

Article

Not peer-reviewed version

The Impact of Parental Depression, Anxiety, and Stress on Adolescents' Mental Health and Quality of Life: The Moderating Role of Parental Rejection

[Eirini Sofrona](#)* and Georgios Giannakopoulos

Posted Date: 17 September 2024

doi: 10.20944/preprints202409.1329.v1

Keywords: children and adolescents; parental rejection; parental depression; parental anxiety; parental stress; quality of life; mental health problems



Preprints.org is a free multidiscipline platform providing preprint service that is dedicated to making early versions of research outputs permanently available and citable. Preprints posted at Preprints.org appear in Web of Science, Crossref, Google Scholar, Scilit, Europe PMC.

Copyright: This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions, or products referred to in the content.

Article

The Impact of Parental Depression, Anxiety, and Stress on Adolescents' Mental Health and Quality of Life: The Moderating Role of Parental Rejection

Eirini Sofrona * and Georgios Giannakopoulos

Department of Child Psychiatry, School of Medicine, National and Kapodistrian University of Athens, Aghia Sophia Children's Hospital, Athens, Greece

* Correspondence: esofron@med.uoa.gr

Background/Objectives: Parental internalizing issues, particularly maternal mental health, can significantly influence adolescents' mental health by altering parenting behaviors and roles. This study aims to explore how parental rejection, a dimension of both maternal and paternal behavior, moderates the relationship between parental depression, anxiety, and stress with adolescents' mental health and quality of life. We hypothesized that parental rejection would have a significant moderating effect on these relationships; **Methods:** This cross-sectional, non-interventional study involved 206 parents (138 mothers) of adolescents aged 12-18 years from the general population. Participants were recruited online via convenience sampling and completed the Depression Anxiety Stress Scale (DASS), the Parental Acceptance-Rejection Questionnaire, the KIDSCREEN-27 to evaluate adolescents' quality of life, and the Strengths and Difficulties Questionnaire to assess adolescents' mental health; **Results:** Parental rejection was found to moderate the relationship between maternal anxiety and adolescents' quality of life, as well as between maternal anxiety and adolescents' mental health problems. Paternal rejection moderated the relationship between paternal stress and adolescents' mental health. However, parental rejection did not moderate the relationship between parental depression and adolescents' quality of life or mental health; **Conclusions:** These findings emphasize the significant role of maternal rejection in the association between maternal mental health, particularly anxiety, and adolescents' mental health outcomes. Paternal rejection also showed some moderating effects, though to a lesser extent. These results underscore the importance of considering both maternal and paternal influences in adolescent mental health and quality of life. Further research is necessary to fully understand the gender-specific dynamics of these relationships.

Keywords: children and adolescents; parental rejection; parental depression; parental anxiety; parental stress; quality of life; mental health problems

1. Introduction

It is well established that parental behavior has a profound impact on a child's psychosocial development, functioning either as a protective factor or as a risk factor for the development of psychosocial difficulties [1]. Parental practices characterized by increased discouragement, rejection, over-control, overprotection, or neglect are strong predictors of anxiety and depressive symptoms in developing children [2-5]. Rohner [6] identified two distinct dimensions of parental behavior: acceptance and rejection. These behaviors lie on a continuum ranging from warmth, affection, and support to the absence or significant lack of these qualities, coupled with behaviors that may harm the child physically or psychologically. Parental acceptance is linked to better psychosocial adjustment, whereas parental rejection is associated with mental health challenges [7-10].

Parental psychopathology, particularly internalizing symptoms such as anxiety, depression, and stress, can disrupt parenting practices and negatively affect parent-child interactions, leading to internalizing and externalizing problems in children [11-13]. Parents with high levels of anxiety, stress, or depression are more likely to exhibit rejecting behaviors towards their children [14,15]. Experiencing such rejection during adolescence—a critical developmental stage marked by

significant cognitive, emotional, and relational changes—may lead adolescents to perceive their environment as hostile or threatening. This undermines their self-esteem, fosters feelings of helplessness, and contributes to the development of negative self-perceptions, anxiety, and depressive symptoms [16].

Several studies have supported the link between parental depression or anxiety and adolescent mental health symptoms, with maternal rejection having a partial mediating effect on this relationship, while paternal rejection did not show the same impact [17-19]. Similarly, Papp et al. [20] found that the degree of parental acceptance or rejection partly explains the association between parental stress and psychological distress in adolescents. On the other hand, Johnco et al. [21] identified parental rejection as an independent factor associated with anxiety and depressive symptoms in childhood and adolescence, but it did not significantly explain the relationship between parental internalizing problems and children's symptoms.

These studies highlight a strong connection between parental mental health, parenting practices, and the mental health and development of children. However, the research on this topic is marked by significant heterogeneity in conceptual definitions. For instance, "parental anxiety" and "depression" are sometimes used to refer to subclinical symptoms, while other times they refer to clinically diagnosed disorders [22]. Furthermore, studies use varying definitions of parenting behaviors, with some referring to general "parenting," while others discuss specific behaviors such as warmth, control, and overprotection. Parental rejection is only occasionally identified as a distinct parenting behavior, and its definition and assessment tools differ across studies.

