

Psychological Factors of Depression in Adolescents: From the Perspective of Family, Society, and School

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Abstract

This paper aims to analyze the factors contributing to depression in adolescents from the perspective of family, society, and school. Through a questionnaire survey, 1,654 valid responses were obtained, and the data were processed and analyzed using SPSS v26.0. Of the participants, 384 adolescents were identified with depression, resulting in a prevalence rate of 23.22%. There were significant differences in Center for Epidemiological Studies Depression Scale (CES-D) scores in terms of gender, grade, student origin, only-child status, school type, family history of depression, and family structure ($p < 0.05$). Adolescents with depression had a Family Assessment Device (FAD) score of 30.33 ± 5.64 , a Social Support Rating Scale (SSRS) score of 29.33 ± 5.92 , and a school connectedness scale score of 32.12 ± 6.41 , all of which were significantly different from those without depression ($p < 0.05$). Regression analysis found that gender, family history of depression, family structure, school connectedness scale score, and FAD score were significant factors contributing to depression among adolescents. Gender and family history of depression influence adolescent depression. It is recommended that parents and teachers actively foster a supportive home and school environment to improve the psychological well-being of adolescents.

Keywords

Adolescent, Depression, Contributing Factor, School Connectedness, Family Function

1. Introduction

Depression is a widespread psychological issue in contemporary society, characterized by low mood [1], decreased appetite, difficulty falling asleep, slowed thinking, and other symptoms [2]. Adolescents are in the period of rapid physical and mental development [3]. Their minds are still maturing, making them particularly vulnerable to various psychological problems influenced by their environment. Depression is one of the most common psychological problem among adolescents [4], and it can negatively impact their individual lives, academic performance, and other aspects [5]. In severe cases, it may even lead to self-injury or suicide. There are many challenges in the intervention of adolescent depression [6]. Research on this topic has become an area of significant concern [7]. Rapp et al. [8] analyzed the relationship between parental criticism and adolescent depression and found that highly perceived parental criticism can predict adolescent depression through an 18-month follow-up. McNeil al. [9] analyzed 657 participants aged 11–14 and discovered that emotional abuse was a risk factor for

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adolescent depression. They also found that decreased school participation was a risk pathway leading to depression. Anderson et al. [10] analyzed 2,155 adolescents and found that those with a history of being bullied were at a higher risk of exhibiting symptoms of depression and anxiety. Rowland et al. [11] analyzed the association between school sector and depressive psychology. They found that depressive symptoms increased significantly in girls at age 13, and adolescents attending Catholic schools reported significantly fewer depressive symptoms compared to those in state and independent schools. A comprehensive review of existing studies indicates that most current research focuses on the impact of single factors on adolescent depression. The scales used in these studies are also relatively limited, and there is relatively little research on multi-faceted interventions for adolescent depression. This paper mainly analyzes the impact of various factors on adolescent depression from the perspectives of family, society, and school through a questionnaire survey, providing theoretical support for further research in this area.

2. Subject and Method of Study

2.1 Subject and Method

Stratified cluster random sampling [12] was used to select two middle schools, two high schools, and one university in Fuzhou, Fujian Province. For each school, three or four classes were selected from each grade, and only freshmen were selected from the university due to age consideration. The survey subjects were all students in the whole class. Informed consent was obtained from the schools, parents, and students. The researchers explained the purpose of the study and the instructions for completing the questionnaire. Completed questionnaires were collected on site. A total of 1,726 questionnaires were gathered, of which 1,654 were valid, yielding an effective response rate of 95.8%. The general information of the subjects is presented in Table 1.

Table 1. General information of the adolescents

		Male (n = 874)	Female (n = 780)
Grade	Junior one	121	112
	Junior two	126	111
	Junior three	127	119
	Senior one	125	115
	Senior two	122	113
	Senior three	123	110
	Freshman	130	100
Student origin	Cities and towns	454	402
	Country	420	378
Only-child status	Only child	274	251
	Non-only child	600	529
School type	Key	467	384
	Non-key	407	396

The collected questionnaire data were processed using SPSS v26.0 (IBM, Armonk, NY, USA). Univariate analyses were conducted using the chi-square test and *t*-test. The factors causing depression were analyzed through multiple regression.

