



## Parental Burnout in Mothers of Children with Cerebral Palsy: A Narrative Review of Risk Factors and Interventions

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### ABSTRACT

**Background:** Parental burnout (PBO) is marked by overwhelming fatigue, emotional detachment, and feelings of inadequacy in the parental role. Mothers of children with cerebral palsy (CP) are particularly vulnerable due to the continuous and intensive nature of caregiving.

**Objective:** To synthesize evidence on the risk factors and interventions related to PBO in mothers caring for children with CP.

**Methods:** This narrative review was conducted based on reviewing the published literature addressing PBO or caregiver burden in CP.

**Results:** Major predictors of burnout include high severity of disability, comorbid medical complications, lack of social support, financial constraints, and limited access to respite care. Interventions such as peer support groups, mindfulness practices, and structured respite programs showed encouraging outcomes but were rarely assessed longitudinally.

**Conclusion:** PBO is disproportionately high among mothers of children with CP. Addressing this issue requires longitudinal, multicenter, and culturally sensitive research, alongside policy and clinical interventions to support caregivers.

### 1. Introduction

Advances in medical care have increased survival rates among infants with chronic conditions arising from prematurity, congenital disorders, and injuries (1). In the United States alone, one in five households provides care for a child with special health care needs (CSHCN), representing over 11 million children (Data Resource Center for Child and Adolescent Health, 2013). Many of these children require long-term medical, therapeutic, and psychological support (2). Families, particularly mothers, often shoulder the majority of this responsibility, placing them at elevated risk of psychological strain.

Cerebral Palsy (CP) is a group of permanent disorders affecting movement and posture, caused by non-progressive injury to the developing fetal or infant brain. These motor impairments are often accompanied by disturbances in sensation, perception, cognition, communication, behavior, and comorbidities such as epilepsy and musculoskeletal complications (3). Prevalence is estimated at 1.5–3 per 1,000 live births in high- and middle-income countries, with prematurity and low birthweight being key risk factors (4).

Children with CP frequently experience slowed physical development, spasticity, contractures, fractures, scoliosis, seizures, oral-motor dysfunction, feeding problems, gastroesophageal reflux, and communication difficulties (5; 6; 7). Management typically requires a multidisciplinary approach,

including physical, occupational, and speech therapy, medical management, and the use of assistive technology (8; 9; 10).

Parenting is inherently demanding, but for some, sustained exposure to high demands without adequate resources leads to Parental Burnout (PBO) which is a clinical syndrome of emotional exhaustion, emotional distancing from children, and loss of parental fulfillment (11). Unlike occupational burnout, PBO directly threatens family well-being, increasing risks of neglect and harsh parenting

Assessment tools of PBO include the Parental Burnout Inventory (PBI) which measuring exhaustion, inefficacy, and detachment; and the Parental Burnout Assessment (PBA) which evaluate exhaustion, contrast with the previous parental self, feelings of being fed up, and emotional distancing (12). Risk factors span personal vulnerabilities, family context, and societal pressures such as perfectionism, financial strain, and lack of support (13; 14).

#### PBO in Mothers of Children with CP

Unlike temporary caregiving stressors, CP care is lifelong, leaving little opportunity for recovery. The imbalance between high demands and insufficient resources is especially acute, combining physical caregiving strain, financial burden, social isolation, and uncertainty about the child's future (15; 16). These factors collectively create a heightened risk of parental burnout.

### 2. Risk Factors for PBO in CP Caregiving

#### 1-Child-related factors

- Severe motor impairment (higher GMFCS levels requiring full assistance).
- Comorbidities: epilepsy, intellectual disability, communication impairments.
- Chronic complications: feeding difficulties, respiratory problems, frequent hospitalizations (17; 18).

#### 2-Parent-related factors

- Sleep deprivation and physical exhaustion from 24-hour caregiving.
- Psychological vulnerability (depression, anxiety, low resilience).
- Limited spousal/familial support, financial strain, and reduced work opportunities.
- Ineffective coping or lack of stress-management strategies (19).

#### 3.Systemic and environmental factors

- Limited access to healthcare and rehabilitation services.
- Scarcity of respite care.
- Disability stigma and social isolation.
- Long-term uncertainty regarding the child's prognosis (20; 21).

#### 3.Health Consequences of PBO

- Psychological: depression, anxiety, emotional distancing, guilt, escape ideation.
- Physical: chronic fatigue, somatic complaints, sleep disruption, weakened immunity.
- Relational/Social: marital conflict, social withdrawal, reduced work productivity.
- Impact on children: impaired parental sensitivity, risk of neglect, inconsistent rehabilitation adherence (21).

#### 4. Interventions for Managing PBO

- Support Networks: Peer support, family involvement, and professional caregivers (22).
- Respite Care: Temporary caregiving relief to allow parental recovery (23).

- Therapy & Counseling: CBT and stress-management interventions (24).
- Mindfulness & Relaxation: Yoga, meditation, MBSR programs (25).
- Self-Care: Prioritizing rest, exercise, hobbies, and personal health (26).
- Parent Training: Structured programs to enhance caregiving skills (27).
- Advocacy & Education: Empowering parents to access services and reduce stigma (28).
- Parent-to-parent support programs have been shown to decrease feelings of isolation and strengthen resilience among families of children with disabilities (10).

#### 5. Summary of Findings:

- High Burnout in CP Mothers: CP caregiving is more exhausting than other conditions due to its permanence and multidimensional demands.
- Socioeconomic & Cultural Contexts: Financial strain and service scarcity dominate in LMICs, while stigma and high expectations exacerbate stress in HICs.
- Research Gaps: Existing studies are cross-sectional, often small-scale, and lack standardized PBO measures.
- Future Directions: Longitudinal, cross-cultural, and intervention studies—including fathers and extended family—are needed.

#### Conclusion

Mothers of children with CP carry a uniquely heavy caregiving load, leaving them highly susceptible to parental burnout. Addressing this issue requires multi-level approaches: strengthening social and health systems, implementing culturally adapted interventions, and developing policies that prioritize caregiver well-being. Supporting parents ultimately enhances the quality of life for children with CP.

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