Another limitation in the literature is the frequent use of broad terms like "parental psychopathology" or "parental depression and anxiety," without distinguishing between maternal and paternal influences [23]. While the role of maternal behavior in child development is well established [22], research on the influence of paternal behavior on adolescents' quality of life and mental health has produced conflicting results, with some studies finding only weak effects [24,25].

Additionally, the number of studies examining the impact of parental mental health issues and negative parenting behaviors on adolescents' quality of life is limited, and no study has explicitly included parental stress as a variable of interest.

In this context, the present study aims to further investigate maternal and paternal rejection and their role in the relationships between parental depression, anxiety, and stress, and adolescents' quality of life and mental health. We hypothesize that parental rejection will moderate the relationship between parental internalizing symptoms and adolescent outcomes.

2. Materials and Methods

2.1. Participants and Procedures

This was a cross-sectional, non-interventional study conducted among parents with at least one adolescent child aged 12-18 years. The inclusion criteria required that the adolescent be between 12 and 18 years old and that both the parents and adolescents have a sufficient understanding of the Greek language to complete the questionnaires. A total of 206 parents (138 mothers and 68 fathers) of adolescents aged 12-18 from the general population participated in the study.

Data collection took place through online self-administered questionnaires. The recruitment of participants and administration of questionnaires were carried out via convenience sampling through social media platforms, such as Facebook groups targeting parents, as well as other social networks like email, Viber, and Instagram. A survey link was shared, and participants were asked to complete the questionnaires anonymously. Prior to participation, parents were provided with a brief explanation of the study and gave their informed consent.

The data collection period spanned from November 2023 to March 2024, and the entire process was conducted electronically using Google Forms. The study adhered to ethical standards and ensured confidentiality and voluntary participation at all stages of data collection.

2.2. Measures

2.2.1. Sociodemographic Data

Participants provided information on their gender, age, and the gender and age of their adolescent child. Additionally, data were collected on marital status, place of residence, educational level, socioeconomic status, and the adolescent's school grade and country of birth.

2.2.2. Parental Depression, Anxiety, and Stress

Parental depression, anxiety, and stress were assessed using the Greek version of the Depression Anxiety Stress Scale (DASS-21) [26,27]. This self-report scale comprises 21 items, divided into three subscales with seven items each, evaluating depression, anxiety, and stress. Responses are given on a 4-point Likert scale ranging from 0 (does not apply to me at all) to 3 (applies to me most of the time). Each subscale score is calculated by summing the item responses and multiplying the total by 2. Higher scores indicate greater severity of symptoms. The internal consistency of the DASS-21 in this study was high, with $\alpha = 0.90$ for depression, $\alpha = 0.85$ for anxiety, and $\alpha = 0.89$ for stress, indicating good reliability.

2.2.3. Parental rejection

The Parental Acceptance-Rejection Questionnaire (PARQ-Short Form-Parent Version) [28] was used to evaluate parental acceptance/rejection. This questionnaire contains 24 items rated on a 4-point Likert scale, with responses ranging from 1 (never) to 4 (always). The PARQ assesses four dimensions of parental behavior: (a) warmth/affection (8 items, reverse-scored to indicate coldness/lack of affection), (b) hostility/aggression (6 items), (c) indifference/neglect (6 items), and (d) undifferentiated rejection (4 items). The scores are summed to generate a total rejection score, with higher scores indicating greater parental rejection. The internal consistency of the scale was high ($\alpha = 0.87$).

2.2.4. Adolescent quality of life

Adolescents' quality of life was assessed using the Greek version of the KIDSCREEN-27 (Parent Version) [29]. This questionnaire consists of 27 items that evaluate five dimensions of the child's life over the past two weeks: (a) physical well-being (5 items), (b) psychological well-being (7 items), (c) autonomy and parental relationships (7 items), (d) peer relationships and social support (4 items), and (e) school environment (4 items). Responses are given on a 5-point Likert scale ranging from 1 (never) to 5 (always). The total score provides a general index of health-related quality of life, with higher scores indicating better quality of life. The internal consistency of the KIDSCREEN-27 was excellent ($\alpha = 0.91$).

2.2.5. Adolescent mental health problems

Adolescent mental health issues were evaluated using the Greek version of the Strengths and Difficulties Questionnaire (SDQ) [30,31]. The SDQ is a screening tool for early detection of mental health problems in children and adolescents. In this study, the parent-reported version was used to assess the adolescent's emotional and behavioral difficulties over the past six months. The SDQ consists of 25 items, grouped into five subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. Each item is rated on a 3-point Likert scale (0 = not true, 2 = certainly true). Subscale scores are summed to create a total difficulties score, where higher scores indicate greater difficulties. Higher scores on the prosocial behavior subscale indicate more positive behavior. The internal consistency of the total difficulties score was acceptable ($\alpha = 0.69$).

2.3. Statistical analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 29.0. Initially, the normality of the distributions for all study variables was assessed using the Kolmogorov-Smirnov test. Descriptive statistics, including means and standard deviations, were calculated for all variables under study. The internal consistency of the scales was evaluated using Cronbach's alpha coefficient. Statistical significance was set at $p < 0.05$ for all analyses.

