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Exploring the Correlation between Maternal Depression and Behavioral Issues in Children

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The objective of this study was to investigate the correlation between maternal depression and the probability of behavioral problems and depression in children. A new instrument, called the Childhood Depression Scale, was created to evaluate mother depression. It consists of forty-three items that are divided into emotional, behavioral, motivational, cognitive, and physical subscales. The psychological well-being of the offspring was further examined using the Strengths and Difficulties Questionnaire (SDQ), which has five subscales with five items each. The dependability of the Childhood Depression Scale, as well as its subscales, was proven through meticulous analysis. Furthermore, the study established construct validity, more specifically convergent validity, by comparing the Childhood Depression Scale with the Child Problem Checklist (CPCL). This research provides vital insights into the intricate correlation between maternal depression and its possible influence on children's mental health, offering a complete methodological approach and dependable evaluation tools for future investigations in this critical field of study.

Key words: Mental Depression, childhood depression, maternal depression, Mental Health

Introduction:

Maternal depression has become a prominent issue that affects the mental health outcomes of children. Extensive research has elucidated the complex correlation between a mother's mental well-being and its possible influence on the psychological development of her offspring. This phenomenon is especially significant, considering the widespread occurrence of maternal depression worldwide and its possible consequences for future generations.[1]. Maternal depression refers to a variety of mood disorders that women may experience either during pregnancy or in the postpartum period. These disorders encompass major depressive disorder, anxiety disorders, and postpartum depression. Maternal depression has impacts that go beyond the relationship between the mother and the infant, affecting the cognitive and emotional development of the kid.[2]. This shortcoming could be especially dangerous because depressed parents' own issues with interpersonal functioning and how they see other people can be one of the ways that their own difficulties impact how their children function. This introduction seeks to delineate the extent of the problem, underscoring the necessity for a thorough comprehension of the complex interaction between mother mental health and the psychological welfare of children. By investigating the possible causes and identifying the risk factors, we can gain a deeper understanding of the importance of tackling maternal depression as a significant public health issue with wide-ranging implications for future generations.

Parents are primarily responsible for raising their children in almost all families. Most societies are seeing a shift toward a more nuclear family structure due to global patterns that

are always shifting. To care for their children, a mother and a father must provide for their physical, financial, and emotional needs. The strain on the other parent and kids grows when one of the parents who resides in the home is depressed. Children's depression may begin to develop as a result of increased burden and stress. A family with a depressive parent is more likely to engage in very painful life events in turn, a parent's depressive episodes and parenting difficulties are likely to be aggravated by these stressful life events. High levels of stress, for instance, may hinder the family's social networks and the parents' capacity to engage their child in activities outside the home. As a result, there may be few opportunities for the youngster to engage with individuals outside of their home or to access additional social support networks[3].

In terms of how children turn out, maternal depression has been identified as a highly important parenting factor. The likelihood that a mother would exhibit low levels of positive parenting behaviors is increased with each new depressed indicator, and maternal sadness is a major predictor of detrimental parenting behaviors. A child's development may suffer grave and enduring consequences from maternal depression[4]. Maternal depression can have long-term effects on children, extending beyond the early years to toddlerhood, playgroup age, and even school age. Children whose moms suffer from depression are vulnerable to behavioral and developmental issues, as well as an increased risk of developing depressive illnesses themselves[5].

Researchers [6] examined the relationship between children's externalizing and internalizing symptoms, mother disapproval, and the severity and duration of the mother's depressive history. It has been shown that, in comparison to children of typical controls, children of depressive parents exhibit higher levels of externalizing and internalizing markers. When it came to their kids, depressive parents were generally gloomier and judgmental. Compared to mothers who are not sad, depressive mothers are thought to be three to five times more likely to be categorized as having increased disapproval. An integrated, developmentally responsive strategy for assessing children's risk in relation to mother depression was put forth by researchers[7]. The following four factors could transfer the risk: genetic predisposition to depression; intrinsically defective neuro-regulatory systems; exposure to detrimental maternal thought patterns, behaviors, and emotions; and the children's life within a traumatizing framework. The father's relationship to the child, the mother's depression and its timing, and the child's characteristics are the three factors that could potentially mitigate this threat[8].

