



# A Study on Relationship between Mothers Personality Traits and Problem Behavior among Children with Mental Retardation

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## Abstract

Present study assessed the association between mothers' personality traits (assessed via NEO-FFI) and problem behaviors in their children with intellectual disabilities (measured by BASIC-MR). A sample of 30 mothers of children has selected purposive with mild, moderate, and severe intellectual disability revealed significant associations: maternal Neuroticism correlated with children's rebellious behaviors and fears, while Extroversion linked to repetitive behaviors. Conscientiousness showed an inverse relationship with problem behaviors. Study revealed that partially support Belsky's parenting model, suggesting maternal personality influences child behavior through direct and mediated pathways. Despite limitations (small sample size, self-report methodology), the study highlights the need for personality-informed parenting interventions in intellectual disability children.

**Keywords:** Maternal Personality, Problem Behaviors, Intellectual Disability, NEO-FFI, BASIC-MR, Parenting Interventions.

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## 1. Introduction

The investigation examined the association between maternal personality traits, assessed by the NEO-FFI, and problematic behaviors in children with mental retardation, assessed through

the BASIC-MR instrument. A purposive sample of 30 mothers of children with varying degrees of intellectual disability (mild, moderate, and severe) was utilized. The findings suggested significant associations: maternal Neuroticism was correlated with children's rebellious behaviors and fears, while Extroversion was connected with repetitive behaviors. Conscientiousness showcased a negative association with problem behaviors. The findings present partial support for Belsky's parenting model, indicating that maternal personality influences behavior in children through both direct and mediated pathways. Despite limitations such as a small sample size and relying on self-reporting, the study strengthens the understanding of family dynamics within populations with intellectual disabilities, emphasizing the necessity for parenting interventions informed by personality traits. The behavioral development of children with intellectual disabilities (ID), earlier referred to as "mental retardation," is impacted by a complex interaction of biological, psychological, and environmental factors. Individual cognitive and adaptive challenges inherently influence behavior; however, familial dynamics, particularly maternal characteristics, are now recognized as critical moderators of psychosocial outcomes in this population. Children with intellectual disabilities often display problematic behaviors, including aggression, self-injury, and social withdrawal, which enhance caregiver stress and hinder developmental advancement. Identifying the factors influencing these behaviors is essential for developing targeted interventions that improve the quality of life for children and their families.

Recent investigations emphasize the significance of parental personality traits in influencing care giving environments. Maternal personality traits, established by frameworks such as the Five-Factor Model (FFM: neuroticism, extraversion, openness, agreeableness, conscientiousness), can influence parenting styles, stress management, and emotional availability, eventually impacting child behavior. Mothers exhibiting a significant amount of

neuroticism may encounter difficulties in emotional regulation, which could potentially intensify anxiety or oppositional behaviors in their children. In contrast, traits such as emotional stability and conscientiousness may promote focused, supportive environments that reduce behavioral issues. essentially there is increasing interest in parent-child interactions among individuals with intellectual disabilities, limited research has systematically explored the relationship between maternal personality traits and problem behaviors in children. The current body of literature mainly emphasizes socioeconomic factors and explicit parenting practices, thereby creating a significant gap in the comprehension of the intricate influence of persistent maternal characteristics. This research examines the correlation between maternal personality traits, assessed through the Five Factor Model, and the incidence and intensity of problem behaviors in children with intellectual disabilities. This research reveals contributions by integrating frameworks from developmental psychology and disability studies. The present investigation enhances theoretical understanding of the mechanisms connecting maternal characteristics to child behavior in under-researched intellectual disability populations. Further, the study provides empirical insights to guide family-centered interventions, including customized parental support programs that utilize strengths in maternal personality to enhance child outcomes. The global discourse has become more concentrated on inclusive, person-centered care. Clarifying these relationships is crucial for developing resilient care giving ecosystems and enhancing developmental outcomes for children with intellectual disabilities.

