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# Families, Systems, & Health

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## BRIEF REPORT

## The Impact of a Caregiver's Chronic Illness on Childhood Psychosocial Functioning

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**Introduction:** Prolonged activation of the body's stress response from chronic exposure to adverse stressors may have a significant impact on lifelong psychosocial functioning. Screening for the impact of prolonged adversity in childhood has become an integral component of pediatric care. While past research has separately explored the impact of caregiver chronic illness and caregiver toxic stress on children, the relationship between caregiver chronic illness disability burden, caregiver parental toxic stress, and their child's psychosocial functioning is not well understood. This study aimed to investigate how caregiver chronic illness disability burden and caregiver toxic stress impact childhood psychosocial dysfunction (CPD). **Method:** This pilot study was conducted at two free family medicine clinics in Inland Southern California between August and December 2022. It surveyed caregivers with chronic illness of any age or functional capacity who are full-time caretakers of children aged 4–17 years old. Validated screening tools assessed caregiver disability burden (World Health Organization Disability Assessment Schedule 2.0-12), parental toxic stress (Functional Impact of Toxic Stress for Parents), and pediatric psychosocial functioning (Pediatric Symptom Checklist-17). Regression analysis tested if caregiver scores on these measures predicted CPD. Twenty-nine participants completed the survey. **Results:** High caregiver chronic illness disability burden and toxic stress together significantly predicted CPD. Caregiver toxic stress alone predicted CPD, whereas chronic illness disability burden alone did not. **Discussion:** This study highlights the relationship between caregiver chronic illness disability burden, caregiver toxic stress, and childhood psychosocial dysfunction, and may contribute to providing holistic care to children and their caregivers.

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permitted under this license.

Shamieh Banihani served as lead for conceptualization, data curation, investigation, project administration, writing—original draft, and writing—review and editing. Samantha Zimmer contributed equally to conceptualization, investigation, supervision, writing—original draft, and writing—review and editing. Annie Tagvoryan served in a supporting role for data curation, investigation, and writing—review and editing. Helen Setaghiyan served in a supporting role for writing—original draft and writing—review and editing. Daniel Novak served as lead for formal analysis, methodology, and validation and served in a supporting role for conceptualization, writing—original draft, and writing—review and editing. Adwoa Osei served as lead for conceptualization, investigation, writing—original draft, and writing—review and editing.

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**Public Significance Statement**

The findings of this study suggest that caregivers living with a high chronic illness disease burden and associated toxic stress may contribute to childhood psychosocial dysfunction.

*Keywords:* childhood psychosocial functioning, adverse childhood experiences, family-centered intervention, trauma-informed care, chronic illness

Prolonged activation of the body's stress response from persistent exposure to childhood adversity has been linked to psychosocial outcomes across the lifespan (Higgins et al., 2015; McLaughlin & Lambert, 2017). Previous research has explored the impact of caregivers' chronic medical conditions as chronic stressors on children's behavior (Sieh et al., 2010, 2012). However, the relationship between the burden of disability that the caregiver experiences from the illness, the subsequently experienced toxic stress by the caregiver, and its impact on childhood psychosocial dysfunction (CPD) is not well understood. Our project sought to address this research gap by examining the effects of caregiver chronic illness burden and toxic stress together on pediatric psychosocial functioning.

### Method

In this pilot study, we surveyed caregivers with chronic illness with children between 4 and 17 years old at two free family medicine clinics in Inland Southern California. Patients at these clinics are mostly female, about a third are Spanish speaking, and over 80% are uninsured. This setting provided insights from a diverse, low socioeconomic status population. Three validated screening tools were administered including (a) World Health Organization Disability Assessment Schedule 2.0 (WHODAS-12), to measure caregiver chronic illness disability burden; (b) Functional Impact of Toxic Stress for Parents (FITS-P), to measure caregiver toxic stress; and (c) Pediatric Symptom Checklist-17 (PSC-17), a caregiver-rated measure of childhood psychosocial functioning (Jellinek

et al., 1999; Moreno et al., 2021; Üstün et al., 2010).

