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The Impact of Childhood Activity Limitations on Parental Health, Mental Health, and Workdays Lost in the United States

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Abstract

Objective—To determine if and to what extent the onset and persistence of childhood activity limitations (on-going, resolved, or newly reported) resulted in subsequent adverse health, mental health, and work attendance outcomes among parents of children in the US.

Methods—A study using ten panels (1996–2005) of the Medical Expenditure Panel Survey (MEPS), a household survey of a nationally representative sample of the civilian non-institutionalized population in the United States. Participants in this study were 18,827 parents and their children aged 0–17 years.

Results—15.6% of parents reported caring for a child ages 0–17 years with a limitation during the two-year study period. Parents of children with any activity limitation were significantly more likely to experience subsequent poor health and mental health. Parents of children with ongoing or newly reported limitations had an increased number of lost workdays as compared with parents of children without limitations. Moreover, caring for multiple children with activity limitations was predictive of adverse parental mental health outcomes. Parents of children with ongoing activity limitations had significantly increased odds of poor mental health compared with parents of children with resolved limitations.

Conclusions—Caring for a child with activity limitations affects the health, mental health, and work attendance of parents. These findings indicate that child health can importantly influence the health and work behavior of the family and that healthcare providers should consider a family-centered approach to care.

Keywords

Parent health status; Functional health status; Limitations; Mental health; work attendance

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INTRODUCTION

Caring for children with activity limitations can place tremendous physical, financial, time, and psychological burdens on the family, and may present substantial additional risk for family dysfunction and adverse parental health, mental health, and work-related outcomes.^{1–6} Clinical studies have demonstrated a higher prevalence of psychological distress¹ and poor health² among parents of chronically ill children than parents of healthy children, especially when the child has significant functional limitations^{7, 8} or an uncertain prognosis.^{9, 10} One proposed mechanism for this effect is a direct negative influence of children's health conditions on parental role functioning, which in turn has been reported as predictive of parental psychological problems.¹¹ In one national study, 22% of mothers of children with disabilities reported having their own health-related limitations, an additional health-related stressor in these families.³

In recent decades, the “categorical” or “disease-specific” approach to defining childhood illness has been called into question, as evidence of the compelling commonalities among ill children and their families has emerged.^{12–14} The term *activity limitation* has become an effective way to refer more generally to the physical, social, behavioral, and cognitive limitations that alter a child's ability to engage in age-appropriate roles, regardless of a child's specific medical condition or diagnoses. In this study, a non-categorical definition of childhood activity limitation status was used to identify children who have impairment in their daily living activities, reflective of their developmental stage in life.

In addition to the physical and mental health implications associated with caregiving, parents of children with limitations also report reductions in their work attendance or participation.^{3–6} Families of children with disabilities have reported that their child's condition affected the parents' ability to work or reduced the number of hours worked.^{3, 4} Other studies show that parents of children in poor health are less likely to be employed.^{5, 6}

No population-based study has directly examined the relationship between the onset and persistence of childhood activity limitation and parental health, mental health, and work attendance. Prior studies have been conducted on convenience samples or in families that are receiving health care services. The referral patterns underlying the care that these families receive may limit the generalizability of the research findings.¹⁵ Moreover, most national studies are cross-sectional and unable to evaluate the impact of child activity limitations on subsequent parental outcomes. In addition, no published studies have examined the impact of caring for multiple children with limitations. Longitudinal population-based studies are needed to clarify whether caring for a child with limitations is important to parental outcomes.

In this nationally-representative population-based study, we sought to address this gap in the literature by examining the impact of caring for a child with activity limitations on parental health, mental health, and work attendance. We hypothesized that parents of children with limitations would have worse physical and mental health outcomes, and more workdays lost than parents of children without limitations, and that parents of children with ongoing limitations would be most impacted by their child's limitations. Understanding the relationships between child activity limitation and parental health and mental health outcomes is essential to improving family health outcomes, reducing health disparities between families with and without children with activity limitations, and improving the health of all families.

