



Original Article

Association between Maternal Mental Health after Early Marriage and Adolescent Mental Disorders in Indonesia

Budi Cahyono^{1✉}, Eka Diah Kartiningrum², Mohammad Yusuf Alamudi³

^{1,2,3}Master of Public Health Program Majapahit Institute of Health Sciences, Mojokerto, Indonesia

Correspondence Author: omahayem898@gmail.com✉

Abstract:

Background: Early marriage remains a persistent social phenomenon with profound implications for maternal mental health and the psychological development of children. This study aims to examine the association between maternal mental health following early marriage and the occurrence of mental disorders among adolescents in Malang Regency, Indonesia. **Methods:** A quantitative cross-sectional design was employed with a total of 205 respondents selected using a quota-based multistage sampling technique. Data were collected through standardized questionnaires measuring maternal mental health and adolescent mental disorders using the Symptom Checklist-90 (SCL-90). Statistical analyses included ordinal logistic regression and Chi-Square tests (Pearson and Likelihood Ratio) to assess associations and predictive effects. **Results:** Findings demonstrated a significant association between maternal mental health after early marriage and the prevalence of mental disorders among adolescents. Ordinal logistic regression revealed that maternal mental health status significantly influenced adolescent mental health outcomes. The model showed good fit (Goodness-of-Fit Pearson = 10.164, $p = 0.602$; Deviance = 11.249, $p = 0.508$) with a moderate to strong effect size (Nagelkerke Pseudo $R^2 = 0.521$). Parameter estimates indicated a positive direction of influence: higher levels of maternal mental health problems were associated with a greater likelihood of adolescent mental disorders. **Conclusion:** Maternal mental health following early marriage has a substantial impact on adolescent psychological well-being. The study highlights the urgent need for comprehensive public health policies to prevent early marriage and to provide accessible mental health support services for mothers and adolescents in Indonesia.

Keywords: Early Marriage, Maternal Mental Health, Adolescent Mental Disorders, Indonesia



Introduction

Early marriage remains a critical public health and social issue in many developing countries, including Indonesia. Previous studies have shown that child

marriage is strongly associated with adverse maternal health outcomes, lower educational attainment, and increased risk of poverty. Beyond these socioeconomic effects, early marriage has profound implications for maternal mental health, which in turn influences child development and adolescent psychological well-being.

Adolescents growing up in families where mothers experience mental health challenges are more likely to suffer from emotional instability, behavioral problems, and clinical mental disorders. Despite growing evidence, limited empirical research has specifically examined the intergenerational link between maternal mental health after early marriage and adolescent mental disorders in Indonesia.

This study aims to fill this gap by analyzing the association between maternal mental health among women who experienced early marriage and the prevalence of mental disorders among adolescents in Malang Regency, Indonesia.

Methods

This study utilized a quantitative, cross-sectional design to examine the mental health outcomes of mothers married before the legal age and their adolescent children. A total of 205 respondents were selected through a quota-based multistage area sampling method, ensuring a representative sample of participants. Maternal mental health was assessed using a standardized mental health questionnaire, while adolescent mental health outcomes were measured using the Symptom Checklist-90 (SCL-90). Both instruments have been previously validated and are widely used in mental health research. Data collection involved administering structured questionnaires directly to participants, with ethical approval obtained before the study commenced, and informed consent secured from all participants. The data were analyzed using ordinal logistic regression to examine predictive relationships, while Chi-Square tests (both Pearson and Likelihood Ratio) were employed to assess associations. Model fit was evaluated using Pearson Goodness-of-Fit and Deviance statistics, and effect size was reported using Nagelkerke's Pseudo R².

Table 1. Relationship between the mental status of early married mothers and the mental status of adolescent children

Test	Value	Df	p-value (2-sided)
Pearson Chi-Square	293.442	16	<0.001

Table Maternal mental status and adolescent mental status using ordinal logistic regression

Results

Sub 1 Overview of Research Locations

Malang Regency is one of the regencies in Indonesia located in East Java Province and is the second largest regency after Banyuwangi Regency out of 38 regencies/cities in East Java. This is supported by an area of 3,534.86 km² or equal to 353,486 ha and a population of 2,446,218 people (in 2010). Malang Regency is also known as an area rich in potential, including from agriculture, plantations, family medicinal plants and so on. Besides that, it is also known for its tourist attractions.

Malang Regency is located at 112017'10.90" to 112057'00" East Longitude, 7044'55.11" to 8026'35.45" South Latitude. Administratively, Malang Regency is divided into 33 sub-districts, which are subdivided into a number of villages and sub-districts. The center of government in Kepanjen District. The previous government

center was in Malang City. Batu City used to be part of Malang Regency, since 2001 it separated after being designated as a city. Together with Batu City and Malang City, Malang Regency is part of a regional unit known as Malang Raya.

