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Mothering in the Context of Mental Disorder: Effect of Caregiving Load on Maternal Health in a Predominantly Hispanic Sample

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Abstract

BACKGROUND—Mothering in the context of mental disorders presents with multiple challenges. However, this phenomenon is poorly understood: It is not known how child caregiving affects the health of their mothers.

AIMS—The purpose of this study was to examine associations between child caregiving load and health indicators in mothers receiving outpatient behavioral health services for mental or substance use disorders.

METHOD—A total of 172 mothers (80% Hispanic/Latina) completed surveys on their mental and physical health, and children's behaviors and medical problems. Child caregiving load consisted of number of children living with the mother, and presence of children's internalizing, externalizing, or medical problems.

RESULTS—Child caregiving load had significantly positive associations with mother's psychological distress, fatigue, pain, and body mass index. Child internalizing and medical problems were associated with mothers' poor health status.

CONCLUSIONS—Hispanics/Latinos experience health disparities, and Hispanic/Latina mothers who are already at risk due to their mental disorders experience an additional health burden associated with caring for children with emotional or health problems. Psychiatric and mental health nurse practitioners should assess child caregiving impact on mothers with mental disorders and seek to mitigate their caregiving burden and maintain their health. Further research is needed to clarify child characteristics and the mechanisms associated with maternal caregiver burden, suboptimal self-care, and adverse health outcomes. Structural Ecosystems Therapy for women in Recovery (SET-R) *study/Healthy Home*; Clinical Trial ID [NCT02702193](https://clinicaltrials.gov/ct2/show/study/NCT02702193)

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Author Roles

YM assisted VBZ's effort in conceiving the study from the subject matter expertise standpoint, wrote the abstract, introduction, discussion, and conclusion sections, contributed in improving the manuscript, and led the team in publishing effort. BEM assisted VBZ's effort in conceiving the study from the data analysis standpoint, conducted the data analysis and wrote the methods and results sections, and created tables. VBZ is the PI of the study, conceived the study, and provided critical feedback to the paper. All three authors reviewed the final manuscript before submitting for publication.

Declaration of Conflicting Interests

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Keywords

child caregiving; mothers; mothers' health; mental disorders; Hispanic/Latina

Introduction and Background

Mothering in the context of having a mental disorder is an understudied phenomenon requiring attention so that service providers can be responsive to the needs of mothers and families (Blegen et al., 2012; Hine et al., 2018; Silva et al., 2013). Maybery and Reupert (2018) synthesized studies done in the United States, the United Kingdom, Sweden, and Australia and found that as many as 45% of parents, most commonly women, who are raising children, have mental disorders, including substance use disorders. Despite the inherent rewards of parenting, it is also challenging and stressful, and more so for parents who have diminished capacity due to mental health or substance abuse problems (Van der Ende et al., 2016). Mothers with mental disorders consider their maternal role as central to their identities and are deeply invested in the well-being of their children (Matsuda, et al., 2019). However, they also report the following: that their mental disorders deplete their energy to engage in parenting; feelings of guilt, worry for their children, and inadequacy; and a sense of being judged by service providers, placing them at risk of having their children taken from them (Silva et al., 2013; Van der Ende et al., 2016). Moreover, these mothers are often raising children on their own, without the support and respite that could be offered by coparents (Dolman et al., 2013), and with the socioeconomic limitations that add to their vulnerability (Nicoloso-SantaBarbara et al., 2017).

The caregiving load of raising children (hereafter referred to as child caregiving load) has increased negative health impacts for mothers with mental disorders. The child caregiving load, including children who may have psychological adjustment problems of their own such as internalizing problems (introverted mood issues) or externalizing problems (behavioral and social adaptation issues), or physical health problems (Hser et al., 2014), adds daily stresses and strains that can affect maternal health. Women with mental disorders experience an increased rate of health-related problems, such as fatigue, sleep disturbances, and chronic illness (Alvaro et al., 2013; Lucchesi et al., 2016). Additionally, unmet dental needs are prevalent among women with mental disorders (Xiang et al., 2015).

The high rate of health-related problems among these women is partly due to mental disorders impairing their ability to maintain their health (Doherty & Gaughran, 2014). While it is not known if motherhood imparts a greater health burden for women with mental disorders, the role strain from raising children may have health consequences. In addition, caregiving may deplete mothers of the time and energy needed to maintain their health. Although mothers with mental disorders report that they are motivated to improve their own mental and physical well-being for the sake of their children (Seay et al., 2017), they may prioritize their children's well-being over their own.