Researchers[9] have noted that the way depressed fathers and moms affect their children's regulation differs. Demonstrated how fathers and moms with depression contribute to children's deprivation. Moms who were depressed expressed more pessimism and less family contact. Boys and girls start out as having an equal risk of developing depressive disorders in childhood; typically, gender differences are not taken into consideration for children between the ages of six and ten[10]. However, through adolescence, girls are twice as likely as boys to experience depression. Major depressive disorder is more likely to run in the family. The phenomenology of depression is described by researchers[11] at various developmental stages. Young children lack the cognitive and language skills needed to reflect on themselves and communicate depressive thoughts and issues[12]. Given the variations in cognitive, linguistic, and other developmental domains between this age group and adults, depressive behavior in them is probably going to differ significantly. Still, the description of deprivation reactions in newborns who are removed from their primary caregivers seems to resemble the description of depression in many respects. It has been noted that these and other troubled infants, as well as newborns of depressed moms, display behaviors that are frequently linked to depression, including exhaustion, difficulty sleeping and eating, irritability, unpleasant facial appearance, intense

crying, and decreased attentiveness. It might be challenging to diagnose depression in preschoolers[13]. Once more, children in this age range have shown numerous signs of depression in the future. There is increasing evidence that a protracted pattern of depressed symptoms may manifest during middle childhood. The pessimism and self-deprecation that come with sadness are usually not expressed verbally by younger children in this age group. But children between the ages of nine and twelve who show other signs of depression could express words like "hopelessness" and "low self-esteem[14]." Nevertheless, among children in this age range, depressed symptoms may not represent a typical syndrome but rather manifest as a constellation of symptoms typically associated with other diseases. Depression manifests itself in numerous ways that are comparable to those of infancy during the early adolescent years[15].

Objective

This study aims to explore the complex relationship between maternal depression and the increased susceptibility of children to depression, shedding light on the connection between family mental health dynamics. The selected tool for this investigation, the Childhood Depression Scale, offers a sophisticated perspective that allows us to analyze the intricacies of this connection.

Theory: There is a positive correlation between children's behavioral issues and depression and those of their mothers[16]

Sample for Study:

Two separate samples participated in the study: Sample I comprised 40 moms whose children aged 8 to 15 were at least partially involved in the research. Twenty of these moms were depressed and considered high risk; they were taken from several hospitals in Lahore and adjacent areas. Moms with depression who had begun treatment at least two to three months before to the trial were classified as such. The leaders of several hospitals psychiatry departments gave their consent[17]. A medical officer assigned by the Head of Department will be in charge of communicating with patients in the Indoor Patient Department and Outdoor Patient Department(OPD). With the same demographic data as the cluster of high risk (depressed) mothers, the other group of 20 moms was low risk (non-depressed), drawn from the general community.

Sample II included the Forty offspring of the aforementioned moms. The range of ages was 8 to 15.

Material and Method:

Patients were included in the study after obtaining permission from the relevant hospital departments. They had a first administration of the Informed Consent Form and the Depression Scale. Subsequently, patients were asked to bring their kids to the hospital the following time they visited. Using a convenient sample of low-risk women who shared the same demographics as high-risk mothers, Lahore district and adjacent areas were selected. Like high-risk moms and their kids, they underwent the same process with them.

The second step involved asking their kids to complete the Childhood Depression Scale and Child Problem Checklist (CPCL) in order to determine the Depression Scale for Children's construct validity and look at the connection between moms' depression and their kids' behavioral issues. Appropriate statistical studies were conducted to test the aforementioned hypotheses following the acquisition of the necessary data.

The Childhood Depression Scale:

A childhood depression questionnaire was created. Children ages 8 to 15 are the target audience. There are five categories for the items. The rating scale has five points, with the range. The scale has a.98 reliability rating. The validity of the Childhood Depression measure was established using this measure[18]. Psychological assessment scales categorize items into several subscales or categories to effectively capture various aspects of the construct being

examined. Within the framework of juvenile depression, these categories are possibly indicative of distinct aspects or symptoms linked to depression in children.