This regency is directly adjacent to Malang City and Batu City right in the middle. The boundaries of Malang Regency are as follows:

- North : Pasuruan Regency and Regency Mojokerto
- West : Blitar Regency and Kediri Regency
- South : Indonesian Ocean (Indies)
- East : Probolinggo Regency and Regency São Paulo

Most of the area of Malang Regency is in the form of mountains. The western and northwest parts are mountainous, with the summit of Mount Arjuno (3,339 m) and Mount Kawi (2,651 m). In these mountains there is a spring of the Brantas River, the longest river in East Java.

Sub 2 General Data

a. Married Mother's Age and Mental Status

Table 2. Distribution of Married Mothers and Mental Status

Variable	5%	10%	25%	50% (Median)	75%	90%	95%
Mother's Age of Marriage	16	16	17	18	18	18	19
Mother's Mental Status	1	2	2	3	4	4	4
Child's Mental Status	1	2	3	3	4	4	4
PST Levels	0	0	0	0	0	0	0
PDSI Level	1.3	2	2	2	3	3	3

The results of table 2 were obtained from the mother's marriage age compared to the PST and PDSI levels and the child's mental status showed that the mother's age at marriage varied between 16–19 years (5–95th percentile), with a median of 18 years indicating a tendency for the child's mental status to be heavier than that of the mother. The PST level of almost all respondents was at a value of 0 (median = 0, 25–75 percentile = 0–0, Tukey's Hinges = 0), indicating no significant PST impairment. Meanwhile, the PDSI level was in the moderate category, with median = 2, 25–75 percentile = 2–3, indicating that most respondents had a consistent PDSI level in the moderate category. The majority of mothers get married at the age of 18. The mental status of mothers

and children is mostly in the moderate category, with children showing a heavier tendency than mothers. The PST level was almost zero in all respondents, while the PDSI level was mostly in the medium category.

b. Mother's age at marriage

Table 3. Distribution of Mother's Age at Marriage

Mother's age of marriage (year)	Frequency	Percentage (%)
10	2	1.0
15	1	0.5
16	24	11.7
17	56	27.2
18	108	52.4
19	14	6.8

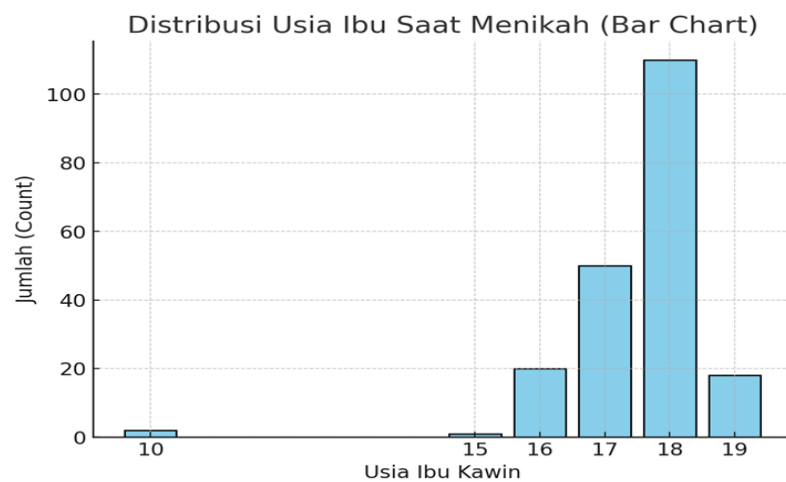


Figure 1. Mother's Marriage Age

The results of table 3 and figure 1 explain that most mothers get married at the age of 18 (52.7%), followed by the age of 17 (27.3%). The age of 16 years was recorded as much as 11.7% of respondents, while the ages of 10, 15, and 19 years were less than 7% respectively.

c. Mother's Mental Status

Table 4. Mother's Mental Status

Mother's mental age	Frequency	Percentage (%)	Valid Percentage (%)
(Uninterrupted)	69	33.5	33.7
1 (Interrupted)	136	66.0	66.3

The results of table 4. explained that of the 205 respondents with complete data, the majority of mothers experienced mental status disorders (66.3%), while 33.7% of mothers were not disturbed. Only 1 respondent (0.5%) had missing data

d. Child's Mental Status

Table 5. Distribution of Children's Mental Status

Child's mental age	Frequency	Percentage (%)	Valid Percentage (%)
(Uninterrupted)	40	19.4	19.5
1 (Interrupted)	165	80.1	80.5

The results of table 5. It can be seen that most children have mental status disorders (**80.5%**), while 19.5% of children are not disturbed

Sub 3 Special Data

- a. The results of the Pearson Chi-Square Test between the mother's marriage age and the mental status of the child.