Regression analysis examined if scores in caregiver chronic illness burden and caregiver toxic stress predicted caregiver ratings of pediatric psychosocial dysfunction. Patient responses were assigned to two groups. Group 1 included caregivers who scored above the sample mean ( $M = 22$ ) on the WHODAS-12 and were considered to be living with high chronic disease burden. Group 2 included caregivers who scored a 3 or 4 out of 4 on the FITS-P and were considered to have high parental toxic stress. A PSC-17 score of 15 or higher indicated positive screening for psychosocial dysfunction. A total of 29 participants completed the survey.

### Results

Demographic information collected included annual income, number of children, caregiver age, chronic illness, and years living with chronic illness (Table 1). Regression analysis revealed pediatric psychosocial dysfunction (measured by the PSC-17) was predicted by scores of parental toxic stress (FITS-P) and the WHO short-form measure of caregiver chronic illness disability burden (WHODAS-12). The model was significant,  $R^2 = .54$ ,  $f = 15.48$ ,  $df = 2$  (26),  $p < .001$ . Parental toxic stress was uniquely predictive ( $p < .001$ ) of CPD, whereas caregiver chronic illness disability burden alone was not ( $p = .24$ ).

A second regression was run to determine how scores on the PSC-17 were mediated by scores on the FITS-P and WHODAS-12. Patients were

**Table 1**  
*Respondent Demographic Information*

Demographic information	
45: mean age of caregivers	~3: mean number of children per caregiver
\$17,795: mean annual income	12: mean years with chronic illness

**Table 2**  
*Regression Analysis of Caregiver Group and Child Psychosocial Functioning*

Group	<i>n</i>	Mean PCS-17 score	Significance
Low chronic illness burden, low toxic stress	10	~4	<i>p</i> = .068
Low chronic illness burden, high toxic stress	3	~9	N/A (low sample)
High chronic illness burden, low toxic stress	9	~8	<i>p</i> = .57
High chronic illness burden, high toxic stress	7	18	<i>p</i> = .028*

*Note.* PCS-17 = Pediatric Symptom Checklist-17; N/A = not applicable.

\* statistically significant.

assigned based on whether WHODAS-12 score was above/below the mean ( $M = 22$ ; high/low disability burden) and whether FITS-P score was above/below 3 out of 4 (high/low stress). Analysis across the four conditions found that scores in the high caregiver chronic illness disability burden and high caregiver toxic stress related to pediatric psychosocial dysfunction,  $R^2 = .83$ ,  $f = 9.96$ ,  $df = 2(6)$ ,  $p = .03$  (Table 2).

## Discussion

Screening for the impact of prolonged childhood adversity is becoming an essential part of pediatric care (Selvaraj et al., 2019); however, current models fail to consider the impact of caregiver chronic illness disability burden on the child. Our results demonstrate that children may exhibit psychosocial dysfunction when their caregivers experience a high chronic illness disability burden and high toxic stress. A growing body of research highlights the critical role of early relational health in building resilience in children and protecting them from the harmful effects of prolonged adversity (Huang et al., 2023). Screening for the impact of a caregiver's chronic illness disability burden and toxic stress on their children may promote protective factors in children through anticipatory guidance and caregiver support. This could help bridge the gap between holistic management of caregiver chronic illnesses and its broader implications on caregiver-child dyad, reinforcing a family-centered approach. This study, conducted in free family medicine clinics in an underserved region, was limited by a small sample size, potential selection bias, and regional population

characteristics, which reduce statistical power and generalizability. Future directions include expanding screening in a larger, more diverse sample, gathering caregiver perspectives on how chronic illness impacts parenting, and offering strength-based, trauma-informed parenting tools to support healthy psychosocial development in children.

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