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# **Impact of Maternal Depression on Offspring**

By

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## **Abstract**

Depression can go beyond influencing the livelihood of a woman, Mothers with depression often have difficulty paying attention to their children, and can fail to establish a bond with them (Delaney, 2017). The current study looked for a relation between children's internalizing symptoms and their mothers' depressive symptoms, and whether or not strength of the mother-child bond mediates that relation. Significant effects of maternal depression were found on child's internalizing symptoms. Barron and Kenny's four step method to establishing mediation was used (Barron & Kenny, 1983; Mackinnon et al., 2007). Based on Barron and Kenny's criterion for establishing mediation, mediation was found. Specifically, the mother-child relationship was found the mediate the relationship between maternal depression and child's internalizing symptoms. Implications of the results are discussed.

The term “depressed” has become synonymous with feeling down or upset in our everyday language. While having depressive symptoms (such as lack of motivation, low-self-esteem and hopelessness) is possible without a diagnosis of a depressive disorder; depression itself is different from feeling sad for a short period of time. Clinically significant depression is an on-going condition that impacts an individual’s thoughts, intellectual abilities, self-esteem, and overall family and social exchanges (England and Sim, 2009).

The actual criterion for depression according to the DSM V requires a minimum of 5 of the following symptoms for at least 2 weeks. These symptoms are 1) marked decrease in mood for most of the day (or irritability for children), 2) lack of interest in previously enjoyable activities 3) significant loss of weight, 4) insomnia or hypersomnia, 5) slow thinking or psychomotor agitation, 6) fatigue, 7) feelings of worthlessness or guilt, 8) reduced ability to think or concentrate, and 9) suicidal ideations.

According to Maslow’s theory of hierarchy of needs, a person needs to feel psychologically sound before having the motivation give to others. A mother-child relationship is based on the mother providing attention, comfort, warmth and substance to the child and having their own basic needs unmet stops them from giving to their child (Delany, 2017). Parents are the core of a young family. A growing child requires exchanges with an adult who can provide age appropriate emotional regulation, structure, warmth, and protection (Cole, Martin, and Dennis, 2004). Therefore, it is important that parents raising young children are of sound mind and are healthy. Although emotional wellbeing of both parents is important, England and Sim (2009) found that only maternal depression is associated with negative impact on offspring.

Depression can go beyond influencing the livelihood of a woman, especially if she is a new mother. The first few years of a child’s life are very important for their mental health, and eventual outlook in life (Ainsworth, 1991). Mothers with depression have difficulty paying attention to their children, and fail to establish a bond with them (Delaney, 2017). These

compounding factors may be the reason for higher chances of psychological problems in children with mothers who have depression (Meadows, McLanahan, & Brooks-Gunn, 2007).

Mothers with elevated levels of depression are more likely to conform to authoritarian parenting behaviors according to Palaez et al. (2008). As children begin to register negative criticism about themselves – they begin to have more negative self-worth. Eventually, those negative thoughts, and situations accumulate and makes the child more prone to having depression themselves (Hops, Sherman, & Biglan, 1990). A number of studies have looked for mediating factors that might explain the negative outcomes in children with depressed mothers.

Downy and Coyne (1990) performed a literature review to examine if children with depressed mothers have a higher risk on developing internalizing symptoms. In the 9 studies that they reviewed, children with depressed mothers always scored higher in internalizing symptoms. Children were at high risk for developing major depressive disorders (MDD); their rate of MDD was six times that of control children. Additionally, a longitudinal study conducted by Elicher et. al (2017) found that maternal depression pre-natal phase is a significant predictor of internalizing symptoms in the child at age 18. These studies suggest that the direction on impact is from the mother to child, and not from the child to the mother.

Orygen Adolescent Development Study (OADS), a longitudinal study has conducted on parenting behaviors and adolescent internalizing behaviors. This study found that affective parental behaviors predict adolescent depression indirectly through the adolescent's lack of emotional regulation (Shwartz et. al, 2017). Other studies have examined the outcomes of internalizing symptoms in children raised by depressed mothers. These studies have found that negative criticism (Alloy et al.,1997; Goodgame et al, 1994), negative feedback (Alloy et al., 1997) and creation of negative situations by depressed mothers (Hops, Sherman, & Biglan, 1990) can all be possible causes for internalizing symptoms in children. While the strength of mother-child relationship has been well established during these studies, none of them solely

looked at the mother-child bond as a mediating factor in the relationship between maternal depression and child's internalizing symptoms. The current study looked for a relation between children's internalizing symptoms and their mothers' depressive symptoms, and whether or not strength of the mother-child bond mediated that relation.