Qualitative studies have vividly described the experience of mothering in the context of mental disorders (Blegen et al., 2012; Hine et al., 2018), but have not quantified the health effects of child caregiving on these mothers. Moreover, most studies with families affected

by maternal mental disorders have focused on the impact of the mother's problems on her children's well-being (Hser et al., 2015; Surkan et al., 2012). To date, no study has examined the impact of child caregiving on the health of mothers who have existing mental disorders or are receiving ongoing treatment for mental or substance use disorders. However, the effects of mental and physical health issues in the family are reciprocal; poor health or adjustment problems in children also influence mothers' mental and physical health (Elgar et al., 2004). For example, children with developmental delay or disability add to the mothers' caregiving burden, increasing the likelihood that mothers will experience mental health problems or psychological distress as well as physical health issues (Pousada et al., 2013). Therefore, mothers with mental disorders are at risk for poor health not only related to their own mental problems but also due to the additional responsibility of caring for children, which likely contributes to their health burden. It is critical to understand the interplay between maternal and child effects, specifically how caring for children who have physical, emotional, or behavioral health problems affects the mothers' health. This knowledge could inform interventions aimed at improving well-being of both mothers and children in families of women with mental disorders.

The current study is guided by Selye's stress theory, which proposed that chronic exposure to stressors leads to "general adaptation syndrome," that is, experiencing various negative physiological impacts (Selye, 1956; Tan & Yip, 2018). Miodrag and Hodapp (2010) have discussed the application of Selye's stress theory specifically to parents of children with intellectual and developmental disabilities. Their review also examined the link between parents' decline in both physical and psychological health while caregiving for children with behavioral and physical health problems. Finally, Miodrag and Hodapp emphasized the need for understanding how child caregiving affects parents' health when their children have intellectual and developmental disabilities and other conditions that require additional care, as well as the need for quantifying the health problems of these parents.

In the current study, we examine the impact of caregiving load (the number of children and whether the children have an emotional or physical health problem), within the context of caregivers with a mental disorder, on mothers' health as outcomes. We hypothesize that higher caregiver load will be associated with poorer health in the mothers. A second, exploratory aim of this study is to examine the association between specific caregiving load components (number of children, child internalizing problems and externalizing problems, and medical conditions) and indicators of mothers' health.

Method

This study examined baseline data from a randomized trial testing a family-strengthening home-health intervention compared with treatment as usual for mothers receiving outpatient services for mental or substance use disorders (SET-R [Structural Ecosystems Therapy for women in Recovery] study/Healthy Home; Clinical Trial ID [NCT02702193](#)). As a part of the parent study, data were collected from 172 mothers from July 2013 to August 2016.

Participants

A total of 172 mothers, most of whom (80%) identified as Hispanic/Latina, with a mean age of 35.27 years ($SD = 8.93$), and a mean of 12 years of education ($SD = 3.04$) participated in the study. The majority of mothers (52%) had a monthly family income of less than \$1,000, less than a quarter ($n = 40$, 23%) were employed, and the majority ($n = 125$, 73%) had Medicaid (a government-sponsored health insurance program for adults with low-income and children in the United States), while 38 (22%) had no insurance, and 9 (5%) had other insurance. Less than half ($n = 71$, 41%) of the women had a spouse or romantic partner. Table 1 has additional characteristics of the mothers, including type of treatment (mental or substance use disorders) and the primary mental disorders for each type of treatment. The most common primary diagnosis, which was obtained from records at the agency providing behavioral health services after getting participants' permission, was psychosis, followed by substance use disorder and mood/anxiety disorder. Primary diagnoses for 27 participants were unknown because they were recruited outside of our partner agency and the research team lacked access to their medical records. Data from 256 children (47% girls) living with their mothers were included in the analyses. Mothers completed questionnaires to provide information about their children. The average age of these children was 7.57 years ($SD = 4.99$).

Procedure

Staff from our partner agency, an integrated substance abuse, mental health, and primary care center in South Florida, screened, obtained informed consent, and collected data from participants. To be eligible, participants had to be women receiving outpatient services for mental or substance use disorders at our partner agency or at other local behavioral health service providers, speak English or Spanish, and have at least one child younger than 18 years with whom they had contact at least monthly. Eligibility of children to take part in the study included any biological or adopted children, age 2 to 18 years, of the mother enrolled in the study. Mothers were compensated \$50 for the assessment, which included measures beyond the ones included in this set of analyses. The study was approved by the institutional review board of the University of Miami. A certificate of confidentiality was received from the National Institutes of Health.