To examine potential differences in parental depression, anxiety, stress, parental rejection, adolescent quality of life, and adolescent mental health problems based on demographic variables, independent samples t-tests and Mann-Whitney U tests were used for two-group comparisons. One-way ANOVA and Kruskal-Wallis tests were applied for comparisons involving more than two groups.

Moderation analyses were conducted to test whether parental rejection moderated the relationship between parental depression, anxiety, and stress, and adolescents' quality of life and mental health problems. The moderation effects were tested using the PROCESS macro (version 4.0) for SPSS [32]. This tool allows for simultaneous testing of multiple moderating and/or mediating variables, accommodating both simple and complex models. In this analysis, the following were examined: (a) whether the independent variable (parental depression, anxiety, or stress) predicted the dependent variable (adolescents' quality of life or mental health), (b) whether the proposed moderator (parental rejection) predicted the dependent variable, and (c) whether the interaction between the independent variable and the moderator predicted the dependent variable. A significant interaction effect would indicate that parental rejection serves as a moderator in the relationship between parental depression, anxiety, or stress, and the adolescents' quality of life or mental health.

3. Results

3.1. Sociodemographic characteristics

The sample consisted of 206 parents, including 138 mothers and 68 fathers, with an average age of 47.96 years (SD = 5.06) for mothers and 51.07 years (SD = 5.53) for fathers. The adolescents, for whom the parents reported data, had an average age of 15.47 years (SD = 1.96), with 51.9% of them being boys and 48.1% girls. Most of the parents were married (90.3%), with the remaining being divorced or widowed. Most participants lived in urban areas (76.2%), with a smaller portion residing in suburban (14.6%) or rural areas (9.2%). In terms of socioeconomic status, 64.1% of the families identified as being of average financial means, and 26.2% considered themselves above average. Detailed sociodemographic characteristics are presented in Table 1.

3.2. Descriptive statistics and psychosocial variables

Overall, the parents reported moderate levels of depression, anxiety, and stress. The mean depression score for the sample was 6.09 (SD = 7.61), anxiety was 4.31 (SD = 6.51), and stress was 9.61 (SD = 8.03). Similarly, the mean parental rejection score for the sample was 32.49 (SD = 8.29), while for the adolescents' perceived quality of life the mean score was 104.64 (SD = 12.23) and for the adolescents' mental health problems was 8.08 (SD = 5.22).

Comparisons between mothers and fathers showed that mothers reported significantly higher levels of depression ($U = 3898$, $p = 0.045$), anxiety ($U = 3722.5$, $p = 0.012$), and stress ($U = 3847$, $p = 0.035$) compared to fathers. Additionally, mothers reported better adolescent quality of life ($t_{(204)} = 2.043$, $p = 0.042$) compared to fathers. No significant differences were found between mothers and fathers in their reports of parental rejection or adolescent mental health problems.

Table 1. Sociodemographic characteristics of parents and adolescents.

		Total (%)	Mothers (%)	Fathers (%)
Marital status	Married	90.3	89.9	91.2
	Other	9.7	10.1	8.8
Place of residence	Urban	76.2	74.6	79.4
	Suburban	14.6	15.9	11.8
	Rural	9.2	9.4	8.8
Adolescents' country of birth	Greece	99.5	99.3	100.0
	Other	0.5	0.7	0.0
Adolescents' level of education	Primary school	8.7	8.7	8.8
	Junior high school	38.3	37.7	39.7
	High school	53.0	52.9	51.5
Parents' level of education	Primary education	0.5	0.0	1.5
	Secondary education	13.6	13.0	14.7
	Tertiary education	85.9	87.0	83.8
Socioeconomic status	High	26.2	23.2	32.4
	Middle	64.1	69.6	52.9
	Low	9.7	7.2	14.7

(b)

3.2. Effect of demographic variables on psychosocial outcomes

Analyses examining the influence of demographic factors revealed that the gender of the adolescent was significantly associated with overall mental health difficulties, with parents reporting higher levels of difficulties for boys ($U = 4399$, $p = 0.035$). Younger adolescents (aged 12-15 years) were reported to have more mental health difficulties compared to older adolescents (aged 16-18 years) ($U = 4277.5$, $p = 0.018$), and younger adolescents also had lower reported quality of life ($t_{(204)} = -2.121$, $p = 0.035$). Parents with lower educational levels reported higher anxiety ($U = 1969$, $p = 0.036$), while no significant effects were found for family status, place of residence, or socioeconomic status on the psychosocial variables.

3.3. Moderation analyses

3.3.1. Parental depression

The results indicated that parental depression and rejection, as well as their interaction, explained 20.4% of the variance in adolescents' quality of life ($R^2 = 0.204$, $F_{(3, 201)} = 17.21$, $p < 0.001$). For mothers, depression and rejection together explained 27% of the variance in adolescents' quality of life ($R^2 = 0.27$, $F_{(3, 133)} = 16.41$, $p < 0.001$), while for fathers, the explained variance was lower at 7.8% ($R^2 = 0.078$, $F_{(3, 64)} = 1.81$, $p = 0.155$). Parental rejection did not significantly moderate the relationship between parental depression and adolescent quality of life (Table 2).