Table 6. Pearson Chi-Square Test Results Between Mother's Marital Age and Child's Mental Status

Test	Value	Df	p-value (2-sided)
Pearson Chi-Square	7.952	8	0.438

Interpretation

Pearson Chi-Square ($p = 0.438$) showed that there was no significant relationship between the variables tested at a significance level of 0.05.

Results from table 6. It can be explained that the maternal age at marriage when compared with the mental status of the child shows that there is no significant relationship between the variables analyzed (Pearson Chi-Square = 25.503; $df = 20$; $p = 0.183$), even though most cells have an expected count of < 5 . This shows that these variables are not statistically related in this study sample

- b. The relationship between the mental status of mothers who marry early and the mental status of adolescents

Table 7. The relationship between the mental status of mothers who marry early and the mental status of adolescents

Test	Value	Df	p-value (2-sided)
Pearson Chi-Square	293.442	16	<0.001

Table 7 shows that there is a very significant relationship between the

variables analyzed (Pearson Chi-Square = 293.442; $df = 16$; $p < 0.001$), even though some cells have an expected count of < 5 . This indicates that these variables are statistically related to each other in this study sample.

c. Mother's age of marriage with PDSI Level

Table 8. Mother's age of marriage with PDSI Level

Test	Value	Df	p-value (2-sided)
Pearson Chi-Square	26.016	16	0.054

Table 8. shows that the relationship between variables is not statistically significant (Pearson Chi-Square = 26.016; $df = 16$; $p = 0.054$), although it is possible that there is still a tendency for the relationship between these variables. Most cells have an expected count of < 5 , so interpretations can still be obtained by considering the limitations of the frequency distribution.

d. Mental Status of Mothers with PST Level

Table 9. Mental Status of Mothers with PST Levels

Test	Value	Df	p-value (2-sided)
Pearson Chi-Square	0.510	1	0.475

Table 9. The maternal mental status with PST levels showed that there was no significant relationship between the two variables (Pearson Chi-Square = 0.510; $df = 1$; $p = 0.475$), although 50% of cells had an expected count of < 5 . So these variables were not statistically related in this study sample.

e. Mental Status of Mothers with PDSI Levels

Table 10. Mental Status of Mothers with PDSI Levels

Test	Value	Df	p-value (2-sided)
Pearson Chi-Square	35.931	2	<0.001

Table 10 on the mental status of mothers with PDSI shows a very significant relationship between the variables analyzed (Pearson Chi-Square = 35.931; $df = 2$; $p < 0.001$). Most cells have an adequate expected count, so the relationships between variables can be considered statistically valid.

f. Pearson's Correlation Matrix Between Variables

Table 11 Pearson Correlation Matrix Between Variables

Variable	1	2	3	4	5
1. The Age of the Married Mother	1	.202**	-.011	-.054	-.047
Mother's Mental Status	.202**	1	.561**	.050	.414**

3. Child's Status	Mental	-.011	.561**	1	.142*	463**
PST Rate		-.054	.050	.142*	1	-.033
PDSI Level		-.047	.414**	463**	-.033	1

Table 11. The above is the result of Pearson's correlation analysis showing several significant relationships between variables in 205 respondents:

1. The age of the married mother had a significant negative correlation with the mental status of the mother ($r = -0.202$; $p = 0.004$), meaning that the younger the age of the mother of marriage, the higher the mental status disorder of the mother.
2. Maternal mental status was positively correlated significantly with the child's mental status ($r = 0.561$; $p < 0.001$) and PDSI level ($r = 0.414$; $p < 0.001$).
3. The child's mental status was also significantly correlated with the level of PDSI ($r = 0.463$; $p < 0.001$) and negatively with the level of PST ($r = -0.142$; $p = 0.042$).
4. Other variables do not show significant correlations

These results show that there is a fairly strong positive relationship between the mental status of the mother and the child and its effect on the level of distress (PDSI).

