder, and rage disorder (e.g., "refuses to share"). The scale is not a diagnostic tool but is useful to identify at-risk adolescents in population screening. A score of 30 or more on the total Y-PSC, or seven or more on the attention, internalising and externalising subscales, suggests significant psychological impairment (Salah et al. 2013).

It is true that the Y-PSC includes 18 additional items in the original version by (Jellinek 1988), which are not part of the three primary subscales. These items were intended to assess other potential psychosocial concerns but were not included in the standard scoring used in the study. As the focus of the study was on the three subscales, the results for these 18 additional items were neither analysed nor reported. The decision to exclude these 18 items was made in order to maintain the study's focus on attention, internalising and externalising issues, which were most relevant to the research objectives.

The Arabic version of the Y-PSC is widely used in the Arab world, and its reliability and validity have been demonstrated in prior studies (Salah et al. 2013). In the current study, the version used showed a Cronbach's alpha of .80, indicating good internal consistency.

Data Collection

Before data collection, ethical approval was obtained from the Institutional Review Board (IRB) and the data collection settings. Families with adolescents were identified and recruited through public schools in Amman, Jordan's largest city, in collaboration with school administrators and counsellors. The research team first obtained permission from the school authorities to distribute study information to eligible students. The school counsellors assisted in identifying potential participants based on the study criteria and provided students with invitation letters and consent forms to take home to

their parents. Once families expressed interest, consent forms and assent documents were sent to them. The research team provided these forms and ensured they were completed. Only written consent forms from mothers and assent from adolescents who returned them were considered for the study. The forms included clear information about the study aims, the significance of the study, study procedures, the contact information about the researchers; a statement informing the participants that confidentiality would be maintained throughout the study; a statement informing them that they had the right to withdraw from the study at any time without penalty; and the informed consent of the mothers.

Data Analysis

The data was analysed using the Statistical Package for Social Science (SPSS), version 23. Descriptive statistics were computed to describe the socio-demographic variables and the Y-PSC scores. A *t*-test was used to examine the differences in Y-PSC mean scores, attention subscale, and internalising and externalising factors regarding the study variables. Multiple linear regression analysis was used to examine the predictors of psychosocial functioning. The outcome was tested for normal distribution, and the covariates were tested for multicollinearity.

Results

The final number of participants was 363 students. Most of the sample were female (68.9%), with a mean age of 13.43 (SD = 2.25), ranging from 10 to 18 years, and 325 (89.5%) were residents of urban communities. Regarding the mothers, 40.2% were employed, and 59.8% had a bachelor's degree or higher. Of the sample, 72.7% had a monthly family income of 500 JD or more, indicating a middle-to-high income level. Table 1 presents the demographic characteristics of the sample.

Table 1: Demographic characteristics of the sample (N = 363)

Variable	***n* (%)**
Gender	
Male	113 (31.1)
Female	250 (68.9)
Age group	
Early adolescence (10–12)	151 (41.6)
Middle adolescence (13–15)	130 (35.8)
Late adolescence (16–18)	82 (22.6)
Work status of mother	
Employed	146 (40.2)
Not employed	217 (59)

Variable	*n* (%)
Education level of mother	
High school or less	146 (40.2)
Bachelor's degree or higher	217 (59.8)
Monthly family income	
Less than 500 JD	99 (27.2)
500 JD or more	264 (72.7)
Residency	
City (urban)	325 (89.5)
Village (rural)	38 (10.5)
Adolescent has a chronic disease	
Yes	31 (8.5)
No	332 (91.5)

Description of the Y-PSC and Its Subscales

The mean score of the Y-PSC was 27.50 (SD = 20.14), and 4.65 (SD = 5.63) for the attention subscale; 3.91 (SD = 3.00) for the internalising subscale; and 4.90 (SD = 4.22) for the externalising subscale. Based on the cut-off point of the Y-PSC and its subscales, the following proportions of the sample were suggested to have a psychological impairment: 36.6% (133) on the Y-PSC; 21.5% (77) on the attention subscale; 37.7% (135) on the internalising subscale; and 29.8% (107) on the externalising subscale.