Table 2. Regression coefficients for the relationship between parental depression and adolescents' quality of life, moderated by parental rejection.

		95% CI				
		<i>B</i>	<i>t</i>	<i>p</i>	Low	High
Total sample	Depression	-0.24	-2.19	0.030	-0.46	-0.02

	Rejection	-0.55	-5.61	0.000	-0.74	-0.36
	Depression*Rejection	-0.01	-0.68	0.497	-0.03	0.015
Mothers	Depression	-0.27	-2.14	0.034	-0.52	-0.02
	Rejection	-0.62	-5.31	0.000	-0.85	-0.39
	Depression*Rejection	0.001	0.05	0.963	-0.03	0.03
Fathers	Depression	-0.10	-0.45	0.654	-0.57	0.36
	Rejection	-0.42	-2.23	0.030	-0.80	-0.04
	Depression*Rejection	-0.003	-0.07	0.941	-0.08	0.07

Similarly, parental depression and rejection explained 32.4% of the variance in adolescent mental health problems ($R^2 = 0.324$, $F_{(3, 201)} = 32.17$, $p < 0.001$). Maternal depression and rejection explained 42.6% of the variance in adolescent mental health issues ($R^2 = 0.426$, $F_{(3, 133)} = 32.90$, $p < 0.001$), while paternal depression and rejection explained 18% of the variance ($R^2 = 0.18$, $F_{(3, 64)} = 4.67$, $p = 0.005$). Parental rejection did not serve as a significant moderator in the relationship between parental depression and adolescent mental health (Table 3).

Table 3. Regression coefficients for the relationship between parental depression and adolescents' mental health problems, moderated by parental rejection.

		<i>B</i>	<i>t</i>	<i>p</i>	95% CI	
					Low	High
Total sample	Depression	0.20	4.52	0.000	0.11	0.28
	Rejection	0.27	7.10	0.000	0.20	0.35
	Depression*Rejection	-0.002	-0.37	0.713	-0.01	0.01
Mothers	Depression	0.24	4.85	0.000	0.14	0.33
	Rejection	0.31	6.87	0.000	0.22	0.40
	Depression*Rejection	-0.01	-1.76	0.081	-0.02	0.001
Fathers	Depression	0.16	1.72	0.091	-0.03	0.34
	Rejection	0.25	3.25	0.002	0.10	0.40
	Depression*Rejection	0.02	1.38	0.173	-0.01	0.05

3.3.2. Parental anxiety

Parental anxiety and rejection, along with their interaction, explained 18.6% of the variance in adolescents' quality of life ($R^2 = 0.186$, $F_{(3, 201)} = 15.31$, $p < 0.001$). Maternal anxiety and rejection together explained 27.5% of the variance ($R^2 = 0.275$, $F_{(3, 133)} = 16.80$, $p < 0.001$), while paternal anxiety and rejection explained 8.7% ($R^2 = 0.087$, $F_{(3, 64)} = 2.04$, $p = 0.118$). Notably, maternal rejection significantly moderated the relationship between maternal anxiety and adolescents' quality of life ($\beta = 0.03$, $p = 0.027$), with the interaction explaining an additional 3% of the variance ($\Delta R^2 = 0.03$, $F_{(1, 133)} = 4.98$, $p = 0.027$) (Table 4).

Table 4. Regression coefficients for the relationship between parental anxiety and adolescents' quality of life, moderated by parental rejection.

		<i>B</i>	<i>t</i>	<i>p</i>	95% CI	
					Low	High

Total sample	Anxiety	-0.15	-1.12	0.262	-0.41	0.11
	Rejection	-0.64	-6.21	0.000	-0.85	-0.44
	Anxiety*Rejection	0.02	1.17	0.245	-0.01	0.04
Mothers	Anxiety	-0.24	-1.70	0.091	-0.52	0.04
	Rejection	-0.78	-6.37	0.000	-1.02	-0.54
	Anxiety*Rejection	0.03	2.23	0.027	0.004	0.06
Fathers	Anxiety	0.24	0.83	0.408	-0.34	0.82
	Rejection	-0.45	-2.39	0.020	-0.82	-0.07
	Anxiety*Rejection	0.01	0.29	0.773	-0.07	0.10

Parental anxiety and rejection also explained 34% of the variance in adolescent mental health problems ($R^2 = 0.34$, $F_{(3, 201)} = 34.52$, $p < 0.001$). Maternal anxiety and rejection explained 45% of the variance ($R^2 = 0.45$, $F_{(3, 133)} = 36.24$, $p < 0.001$), and paternal anxiety and rejection explained 24.2% ($R^2 = 0.242$, $F_{(3, 64)} = 6.83$, $p < 0.001$). Parental rejection significantly moderated the relationship between parental anxiety and adolescent mental health ($\beta = -0.01$, $p = 0.047$), with maternal rejection explaining an additional 6% of the variance in mental health problems ($\Delta R^2 = 0.06$, $F_{(1, 133)} = 13.44$, $p < 0.001$) (Table 5).