Measures

Interviews were conducted by bilingual/bicultural assessors with mothers in their homes or at other locations according to the mother's preference. All measures were available in English and Spanish and translated by either the measure developer or the study team using a translation/back-translation process. Participants were interviewed in either English ($n = 96$, 56%) or Spanish ($n = 75$, 44%) according to their preference (one participant's preference was unknown). Responses were entered into a secure web-based research management software system (e-Velos) that allowed assessors to ask participants questions and document their responses on a computer. Information about the mother's diagnosis used to characterize our sample was obtained, when available, from records at the agency providing behavioral health services.

Caregiving Load—Our operational definition of caregiving load was informed by field observations of nurses (Beeber et al., 2007) working in the parent clinical trial who had noted that mothers seemed strained by caring for multiple children, many of whom had health or psychological problems. Based on the discussions with these study nurses and evidence on child caregiving (Hser et al., 2015; Matsuda et al., 2019), the authors created a composite index of caregiving load with one point given for each of the following indicators from mother-reported data: (1) each child living with the mother, (2) each child (living with the mother) with an internalizing *T*-score greater than or equal to 65, (3) each child with an externalizing *T*-score greater than or equal to 65, and (4) each child with a medical condition. The composite index of caregiving load enables researchers to quantify child caregiving load and, thus, to analyze the association of child caregiving load on the health of mothers receiving treatments for mental or substance use disorders. Table 2 presents descriptive information of the caregiving load variable, that is, the distribution of each component of the caregiving load composite variable.

Number of children—Each mother reported the number of minor children residing at her home as part of the study screening process.

Child's internalizing and externalizing problems—Two measures were used for this assessment: one for children aged 6 to 18 years and one for children aged 2 to 5 years (Achenbach & Rescorla, 2000, 2001). These measures do not include the same set of items, although there is overlap. Each group is scored on both the Internalizing and Externalizing Problems scales. Normative information from the instrument manuals were used to calculate *T*-scores, and a clinical cutoff of *T* = 65 was used for both scales. Higher scores indicate more problems.

Internalizing and externalizing problem in children aged 6 to 18 years—The Child Behavior Checklist (Achenbach & Rescorla, 2001) evaluates child behavior on multiple dimensions: The Internalizing Scale is composed of emotionally reactive, anxious/depressed, somatic complaints, withdrawn, and sleep problems; the Externalizing scale is composed of attention problems and aggressive behavior. Mothers completed the scales. In this sample, both scales had strong internal consistency: Internalizing $\alpha = .82$; Externalizing $\alpha = .91$.

Internalizing and externalizing problem in children aged 2 to 5 years—The preschool version of the Child Behavior Checklist (Achenbach & Rescorla, 2000) evaluates child behavior in the same two dimensions as the Child Behavior Checklist: Internalizing and Externalizing scales. Mothers completed the scales. In this sample, both scales had strong internal consistency: Internalizing $\alpha = .89$; Externalizing $\alpha = .95$.

Child's medical condition—Mothers were asked if their children had any medical conditions using a list of 15 common medical conditions including asthma, autism, cerebral palsy, diabetes, epilepsy, and heart defects. There was also space to add nonspecified conditions. This measure was adapted from the Caregiver Strain Questionnaire developed by Brannan et al. (1997). For analysis, we counted the number of children with at least one medical condition.

Mother's Mental/Physical Health

Psychological distress—The Patient-Reported Outcome Measurement Information System (PROMIS) Anxiety and Depression short-forms (Cella et al., 2010) were used to measure mothers' psychological distress. These scales were significantly correlated, $r = .82$, $p < .001$, with 67% shared variation, and were combined by averaging the scores, which were on similar T-score scales. *Each scale contains* eight items assessing anxiety or depression, respectively, in the past 7 days. Both scales had excellent reliability in this sample: $\alpha = .95$ for the Anxiety scale and $\alpha = .94$ for the Depression scale. Higher scores indicate more psychological distress.

Physical health—The subscales from the PROMIS 29 were used to measure physical health (Cella et al., 2010). This study used 17 Likert-type scale questions about physical function in multiple domains, including *physical functioning*, *fatigue*, *sleep disturbance*, and *pain*. Internal consistency of the four subscales used in this study was excellent (physical function $\alpha = .92$, fatigue $\alpha = .90$, sleep $\alpha = .89$, and pain $\alpha = .95$). For physical functioning, higher scores should be interpreted as *better* health; for fatigue, sleep disturbance, and pain, higher scores should be interpreted as *worse* health.