METHODS

Study Design, Population, and Data Sources

Data are from the Medical Expenditure Panel Survey (MEPS), a nationally representative sample of the civilian non-institutionalized population in the United States. MEPS uses an overlapping panel design to collect person and household data at five different time points (or rounds) throughout a two-year period. Complete data from ten panels of the 1996–2005 MEPS were pooled through a public-use linkage file prior to analyses. Detailed methodology and a description of data available in MEPS are available at: www.meps.ahrq.gov.

Our sample included parents of children 0–17 years of age who were interviewed about their health in one of ten panels in the 1996–2005 MEPS. Among households where only one child had a limitation, we selected that child to represent the household. In households with multiple children with limitations, one child with a limitation was selected at random. One child was selected at random to represent households in which no children had limitation. Parents of selected children with complete demographic and health information and non-zero weights were included in this study. For households with multiple parents, one parent was chosen at random to be part of this analysis to avoid the correlation of measures among parents of the same children. This resulted in a sample of 18,827 parents in the analyses of health and mental health outcomes, and 7,573 parents who were employed full-time in the analyses of workdays lost.

Measures

Outcome Measures

Parental Health and Mental Health: Parental health and mental health status were based on a rating of excellent, very good, good, fair, or poor. Such self-reported subjective health measures have been consistently shown to be some of the best predictors of health and healthcare outcomes.^{16, 17} Baseline and follow-up parental health and mental health status were measured in Round 1 and Round 5, respectively. Dichotomous variables were used in the analyses, comparing parents reporting fair or poor health and mental health to parents reporting excellent, very good, or good health and mental health. Missing health and mental health status data were imputed from the subsequent or previous Round (i.e., if health status was missing at Round 1, we used status at Round 2 (occurred for 0.8% of participants); if it was missing at Round 5, we used status at Round 4 (occurred for 0.2% of participants)).

Number of Workdays Lost to Care for Others: The number of workdays lost to care for others (hereafter “workdays lost”) indicates the number of days during each round in which work was lost because of another’s health problem.¹⁸ For example, workdays lost during Round 5 indicates the number of workdays lost since Round 4 (a time-period of approximately 4 months). This measure was constructed only for those parents who work full-time outside the home, and was not asked in every year of the MEPS. Our analyses of workdays lost are based on data from the 1999–2005 MEPS, and were conducted only among the subset of all parents who reported full-time employment for the entire study period. We used workdays lost reported in Round 1 as a control variable in the analyses and workdays lost reported in Round 5 as the outcome variable; we assumed that any relationship between the child’s activity limitation and parental workdays lost preceded Round 5, and that this relationship persisted until Round 5. Lost workdays data were imputed from the subsequent or previous round as needed (i.e., if workdays were missing at Round 1, we used days lost at Round 2 (occurred in 4.0% of the sample); if it was missing at Round 5, we used days lost at Round 4 (occurred in 3.7% of participants)).

Independent Variables

Childhood Activity Limitations: Children were defined as having activity limitations if they were “limited or prevented in any way in [their] ability to do the things most children of the same age can do”¹⁹ due to an impairment or a physical or mental health problem. In the 1996–2000 MEPS, parents of children aged 0–4 reported whether the child was limited in any way, including play activity, because of an impairment or physical or mental health problem. Similarly, parents with children aged 5–17 reported whether the child 1) had an impairment or physical or mental health condition that limited school attendance or required a special school program or 2) were limited in activities other than school because of an impairment or a physical or mental health problem. In the 2001–2005 MEPS, parents of children aged 0–17 reported whether the child: 1) was limited in or prevented from their ability to do the things most children of the same age can do, or 2) needed or received special therapy such as physical, occupational, or speech therapy. If any one of these variables had a “yes” response then the child was considered to have an activity limitation. If the relevant responses were all “no,” then the child was coded as having “no activity limitation.” Data on child limitation status was collected in Rounds 2 and 4 of the MEPS. A sensitivity analysis determined that the 1996–2000 results were similar enough to the 2001–2005 results to ignore the question changes.