Discussion

Sub 1 Effect of early marriage mother's mental status with total positive symptoms (PST)

The results of the analysis showed that the mother's mental status did not have a significant effect on the child's PST (Positive Symptom Total) ($p > 0.05$ for all categories), although there was a difference in odds ratio in each category of mothers. This shows that the mother's mental status does not directly determine the level of stress or intensity of the child's psychological symptoms as measured through the positive symptom distress index (PDSI). In other words, although the mother's mental disorder affects the number of child symptoms (PST), the level of distress or discomfort felt by the child does not depend on the mother's mental state. These findings are consistent with previous research showing that other environmental factors, such as social support and child coping mechanisms, also influence PST (Total Positive Symptom).

These findings are in line with previous research that emphasized the importance of other environmental factors, such as social support and child coping mechanisms, that play a major role in suppressing psychological symptoms ([Yarboi et al., 2017](#); [Zeytinoglu et al., 2019](#)). More recent research also confirms that protective factors, including peer support and quality of family relationships, play a role in lowering adolescent psychological vulnerability ([Oberle et al., 2020](#); [Widnall et al., 2022](#)).

In addition, a recent systematic study found that the quality of social relationships and emotion regulation function as a protector against the emergence of distress symptoms in adolescents from parents with mental disorders ([Shi et al., 2022](#); [Trumello et al., 2018](#)). This shows that the influence of the mother is not absolute, but relative to the social and cognitive context of the child. Therefore, this study opens up new exploration space to examine the role of mediation and moderation variables in the relationship between maternal mental status and children's mental health.

The results of this study are in accordance with the theoretical assumption of

Freud which emphasizes the dominance of early experiences with parents as the main factor in shaping personality ([Boucher et al., 2017](#); [Sleed et al., 2020](#)). Freud thought that psychological disorders in the mother would directly affect the emotional development of the child through the mechanism of fixation at a certain stage. However, the results of this study further support the view of Cherry who emphasized that the psychosocial development of adolescents is at the stage of identity vs. role confusion which is greatly influenced by social interactions outside the nuclear family ([Cherry, 2023](#)). In addition, Allabergenova and Azzamov theory is also relevant, as it shows that a child's cognitive development and regulatory ability play an important role in interpreting and managing stress ([Allabergenova & Azzamov, 2025](#)). Thus, children can have many psychological symptoms without having to feel high distress, thanks to the cognitive ability to adjust. These findings emphasize the importance of expanding the study towards adolescent internal factors as determinants of mental health. This shows that the influence of the mother is not deterministic, but relative to the social and cognitive context of the child.

Family Systems Theory also provides a framework of understanding that is in accordance with the results of this research. This theory emphasizes that each family member influences each other systemically, but the emotional balance of the family can be maintained through the involvement of parties other than the mother ([Becvar & Becvar, 2013](#)). In this context, even though the mother has a mental disorder, the presence of fathers, grandparents, and external social support can serve as a counterweight that reduces the negative impact on the child. This explains why the mother's mental state does not significantly affect the child's distress even though it is related to the number of symptoms that appear.

Dinisman also emphasized that the quality of family interaction as a whole determines the psychological well-being of children more than certain individual conditions in the family ([Dinisman et al., 2017](#)). In other words, a healthy family system can suppress the cross-generational transmission of psychological disorders. These findings reinforce the view that adolescent mental health is determined by multidimensional interactions, not merely the mother's psychological state. Therefore, follow-up research is important to include variables of family support, social networks, and adolescent coping strategies to provide a more comprehensive understanding of protective factors in adolescent mental health from mothers who marry early

Sub 2 The effect of the mental status of early married mothers with PSDI (Positive Symptom Distress Index)

Based on the average score only The results of the analysis show that the mother's mental status has a significant effect on the positive symptom distress index (PSDI), especially in the SMI 1 category ($p < 0.001$, Exp (B) shows an increase in the risk of child distress compared to the reference category). This indicates that maternal mental disorders increase the likelihood of children experiencing symptoms with higher levels of distress, as the PSDI score increases. The odds ratio in each category of mothers shows an increasing trend of risk, so that the mother's mental status is an important predictor of the intensity of the child's psychological discomfort. These findings are consistent with previous literature that emphasizes that parental Psychological conditions affect a child's perception and reaction to his own Psychological symptoms.

Mother's mental status has a significant influence on adolescents' Positive

Symptom Distress Index (PSDI). In the SMI 1 category, a p value of < 0.001 was found with an odds ratio indicating an increased risk of psychological distress in children compared to the reference category. This indicates that maternal mental disorders increase the likelihood of the child experiencing symptoms with a higher level of discomfort. Recent longitudinal studies confirm that maternal depression is associated with higher psychological distress in adolescents, especially in families with low coparenting quality ([Feinberg et al., 2016](#); [Le et al., 2017](#); [Perez-Brena et al., 2021](#)).