## 2. Related Literature

Maternal personality traits significantly shape child behavior and care giving dynamics. Clark et al. (2017) linked maternal personality and infant emotionality to later parenting styles (e.g., power assertion) using the Five-Factor Model (FFM). Babae & Jain (2015) tied maternal neuroticism and psychoticism to child depression via projective tests, while Sona Samiei

Sarkhanlou et al. (2019) identified maternal neuroticism and perfectionism as predictors of daughters' emotional distress. Collectively, these studies highlight maternal traits as critical moderators of child behavior. However, research predominantly focuses on neurotypical populations, neglecting problem behaviors (e.g., aggression) in children with intellectual disabilities (ID) and relying on limited methodologies (e.g., self-reports).

Parents of children with disabilities exhibit distinct psychological profiles. Srivastava et al. (1981) and Rastogi (1984) found heightened neuroticism and anxiety in mothers of children with ID, correlating with restrictive parenting. Veisson (2001) noted lower Extraversion and higher Neuroticism in these parents, impairing adaptive caregiving. Belsky's model underscores parental personality's dual role in shaping parenting practices: Prinzie et al. (2005) linked neuroticism to negative discipline, while Van Aken et al. (year) emphasized maternal Emotional Stability in mitigating aggression. Pamella & Coffman (2009) tied maternal Conscientiousness to reduced adolescent externalizing behaviors, though Nigg et al. (1998) found no paternal depression-child behavior link in ADHD. While parental traits (e.g., neuroticism) and problem behaviors in ID populations are well-documented, no studies directly examine maternal personality's role in problem behaviors among children with mental retardation. Existing work prioritizes mixed-disability samples or broad parenting practices, overlooking ID-specific dynamics. Bridging this gap through frameworks like the FFM could inform targeted interventions for families.

The reviewed literature establishes that maternal personality traits (e.g., neuroticism, conscientiousness) significantly influence parenting practices and child behavioral outcomes. For children with intellectual disabilities (ID), problem behaviors such as aggression, hyperactivity, and self-injury are prevalent and shaped by cognitive, environmental, and

familial factors. However, research on maternal personality's role in moderating these behaviors remains sparse, with most studies focusing on neurotypical populations or mixed-disability cohorts.

### **3. Objectives**

1. To identify the personality traits of Mother of children with Mental Retardation
2. To identify the problem behavior of children with Mental Retardation.

### **4. Hypotheses**

1. There will be significant relationship between Mothers' personality traits and Problem behaviour among children with Mental Retardation
2. There will be significant difference between the Personality Traits of Mother of children with Mild, Moderate and Severe Mental Retardation.

### **5. Methodology**

This study adopted an exploratory research design to investigate the relationship between maternal personality traits and problem behaviors in children with mental retardation. The purposive sampling method was employed to select 30 mothers of children diagnosed with mental retardation (IQ below 70) and exhibiting problem behaviors. The sample was stratified to include 10 mothers each of children with mild, moderate, and severe mental retardation to ensure representation across different levels of cognitive impairment.

## 5.1. Sample

Mothers were required to have a minimum educational qualification of 10+2 (higher secondary) and proficiency in Telugu, English, or Hindi to ensure comprehension of assessment tools. Their children, all below 18 years, were clinically diagnosed with mental retardation and displayed behavioral issues such as aggression, self-injury, or hyperactivity. Exclusion criteria eliminated children with co morbid conditions like autism, Down syndrome, cerebral palsy, or sensory impairments to maintain sample homogeneity.

## 5.2. Data Collection

The study was conducted at the National Institute for Mentally Handicapped (NIMH), Secunderabad, a specialized center for intellectual disabilities, ensuring access to a clinically validated population.

### 5.3.3. Assessment Tools

1. **NEO Five-Factor Inventory (NEO-FFI):** A 60-item self-report questionnaire measuring five broad personality domains: Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Each domain consists of 12 items scored on a 5-point Likert scale (0 = Strongly Disagree to 4 = Strongly Agree).

**Scoring:** Raw scores are converted to standardized T-scores (ranges: Very Low [ $<25-34$ ] to Very High [ $66-75+$ ]).

**Psychometrics:** Demonstrated cross-cultural validity (test-retest reliability = 0.68–0.80) but susceptible to **response biases** (e.g., social desirability).