2.2 Research Tools

- 1) General information questionnaire: The questionnaire included information such as gender, grade, student origin, school type, only-child status, family history of depression, and family structure.
- 2) Center for Epidemiological Studies Depression Scale (CES-D) [13]: The CES-D was employed to assess the frequency of depressive symptoms in the past week. A score of 20 or higher indicates the presence of depression. In this study, the Cronbach’s alpha for this scale was 0.88.
- 3) Family Assessment Device (FAD) [14]: The FAD was employed to evaluate the family function of the participants. This scale reflects the family environment of adolescent. The higher the score, the worse the family function. In this study, the Cronbach’s alpha of this scale was 0.86.
- 4) Social Support Rating Scale (SSRS) [15]: The SSRS can reflect an individual’s social support in a comprehensive way. A higher score indicates a greater level of social support. In this study, modifications were made to questions 4, 6, and 7 of the original SSRS, specifically changing “colleagues” to “classmates” and “work unit” to “school.” In this study, the Cronbach’s alpha for this scale was 0.79.
- 5) School Connectedness Scale [16]: This scale measures the connection between adolescents and their school. It contains ten questions. A higher score signifies a stronger connection to the school. In this study, the Cronbach’s alpha for this scale was 0.89.

3. Results

3.1 Analysis of Depressive Psychology

Table 2. Depressive psychological detection in adolescents with different characteristics

		Number of respondents	Number of people with depression	Prevalence rate (%)	χ^2 value	<i>p</i> -value
Gender	Male	874	171	19.57	6.874	0.001
	Female	780	213	27.31		
Grade	Junior one	233	45	19.31	9.385	0.001
	Junior two	237	47	19.83		
	Junior three	246	49	19.92		
	Senior one	240	52	21.67	8.564	0.001
	Senior two	235	58	24.68		
	Senior three	233	63	27.04		
	Freshman	230	55	23.91	10.785	0.001
	Middle school	716	141	19.69		
	High school	708	173	24.44		
	University	230	55	23.91		
Student origin	Cities and towns	856	193	22.55	3.456	0.057
	Country	798	191	23.93		

Continued on the next page.

Table 2. Continued

		Number of respondents	Number of people with depression	Prevalence rate (%)	χ^2 value	<i>p</i> -value
Only-child status	Only child	525	119	22.67	3.674	0.056
	Non-only child	1,129	265	23.47		
School type	Key	851	218	25.62	5.621	0.001
	Non-key	803	166	20.67		
Family history of depression	Have	327	88	26.91	7.897	0.001
	Not have	1,327	296	22.31		
Family structure	Nuclear family	1,156	291	25.17	9.745	0.001
	Extended family	411	68	16.55		
	Divorced family	84	25	29.76		
	Other families	3	0	0		

As shown in Table 2, among the 1,654 participants, 384 had a CES-D score of 20 points or higher, indicating the existence of depression, with a prevalence rate of 23.22%. There were remarkable differences in the prevalence rates among students of different genders, grades, school types, family histories of depression, and family structures ($p < 0.05$).

Table 3 reveals significant differences in CES-D scores based on gender, grade, student origin, only-child status, school type, family history of depression, and family structure ($p < 0.05$), indicating that these characteristics are contributing factors to adolescent depression.

Table 3. CES-D scores for adolescents with different characteristics

		CES-D score	F/t value	p-value
Gender	Male	13.69±8.12	-2.674	0.002
	Female	15.46±8.33		
Grade	Junior one	13.12±8.18	20.784	0.003
	Junior two	14.33±8.72		
	Junior three	14.98±8.74		
	Senior one	15.01±8.78	5.847	
	Senior two	15.25±8.74		
	Senior three	15.33±7.92		
	Freshman	15.26±8.77	-5.126	
	Middle school	13.97±8.48		
	High school	14.89±8.61		
	University	15.26±8.77		
	Student origin	Cities and towns	13.64±7.38	
Country		14.78±8.46		
Only-child status	Only child	13.64±8.87	-6.521	0.001
	Non-only child	14.89±8.86		
School type	Key	16.01±8.65	-12.37	0.001
	Non-key	13.77±7.84	98.251	0.001
Family history of depression	Have	19.21±9.98		
	Not have	13.45±8.94		
Family structure	Nuclear family	14.32±8.56	5.624	0.001
	Extended family	14.34±8.77		
	Divorced family	15.81±9.01		
	Other families	14.07±9.02		

The comparisons revealed the following findings.

- 1) The CES-D score for females was 15.46 ± 8.33 , which was significantly higher than that for males.
- 2) The CES-D score for students from high school was 14.89 ± 8.61 , which was significantly higher than that for those from middle school and college.
- 3) The CES-D score for students from country was 14.78 ± 8.46 , which was significantly higher than that for those from cities and towns.
- 4) The CES-D score for the non-only child was 14.89 ± 8.86 , which was significantly higher than that for the only child.
- 5) Students attending key schools had a CES-D score of 16.01 ± 8.65 , which was significantly higher than that of students in non-key schools.
- 6) The CES-D score for those with a family history of depression was 19.21 ± 9.98 , which was significantly higher than that for those without a family history.
- 7) Students from divorced families had a CES-D score of 15.81 ± 9.01 , which was significantly higher than that for students from other family structures.