Table 5. Regression coefficients for the relationship between parental anxiety and adolescents' mental health problems, moderated by parental rejection.

		95% CI				
		<i>B</i>	<i>t</i>	<i>p</i>	Low	High
Total sample	Anxiety	0.26	5.16	0.000	0.16	0.36
	Rejection	0.30	7.43	0.000	0.22	0.37
	Anxiety*Rejection	-0.01	-1.99	0.047	-0.02	0.00
Mothers	Anxiety	0.27	5.08	0.000	0.17	0.38
	Rejection	0.37	7.98	0.000	0.28	0.46
	Anxiety*Rejection	-0.02	-3.67	0.000	-0.03	-0.01
Fathers	Anxiety	0.26	2.34	0.023	0.04	0.49
	Rejection	0.21	2.89	0.005	0.06	0.35
	Anxiety*Rejection	0.03	1.83	0.073	-0.003	0.06

3.3.3. Parental stress

Parental stress and rejection explained 19.1% of the variance in adolescents' quality of life ($R^2 = 0.191$, $F_{(3, 201)} = 15.78$, $p < 0.001$). For mothers, stress and rejection explained 26.3% of the variance ($R^2 = 0.263$, $F_{(3, 133)} = 15.83$, $p < 0.001$), while for fathers, it explained 7.6% ($R^2 = 0.076$, $F_{(3, 64)} = 1.77$, $p = 0.164$). Parental rejection did not significantly moderate the relationship between parental stress and adolescent quality of life (Table 6).

Table 6. Regression coefficients for the relationship between parental stress and adolescents' quality of life, moderated by parental rejection.

		95% CI				
		<i>B</i>	<i>t</i>	<i>p</i>	Low	High

Total sample	Stress	-0.18	-1.73	0.086	-0.39	0.03
	Rejection	-0.57	-5.72	0.000	-0.77	-0.38
	Stress*Rejection	0.001	0.06	0.950	-0.02	0.02
Mothers	Stress	-0.21	-1.71	0.089	-0.45	0.03
	Rejection	-0.70	-5.52	0.000	-0.95	-0.45
	Stress*Rejection	0.02	1.29	0.200	-0.01	0.04
Fathers	Stress	-0.05	-0.23	0.816	-0.45	0.36
	Rejection	-0.43	-2.01	0.049	-0.86	-0.002
	Stress*Rejection	-0.002	-0.07	0.945	-0.07	0.07

However, parental stress and rejection explained 30.2% of the variance in adolescent mental health problems ($R^2 = 0.302$, $F_{(3, 201)} = 28.98$, $p < 0.001$). Maternal stress and rejection together explained 39.9% of the variance ($R^2 = 0.399$, $F_{(3, 133)} = 29.46$, $p < 0.001$), while paternal stress and rejection explained 23.6% ($R^2 = 0.236$, $F_{(3, 64)} = 2.84$, $p = 0.006$). Notably, paternal rejection significantly moderated the relationship between paternal stress and adolescent mental health problems ($\beta = 0.04$, $p = 0.006$), with the interaction explaining an additional 10% of the variance ($\Delta R^2 = 0.10$, $F_{(1, 64)} = 8.06$, $p = 0.006$) (Table 7).

Table 7. Regression coefficients for the relationship between parental stress and adolescents' mental health problems, moderated by parental rejection.

		95% CI				
		<i>B</i>	<i>t</i>	<i>p</i>	Low	High
Total sample	Stress	0.15	0.04	0.001	0.06	0.23
	Rejection	0.27	0.04	0.000	0.19	0.35
	Stress*Rejection	0.002	0.004	0.616	-0.006	0.01
Mothers	Stress	0.19	4.01	0.000	0.10	0.29
	Rejection	0.31	6.31	0.000	0.22	0.41
	Stress*Rejection	-0.01	-1.49	0.139	-0.02	0.003
Fathers	Stress	0.07	0.90	0.371	-0.09	0.23
	Rejection	0.35	4.19	0.000	0.18	0.51
	Stress*Rejection	0.04	2.84	0.006	0.01	0.06

4. Discussion

This study aimed to explore the role of parental rejection—both maternal and paternal—in moderating the relationships between parental depression, anxiety, and stress, and adolescents' quality of life and mental health problems. The findings highlight the significance of parental rejection, particularly maternal rejection, in influencing these relationships, with important implications for understanding the impact of parental mental health on adolescent outcomes.

First, parental rejection was found to be a significant predictor of both adolescent quality of life and mental health problems, for both mothers and fathers. This confirms previous findings that parental rejection can have a lasting negative impact on adolescent well-being [10]. However, the degree of influence varied between maternal and paternal rejection. While maternal rejection had a

stronger moderating effect on the relationship between parental anxiety and adolescents' mental health, paternal rejection showed a more limited role, particularly in moderating the relationship between paternal stress and adolescents' mental health problems.