## 2. Behavioral Assessment Scales for Indian Children with Mental Retardation (BASIC-

**MR) – Part B:** A 75-item caregiver-reported scale assessing 10 problem behavior domains, including aggression, hyperactivity, and self-injury.

**Scoring:** Behaviors rated as Never (0), occasionally (1), or Frequently (2); total score ranges 0–150 (converted to percentage severity).

**Psychometrics:** High face validity **and** test-retest reliability ( $r = 0.68$ ); sensitive to behavioral changes ( $p < 0.001$  in pre-post interventions).

**Procedure:** Institutional approval and informed consent were obtained. Mothers meeting criteria were identified through clinical records and brief interviews.

**Data Collection:** Conducted in single sessions: Demographic details (via a personal data sheet).

NEO-FFI administration (self-reported, ~20–30 minutes). BASIC-MR Part B (researcher-administered via observation/interview, ~30 minutes).

## 6. Results

**Hypothesis-1:** There will be significant difference between the Personality Traits of Mother of children with Mild, Moderate and Severe Mental Retardation.

**Table. 1.** Frequency Distribution of Personality Domains

Personality	Frequency	Percentage
N	5	16.7
E	9	30.0
O	9	30.0
A	3	10.0
C	4	13.3
Total	30	100.0

Above table shows Frequency distribution of 5 personality domains, they are distributed in Following *Neuroticism*-17%, *Extroversion*-30%, *Openness*-30%, *Agreeableness*-10%, *Conscientiousness*-13%, out of 30 samples of mothers. Highest Occurring Personality are *Extroversion* and *Openness* and least occurred personality is *Agreeableness*

**Table.2. The Frequency Distribution of Levels of Personality Domains**

Frequency distribution of levels of personality										
Levels	Very high		High		Average		low		Very low	
Personality	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD
N	-	-	6	20.0	24	80.0	-	-	-	-
E	4	13.3	5	16.7	20	66.7	1	3.3	-	-
O	1	3.3	15	50.0	14	46.7	-	-	-	-
A	3	10.0	12	40.0	11	36.7	4	13.3	-	-
C	1	3.3	15	50.0	14	46.7	-	-	-	-

The above table shows that out of 30 sample of mothers 6 scored high for neurotic personality and 24 are average, where as in extroversion domain 4 scored very high,5 scored high 20 average,1 scored low, and in openness domain 1 scored very high,15 scored high,14 scored average. And in Agreeableness domain 3 scored very high,12 scored high, 11 scored average,4 scored low and in Conscientiousness domain 1 scored very high,15 scored high, 14 scored average.



**Table.3. Frequency Distribution of Levels of Mental Retardation**

	Frequency	Percent
<b>Mild</b>	10	33.3
<b>Moderate</b>	10	33.3
<b>Severe</b>	10	33.3
<b>Total</b>	30	100.0

### 6.1. Hypotheses-2

There will be significant difference in Problem Behaviour of children with Mild, Moderate and Sever Mental Retardation.

**Table.4. Mean and Standard Deviation of Problem Behaviours among Children with Mental Retardation**

<b>Basic-MR</b>					
<b>Domains</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
B1	30	9.4	81.3	24.062	17.0404
B2	30	25.0	100.0	59.583	17.5809
B3	30	14.3	57.1	27.381	10.1160
B4	30	.0	40.0	15.000	8.8083
B5	30	.0	31.3	12.708	7.2448
B6	30	.0	37.5	22.083	12.1429
B7	30	66.7	100.0	88.333	15.8719
B8	30	.0	83.3	28.056	14.7591
B9	30	.0	11.1	2.593	4.7798
B10	30	12.5	50.0	28.750	9.9297
B total	30	17.3	36.7	23.756	4.6104
Valid N (list wise)	30				

B1-Violent and distract behavior,B2-Temper Tantrums,B3-Misbehaves with others,B4-Self injurious Behaviors,B5-Repetitive Behaviours, B6-Odd Behaviours., B7-Hyperactivity,B8-Rebellious Behaviour, B9-Antisocial Behaviors, B10-FearsB total-Total problem Behaviours.