Recent evidence also suggests that family dynamics, including marital conflict and inconsistent parenting, are important mediators in the relationship between maternal mental disorders and adolescent distress ([Hanetz-Gamliel & Dollberg, 2022](#); [Liu & Vazsonyi, 2024](#); [Sabah & Alduais, 2025](#)). Thus, family-based interventions are a crucial strategy to suppress cross-generational risk transmission

These findings strengthen the theory of intergenerational transmission of mental health, where parental psychological conditions can be passed on to children through biological and environmental mechanisms ([Oro, 2019](#); [Van Dijk et al., 2021](#)). In particular, these results are in line with the research of Muzik and Sellers which emphasized that children of mothers with depression have a higher risk of developing psychological problems ([Muzik et al., 2017](#); [Sellers et al., 2016](#)). Thus, the mental status of the mother can be seen as the main risk factor that needs to be considered in the prevention of adolescent mental disorders. These results provide empirical support for the importance of maternal interventions to reduce cross-generational impacts.

From a psychosocial developmental perspective, these findings are also relevant to Carvalho and Verhoeven view that adolescents are at the stage of identity vs. role confusion ([de Carvalho & Veiga, 2022](#); [Verhoeven et al., 2019](#)). At this stage, emotional support from parents is very influential in the formation of a healthy identity. When mothers experience mental disorders, their capacity to provide consistent emotional support can decrease, thus increasing the child's psychological distress. Thus, adolescents are not only directly affected by the mother's mental state, but also by the emotional atmosphere of the family that they experience on a daily basis. The results of this study show that the mental status of the mother can be an important determinant factor in adolescent psychological vulnerability. Therefore, prevention strategies need to be directed at strengthening psychosocial support for both mothers and children.

Within the framework of Family Systems Theory, the results of this study support the view that disturbances in one family member will have an impact on the emotional balance of the entire system ([Karlstad et al., 2022](#)). Mothers with disturbed psychological status can experience difficulties in providing responsive parenting, which then has an impact on increasing child distress.

Xinpei Xu emphasized that the quality of marital relationships and coparenting patterns play an important role in suppressing the negative impact of the mother's psychological condition ([Xu et al., 2025](#)). Thus, although the mother's mental status is a significant predictor, the presence of protective factors in the family system can strengthen the child's resilience. In addition, Lerner & Steinberg also emphasized that children's cognitive abilities affect how they interpret stress, so differences in distress levels can be influenced by the cognitive development of each individual ([Lerner & Steinberg, 2009](#)). Therefore, the mental status of the mother needs to be understood in a systemic context that includes parenting, family interactions, and child coping mechanisms. These results confirm the need for family-based interventions to

minimize the transmission of psychological risks across generations. Thus, the results of this study strengthen the evidence that maternal mental state is a strong predictor of adolescent mental health. Genetic and environmental factors can both be transmission pathways that explain this relationship. Therefore, interventions on maternal mental health have a dual impact, namely improving maternal welfare while reducing the risk of disorders in children.

From a developmental perspective, these results are relevant to Schachter theory which emphasizes the importance of parental roles in supporting adolescent identity crises at the identity vs. role confusion stage ([Schachter, 2018](#)). When mothers experience mental disorders, adolescents lose a stable source of emotional support so they are more susceptible to identity confusion and psychological distress. In addition, Claridge and J Powell assert that adolescents' cognitive development influences the way they interpret stress, but the quality of parenting remains the dominant factor in forming healthy coping mechanisms ([Claridge & J Powell, 2023](#)).

Aviles also highlight that maternal psychological disorders can create conflicting and unstable family dynamics, which further increases the risk of Psychopathology in children ([Aviles et al., 2024](#)). Thus, the influence of the mother's mental status on the child's high school is not only direct, but also mediated by the quality of emotional relationships in the family. This reinforces the view that adolescent mental health is simultaneously affected by intrapsychic factors and the social environment. These findings confirm the importance of paying attention to the psychological condition of the mother in the framework of adolescent development. In Family Systems Theory, Nighat Gul emphasize that stress in marital relationships and coparenting patterns can significantly affect children's psychological well-being ([Gul et al., 2017](#)). This condition suggests that the child not only inherits risks from the mother biologically, but also absorbs negative emotional patterns from the family environment.

The results of this study also support the intergenerational transmission model Keller which explains how mental disorders can be inherited across generations through the complex interaction of genetic factors, upbringing, and environmental stressors ([Keller, 2018](#)). Thus, the mental status of the mother is a strong predictor as well as an important indicator in understanding the psychological risk of children. Therefore, a family-based intervention approach is indispensable to break the chain of transmission of psychological disorders across generations.