The results showed that parental depression significantly predicted adolescent quality of life and mental health issues. Maternal depression was a strong predictor, while paternal depression did not significantly affect either quality of life or mental health outcomes in adolescents. This suggests that maternal depression may play a more critical role in shaping adolescent mental health, a finding that aligns with previous research emphasizing the maternal role in child development [5,13]. Interestingly, parental rejection did not moderate the relationship between parental depression and adolescent outcomes. This finding is consistent with the study of Johnco et al. [21], who also did not find a moderating effect of parental rejection on the depression-adolescent outcome relationship, though they did not differentiate between maternal and paternal influences.

With respect to parental anxiety, no direct predictive relationship was found between anxiety and adolescent quality of life. However, maternal rejection moderated the relationship between maternal anxiety and adolescent quality of life, indicating that maternal anxiety may have an indirect effect on adolescents when rejection is also present. These findings highlight the role of maternal rejection as a critical factor in the interaction between maternal anxiety and adolescent outcomes. Similarly, parental anxiety significantly predicted adolescent mental health problems, with maternal rejection again serving as a significant moderator. These results are consistent with Ma and colleagues, who found that maternal rejection mediated the relationship between maternal anxiety and adolescent anxiety but did not find a similar effect for paternal rejection [17].

Parental stress did not significantly predict adolescents' quality of life, and parental rejection did not moderate this relationship. This finding was consistent for both mothers and fathers, suggesting that parental stress alone may not directly influence adolescents' perceived quality of life. However, parental stress significantly predicted adolescent mental health problems, particularly for mothers. Notably, paternal rejection moderated the relationship between paternal stress and adolescent mental health issues, despite the lack of a direct effect of paternal stress. This suggests that paternal rejection may exacerbate the impact of stress on adolescent mental health, even if the direct influence of paternal stress is limited. These findings are consistent with existing research that points to the complex role of paternal behavior in adolescent development [24,25].

The heterogeneity in the literature regarding the role of parental rejection as a moderator in the relationship between parental psychopathology and adolescent mental health is reflected in these findings. Some studies, such as Reigstad et al. [18], have found that maternal rejection plays a significant mediating role in this relationship, whereas others, like Kim's [19], did not observe such an effect. The differences in findings across studies may be due to variations in study design, sample characteristics, and measurement tools. For example, the current study focused on adolescent mental health, while other studies have examined younger children or focused on different aspects of mental health, such as externalizing or internalizing problems.

The absence of significant effects of parental rejection in moderating the relationship between parental depression and adolescent outcomes could be attributed to the sample size or the relatively lower frequency of depressive symptoms reported in this non-clinical population. Anxiety and stress were more prevalent among the parents in this study, which might explain why parental rejection played a more significant moderating role in these relationships. Additionally, depressive symptoms tend to be less frequently reported in the general population compared to anxiety and stress, as seen in this study, which may further limit the ability to detect significant moderating effects of parental rejection.

Furthermore, it is possible that parental rejection, when examined in isolation, may not be sufficient to account for the complex dynamics of parental psychopathology and adolescent outcomes. A combination of multiple negative parenting behaviors—such as overcontrol, strictness, and harsh punishment—may have a stronger moderating or even mediating effect in the relationship between parental depression, anxiety, and stress, and adolescent mental health and quality of life.

Future studies should consider examining these additional dimensions of parenting behavior to provide a more comprehensive understanding of their role.

Finally, the differential effects observed between maternal and paternal rejection in moderating the relationship between parental stress and adolescent mental health suggest that gender-specific dynamics may be at play. The smaller number of fathers in this study may have limited the statistical power to detect significant effects, and future research should aim to include larger, more balanced samples to explore these gender differences more thoroughly.

This study has several limitations that should be noted. First, the cross-sectional design prevents causal conclusions, highlighting the need for longitudinal studies. Second, reliance on self-reported data from parents introduces the potential for bias, and obtaining reports from adolescents or other sources could provide a more accurate picture. The sample, which primarily used convenience sampling and included more mothers than fathers, may limit the generalizability of the results, particularly in terms of paternal influences. Additionally, the study focused on a non-clinical, Greek-speaking population, which may not fully represent other cultural or clinical contexts. Moreover, the study's use of the DASS-21 to assess subclinical symptoms rather than diagnosed mental health conditions further limits the findings. Finally, the measurement of parental stress was not detailed enough to capture its complexity, and future studies should explore specific sources of stress to better understand its effects.

5. Conclusions

This study emphasizes the role of parental rejection, particularly maternal rejection, in the relationship between parental anxiety and adolescent outcomes. The findings suggest that while maternal rejection plays a significant moderating role, paternal rejection also influences adolescent mental health, albeit to a lesser extent. These results highlight the need for further research into the specific mechanisms through which maternal and paternal behaviors affect adolescent development. Additionally, interventions aimed at reducing parental rejection, particularly in families where parental anxiety or stress is high, could be beneficial in improving adolescent mental health and quality of life.

Author Contributions: Conceptualization, E.S. and G.G.; methodology, E.S. and G.G.; software, E.S.; investigation, E.S.; data curation, E.S.; writing—original draft preparation, E.S.; writing—review and editing, G.G.; supervision, G.G. All authors have read and agreed to the published version of the manuscript.”

