

## CASE REPORT

# Maternal Depression as a Predictor of Intellectual Disability: Bio Psychosocial Model Speaks up

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### ABSTRACT

With an upsurge interest in holistic view of physical and psychological disorders, bio psychosocial model has gained much attention. Maternal depression is considered to manifold risks and vulnerabilities and early child developmental problems, including impaired cognitive, social and academic functioning. The present case study will highlight the intricacies linked with maternal depression in the infancy and early childhood of a 12 years old child, studying in a special education institute of city Lahore. The history file revealed that low socioeconomic status and parental conflicts induced depression in the mother of the child, who showed carelessness to the extent of making child vulnerable of experiencing intellectual disability.

**Key Words:** *Intellectual Disability, Maternal Depression, Maltreatment.*

### Introduction

Parents are the primary source of survival and development of children throughout their whole lives, but early childhood development puts a strong impact and determines the future of children. One of the disruptions in the healthy development of children is maternal depression that is a broad term for a spectrum of depressive conditions affecting women during pregnancy and up to one year postpartum.<sup>1</sup> Studies have repeatedly revealed that maternal depression is associated with less optimal and insecure parenting. Maternal mental health is more emphasized in postnatal period as compared to prenatal period as the postpartum depression (PPD) is associated with weak emotional involvement, neglect, lack of attention, and hostility towards the child.<sup>2</sup> Warmness that is the charm of mother-child affiliation lacks in postpartum depression and is replaced by hostility towards child. There are pertinent associations between maternal depression and multiple disruptions in child including early child adjustment, developmental abnormalities, problematic parenting, family conflicts, parental negligence and other family difficulties.<sup>3</sup>

The impact of maternal depression is not limited to mother only but its exposure is found to have multiple negative impacts on child's normal development in infancy and early development, including developmental delays, impaired cognitive, emotional and behavioral functioning.<sup>4</sup> Infants of postpartum depressive mother have been reported to show patterns of dys-regulated attention and arousal.<sup>5</sup>

The most solemn negative effects of postpartum depression are on the child's cognitive development, including language, IQ, and Piaget's object concept task. However, these effects are completely mingled and contextual influences. The studies on child behavior indorse the sound effects of postpartum depression on children's behavior, antisocial behaviors, and psychiatric disorders at home and at school.<sup>6</sup>

Among these cognitive impairments in children, one is Intellectual Disability (ID). Intellectual disability is a developmental disorder describing the condition in which individual's intellectual functioning level and adaptive skills are significantly below the average of his chronological age. As a result of ID, individual's practical, social and conceptual functioning is disturbed.<sup>7</sup>

Family conflicts can cause maternal depression in postpartum period that is the significant predictors of child's emotional and behavioral behavior problems along with Intellectual Disability (ID). The aim of the current study was to emphasize the importance of family conflicts, mental health of primary caregivers, specifically mothers who can have permanent negative impacts in child's development.

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*Funding Source: NIL; Conflict of Interest: NIL*

*Received: November 19, 2019; Revised: June 05, 2020*

*Accepted: June 06, 2020*

### Case Study

The present case study is about a 12 years old child who was referred by his teacher with the presenting complaints of speech difficulties, academics and behavioral problems of being hyper, aggressive and hitting others. The in-depth clinical interview with the father of child revealed that child's early developmental years made him vulnerable towards intellectual disability. Apparently child's socio-economic status was below-average. There were inter-parental conflicts and relationship difficulties. The mother of child also had poor mental health that made her vulnerable towards maternal depression. The child had a healthy normal birth and there was no sign of abnormality. He appropriately achieved the entire developmental milestone at 2 years except speech and toilet training. According to father, mother had no affiliation with her child and she used to physically abuse him. She had careless and neglected attitude towards child. In case of illness, mother used to pick those medicines for child that induced dizziness and sleepy effects as she used to give child extra doses of cough syrup. After the child got accidentally burned, she misused the doctor's prescription for child which had the abnormal effect on child's development. The frequency of doses was unknown to father but he was suspicious about mother regarding child's condition. Neglecting parenting and conflicts caused divorce of parents and child remained with his father. Afterwards, child stopped speaking and showed inappropriate attention, aggression and hyperactivity as teasing and hitting others.

The child started formal education at 4 years of age but had various unsuccessful experiences at normal schooling because of his speech and behavioral problems. So, at 7 years of age, he was admitted to a special education school where he was suspected with Intellectual Disability (ID-moderate), affecting conceptual, social and practical domains of child. The developmental assessment tool, Portage Guide to Early Education (PGEE) revealed the 9-10 years of overall discrepancy between chronological and functional age of child. He had 2-3 words speech, lack of socialization and cognitive impairment. Bender Gestalt Test (BGT) was administered to find the developmental maturation of child that was up to 3 years.