Above table shows domain wise problem behaviours, where out of 10 domains the means of domain Temper Tantrums and Hyperactivity are high More Frequent problem behaviors among children with mental retardation. Followed by Rebellious Behaviours and Violent and Destructive Behaviours Least Occurred Problem behaviours are Anti social Behaviours and Repetitive Behaviours.

**Table.5. Association between problem behaviour and level of Retardation**

Problem behaviour	Mild MR		Moderate MR		Severe MR		total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<b>B1</b>	18.12	12.48	30.31	23.34	23.75	12.34	24.06	17.04
<b>B2</b>	52.50	14.19	63.75	19.93	62.50	17.67	59.58	17.58
<b>B3</b>	27.14	11.56	26.42	7.56	28.57	11.66	27.38	10.11
<b>B4</b>	12.5	8.57	14.0	6.58	18.50	10.55	15.00	8.80
<b>B5</b>	15.00	8.43	11.87	1.97	11.25	9.22	12.70	7.24
<b>B6</b>	21.25	10.70	20.62	12.51	24.37	13.95	22.08	12.14
<b>B7</b>	88.33	15.81	90.0	16.10	86.66	17.21	88.33	15.87
<b>B8</b>	25.83	8.286	31.66	21.80	26.66	11.65	28.05	14.75
<b>B9</b>	2.22	4.68	3.33	5.36	2.22	4.68	2.59	4.77
<b>B10</b>	30.0	10.54	23.75	3.95	32.50	12.07	28.75	9.92
<b>B total</b>	2.22	4.68	3.33	5.36	25.20	4.63	23.75	4.61

**\* $P>0.05$ , Not Significant**

Above table is showing the means of problem behaviour in relation to Level of mental retardation (Mild, moderate, severe) that the highest problem behaviour in level of MR is Hyperactivity and followed Temper tantrums, Least appeared Problem Behaviour is Anti-social Behaviours, problem behaviors increased with increase in level of retardation, viz.. Mild-31%, moderate-31.4%, severe-32% of behaviour problems in all the domains. However the Results revealed that there is no significant difference between the mean scores of Problem Behaviour and Level of Retardation.

## 7. Discussion

This study explored the relationship between maternal personality traits and problem behaviors in children with mental retardation (MR). The sample consisted of 30 mothers, aged between 20 and 45 years and educated up to the 10+2 level, each raising a child with mild, moderate, or severe Mental Retardation equally distributed with 10 children in each category and stratified across urban and rural backgrounds. Personality profiles of the mothers were assessed using the NEO Five-Factor Inventory (NEO-FFI). The findings revealed that Extroversion (30%) and Openness (30%) were the most commonly observed traits. Extroverted mothers were found to be socially assertive but exhibited low energy levels, whereas those high in Openness demonstrated creativity and intellectual curiosity. Neuroticism, present in 17% of the mothers, was associated with maternal anxiety, although these mothers showed effective stress management skills. Agreeableness (10%) and Conscientiousness (13%) were the least prevalent traits. A T-score analysis further showed that six mothers scored high on Neuroticism, which correlated with hyperactivity and inattention in their children. Nine mothers scored high to very high in Extroversion, linked to externalizing behaviors such as aggression in their children. A significant number, sixteen mothers, scored high to very high in Openness. In contrast, the majority of mothers scored within the average range for

Agreeableness and Conscientiousness. These findings suggest nuanced associations between maternal personality traits and the behavioral manifestations observed in children with varying levels of MR.

## 8. Conclusion

This study focused exclusively on mothers' personality traits due to the interdependent nature of parental characteristics within families (Kenny, 1996). Key findings revealed that:

- **Neuroticism** was linked to children's rebellious behaviors and fears, partially supporting Belsky's and Patterson's mediation models.
- **Extroversion** correlated with repetitive behaviors, while **Conscientiousness** inversely predicted them.

Despite limitations small sample size, reliance on self-reports, and cultural constraints the results align with prior research (Kochanska et al., 1997; Prinzie et al., 2004), underscoring maternal personality's role in child problem behaviors. Future studies should include larger, diverse samples and multi-method assessments to strengthen generalizability.

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