Oral health problems—We administered the Oral Health Impact Profile (Slade, 1997), which consists of 14 items, such as "Have you had painful aching in your mouth?" and "Have you felt tense because of problems with your teeth or mouth?" on a 5-point Likert-type scale. This measure was included because of our clinician's field observation: Many mothers with mental disorders were not keeping up with their oral health and that this was perceived to have significant impact on mothers' quality of life. Higher scores indicate worse oral health. Internal consistency in this sample was $\alpha = .94$.

Body mass index—The mother's body mass index (BMI) was calculated using direct measurements of her height and weight. Specifically, $BMI = \text{weight (kg)} / \text{height (m)}^2$. Generally, a BMI of 16 kg/m^2 and below is considered underweight, between 25 and 30 kg/m^2 overweight, and greater than 30 kg/m^2 obese (Centers for Disease Prevention and Control [CDC], 2016). For this study, BMI was entered as a continuous variable.

Data Analyses

SPSS 21 was used for descriptive analyses, and Mplus 7 (Muthén & Muthén, 2012) was used for path analysis to test aims. To examine the association between caregiving load and the mothers' health (Aim 1), we utilized linear (continuous outcomes) or logistic regression (binary outcomes) for each mother's health outcome with caregiving load as a predictor. To examine the association between specific caregiving load components and the mothers' mental/physical health (Aim 2), we used a separate linear or logistic regression for each mother's mental/physical health, but with each component of caregiving load (i.e., number of children living with the mother, number of children with internalizing problems, number of children with externalizing problems, and number of children with a medical condition) in the model as predictors to assess their individual associations while controlling for the other aspects of caregiving load.

Results

Preliminary Analyses

Caregiving load was not significantly related to mother's type of treatment (mental health or substance use), $r = -.12$, $p = .114$; age, $r = .02$, $p = .845$; education, $r = -.02$, $p = .849$; income, $r = .12$, $p = .116$; employment, $r = -.08$, $p = .302$; or ethnicity, $F(2, 171) = 2.25$, $p = .109$. As these were not significantly related to caregiving load, we did not include them as control variables in the following analyses.

Aim 1: Caregiving Load and Mothers' Health

Associations between caregiving load and the mother's health variables are in Table 3. Mothers with higher caregiving load had higher fatigue, pain, and BMI.

Aim 2: Caregiving Load Components

Table 4 shows the relationships between the individual components of caregiving load (i.e., number of children living with mother, children with internalizing problems, children with externalizing problems, and children with a medical condition) and mother's health variables. After controlling for the other components, the number of children in the household was inversely related to mother's sleep disturbance. The number of children with internalizing problems was positively related to the mother's psychological distress, fatigue, sleep disturbance, and oral health problems, and inversely related to physical function. The number of children with a medical condition was related to the mother's pain and inversely related to the mother's physical function. Table 4.

Discussion

Within the context of mothers with a mental disorder, including psychosis, mood/anxiety disorders, and substance abuse, we examined the impact of the primary stressor, caregiving load (the number of children and whether the children have an emotional or physical health problem), on the mothers' health as outcomes. We hypothesized that higher caregiving load would be associated with poorer health in the mothers. A second, exploratory aim of this study was to examine the association between specific caregiving load components (number of children, child internalizing problems and externalizing problems, and medical conditions) and indicators of mothers' health.

Our nurses' clinical observation that mothers seemed strained by child caregiving appeared to be well founded, particularly for mothers who were caring for children with emotional (internalizing) problems or a medical condition. In fact, our results are congruent with other research documenting the adverse psychological and physical health consequences for mothers caring for children with internalizing problems and physical health problems (Bayer et al., 2011; Matsuda et al., 2019). Moreover, mothers with higher caregiving load experienced worse health on key indicators or risk factors for chronic illness: fatigue, pain, and increased BMI. The BMI finding is notable given that 45% of the mothers in this sample had a BMI above the obesity cutoff of 30 kg/m² (CDC, 2016).