For analysis, children were categorized into the following groups: 1) no limitations in either round (no limitation); 2) no limitation in Round 2 but had a limitation in Round 4 (newly reported limitation); 3) limitations in Round 2 but no limitation in Round 4 (resolved limitation); and 4) limitations in both rounds (ongoing limitation). An indicator variable was included in the models if another child in the household had limitations in Rounds 2 or 4.

Sociodemographic Characteristics: We controlled for potential confounders in multivariable regression that may importantly influence adult or parental health outcomes. These characteristics included the parent’s age (18–34, 35–44, 45+ years), race/ethnicity (White non-Hispanic; Black non-Hispanic; Other non-Hispanic; and Hispanic), parental education level (did not graduate high school, graduated high school, some college, graduated college), single parent household status, family size (less than or greater than 4 people), poverty threshold level (Percent of poverty threshold: below 100%, 100–199%, 200–399%, 400% and higher), region of the US (West, Northeast, Midwest, and South), and urbanicity (urban versus rural by Metropolitan Statistical Area (MSA) status).

Analytic Approach

All analyses were conducted using survey procedures from SAS 9.1 and Stata 10.0 to correct for the complex sample design of the MEPS, using Taylor series expansion to compute variances. All results are based on weighted counts.

We used χ^2 analyses to test for differences in parent’s sociodemographic characteristics and children’s activity limitation status. In addition, χ^2 analyses were used to test for differences in children’s activity limitation status by parental health and mental health. Means and standard deviations were generated for workdays lost. Pairwise comparisons among parental outcomes by child activity limitation status were conducted to test for between-group differences.

Logistic regression was performed to determine the relationship between childhood activity limitation status and parental health and mental health outcomes, adjusted for demographic factors. Because of the skewed nature of the workdays lost data, a negative binomial model was used to examine the factors related to counts of workdays lost, adjusted for socio-demographic factors. Additional logistic regression analyses were conducted using each type of limitation as the reference group to enable comparisons among parental outcomes by activity limitation groups.

RESULTS

Table 1 presents the socio-demographic characteristics of US parents by childhood activity limitation (no limitation, resolved, newly reported, and ongoing). Overall 15.6% of parents had a child aged 0–17 years with a limitation reported at either Rounds 2 or 4 of the MEPS. Specifically, 5.8% of parents had a child with a resolved limitation, 4.5% had a child with a newly reported activity limitation, and 5.3% had a child with an ongoing activity limitation. Compared with parents of children without limitations, parents of children with any activity limitation were more likely to be between the ages of 35–44, White (Non-Hispanic), less educated, single parents, living in larger family size, and living below 200% of the poverty threshold. Parents of children with activity limitations did not differ from those without by gender, region of the country, or urbanicity (based on MSA status).

Table 2 shows parental health, mental health, and workdays lost by childhood activity limitation status. Parents of children with any activity limitation were significantly more likely to report being in fair or poor health and mental health compared with parents of children without limitations. The highest frequency of fair or poor health and mental health status was reported among parents of children with ongoing limitations (17.1% and 11.8%, respectively). Parents of children with a resolved or newly reported limitation also were more likely to be in poor health and mental health when compared with parents of children without limitations. Pairwise comparisons revealed that parents of children with ongoing limitations reported poor health significantly more frequently than parents of children with newly reported limitations, and reported poor mental health significantly more frequently than parents of children with resolved or newly reported activity limitations (see notations in table 2).