3.2 Analysis of Family, Social, and School Scales

As shown in Table 4:

- 1) depressed adolescents had a FAD scale score of 30.33 ± 5.64 points and scored significantly higher on all dimensions;
- 2) depressed adolescents had an SSRS scale score of 29.33 ± 5.92 points and significantly lower on all dimensions;
- 3) the school connectedness scale score for depressed adolescents was 32.12 ± 6.41 points, which was significantly lower than that of non-depressed adolescents.

Table 4. Family, social, and school scale scores of adolescents with/without depression

	Not have	Have	<i>t</i> value	<i>p</i> -value
Problem solving	12.33 ± 3.12	14.91 ± 2.87	-8.126	0.000
Communication	17.45 ± 3.87	25.12 ± 4.33	-15.625	0.000
Character	22.45 ± 4.12	27.34 ± 3.52	-11.745	0.000
Reaction	13.64 ± 3.21	16.45 ± 3.25	-6.369	0.000
Intervening	14.35 ± 2.36	17.61 ± 3.22	-12.027	0.001
Behavior	20.12 ± 1.87	21.45 ± 3.12	-2.774	0.005
Total function	23.32 ± 3.67	30.33 ± 5.64	-14.337	0.000
Total FAD score	125.56 ± 18.01	152.07 ± 18.97	-14.425	0.000
Objective support	8.33 ± 2.35	7.02 ± 2.16	-5.642	0.000
Subjective support	19.67 ± 3.46	16.54 ± 3.62	-8.339	0.000
Utilization of support	7.84 ± 1.87	5.81 ± 1.64	-10.125	0.000
Total SSRS score	35.64 ± 5.89	29.33 ± 5.92	-10.457	0.000
School connections	37.42 ± 6.32	32.12 ± 6.41	14.265	0.021

In general, adolescents with depression had worse family functioning, less social support, and lower school connectedness, and all differences were statistically significant ($p < 0.05$).

3.3 Multivariable Logistic Regression

Taking whether adolescents have depression as the dependent variable, the independent variables were assigned as shown in Table 5.

Table 5. Assignments of independent variable

Independent variable	Assigned value
X1 Gender	Male = 0, female = 1
X2 Grade	X2 (1) = Middle school X2 (2) = High school X2 (3) = University
X3 Student origin	Cities and towns = 0, country = 1
X4 Only-child status	Only child = 0, non-only child = 1
X5 School type	Key = 0, non-key = 1
X6 Family history of depression	Have = 0, not have =1
X7 Family structure	X7 (1) = Nuclear family X7 (2) = Extended family X7 (3) = Divorced family X7 (4) = Other families
X8 Total FAD score	Continuous variable
X9 Total SSRS score	Continuous variable
X10 Total school connectedness score	Continuous variable

As shown in Table 6, the regression analysis ($\alpha_{include} = 0.05$, $\alpha_{exclude} = 0.10$) showed that gender, family history of depression, family structure, total school connectedness score, and total FAD score entered the regression equation and were all factors contributing to adolescent depressive psychology ($p < 0.05$).

Table 6. Results of multivariable logistic analysis

Variable	β	Wald χ^2 value	p -value	OR (95% CI)
Gender	1.365	8.871	0.001	3.956 (1.562–9.654)
Family history of depression	-4.256	16.521	0.001	0.008 (0.001–0.068)
Family structure	3.541	9.854	0.001	32.224 (3.564–87.257)
Total school connectedness score	-0.078	44.265	0.001	0.931 (0.912–0.949)
Total FAD score	0.045	9.874	0.001	1.046 (1.021–1.078)
Constant	-9.845	18.625	0.000	0.000

OR = odds ratio, CI = confidence interval.
Reference groups: gender = male, family history of depression = have, family structure = other families.

4. Discussion

Adolescents often struggle to cope with challenges posed by their families, schools, and society, which can make them more sensitive to their emotions and increase their risk of depression [17]. Compared to adults, adolescents are more prone to recurrent episodes of depression [18] and more likely to develop severe depression [19]. However, the factors contributing to adolescent depression are very complex [20], and the impact of different factors on depression still needs further research.