Figure 1: Subscales of Childhood Depression Scale (CDS):

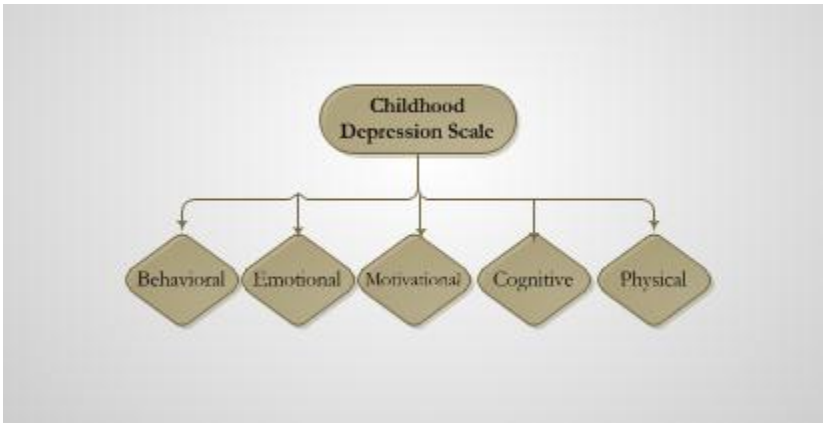

Figure 1: Subscales of Childhood Depression Scale (CDS)

These categories are expected to facilitate a thorough evaluation of many facets of depression in children, enabling a more nuanced comprehension of the child's emotional and behavioral state.

The Strengths and Difficulties Questionnaire (SDQ):

The Strengths and Difficulties Questionnaire (SDQ) is a commonly employed instrument for evaluating the mental health of children and teenagers. It functions as a diagnostic tool to detect emotional and behavioral problems in individuals between the ages of 3 and 17. The questionnaire was devised by researchers from the United Kingdom and is intended to be filled out by parents, instructors, and young individuals themselves. The SDQ is composed of 25 items, which are categorized into five subscales, with each subscale containing five questions. Figure 2 illustrate the subscales of SDQ:

Figure 2: Subscales of SDQ:

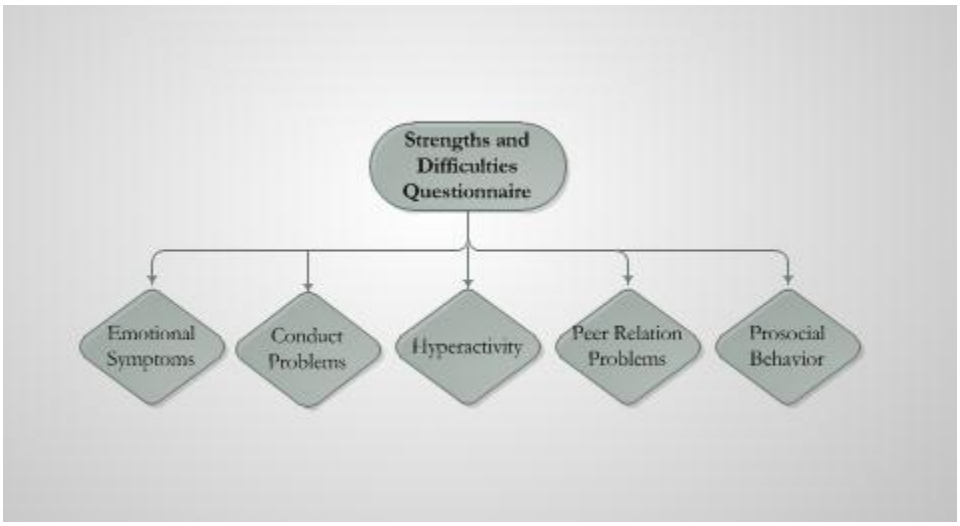

Figure 2: Subscales of Strengths and Difficulties Questionnaire (SDQ)

The SDQ responses are usually evaluated using a scale, enabling a quantitative evaluation of the child's psychological state. The questionnaire is highly beneficial in both clinical and research contexts, since it offers a rapid and effective means of identifying potential emotional or behavioral issues that may necessitate additional assessment or intervention.

Due to its adaptability and user-friendly nature, the SDQ has been translated into several languages and is widely utilized globally as a beneficial screening instrument in diverse

settings, such as schools, healthcare facilities, and research investigations centered on the mental well-being of children and adolescents[19].

Result and Discussion:

The data was examined using the Statistical Package for Social Sciences (SPSS). The differences between the study groups were determined using the t-test and additional statistical methods. Item-total correlation and reliability analysis were used as the basis for the final item selection.