Among the subset of parents who were employed full time, parents of children with activity limitations had a significantly higher mean number of workdays lost than did parents of children without limitations. Parents of children with ongoing limitations had the highest mean number of workdays lost (0.89 days versus 0.29 for parents of children without limitations). Parents of children with a resolved limitation or a newly reported limitation did not have significantly higher mean workdays lost compared with parents of children without limitations. We also examined the percentage of parents who lost 1 or more, 7 or more, and 14 or more days of work and found that parents of children with activity limitations had significantly higher proportions of days lost in each of these categories.

Three multiple regression models were used to examine the effect of childhood limitation status on parents' subsequent health, mental health, and workdays lost (Table 3). After controlling for confounders including baseline parental health, mental health and workdays lost, parents of children with resolved, newly reported, or ongoing limitations all had significantly increased odds of poor health (OR=1.63, 1.52, and 1.93 respectively) and mental health (OR=1.43, 1.89, and 2.36 respectively) compared with parents of children without limitations. Additionally, parents of children with ongoing limitations had significantly increased odds of poor mental health compared with parents of children with resolved activity limitations (OR= 1.65 [1.15, 2.38]; data not shown).

Childhood limitation status significantly predicted subsequent workdays lost for parents of children with newly reported or ongoing limitations. Compared to parents of children without limitations, parents of children reporting ongoing activity limitations were most likely to report workdays lost (IRR: 3.06). Parents of children with newly reported limitations were also significantly more likely to report workdays lost to care for others (IRR: 1.87); however parents of children with resolved limitations were no different than parents of children with no limitations in this regard. Comparisons among activity limitation groups indicate that parents of children with ongoing limitations also report significantly more workdays lost compared to

parents of children with resolved limitations (IRR: 2.46; data not shown). Parents who cared for more than one child with limitations did not report significantly worse physical health status, but had significantly increased odds of poor mental health (OR 1.66 [1.08, 2.55]).

Sensitivity Analyses

In order to provide greater confidence in our results, the models were tested with several secondary analyses. First, we excluded special therapies from our definition of childhood activity limitation and found that the results were substantively similar. We then assessed the possibility that workdays may be lost to care for a non-child. As only 3.1% of families had a non-spouse 65 years or older living with them, it is unlikely that this finding is due to the need for parents to care for aging relatives living in the household. Finally, to test our use of a non-categorical approach, we selected a sample of children with known chronic conditions and observed that the association between chronic conditions and outcomes was similar to ongoing limitations and outcomes. In addition, we found that the percentage of children with a chronic medical condition was lowest among children with no limitations, higher among children with resolved and newly reported limitations, and highest among children with ongoing limitations. Further, a small percentage of children with ongoing limitations reported 2 or more acute conditions, supporting our approach.

COMMENT

Our results show that parents of children with resolved, newly reported, and ongoing activity limitations were more likely to have adverse health and mental health compared to parents of children without limitations. Only parents of children with newly reported and ongoing activity limitations were more likely to lose time at work compared to parents of children without limitations.

To our knowledge, this is the first population-based study in the US to examine the impact of the onset and persistence of childhood limitations on parental health, mental health, and work-related outcomes. These results support the findings from previous studies in which parents of children with ongoing activity limitations (as a result of disabilities or other medical conditions) are at an increased risk for poor health and mental health outcomes and lost work time.^{2, 4–7, 20, 21} This study clarifies that caring for a child with a resolved or new limitation also has a deleterious impact on parents' health and mental health. Moreover, caring for a child with a new limitation negatively affected parental workplace attendance, while caring for a child with a limitation that had been resolved over the course of this study had no impact on absenteeism.