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethics Committee of the School of Medicine, National and Kapodistrian University of Athens, Athens, Greece.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author due to privacy and legal reasons.

Acknowledgments: The authors would like to express their gratitude to Drs Gerasimos Kolaitis and Ignatia Farmakopoulou for their feedback during the evaluation of the first author's master's thesis, which laid the foundation for this article. The authors are also thankful to Mr Foivos Zaravinos-Tsakos for his comments on the methodology of the study. Furthermore, the authors would like to extend their heartfelt thanks to all the parents who generously took part in this study. Their time and openness were crucial for the successful completion of this research.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Maccoby, E.E. Parenting and its Effects on Children: On Reading and Misreading Behavior Genetics. *Annual Review of Psychology* **2000**, *51*, 1-27, doi:10.1146/annurev.psych.51.1.1.

2. Chorot, P.; Valiente, R.M.; Magaz, A.M.; Santed, M.A.; Sandin, B. Perceived parental child rearing and attachment as predictors of anxiety and depressive disorder symptoms in children: The mediational role of attachment. *Psychiatry Research* **2017**, *253*, 287-295, doi:10.1016/j.psychres.2017.04.015.
3. Zhu, X.; Dou, D.; Karatzias, T. Editorial: Parental influence on child social and emotional functioning. *Frontiers in Psychology* **2024**, *15*, doi:10.3389/fpsyg.2024.1392772.
4. Beliveau, L.E.; Iselin, A.-M.R.; DeCoster, J.; Boyer, M.A. A Meta-analysis Relating Parental Psychological Control with Emotion Regulation in Youth. *Journal of Child and Family Studies* **2023**, *32*, 3876-3891, doi:10.1007/s10826-023-02700-2.
5. Bellina, M.; Grazioli, S.; Garzitto, M.; Mauri, M.; Rosi, E.; Molteni, M.; Brambilla, P.; Nobile, M. Relationship between parenting measures and parents and child psychopathological symptoms: A cross-sectional study. *BMC Psychiatry* **2020**, *20*, doi:10.1186/s12888-020-02778-8.
6. Rohner, R.P. The Parental "Acceptance-Rejection Syndrome": Universal Correlates of Perceived Rejection. *American Psychologist* **2004**, *59*, 830-840, doi:10.1037/0003-066X.59.8.830.
7. Folker, A.E.; Deater-Deckard, K.; Lansford, J.E.; Di Giunta, L.; Dodge, K.A.; Gurdal, S.; Liu, Q.; Long, Q.; Oburu, P.; Pastorelli, C.; et al. Intraindividual variability in parental acceptance-rejection predicts externalizing and internalizing symptoms across childhood/adolescence in nine countries. *J Fam Psychol* **2024**, *38*, 333-344, doi:10.1037/fam0001133.
8. Khaleque, A. Perceived parental warmth, and children's psychological adjustment, and personality dispositions: A meta-analysis. *Journal of Child and Family Studies* **2013**, *22*, 297-306, doi:10.1007/s10826-012-9579-z.
9. Pinquart, M.; Gerke, D.-C. Associations of Parenting Styles with Self-Esteem in Children and Adolescents: A Meta-Analysis. *Journal of Child and Family Studies* **2019**, *28*, 2017-2035, doi:10.1007/s10826-019-01417-5.
10. Miranda, M.C.; Affuso, G.; Esposito, C.; Bacchini, D. Parental Acceptance-Rejection and Adolescent Maladjustment: Mothers' and Fathers' Combined Roles. *Journal of Child and Family Studies* **2016**, *25*, 1352-1362, doi:10.1007/s10826-015-0305-5.
11. Xerxa, Y.; Rescorla, L.A.; van der Ende, J.; Hillegers, M.H.J.; Verhulst, F.C.; Tiemeier, H. From Parent to Child to Parent: Associations Between Parent and Offspring Psychopathology. *Child Development* **2021**, *92*, 291-307, doi:10.1111/cdev.13402.
12. Dachew, B.; Ayano, G.; Duko, B.; Lawrence, B.; Betts, K.; Alati, R. Paternal Depression and Risk of Depression Among Offspring: A Systematic Review and Meta-Analysis. *JAMA Network Open* **2023**, *6*, e2329159-e2329159, doi:10.1001/jamanetworkopen.2023.29159.
13. Jacobs, R.H.; Talati, A.; Wickramaratne, P.; Warner, V. The Influence of Paternal and Maternal Major Depressive Disorder on Offspring Psychiatric Disorders. *Journal of Child and Family Studies* **2015**, *24*, 2345-2351, doi:10.1007/s10826-014-0037-y.
14. Xu, F.; Cui, W.; Lawrence, P.J. The Intergenerational Transmission of Anxiety in a Chinese Population: The Mediating Effect of Parental Control. *Journal of Child and Family Studies* **2020**, *29*, 1669-1678, doi:10.1007/s10826-019-01675-3.
15. Booker, J.A.; Capriola-Hall, N.N.; Ollendick, T.H. Parental Influences and Child Internalizing Outcomes across Multiple Generations. *J Child Fam Stud* **2018**, *27*, 2217-2231, doi:10.1007/s10826-018-1067-7.
16. Berthelon, M.; Contreras, D.; Kruger, D.; Palma, M.I. Harsh parenting during early childhood and child development. *Economics and Human Biology* **2020**, *36*, doi:10.1016/j.ehb.2019.100831.