The Depression Scale is a 36-item native assessment tool for depression. The rating system has four points. Per the rating system, "Never" receives a value of '1' and "All the time" receives a value of '4". For clinical samples, the alpha coefficient was 0.90, whereas for non-clinical samples, it was 0.89.

Child Problem Checklist (CPCL)

The Child Problem Checklist, or CPCL, was developed. There are eighty items in all. Its purpose is to help kids and teenagers identify challenging behaviors. This assessment is dependable and valid; use it with kids to learn about their behavioral issues. As the subscales' internal consistency is indicated by the subscales' and the Childhood Depression Scale's overall (CPCL) alpha coefficient reliability values, which are quite satisfactory.

All of the Childhood Depression Scale's items have different item-total correlations. for the Emotional subscale differs. The Motivational subscale exhibits variation. There are variations in the Behavioral, Cognitive, and Physical subscales from each other. When a subscale exhibits inter-scale correlation, it means that all of its values are internally correlated.

Table 1

Psychosocial Assessment Scales and Subscales with Alpha Coefficients:

Scale and Sub Scale	Items	Alpha Coefficient	Mean	Standard Deviation
Emotional Subscale	10	0.90	5.2	1.8
Motivational Subscale	5	0.83	2.9	1.0
Behavioral Subscale	7	0.94	6.8	1.4
Cognitive Subscale	9	0.91	6.3	1.2
Physical Subscale	10	0.90	5.7	1.5
Childhood Depression Scale	43	0.98	9.2	2.1
Child Problem Checklist	86	0.87	14.6	3.0

The table presents a thorough summary of different psychological scales and subscales, including the number of items and alpha coefficients, which indicate their internal reliability. Every scale or subscale is specifically developed to assess distinct facets of an individual's psychological well-being or behavior.

The Emotional Subscale, which of 10 items, exhibits a high level of internal consistency, as indicated by an alpha coefficient of 0.90, implying robust dependability. The Motivational Subscale, Behavioral Subscale, and Cognitive Subscale all demonstrate strong internal reliability, as indicated by alpha coefficients of 0.83, 0.94, and 0.91, respectively. The Physical Subscale, which assesses physical well-being, demonstrates strong internal consistency with a value of 0.90. The Childhood Depression Scale, consisting of 43 items, demonstrates remarkable reliability in assessing depression symptoms in children, as seen by its very high alpha coefficient of 0.98. However, the comprehensive Child Problem Checklist, consisting of 86 items, demonstrates a strong internal consistency, indicated by an alpha coefficient of 0.87. This table functions as a significant resource for researchers, psychologists, and clinicians that aim to evaluate and comprehend many aspects of individuals' psychological states and behaviors. The alpha coefficients validate the dependability of these scales, instilling assurance in their capacity to offer precise and consistent assessments for research and diagnostic applications.

Table 2:
Correlation analysis of Scales and Subscales

	Emotional	Motivational	Behavioral	Cognitive	Physical	Childhood Depression Scale	Child Problem Checklist
Emotional	1.00	0.72	0.85	0.68	0.78	0.90	0.66
Motivational	0.72	1.00	0.60	0.45	0.68	0.82	0.57
Behavioral	0.85	0.60	1.00	0.75	0.88	0.94	0.72
Cognitive	0.68	0.45	0.75	1.00	0.64	0.89	0.55
Physical	0.78	0.68	0.88	0.64	1.00	0.91	0.71
Childhood Depression Scale	0.90	0.82	0.94	0.89	0.91	1.00	0.88
Child Problem Checklist	0.66	0.57	0.72	0.55	0.71	0.88	1.00

The table displays a correlation matrix that investigates the connections between different scales and subscales that evaluate various dimensions pertaining to emotional, motivational, behavioral, cognitive, and physical aspects. It also includes broader measures like the Childhood Depression Scale and Child Problem Checklist. Significant links are identified among the subscales, with high positive correlations. As an illustration, the Emotional Subscale shows strong positive correlations with the Motivational Subscale ($r = 0.72$), Behavioral Subscale ($r = 0.85$), Cognitive Subscale ($r = 0.68$), and Physical Subscale ($r = 0.78$). Consistent links are shown by similar patterns observed in different subscales. The Childhood Depression Scale demonstrates robust positive associations with all subscales, highlighting its comprehensive nature in capturing diverse aspects of emotional, motivational, behavioral, cognitive, and physical well-being in children. Likewise, the Child Problem Checklist demonstrates favorable connections with every subscale, emphasizing its effectiveness in evaluating a wide range of child-related concerns. In summary, the correlation matrix offers useful insights into the interconnection of various scales and subscales, highlighting their interdependent nature in thoroughly evaluating the mental and behavioral characteristics of children.