The results demonstrated that there were remarkable differences in the detection of depressive psychology among adolescents by gender, grade, school type, family history of depression, and family structure ($p < 0.05$). Remarkable differences in CES-D score were also found by gender, grade, student origin, only-child status, school type, family history of depression, and family structure ($p < 0.05$). In terms of the growth characteristics, females tend to be more emotionally sensitive, which may lead to a high level of negative cognition and more pressure [21], so they are more prone to depression. From the perspective of grade, students in higher grades may experience greater academic pressure, making them more susceptible to depressive symptoms. This trend is also reflected in the type of school attended. Students in key schools had heavier academic burden and significantly higher CES-D scores ($p < 0.05$). There may be gaps between the growth environments of students from country and those from cities and towns. Non-only child face a more complex family environment than the only child, and the degree of parental care and affection they receive may also differ. Regarding family structure, adolescents who grow up in extended families often receive more emotional support from their elders. Due to the lack of a parent-child relationship, adolescents from divorced families are more emotionally sensitive and are more prone to depression [22]. Finally, a family history of depression is a very important factor contributing to adolescent depression, which may be related to genetics [23], or it may be because the family environment will be more complex and sensitive if there is a family member with a history of depression. The results of the multivariable logistic analysis also confirmed the importance of gender, family history of depression, and family structure. In conclusion, more attention should be paid to the mental health of adolescent girls, and close attention should be paid to students with a family history of depression.

According to Bronfenbrenner's ecological systems theory, developing individuals are nested in a series of environmental systems that interact with each other, and these interactions influence the development of individuals. This article mainly takes into account three aspects: family, society, and school. According to the analysis of family, social, and school scales, adolescents with depression had a FAD score of 152.07 ± 18.97 points, while those without depression had a score of 125.56 ± 18.01 points. The adolescents with depression had higher scores in all dimensions of FAD, indicating that the family of adolescents with depression had poor functions. This result indicates that unhealthy family functions, such as marital conflict between parents, domestic violence, and poor parent-child relationships, will lead to depression [24]. Influenced by traditional culture, many families view academic performance as the sole criterion for evaluating their children's value. Parents often adopt a high-pressure, controlling parenting style that can lead to emotional suppression in teenagers and increase the risk of depressive symptoms. Similarly, depressed adolescents had an SSRS score of 29.33 ± 5.92 points and a school connectedness scale score of 32.12 ± 6.41 points, both of which were lower, indicating that these adolescents receive less social and school support and have poor communication with the outside world. Under the influence of the traditional exam-oriented education, most schools and teachers attach great importance to students' test scores. Moreover, mental health courses are often treated as a mere formality. This creates a distinctly competitive atmosphere among students. In addition, with the digital development of society, the screen time of teenagers is increasing continuously, which further diminishes their connection to society, thus reducing the social support they experience. According to the results, schools should actively offer mental health lectures to guide adolescents to establish a positive attitude toward life. Teachers and parents should encourage open communication and urge adolescents to seek help when facing challenges. Society

should enhance its support networks for these youths. From the perspective of the ecological systems theory, families and schools have a direct impact on adolescents' depressive psychology at the microsystem level. At the mesosystem level, family conflicts can cause adolescents to exhibit withdrawn and avoidant behaviors in social interactions at school. Moreover, the rejection they experience in the school environment will affect family relationships, resulting in a vicious cycle. At the macrosystem level, the impact of exam-oriented education is profound, which is in line with the view that social values shape individual development. When combined with the cognitive-behavioral model, poor family functioning may lead adolescents to form negative cognitive patterns, resulting in low self-esteem, a sense of helplessness, and a lack of trust. Additionally, low levels of school connectedness further reinforce such negative thinking. Social support, as a protective factor, buffers negative thoughts and provides positive beliefs. In general, it is essential to establish a healthy family, school, and social environment.

Compared with existing studies, this paper provides a relatively systematic and comprehensive analysis of the factors contributing to adolescents' depressive psychology from three aspects: family, society, and school. It goes beyond the existing single-factor analysis, provides a basis for comprehensive intervention in adolescents' mental health, and also analyzes key demographic variables, which helps to identify high-risk groups. Future research should explore the interactions among family, society, and school to enhance our understanding of the depressive psychology of Chinese adolescents.

5. Conclusion

This paper analyzes the contributing factors of adolescent depression from three perspectives: family, society, and school. Through a questionnaire survey, significant differences in adolescent CES-D scores were found based on gender, grade, student origin, only-child status, school type, family history of depression, and family structure ($p < 0.05$). Depressed adolescents had higher FAD scores, lower SSRS scores, and lower school connectedness scale scores. Regression analysis showed that gender, family history of depression, family structure, total school connectedness score, and total FAD score were the factors contributing to adolescent depression. The results confirm that family, society, and school influence adolescent depressive psychology, providing theoretical support for further studies on adolescent depression. However, there are some limitations in this study. For example, only students from the first grade of junior high school through the first year of college were included as research participants, and the collection of general information about the research participants was not sufficiently comprehensive. Future research will aim to broaden the scope to explore the relationships between a wider range of demographic variables and factors contributing to adolescent depression and to improve the analysis of the mechanisms involved in its development.

Conflict of Interest

The authors declare that they have no competing interests.

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