Differences in Cognitive, Emotional and Behavioural Functioning

As shown in table 2, significant differences in the Y-PSC and its subscales were found based on gender, mother's education level, monthly family income, residency, presence of a chronic disease, and age. Male adolescents had a significantly higher mean in the Y-PSC total score ($t(359) = 3.91$, $p < .001$); internalising subscale ($t(360) = 3.01$, $p = .003$); and externalising subscale ($t(359) = 6.02$, $p < .001$). Regarding the mother's education level, the mean Y-PSC total score ($t(361) = 3.25$, $p = .001$); internalising subscale ($t(361) = 2.31$, $p = .021$); and externalising subscale ($t(361) = 2.57$, $p = .011$) were significantly higher among mothers with a lower education level. In addition, families with a lower monthly income (less than 500 JD) reported higher mean scores on the total Y-PSC; internalising and externalising subscales ($t(358) = 3.04$, $p = .003$; $t(358) = 2.84$, $p = .005$); and $t(358) = 2.92$, $p = .004$, respectively). Mothers of adolescents living in rural communities reported a higher mean score on the externalising subscale ($t(349) = –2.13$, $p = .034$). Adolescents with chronic diseases had significantly higher mean scores on the total Y-PSC, as well as on the internalising and externalising subscales, compared to those without chronic diseases, as reported by their mothers ($t(360) = 2.91$, $p = .007$; $t(361) = 3.40$, $p = .001$; and $t(360) = 2.85$, $p = .005$, respectively). Lastly, significant positive correlations were found between the adolescents' age and the internalising and externalising subscales ($r = 0.13$, $p = 0.014$; $r = 0.14$, $p < 0.001$, respectively). No significant differences were found regarding the

mother's employment status on the Y-PSC, and the attention subscale did not differ significantly in the sample.

Table 2: Differences in the Y-PSC in relation to demographic variables (N = 363)

	Total Y-PSC		**Attention subscale**		**Internalising subscale**		**Externalising subscale**	
Variable	**M (SD)**	**T**	**M (SD)**	**T**	**M (SD)**	**T**	**M (SD)**	**T**
Gender of student								
Male	33.61 (18.60)	3.91***	4.78 (2.39)	0.28	4.63 (3.28)	2.84**	6.80 (4.42)	5.71***
Female	24.82 (20.27)		4.30 (6.1)		3.30 (2.8)		4.04 (3.84)	
Mother's work status								
Employed	24.7 (17.3)	–.328	4.45 (2.40)	–0.59	3.475 (2.95)	–0.62	5.28 (4.34)	–1.33
Not employed	25.3 (20.9)		4.78 (7.05)		4.00 (3.02)		4.59 (4.08)	
Mother's education level								
High school or less	31.62 (23.74)	3.25**	5.33 (8.33)	1.89	4.36 (3.10)	2.31*	5.58 (4.33)	2.57*
Bachelor's degree or higher	24.71 (16.79)		4.19 (2.43)		3.62 (2.94)		4.43 (4.10)	
Monthly family income								
Less than 500 JD	32.73 (19.37)	3.04**	4.74 (2.45)	0.20	4.65 (3.02)	2.84**	5.94 (4.35)	2.92**
More than 500 JD	25.53 (20.04)		4.61 (6.42)		3.64 (2.94)		4.49 (4.09)	
Residency								
Village (rural)	31.41 (18.64)	–1.09	4.41 (2.41)	0.23	4.48 (3.14)	–1.07	6.52 (4.38)	2.13*
City (urban)	27.02 (20.29)		4.66 (5.89)		3.84 (2.97)		4.73 (4.17)	
Adolescent has a chronic disease								
Yes	45.52 (37.30)	2.91**	8.52 (17.39)	1.4	5.65 (3.21)	3.40**	6.94 (4.29)	2.85**
No	25.81 (16.85)		4.29 (2.38)		3.75 (2.94)		4.70 (4.17)	

Note: $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

Predictors of Cognitive, Emotional and Behavioural Functioning

All sociodemographic variables in the study were included in the multiple linear regression model. Specifically, the model's R-value of .355 indicated a moderate correlation between the predictors and the outcome variable. The R^2-value of .126

suggested that the sociodemographic variables accounted for 12.6% of the variance in adolescents' psychosocial functioning. The Adjusted R^2-value of .111 took into account the number of predictors in the model, adjusting for the possibility of overfitting, and indicated that 11.1% of the variance was explained when adjusted for the number of predictors. The F-statistic of 8.56, with a *p*-value less than .001, indicated that the model as a whole was statistically significant, meaning that the relationship between the sociodemographic predictors and psychosocial functioning was unlikely to have occurred by chance. Male gender, lower family income, having a chronic disease, and older age were significant predictors of cognitive, emotional, and behavioural impairment of adolescents in Jordan (see table 3).