In the perspective of psychosocial development, this finding can be understood through Carvalho theory, where adolescents are at the stage of identity vs. role confusion ([de Carvalho & Veiga, 2022](#)). Anxiety disorders in mothers can create an emotional environment full of tension, making it difficult for adolescents to develop a healthy identity. In addition, Dunst emphasized that family dynamics that are disturbed by parental psychological distress can reduce the quality of parenting ([Dunst, 2023](#)). When mothers experience excessive anxiety, adolescents often engage in triangulation of parental conflicts that increase the risk of psychological distress ([Koçak, 2024](#)).

In the view of Rowe who emphasized that emotional stress at home can increase adolescent mental vulnerability ([Rowe et al., 2016](#)). Therefore, the psychological status of the mother, which is characterized by anxiety and somatization, plays an important role in shaping the mental well-being of the child. In other words, the influence of mothers is not only through genetic factors, but also through the quality of daily emotional interactions.

In addition, Satici highlight that adolescents' cognitive abilities influence how they interpret stress, but family environmental factors remain the main triggers for the emergence of distress ([Satici et al., 2024](#)). Thus, the somatic and anxious dimensions of the mother not only have an individual impact, but also affect the dynamics of the family system as a whole. These results underscore the importance of a family-based approach in efforts to prevent and intervene in mental disorders in adolescents.

This study aims to analyze the influence of the mental status of early married mothers on adolescent mental health, especially in the dimensions of *Total Positive Symptom* (PST), *Positive Symptom Distress Index* (PSDI), children's mental status (SMA), and specific dimensions in the form of somatization and anxiety. The results of the study showed that the mother's mental status did not have a significant effect on the number of psychological symptoms experienced by the child (PST). This means that even though the mother has a psychological disorder, it does not directly determine the number of symptoms that appear in the child. This shows that protective factors such as adolescent coping mechanisms, social support, and the quality of relationships with peers also play an important role in reducing the number of psychological symptoms. These findings expand on the existing literature by emphasizing that maternal mental status is not the only determinant for adolescent mental health.

In contrast to PST, the results of the study found that the mental status of mothers had a significant effect on PSDI. Mothers with moderate mental disorders show a strong association with increased levels of psychological distress in children. In other words, even though the number of symptoms experienced by the child does not increase significantly, the level of discomfort and distress felt by the child increases along with the poor mental status of the mother. These findings are consistent with the *intergenerational transmission model of mental health*, Torvik which explains that parental psychological problems can be passed on to children through emotional and environmental mechanisms ([Torvik et al., 2020](#)). Thus, the distress dimension is an important aspect that needs to be considered in cross-generational mental health research.

Research by Ahun and Madigan found that maternal depression is a strong predictor of children's susceptibility to internalization disorders ([Ahun et al., 2018](#); [Madigan et al., 2018](#)). This emphasizes the importance of psychological intervention in mothers as a preventive strategy to reduce children's mental health risks. In other words, a mother's mental health not only has an impact on herself, but also on the quality of her child's growth and development.

In the enforcement of the hypothesis in this study, it is shown that the mental status of the mother, especially the somatic and anxious dimensions, is a significant risk factor for adolescent mental health. However, these influences can be mediated by protective factors such as social support, quality of family relationships, and child coping mechanisms. This confirms that adolescent mental health is influenced by a combination of genetic, intrapsychic, and environmental factors. Therefore, the intervention approach needs to emphasize the holistic aspect, not just focusing on the mother as the only determinant.

Conclusion

Maternal mental health following early marriage significantly affects adolescent mental health outcomes. The study underscores the importance of addressing early

marriage not only as a social issue but also as a determinant of intergenerational mental health. Public health policies should prioritize preventive measures against early marriage and establish comprehensive mental health support systems for mothers and their children.

Acknowledgment

The authors would like to thank the institutions, community health centers, and respondents who participated in this study. Special acknowledgment is extended to the funding body that supported this research.