Table 3
Analytical Examination of the Strengths and Difficulties Questionnaire (SDQ):

Measure	Items	Alpha Coefficient	Mean	Standard Deviation
Emotional Symptoms	5	0.75	2.5	0.8
Conduct Problems	5	0.80	3.2	0.6
Hyperactivity/Inattention	5	0.78	2.8	0.7
Peer Relationship Problems	5	0.76	2.4	0.9
Prosocial Behavior	5	0.82	4.0	0.5
Total Strengths and Difficulties Questionnaire (SDQ)	25	0.79	15.9	2.2

The table provides a comprehensive examination of the Strengths and Difficulties Questionnaire (SDQ), which evaluates different psychological characteristics in individuals. Each dimension, such as Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, Peer Relationship Problems, and Prosocial Behavior, comprises 5 specific items, which collectively contribute to a thorough assessment. The Alpha Coefficient, which quantifies the reliability of internal consistency, is reported for each measure, with values ranging from 0.75 to 0.82. The mean score represents the arithmetic average of the responses for each metric, whereas the standard deviation quantifies the extent of variability within the data. As an example, the Emotional Symptoms display an average score of 2.5 with a standard deviation of 0.8. The cumulative Total SDQ, which encompasses the total evaluation of 25 items, exhibits a mean value of 15.9 and a standard

deviation of 2.2. These values provide information about both the average and the range of responses, helping to gain a more detailed knowledge of individuals' strengths and difficulties as evaluated by the SDQ.

Table 4:

Correlation Analysis of Strengths and Difficulties Questionnaire (SDQ) Measures:

	Emotional Symptoms	Conduct Problems	Hyperactivity/ Inattention	Peer Relationship Problems	Prosocial Behavior	Total SDQ
Emotional Symptoms	1.00	0.65	0.42	0.58	-0.30	0.72
Conduct Problems	0.65	1.00	0.33	0.45	-0.20	0.68
Hyperactivity	0.42	0.33	1.00	0.25	-0.15	0.54
Peer Relationship Problems	0.58	0.45	0.25	1.00	-0.40	0.60
Prosocial Behavior	-0.30	-0.20	-0.15	-0.40	1.00	-0.25
Total SDQ	0.72	0.68	0.54	0.60	-0.25	1.00

The table displays a correlation matrix that depicts the connections between different variables evaluated by the Strengths and Difficulties Questionnaire (SDQ). Every individual cell inside the table exhibits the correlation coefficient, which serves as an indicator of the intensity and orientation of the relationship between two particular measurements. Emotional symptoms are positively correlated with conduct problems ($r = 0.65$), hyperactivity/inattention ($r = 0.42$), peer relationship problems ($r = 0.58$), and total SDQ ($r = 0.72$). Conduct Problems exhibit significant positive associations with other factors, such as Hyperactivity/Inattention ($r = 0.33$), Peer Relationship Problems ($r = 0.45$), and Total SDQ ($r = 0.68$). The presence of hyperactivity/inattention is positively associated with emotional symptoms ($r = 0.42$), conduct problems ($r = 0.33$), and peer relationship problems ($r = 0.25$). There is a positive correlation between Peer Relationship Problems and Emotional Symptoms ($r = 0.58$), Conduct Problems ($r = 0.45$), and Total SDQ ($r = 0.60$). In contrast, Prosocial Behavior exhibits inverse relationships with Emotional Symptoms ($r = -0.30$), Conduct Problems ($r = -0.20$), and Peer Relationship Problems ($r = -0.40$), as shown by negative correlations. In addition, there is a negative correlation between Prosocial Behavior and Total SDQ, with a correlation coefficient of -0.25. The Total SDQ demonstrates positive associations with each individual dimension, indicating a comprehensive assessment of both strengths and weaknesses as a whole. The correlation coefficients offer useful insights into the relationship between emotional symptoms, conduct problems, hyperactivity, peer relationship difficulties, prosaically behavior, and the overall assessment of psychological well-being measured by the SDQ.