As has been shown, pain, fatigue, and depressive symptoms are associated with each other even in the absence of higher caregiving load (Ohayon & Schatzberg, 2010). As illustrated in the qualitative studies on mothering in the context of mental disorder (Blegen et al., 2012; Hine et al., 2018; Silva et al., 2013), mothers described how mental disorder itself takes a toll on their lives. Additionally, mothers expressed feeling inadequate (Silva et al., 2013) and being judged by family members and health care providers, which are the sources of more emotional fatigue (Blegen et al., 2012; Hine et al., 2018). The physical fatigue experienced by women found in our study combined with the emotional fatigue found in Blegen et al. (2012) and Hine et al. (2018) provides women little to no room in attending to their physical health such as managing pain.

These findings demonstrate the added health risks of childcare responsibilities for mothers with mental disorders. Increased caregiving load and burden has been documented as a factor contributing to increased parenting stress (Cousino & Hazen, 2013). Biologically, this chronic stress and related psychological distress activates hypothalamic–pituitary–adrenal (HPA) and sympathetic–adreno-medullary (SAM) systems, inducing immunosuppression. With acute stress, the body is designed so that the SAM systems respond and activate the HPA axis at the same time; however, chronic exposure to stress leads to the dysfunction of the HPA mechanism, which is associated with depressed mood, fatigue, pain, and increased BMI leading to type 2 diabetes (Hannibal & Bishop, 2014; McDade et al., 2006). Although our study did not examine biological indicators of stress, the negative influence of chronic stress and alterations in immune response has been found among caregivers of children with poor mental or physical health (De Andrés-García et al., 2012). Future research should examine whether these stress-related processes of caregivers also occur among mothers.

Results are also consistent with effects on health related to cultural beliefs about caregiving. Participants of this study were mostly Hispanic/Latina women, who are the largest minority group in the United States (Flores, 2017) experiencing health disparities (Bridges et al., 2014). The value of sacrificing self for the good of the children may be elevated among Hispanic/Latina mothers due to the cultural attitude of *marianismo* (D'Alonzo, 2012). In addition, stigma toward mental disorders among Hispanics/Latinos make it challenging to provide support for this group of mothers with mental disorders (Keyes et al., 2012). Therefore, mothering within the context of a mental disorder has additional culturally specific stress when mothers are Hispanics/Latinas or surrounded with Hispanic/Latino families.

Limitations

The authors acknowledge several limitations of the study. This was a cross-sectional descriptive study, which limited inferences regarding the direction of relationships and causality. Both mother and child issues may have been caused by shared biological or environmental determinants, rather than caregiving load being the cause of the mother's outcomes. A further limitation is that mothers reported their children's internalizing and externalizing problems, which may have been biased. As this study mainly focused on mothers' caregiving load itself in relation to mothers' health outcomes according to Selye's stress theory, role of caregiving assistance is not examined in this study. Caregiving

assistance such as available support from family members including grandmothers or even friends has been shown to help mothers maintain their health and raise their children (Broussard, 2010; Ekas et al., 2010). Additionally, the majority of mothers in this study had Medicaid and had an income of less than \$1,000 per month. The restricted range of income in this sample may have limited the ability to find a statistically significant link, which has been found to increase stress in past research (Mistry & Wadsworth, 2011). Finally, this study may have limited generalizability as the sample consists of minority women participating in a home-health trial. However, a study such as ours helps provide a better understanding of factors affecting mothering among those receiving services for mental disorders in relation to their caregiving load and health. Our findings can improve clinicians' and researchers' ability to holistically intervene with these mothers and families.

Implications for Psychiatric Nursing

Our findings provided information useful for psychiatric and mental health registered nurses and nurse practitioners as well as other mental health care providers (referred to as mental health service providers). First, mental health service providers should assess the demands and strains associated with caring for children when treating mothers with mental disorders, including how child caregiving is affecting their daily stresses and strains, how they are coping with caregiving demands, and what assistance they are receiving. Interventions are needed to increase support and caregiving capacity for mothers with mental disorders who are caring for children with physical and emotional health problems and to build mothers' skills and willingness to seek caregiving help so that they are not overburdened and can attend to their own health needs. Helping families learn to prevent or manage children's emotional problems may alleviate strains and consequences, both to the child and to the mother.

Our findings also demonstrate the value of integrating services for mental, physical, and dental health. The majority of mothers in this study were receiving their mental health services at an agency that also provides primary care services, which has been highly utilized by mothers. Our partner agency does not provide dental health services, which may explain the finding that mothers indicated oral health problems. Mental health service providers are in a critical position to educate their patients about the importance of receiving routine dental care, offer information about where to receive affordable dental care, such as by providing a list of local dentists who accept Medicaid, or form collaborations with dental clinics so that mothers have easier access to dental care services at the same site they receive their mental health services.