References

- Ahun, M. N., Consoli, A., Pingault, J.-B., Falissard, B., Battaglia, M., Boivin, M., Tremblay, R. E., & Côté, S. M. (2018). Maternal depression symptoms and internalising problems in the offspring: the role of maternal and family factors. *European Child & Adolescent Psychiatry*, 27(7), 921–932.
- Allabergenova, A., & Azzamov, Y. (2025). STRESS AND EMOTIONAL REGULATION IN SIMULTANEOUS INTERPRETATION. *International Journal of Artificial Intelligence*, 1(4), 1790–1792.
- Aviles, A. I., Betar, S. K., Cline, S. M., Tian, Z., Jacobvitz, D. B., & Nicholson, J. S. (2024). Parenting young children during COVID-19: Parenting stress trajectories, parental mental health, and child problem behaviors. *Journal of Family Psychology*, 38(2), 296.
- Becvar, D. S., & Becvar, R. J. (2013). *Family therapy: A systemic integration*. Pearson Education Boston, MA.
- Boucher, M., Pugliese, J., Allard-Chapais, C., Lecours, S., Ahoundova, L., Chouinard, R., & Gaham, S. (2017). Parent–child relationship associated with the development of borderline personality disorder: a systematic review. *Personality and Mental Health*, 11(4), 229–255.
- Cherry, K. (2023). *Identity vs. Role Confusion in Psychosocial Development*, Verywell Mind.
- Claridge, A. M., & J Powell, O. (2023). Children’s experiences of stress and coping during hospitalization: A mixed-methods examination. *Journal of Child Health Care*, 27(4), 531–546.
- de Carvalho, N. A., & Veiga, F. H. (2022). Psychosocial development research in adolescence: A scoping review. *Trends in Psychology*, 30(4), 640–669.
- Dinisman, T., Andresen, S., Montserrat, C., Strózik, D., & Strózik, T. (2017). Family structure and family relationship from the child well-being perspective: Findings from comparative analysis. *Children and Youth Services Review*, 80, 105–115.
- Dunst, C. J. (2023). Meta-analyses of the relationships between family systems practices, parents’ psychological health, and parenting quality. *International Journal of Environmental Research and Public Health*, 20(18), 6723.
- Feinberg, M. E., Jones, D. E., Roettger, M. E., Hostetler, M. L., Sakuma, K.-L., Paul, I. M., & Ehrenthal, D. B. (2016). Preventive effects on birth outcomes: Buffering impact of maternal stress, depression, and anxiety. *Maternal and Child Health Journal*, 20(1), 56–65.
- Gul, N., Ghani, N., Alvi, S. M., Kazmi, F., & Shah, A. A. (2017). Family system’s role in the psychological well-being of the children. *Khyber Medical University Journal*, 9(1), 29–32.
- Hanetz-Gamliel, K., & Dollberg, D. G. (2022). Links between mothers’ ACEs, their psychopathology and parenting, and their children’s behavior problems—A mediation model. *Frontiers in Psychiatry*, 13, 1064915.
- Karlstad, J., Moe, C. F., Adelsten Stokland, R., & Brinchmann, B. S. (2022). “Balancing within a closed family system”: a grounded theory study of how family life is affected by having a family member with an eating disorder. *Journal of Eating*