Table 3: Significant predictors of psychosocial impairment among adolescents (N = 363)

Variable	Beta	*t*-statistic	*p*-value
Monthly family income	–.11	–1.93	.050
Adolescent's gender	–.22	–4.08	< .001
Adolescent has a chronic disease	–.13	–2.63	.009
Adolescent's age in years	.13	2.64	.009

Note: R = .355; R^2 = .126; Adjusted R^2 = .111; F = 8.56; $p < .001$

Discussion

The study examined the psychosocial functioning of adolescents in Jordan. This Middle Eastern country has been affected by the region's social, political and economic hardships since the onset of the refugee displacement crisis in 2012. The Y-PSC was used to evaluate the adolescents' attention, internalising and externalising factors. The results showed that the mean scores of the total Y-PSC, attention subscale, internalising subscale, and externalising subscale were slightly elevated, indicating an increased impairment level. The proportion of adolescents in the study with psychosocial impairment was alarming when compared to findings from other adolescent populations, where the rates of psychosocial impairment were generally lower (Dardas et al. 2018; Jörns-Presentati et al. 2021), as explained in the subsequent paragraphs. In addition, significant differences were observed in the psychosocial functioning of these adolescents based on their gender, mother's education level, monthly family income, residency, presence of a chronic disease, and age. Male gender, lower monthly family income, having a chronic disease, and older age were significant predictors of psychosocial impairment.

Similarly, the prevalence of behavioural and emotional disorders in the Kolhapur district study was found to be 46.67% (Chougule et al. 2024). In contrast, in the current study conducted in Jordan, 36.6% of adolescents were suggested to have psychological impairment based on the Y-PSC. Although the prevalence was somewhat lower in the Jordanian sample, both studies highlighted a substantial burden of emotional and

behavioural difficulties among school-going adolescents. Gupta, Mongia and Garg (2017) reported psychosocial impairment in 22.7% of a sample of 500 children and adolescents in India, while Bista et al. (2016) reported that 17% of a sample of 787 Nepalese adolescents had psychosocial impairment. These study results warrant the attention of healthcare providers in order to improve the psychological well-being of adolescents in Jordan. Due to the refugee influx, Jordan has been experiencing significant pressure on the healthcare system, which has affected the resource allocation for childhood and adolescent psychiatric healthcare services (WHO 2020).

The mean scores of the Y-PSC, internalising and externalising factors differed significantly between males and females, with male adolescents scoring higher than females on all these measures. The male gender also predicted poor psychosocial functioning. These outcomes were consistent with the available evidence, except for the internalising factors, as shown by Bista et al. (2016), Chougule et al. (2024) and Gupta, Mongia and Garg (2017). It is more likely to see internalising problems, such as sadness and anxiety, among female adolescents (Kovess-Masfety et al. 2021).

Remarkably, the current study yielded results that were contrary to expectations, particularly regarding gender differences. While it was anticipated that female adolescents would exhibit higher levels of psychosocial impairment, the findings indicated the opposite trend, with male adolescents showing more significant impairment. Further research is needed to explore the underlying factors contributing to these unexpected gender differences. These factors could be intrapersonal, interpersonal or linked to higher-level interactions with parents, family, friends, school and the community. Based on these findings, it is crucial to prioritise early assessment and intervention for interpersonal anxieties among male adolescents in Jordanian schools

Regarding socioeconomic status, represented by the mother's education level and monthly family income, the mean scores of the Y-PSC, internalising factors and externalising factors were significantly higher among adolescents whose mothers had lower education levels and families had lower monthly incomes. This finding suggested that education and income act as protective factors against psychosocial problems among adolescents (Fine et al. 2022). Mothers with higher education levels may have a better understanding of developmental changes during adolescence, which could help their children to avoid these psychosocial challenges.