Methods:

#### Participants.

247 children (109 males; 138 female) were recruited from three diverse urban schools (two K-8<sup>th</sup>; one high-school). The sample was approximately 64.5% female, 42.1% African American, 30.6 % Latino, 12 % European American, 6.9 % Asian American, 1 % American Indian, and 4.8 % Multi-racial. Parents of these children were recruited as well. A total of 247 parents (49 males and 198 females) participated.

#### Procedures

Administration took place during Saturday sessions that included time for breakfast, lunch, and dinner, and breaks for relaxation/recreation, short movies, college informational, and a college tour. Students were randomly assigned to an order of participation in the measures and tasks summarized below. At the end of the day, all participants were provided with a \$50 gift card to Target, Old Navy, or Best Buy. Students received an additional \$20 in gift cards if they returned parent rating forms (\$10 for themselves and \$10 for their parents). Finally, students who were unable to participate in full-Saturday data collections at Time 2 were offered the opportunity to complete the surveys at their home school.

#### Measures

1. Demographic questionnaire (appendix 1) was given to the parents. It asked for the parent's gender, birthdate, ethnicity, race, where they were born, who they live with at home, highest level of education for them and spouse, socio-economic and employment information.

2. Life with your Child is a questionnaire (appendix 1) completed by a parent that assesses their relationship with their child participating in the study. The questions used to gauge the mother-child bond were:

I'm a parent who:

- Makes my children feel better when they talk over their worries with me
- Likes to talk with my children and be with them most of the time
- Enjoys talking things over with my children
- Enjoys doing things with my children
- Cheers my children up when they are sad
- Has a good time at home with my children

3) Brief Symptom Inventory (BSI) is an instrument that evaluates psychological distress and psychiatric disorders in people. BSI collects data reported by patients for the evaluation. The test is used for areas such as patient progress, treatment measurements, and psychological assessment. The test is a self-report scale which asks 53 questions, and uses the 5 point Likert scale. According to studies by Derogatis (1993) the BSI instrument has good internal reliability showing an average rating above .7 for the scales (see appendix 1).

4) The Child Behavior Checklist (CBCL) is a common tool for assessing depression in children, as well as other emotional and behavioral problems. The CBCL is a 120 itemed questionnaire completed by parents and caregivers, and it describes a child's functioning during the previous six months. The items measure specific emotional and behavioral problems on a three point Likert scale (0= "Not True," 1= "Somewhat or Sometimes True," or 2= "Very True or Often True"). The broadband internalizing domain is a measure of emotional problems and contains three syndrome scales: anxious/depressed, withdrawn/depressed, and somatic complaints. The

internal validity for this measure is moderately high, and ranges from .55 to .75 (Achenbach & Rescorla, 2003). Internalizing symptoms were the focus for this study (see appendix 1).

## RESULTS

Analyses were conducted using SPSS 22.0 for Windows.

### Descriptive Statistics

Overall, female children ( $M = .286$ ,  $SD = .241$ ) scored higher on internalizing symptoms than their male ( $M = .213$ ,  $SD = .191$ ) counterparts. Likewise, mothers scored higher on depressive symptoms ( $M = .278$ ,  $SD = .531$ ), than fathers ( $M = .188$ ,  $SD = .341$ ).

Barron and Kenny have a four step method to establishing mediation (Barron & Kenny, 1983; Mackinnon et al., 2007).

1. The first step is that the independent variable is significantly related to the dependent variable.
2. The mediating variable has to be significantly related to the independent variable
3. The mediating variable has to be significantly related to the dependent variable when both the mediating variable and independent variable are in the equation.
4. The coefficient relating the independent variable to the dependent variable should reduce when the mediating variable is added to the equation.

Regression were used to establish the first step of Barron and Kenny's theory of mediation. The analysis examined the relation between maternal depression, as the independent variable, and children with internalizing symptoms as the dependent variable. The analyses showed a significant  $b = .145$ ,  $SE = .025$ ,  $p < .000$ . Those children that reported higher internalizing symptoms also had mothers who reported high levels of depression. This established step one.

Regression was also used to test the association between mother-child relationships and children's internalizing symptoms. Results indicated that the mother-child bond (the



mediator) was a significant predictor of child’s internalizing behavior (dependent variable),  $b = -.154$ ,  $SE = .038$ ,  $p < .000$ . These results meet step 2 of Barron and Kenny’s criteria.

To test the third criterion of Barron and Kenny’s theory, another regression was performed. Mother-child relationship (mediator) and mother’s depression (independent variable) were entered as predictors, and child’s internalizing symptoms (dependent variable) as the outcome. The results showed a significant relationship between the mediating variable, mother-child bond with child’s internalizing symptoms,  $b = -.123$ ,  $SE .037$ ,  $p < .001$  while the independent variable, mother’s depression, was controlled. These results meet step 3 of Barron and Kenny’s criterion.