- Disorders*, 10(1), 147.
- Keller, M. C. (2018). Evolutionary perspectives on genetic and environmental risk factors for psychiatric disorders. *Annual Review of Clinical Psychology*, 14(1), 471–493.
- Koçak, A. (2024). Unravelling the family curse: How parental depressive symptoms link to adolescents' depressive symptoms through interparental conflict and adolescent triangulation. *Current Psychology*, 1–12.
- Le, Y., Fredman, S. J., & Feinberg, M. E. (2017). Parenting stress mediates the association between negative affectivity and harsh parenting: A longitudinal dyadic analysis. *Journal of Family Psychology*, 31(6), 679.
- Lerner, R. M., & Steinberg, L. (2009). *Handbook of adolescent psychology, volume 1: Individual bases of adolescent development* (Vol. 1). John Wiley & Sons.
- Liu, D., & Vazsonyi, A. T. (2024). Longitudinal links between parental emotional distress and adolescent delinquency: The role of marital conflict and parent–child conflict. *Journal of Youth and Adolescence*, 53(1), 200–216.
- Madigan, S., Oatley, H., Racine, N., Fearon, R. M. P., Schumacher, L., Akbari, E., Cooke, J. E., & Tarabulsky, G. M. (2018). A meta-analysis of maternal prenatal depression and anxiety on child socioemotional development. *Journal of the American Academy of Child & Adolescent Psychiatry*, 57(9), 645–657.
- Muzik, M., Morelen, D., Hruschak, J., Rosenblum, K. L., Bocknek, E., & Beeghly, M. (2017). Psychopathology and parenting: An examination of perceived and observed parenting in mothers with depression and PTSD. *Journal of Affective Disorders*, 207, 242–250.
- Oberle, E., Ji, X. R., Kerai, S., Guhn, M., Schonert-Reichl, K. A., & Gadermann, A. M. (2020). Screen time and extracurricular activities as risk and protective factors for mental health in adolescence: A population-level study. *Preventive Medicine*, 141, 106291.
- Oro, V. (2019). *Elucidating the Link Between Parent and Adolescent Psychopathology: A Test of Transmission Specificity and Genetic and Environmental Liabilities*. Arizona State University.
- Perez-Brena, N. J., Duncan, J. C., de Jongh, C., & Toews, M. (2021). Parental stress and coparenting among adolescent parents. *Family Relations*, 70(3), 793–807.
- Rowe, S. L., Zimmer-Gembeck, M. J., & Hood, M. (2016). Community, family, and individual factors associated with adolescents' vulnerability, daily stress, and well-being following family separation. *Journal of Divorce & Remarriage*, 57(2), 87–111.
- Sabah, A., & Alduais, A. (2025). Intersections of family expressiveness and adolescent mental health: exploring parent–adolescent relationships as a mediator. *Mental Health and Social Inclusion*, 29(3), 246–258.
- Satici, S. A., Yilmaz, F. B., Karaağaç, Z. G., & Okur, S. (2024). From childhood psychological maltreatment to fear of happiness: Exploring the serial mediation of external shame and family communication. *Children and Youth Services Review*, 157, 107425.
- Schachter, E. P. (2018). Intergenerational, unconscious, and embodied: Three underdeveloped aspects of Erikson's theory of identity. *Identity*, 18(4), 315–324.
- Sellers, R., Hammerton, G., Harold, G. T., Mahedy, L., Potter, R., Langley, K., Thapar, A., Rice, F., Thapar, A., & Collishaw, S. (2016). Examining whether offspring psychopathology influences illness course in mothers with recurrent depression using a high-risk longitudinal sample. *Journal of Abnormal Psychology*, 125(2), 256.
- Shi, W., Zhao, L., Liu, M., Hong, B., Jiang, L., & Jia, P. (2022). Resilience and mental health: a longitudinal cohort study of Chinese adolescents before and during COVID-19. *Frontiers in Psychiatry*, 13, 948036.
- Sleed, M., Slade, A., & Fonagy, P. (2020). Reflective Functioning on the Parent Development Interview: Validity and reliability in relation to socio-demographic

- factors. *Attachment & Human Development*, 22(3), 310–331.
- Torvik, F. A., Eilertsen, E. M., McAdams, T. A., Gustavson, K., Zachrisson, H. D., Brandlistuen, R., Gjerde, L. C., Havdahl, A., Stoltenberg, C., & Ask, H. (2020). Mechanisms linking parental educational attainment with child ADHD, depression, and academic problems: a study of extended families in The Norwegian Mother, Father and Child Cohort Study. *Journal of Child Psychology and Psychiatry*, 61(9), 1009–1018.
- Trumello, C., Babore, A., Candelori, C., Morelli, M., & Bianchi, D. (2018). Relationship with parents, emotion regulation, and callous-unemotional traits in adolescents' internet addiction. *BioMed Research International*, 2018(1), 7914261.
- Van Dijk, M. T., Murphy, E., Posner, J. E., Talati, A., & Weissman, M. M. (2021). Association of multigenerational family history of depression with lifetime depressive and other psychiatric disorders in children: results from the Adolescent Brain Cognitive Development (ABCD) Study. *JAMA Psychiatry*, 78(7), 778–787.
- Verhoeven, M., Poorthuis, A. M. G., & Volman, M. (2019). The role of school in adolescents' identity development. A literature review. *Educational Psychology Review*, 31(1), 35–63.
- Widnall, E., Winstone, L., Plackett, R., Adams, E. A., Haworth, C. M. A., Mars, B., & Kidger, J. (2022). Impact of school and peer connectedness on adolescent mental health and well-being outcomes during the COVID-19 pandemic: a longitudinal panel survey. *International Journal of Environmental Research and Public Health*, 19(11), 6768.
- Xu, X., Song, L., Yang, Y., Xiong, J., & Li, Y. (2025). Mothers' and Fathers' Perceived Parent–Grandparent Co-Parenting and Marital Conflict in Intergenerational Families. *Journal of Marriage and Family*.
- Yarboi, J., Compas, B. E., Brody, G. H., White, D., Rees Patterson, J., Ziara, K., & King, A. (2017). Association of social-environmental factors with cognitive function in children with sickle cell disease. *Child Neuropsychology*, 23(3), 343–360.
- Zeytinoglu, S., Calkins, S. D., & Leerkes, E. M. (2019). Maternal emotional support but not cognitive support during problem-solving predicts increases in cognitive flexibility in early childhood. *International Journal of Behavioral Development*, 43(1), 12–23.