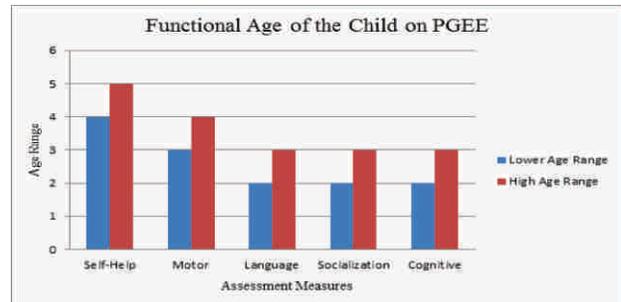


Fig. 1: This Figure is Showing the Functional Level of the Child on Different Areas of PGEE

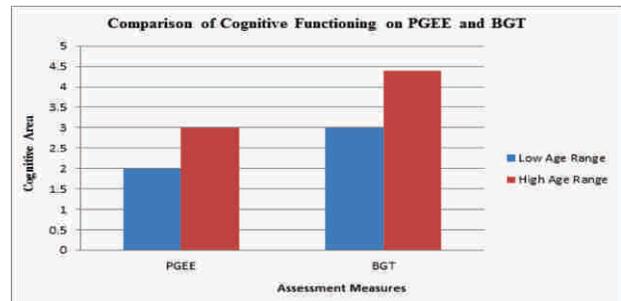


Fig. 2: This Figure is Showing the Comparison of Cognitive Functioning On PGEE and BGT

Table I: Conceptual, Social and Practical Domain of Child according to his Severity Level

Conceptual Domain	Social Domain	Practical Domain
The child's conceptual skills were markedly behind those of his peers.	The child had poor social Skills as his speech was not clear and developed to 2-3 words.	The child's function in practical domain regarding self-help but he needed support in complex daily living tasks in comparisons to his peers
The child had no basic concept of reading and writing as he could draw only lines in imitation and didn't have the concepts of alphabets.	He didn't interact with his peers and had poor participation in social activities. He used to give no social expression as smiley and greetings.	He couldn't buy something for him.
He had no understanding of time and money management.	He had no friends and didn't perceive or interpret the social cues accurately.	He couldn't perform practical tasks as simple nutritious food preparation, health benefits, managing social expectations, money management and responsibilities.

**Discussion**

Family provides the grounds for the upbringing of children where parents are the primary caregivers. Parental factors contribute towards the bio-psycho and social developmental processes of children that have long lasting impact on future life. There are multiple factors in family processes that can influence the normal growth patterns of children including parental conflicts, poor mental health, negligence, lack of support and parental divorce. This case study brought all such factors into light that can have adverse effect on normal children throughout their whole life and make it worse for them.

As in child's case, his parent's maltreatment made life full of negative challenges effecting his cognitions, emotions and behaviors. Parental neglect, conflicts, financial worries and relationship difficulties can put negative impact of one of the spouse as mother's mental health (maternal depression) was affected badly in current case. Maternal mental illness is associated with child's cognitive, social and academic impairment.<sup>4,8</sup>

Maternal depression is associated with multiple adverse outcomes for child. Due to mental suffering of mother during postpartum depression (PPD), her hostile behavior towards child put into danger that lead towards overdose of medication. Studies have revealed through the reports of overdose with promethazine (phenergan) can originate significant variations into the nervous system including dizziness, restlessness, agitation, and confusion.<sup>6</sup> These adverse effects put the psychology of child into danger that come out as hyperactivity, aggressiveness and hitting behavior. Along with these behavioral issues, the overdose of promethazine plays a significant role towards the likelihood of Intellectual Disability (ID). As a result, the child's intellectual and adaptive functioning was disrupted.

Studies have revealed that the social factors of parental conflicts, divorce and destructive home environment are those social factors that can lead towards maladjustment of children affecting their biological, psychological and social functioning. Similarly, a disruptive home environment also has the profound effect on the wellbeing of children and interferes with the healthy development.<sup>3</sup>

The key goal of this study was to understand all the

parental factors including maternal depression which effect the healthy growth of children.

**Table II: Case Formulation of Child According to Bio-Psycho-Social Factors**

Factors	Remote	Present	Future Recommendations
Bio	Maternal depression	Speech problem	Speech therapist
	Overdose of medication		
Psycho	-	Hyperactivity	Behavior modification
		Aggressiveness	
		Hitting behavior	
Social	Parental conflict	Destructive home environment	Family counseling
	Parental divorce	Lack of supervision	

The intervention plan was developed according to the needs of child in which goals were taught in one setting. Because of single parent, father couldn't give proper attention to child. Family processes are accountable for child's development and intervention as both parents have their own specific roles to play.

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