Adolescents from families living in rural communities exhibited significantly higher levels of externalising problems compared to those from families living in urban communities. This finding was consistent with previous studies that indicated more significant behavioural problems among adolescents who lived in rural areas (Jörns-Presentati et al. 2021). This finding was explained as showing that life can be stressful in low socioeconomic communities in rural areas, and some important mental health services are not available for families of adolescents living in rural communities, which added to the mental and behavioural problems (Ventriglio et al. 2021). Adolescents with

chronic diseases, such as asthma, diabetes, depression, anxiety, bipolar disorder, schizophrenia and epilepsy, showed significantly higher mean scores on the Y-PSC, internalising and externalising factors compared to adolescents without chronic diseases. This finding highlighted the negative impact of chronic diseases on adolescents' psychosocial functioning, potentially due to the emotional burden, social limitations, and academic challenges associated with managing these conditions, which indicates the need for supportive school psychological services directed to adolescents with chronic diseases.

The adolescents' age was significantly associated with internalising and externalising problems and was a significant predictor of their psychosocial functioning. It was documented that older adolescents have more significant mental problems compared to young adolescents (Bitsko et al. 2022; Stephenson 2021). This finding was also consistent with a study examining the age trajectories of internalising and externalising problems in adolescents and young adults in the United States (Petersen et al. 2018). Several approaches have been used to explain this finding. In Arabic culture, older adolescents tend to assume more responsibilities than younger adolescents as they approach adulthood (Alkaid Albqoor et al. 2023). In addition, it is well-known that older adolescents have more academic responsibilities as they transition to high school and have to persevere harder to achieve their academic goals, which introduces them to a greater risk of mental issues (Högberg 2021). Lastly, it is common to see more older adolescents engaged in homicide and other kinds of crimes than younger adolescents, which can be another factor that may expose them to mental health problems (Castro and Tirso 2023; Welner et al. 2023).

Implications

Frequent and longitudinal screening for adolescent behavioural and mental problems is highly recommended to ensure a healthy transition to adulthood. In addition, there is a need to develop psychiatric mental health programmes that help increase families' and communities' awareness about the mental health of adolescents, especially adolescents with a low socioeconomic status. Collaborating with psychiatric-mental health nurses, schools, families and community leaders can help accomplish these efforts. As male adolescents showed a higher risk of psychosocial impairment than females did, affordable psychiatric nursing programmes are required to focus on the psychological, emotional and behavioural development of boys in Jordan. Lastly, the study also indicated the need for psychiatric nursing care and counselling for older adolescents and adolescents with chronic diseases in Jordan, as they are at high risk for emotional and behavioural problems.

Limitations

Some limitations existed in the study. Self-reported surveys are generally affected by the bias of subjective assessment, which might result in the inaccurate reporting of

psychosocial problems. To mitigate this issue, validated screening tools with established reliability were used to enhance the accuracy of self-reports. Additionally, the participants were assured of confidentiality and anonymity to encourage honest responses. The inclusion of multiple subscales also enabled a more comprehensive assessment of psychosocial problems, thereby reducing the risk of single-source bias. In addition, there could be some students who did not desire to participate, and they could have had significant differences in their psychosocial dysfunction, as adolescents with impaired emotional or behavioural functions would not be motivated to participate like others. Only public schools were selected in the study; however, public schools in Jordan typically include more students than private schools (AlAzzam et al. 2021). Lastly, this was a cross-sectional study; thus, no causal relationships can be drawn. Since the study only examined the characteristics of mothers, some adolescents who had guardians rather than mothers may not have participated, which could have had a significant impact on the findings.

Conclusion

The current study found relatively high levels of psychosocial impairment among adolescents in Jordan compared to findings from studies conducted in other countries and regions. In addition, the male gender, lower education level of mothers, lower monthly family income, adolescent having a chronic disease, and late adolescence were factors that showed significantly higher levels of psychosocial impairment in the adolescents. Understanding the differences and predictors of psychosocial problems among adolescents is crucial for improving the chances of a healthy transition to adulthood. In a developing country like Jordan, further investigation into this area is necessary to support the development of psychosocial well-being programmes.

Ethical Statement

The Institutional Review Board at the University of Jordan approved the current study.

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