17. Ma, Y.; Liu, L.; Wang, X.-x.; Wang, M.-f. Intergenerational transmission of anxiety: The mediating role of parental rejection. *Chinese Journal of Clinical Psychology* **2016**, *24*, 23-27.
18. Reigstad, K.M.; Marceau, K.; Gunlicks-Stoessel, M.L.; VanZomeren, A.A.; Westervelt, A.; Brand, A.E.; Zahn-Waxler, C.; Hastings, P.D.; Klimes-Dougan, B. Parenting Processes Mediate the Link Between Maternal Depressive Symptoms and Adolescent Psychopathology. *Journal of Child and Family Studies* **2023**, *32*, 716-732, doi:10.1007/s10826-022-02460-5.
19. Kim, E. Korean American Parental Depressive Symptoms and Children's Mental Health: The Mediating Role of Parental Acceptance-Rejection. *Journal of Pediatric Nursing* **2013**, *28*, 37-47, doi:10.1016/j.pedn.2012.04.004.
20. Papp, L.M.; Cummings, E.M.; Goeke-Morey, M.C. Parental Psychological Distress, Parent - Child Relationship Qualities, and Child Adjustment: Direct, Mediating, and Reciprocal Pathways. *Parenting: Science and Practice* **2005**, doi:10.1207/s15327922par0503_2.
21. Johnco, C.J.; Magson, N.R.; Fardouly, J.; Oar, E.L.; Forbes, M.K.; Richardson, C.; Rapee, R.M. The role of parenting behaviors in the bidirectional and intergenerational transmission of depression and anxiety between parents and early adolescent youth. *Depress Anxiety* **2021**, *38*, 1256-1266, doi:10.1002/da.23197.
22. Sweeney, S.; Wilson, C. Parental anxiety and offspring development: A systematic review. *Journal of Affective Disorders* **2023**, *327*, 64-78, doi:10.1016/j.jad.2023.01.128.
23. Mestermann, S.; Arndt, M.; Fasching, P.A.; Beckmann, M.W.; Kratz, O.; Moll, G.H.; Kornhuber, J.; Eichler, A. The Father's Part: Influences of Paternal Psychopathology and Parenting Behavior on Child and Adolescent Well-Being. *Healthcare (Basel)* **2023**, *11*, 2119, doi:10.3390/healthcare11152119.
24. Agerup, T.; Lydersen, S.; Wallander, J.; Sund, A.M. Maternal and paternal psychosocial risk factors for clinical depression in a Norwegian community sample of adolescents. *Nordic Journal of Psychiatry* **2015**, *69*, 35-41, doi:10.3109/08039488.2014.919021.
25. Wickersham, A.; Leightley, D.; Archer, M.; Fear, N.T. The association between paternal psychopathology and adolescent depression and anxiety: A systematic review. *Journal of Adolescence* **2020**, *79*, 232-246, doi:10.1016/j.adolescence.2020.01.007.
26. Lovibond, S.H.; Lovibond, P.F. Depression Anxiety Stress Scales. **2011**, doi:10.1037/t01004-000.
27. Pezirkianidis, C.; Karakasidou, E.; Lakioti, A.; Stalikas, A.; Galanakis, M. Psychometric Properties of the Depression, Anxiety, Stress Scales-21 (DASS-21) in a Greek Sample. *Psychology* **2018**, *9*, 2933-2950, doi:10.4236/psych.2018.915170.
28. Rohner, R. Parental Acceptance-Rejection Questionnaire (PARQ): Test Manual. *Handbook for the study of parental acceptance and rejection* **2005**, 43-106.
29. Ravens-Sieberer, U.; Auquier, P.; Erhart, M.; Gosch, A.; Rajmil, L.; Bruil, J.; Power, M.; Duer, W.; Cloetta, B.; Czemy, L.; et al. The KIDSCREEN-27 quality of life measure for children and adolescents: psychometric results from a cross-cultural survey in 13 European countries. *Qual Life Res* **2007**, *16*, 1347-1356, doi:10.1007/s11136-007-9240-2.
30. Goodman, R. The Strengths and Difficulties Questionnaire: a research note. *J Child Psychol Psychiatry* **1997**, *38*, 581-586, doi:10.1111/j.1469-7610.1997.tb01545.x.
31. Giannakopoulos, G.; Tzavara, C.; Dimitrakaki, C.; Kolaitis, G.; Rotsika, V.; Tountas, Y. The factor structure of the Strengths and Difficulties Questionnaire (SDQ) in Greek adolescents. *Annals of General Psychiatry* **2009**, *8*, 20, doi:10.1186/1744-859X-8-20.

32. Igartua, J.; Hayes, A.F. Mediation, Moderation, and Conditional Process Analysis: Concepts, Computations, and Some Common Confusions. *The Spanish Journal of Psychology* **2021**, *24*, e49, doi:10.1017/SJP.2021.46.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.