Lastly, the fourth step was tested by examining if the coefficient for maternal depression reduced when mother-child bond is in the picture. The coefficient lowered from  $b = .145$  to  $b = .130$ ,  $SE = .025$ ,  $p < .000$ . Based on Barron and Kenny’s criterion for establishing mediation, mediation was found. Specifically, mother-child relationship was found to mediate the relationship between the relationship between maternal depression and child’s internalizing symptoms.

**Figure 1.1 – Correlation Matrix**

Variable	1	2	3
1) Maternal depression	1	0.358**	-0.173**
2) Internalizing Symptoms in the child	0.358**	1	-0.138*
3) Mother-child relationship	-0.173**	-0.138*	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.05 level (2-tailed).

### Discussion

The main goal of this study was to determine whether there is a connection between children’s internalizing symptoms and their mothers’ depressive symptoms, and whether or not

the strength of the mother-child bond mediates that relation. Results of descriptive analyses were consistent with previous research, indicating that females are more likely to report depressive symptoms (England, & Sim, 2009). Both female children, and female adults reported higher levels of depressive, and internalizing symptoms than their male counterparts.

The first hypothesis that children with mothers with higher depressive symptoms will score higher on internalizing symptoms was found to be significant. The significant results suggest there maybe an impact on a child's emotional, and psychological well-being if he/she is raised by a mother with depressive symptoms. This is consistent with previous research that suggests good maternal mental health is important for a growing child and maternal depression is predictive of child mental health problems (Alloy et al.,1997; Goodgame et al, 1994; Hops, Sherman, & Biglan, 1990).

The second hypothesis was that the mother-child relationship will mediate the relationship between maternal depression and the child's internalizing symptoms. This hypothesis was supported by the results meeting Barron and Kenny criteria (Barron & Kenny, 1986; Mackinnon et al., 2007). This finding is also consistent with previously published research showing depressed mothers are more disengaged, and inattentive to their children (Gelfand & Teti, 1990), which in turn can result in the child developing internalizing behaviors (Palaez et al., 2008).

It is difficult for mothers suffering from their own negative emotions to foster and grow a nurturing relationship with their children. These children are sometimes raised without a strong bond with their mothers, and therefore, have trouble regulating their own emotions (Kessler et al., 2006). The current study examined a previously unresearched question, and found significant results (Shwartz, 2017). Earlier work had established that poor parenting has an impact on child's psychopathology, and it had also been found that depressed mothers are more likely to have children with internalizing symptoms, but the mediation question examined

in this study had not been examined in prior research to this author's knowledge (Yap and Jorm, 2015).

### **Conclusion and Implications**

Based on previous research, and the results of this study, more programs should be developed to provide mental health education to mothers, which include ways to improve their relationship with their kids. Results from this study suggest the depressed mothers have a difficult time bonding with their children, and thus an external program might help mend the ties between the dyad. Furthermore, it may help the mother learn techniques for parenting that avoids disorganized or erratic behaviors.

Schools should have afterschool programs that offer group sessions for mothers with depression and their children. This can help connect mothers and children going through a similar situation, as well as offer a safe place to learn problem solving. A school setting can be useful because children can be monitored long term and intervention can be provided at the earliest signs of negative mental health outcomes.

Along with more programs that improve the mother-child relationship - there is a need of resources, and support to children to supplement their weak relationships with their mothers. This can be accomplished by providing a female mentor/role model to the child that can be a consistent source of support. This person can also show the child examples of a positive authority figure.

Findings from this study offer overall implications for mothers, health professionals, and the field of psychology in general. Specifically, the finding offers evidence for the need of mental services, and education required for new mothers. Healthcare providers need to be aware of the implications of their client's depression within their family structure.

### **Limitations**

The study data is from a single time point. Therefore, it may be possible for the effects to be in the opposite direction. Specifically, internalizing symptoms in the child may be leading

to depression in the mothers. Likewise, the behavioral symptoms in the child may also be the cause of the lack of the strong bond between the dyad.

Data for the child and the mother was reported by the mom. It is possible that the mothers with a poor connection with their child attributed their lack of a relationship to their child's internalizing symptoms. Likewise, the mothers may have reported a poor relationship with their children only due to their own self-doubts due to depression.

#### **Directions for future research**

Future research should include longitudinal data to further establish the direction of psychopathology from the mother to the child. This will help more fully and rigorously test the mediation hypothesis. Additionally, other family members, such as a present father, should be asked to complete the depression and behavioral questionnaires for the mother/child dyad instead of the mother. This can help eliminate over reporting of symptoms by the mother due to an established poor relationship with their child. Lastly, depressed mothers could be followed overtime to determine the impact on their family environment long term.

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