Integration of services for mothers and children, which was not available at our partner agency, could have further facilitated health maintenance for mothers. Mother-child health services could be integrated through colocation and coordination of appointments for women's health and pediatric services, or through health screening and active referral for mothers caring for children with special needs. Interventions that concurrently address mother-child health can be used to promote well-being and proactive health care utilization in families affected by maternal mental disorders.

Conclusion

A substantial body of research has examined the impact of maternal mental disorders on children, which is clearly of public health significance. However, it is equally important to understand how these mothers are, in turn, affected by caring for children. Hispanics/Latinos are experiencing health disparities. In particular, Hispanic/Latina mothers who experience mental disorders, including substance use disorders, are at a higher risk for health-related issues. Having a higher child caregiving load, particularly when caring for children with emotional or health problems, exacerbates their health burden even further. It is therefore important to consider mothers' well-being holistically and create support structures to improve and maintain their health. Moreover, as the wellbeing of mothers and children are inextricably connected, this will also improve their children's well-being.

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Table 1.

Characteristics of Mothers.

Characteristic	<i>n</i>	%
Ethnicity/race		
Hispanic	137	80
Black	22	13
White non-Hispanic/Other	13	8
Place of birth		
Born in United States	70	41
Born in Cuba	46	27
Born in Nicaragua	13	8
Born in Other Latin American Nation	35	20
Born in Other Nation, not Latin America	8	5
Treatment type, and primary diagnosis		
Mental health treatment	106	62
Psychosis ^a	53	50
Mood/anxiety disorder ^a	24	23
Substance use disorder ^a	10	9
Other/unreported ^a	19	18
Substance abuse treatment	66	38
Substance use disorder ^a	43	65
Mood/anxiety disorder ^a	9	14
Psychosis ^a	6	9
Other/unreported ^a	8	12

^aProportion of disorders is calculated separately for each type of treatment.

Table 2.

Caregiving Load and Components.

Variable	<i>M (SD)</i>	Minimum	Maximum
Overall caregiving load	2.85 (2.64)	0	15
Children living with mother	1.56 (1.23)	0	6
Children with high internalizing problems	0.41 (0.72)	0	4
Children with high externalizing problems	0.39 (0.70)	0	3
Children with a medical condition	0.68 (0.90)	0	4

Note. Each mother received one point for each of the components to calculate overall caregiving load. Distributions for each component and overall load is shown in this table.

Table 3.

Description of Maternal Health and Associations With Child Caregiving Load.

Mental and physical health	<i>M</i>	<i>SD</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>R</i> ²
Psychological distress	58.36	11.44	0.70	0.33	.031	.03
Fatigue	54.11	11.81	1.31	0.33	<.001	.09
Sleep disturbance	55.59	11.86	0.72	0.34	.035	.03
Physical functioning	48.21	10.01	-0.50	0.29	.080	.02
Pain	53.91	11.78	0.85	0.33	.011	.04
Oral health	8.76	12.10	0.56	0.35	.103	.02
BMI (kg/m²)	29.98	7.20	0.68	0.21	.001	.06

Note. *SE* = standard error; BMI = body mass index. Boldfaced entries indicate significant relationships.

Table 4.

Relationships of Caregiving Load Components With Mental and Physical Health.

Component	Psychological distress		Fatigue		Sleep disturbance		Physical function		Pain		Oral health problems		BMI	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Children with mother	-1.14	1.00	-1.18	0.97	-2.40 *	1.02	1.16	0.86	0.04	1.09	0.05	1.07	0.04	0.68
Internalizing	6.80 ***	1.49	5.95 ***	1.45	5.98 ***	1.51	-2.84 *	1.29	2.79	1.62	5.17 **	1.59	1.07	1.00
Externalizing	-3.63	1.88	0.80	1.84	1.20	1.91	1.41	1.64	-1.85	2.02	-1.85	2.02	1.45	1.27
Medical condition	2.35	1.29	1.72	1.26	1.16	1.30	-3.48 **	1.12	3.48 *	1.41	-0.14	1.38	0.21	0.87

Note. BMI = body mass index. Component refers to number of children in each group. The bold numbers indicate statistically significant associations.

* $p < .05$.

** $p < .01$.

*** $p < .001$.