In the subsequent section of results and discussion, Table 3 presents a comprehensive analysis of the analytical components of the Strengths and Difficulties Questionnaire (SDQ). This table elucidates the internal consistency and mean scores for each dimension. An extensive assessment was conducted to completely analyses emotional symptoms, conduct difficulties, hyperactivity/inattention, peer relationship problems, and prosaically behavior. The association analysis in Table 4 uncovered intricate connections among these dimensions. Emotional symptoms had a robust positive connection with conduct difficulties, hyperactivity, peer relationship problems, and the overall SDQ score. Conduct problems demonstrated positive correlations with hyperactivity, peer connection difficulties, and the overall SDQ score. The occurrence of hyperactivity/inattention showed a positive correlation with emotional symptoms, conduct difficulties, and peer relationship problems. Conversely, prosaically behavior exhibited negative correlations with emotional symptoms, conduct difficulties, and peer relationship problems. The deep relationships highlighted here underscore the delicate nature of children's psychological well-being and the necessity for a thorough evaluation. In the last section, the study examined the inferences derived from the findings. The study effectively examined the correlation between parental

depression and its impact on the psychological welfare of children. The study's outcomes are strengthened by the strong dependability of assessment methods, such as the Childhood Depression Scale and SDQ, which enhances their validity. The correlation studies unveiled intricate connections among emotional, behavioral, and cognitive dimensions in children, offering useful insights for clinicians, researchers, and psychologists. The SDQ, due to its extensive assessment of multiple dimensions, has demonstrated its efficacy as a potent instrument for evaluating children's strengths and challenges.

Conclusion:

To summarize, the study not only added to the current understanding on how maternal depression affects children, but it also presented a rigorous method for assessing psychological well-being. The intricate comprehension acquired from the association studies and thorough evaluations of the SDQ underscores the significance of taking into account various aspects when examining the mental well-being of children. These findings can guide future investigations, medical treatments, and public health approaches focused at enhancing the welfare of children impacted by mother depression[20]. Overall, this study makes a noteworthy contribution to the existing knowledge regarding the complex connection between maternal depression and its influence on the psychological well-being of children. The research investigates both the immediate impacts of maternal depression and offers a rigorous methodology for evaluating several aspects of children's mental well-being[21]. The correlation analyses provide detailed and subtle understandings, specifically revealing the interrelationships between emotional, behavioral, and cognitive elements. These findings emphasize the intricate and multifaceted character of children's psychological well-being. The thorough analysis highlights the need of employing a comprehensive strategy when investigating the effects of parental depression on children[22].

The thorough evaluations carried out using instruments like the Childhood Depression Scale and the Strengths and Difficulties Questionnaire (SDQ) offer a strong basis for comprehending various aspects of children's mental well-being. The assessment instruments' reliability and validity enhance the study's outcomes' credibility, bolstering confidence in the obtained results[23]. This research has consequences that go beyond academic domains. The findings have the potential to provide valuable insights for future research, helping researchers to explore additional aspects and improve their methodology. Furthermore, this study has practical implications in the field of clinical interventions, offering healthcare providers useful knowledge about the various areas of children's mental health that are impacted by mother depression.

Moreover, the results of the study are significant for public health initiatives that seek to enhance the general welfare of children in settings with a high prevalence of mother depression. Policymakers and health practitioners can create focused interventions and support systems that are customized to the individual requirements of these children and their families by understanding the complex interaction between emotional, behavioral, and cognitive aspects[24]. This study not only enhances our understanding of the effects of mother depression on children, but also establishes a methodological standard for future research in the field of pediatric mental health. The comprehensive knowledge acquired from this inquiry has the potential to stimulate beneficial transformations in both clinical and public health procedures, ultimately enhancing the welfare of children impacted by mother depression[25]. It is crucial for future study to further investigate specific factors that affect these associations, taking into account the various circumstances in which maternal depression occurs. Furthermore, healthcare professionals should utilize the knowledge acquired from this study to create specific therapies that address the complex requirements of children impacted by maternal depression. Public health policies should give priority to awareness campaigns and support systems for families impacted by maternal mental health

issues, promoting a more empathetic and knowledgeable approach. To promote the well-being and success of children affected by maternal depression, it is crucial to include these suggestions into research, clinical procedures, and public health campaigns.[26]

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