Parents of children with resolved activity limitations were at an increased risk for poor health and mental health, echoing the results from several clinical studies reporting that childhood injury can cause significant psychological distress for parents. Moreover, post-traumatic stress disorders have been identified in parents as a result of pediatric traffic-related injury²² and resolved childhood burns.²³

Our study found similar results for parents of children with newly reported limitations. This may be reflective of the initial burden of caring for a child with a new limitation. This is consistent with the findings of a study that noted high parental anxiety shortly after their child's cancer diagnosis.²⁴

Caring for multiple children with activity limitations was predictive of adverse parental mental health outcomes beyond those experienced by parents of a single child with a limitation. Our results indicate that parents caring for multiple children with activity limitations may benefit greatly from targeted mental health services or improved access to social support. This finding

is consistent with another report citing that parents of multiple children with disabilities are more likely to have unmet service needs.²⁵

Parents of children with newly reported or ongoing limitations were more likely to miss work than parents of children with no activity limitations. A recent study found that mothers of children with disabilities have reported that time demands associated with caring for their children, and difficulty finding adequate, affordable child care, as reasons for their reductions in work hours.²⁶ The increased likelihood of missing work among parents of children with limitations may indicate that the caregiving needs of children with new limitations in particular conflict with parental ability to work, and that adequate childcare may not be available.

Caring for a child with an activity limitation often requires much parental time and effort.²⁷ A child's limitation can have a profound impact on a parent's ability to work and on the financial resources available to the family, particularly for those receiving welfare.²⁸ Overall, the impact of childhood limitations on parental work can have lasting effects on family socioeconomic status.²⁹

Limitations

This study has several limitations. First, data on childhood limitation status are based solely on parental reports. Although parents are often the best source of information about their children, parental reports may be influenced by parents' own health and mental health status. This may be further complicated in households where different parents respond on behalf of themselves, their spouses, and their children in different rounds of the survey. Second, this study examined children's activity limitations, as opposed to specific health conditions, and therefore we are not able to discuss potential causes for the long-term poor parental outcomes among those caring for children with activity limitations. However, using a non-categorical measure of child activity limitation likely reduces the impact of confounders associated with obtaining a medical diagnosis, such as socioeconomic status, race/ethnicity, and health insurance status.³⁰ Moreover, consideration of activity limitation is perhaps more relevant to policy where functionality, not diagnosis, is the target.³¹ Additionally, by estimating the burden of child health conditions by only considering children whose illness or disability affects their activity, we are likely presenting conservative estimates of the impact of these conditions.³⁰,³¹ Finally, for our analysis of workdays lost we cannot be sure that the parent lost time at work to care specifically for the child with the limitation.

CONCLUSION

In conclusion, our population-based study clarifies that parents of children with limitations are significantly more likely to experience worse health and mental health than parents of children without limitations. Parents caring for children with newly reported or ongoing activity limitations were more likely to miss days of work. Compared with parents of children without limitations, parents of children with ongoing activity limitations had the highest risk of reporting adverse health outcomes. Furthermore, these parents reported poor mental health outcomes more frequently than parents of children with no or resolved limitations. As such, healthcare providers need to follow parents of children with limitations over time to ensure that their health and mental health needs are addressed. Moreover, employers may want to consider extending respite care to their employees with children with activity limitations to help support these families and to augment workplace attendance and productivity.

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Uncommon Abbreviations

MEPS

Medical Expenditure Panel Survey

AHRQ

Agency for Healthcare Research and Quality

MSA

Metropolitan Statistical Area

OR

Odds Ratio

IRR

Incidence Rate Ratio

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Table 1

Sociodemographic Characteristics of Parents, by Childhood Activity Limitation Status

Child Activity Limitation Status						
	TOTAL	No Limitation	Resolved ^a	Newly Reported ^b	Ongoing ^c	Overall Chi-square P-value
						Any Limitation (Resolved, Newly reported, or Ongoing)
						Chi-square P-value ^d
TOTAL: weighted	29908241	25245859	1733556	1336169	1592657	4662382
TOTAL: unweighted	18827	15667	1136	909	1115	3160
%	100.00%	84.4%	5.8%	4.5%	5.3%	15.6%
Parent Characteristics						
Gender						
Male		44.3%	44.1%	42.2%	44.6%	43.7%
Female		55.7%	55.9%	57.8%	55.4%	56.3%
Age						
18–34		37.9%	37.6%	40.0%	28.4%	35.2%
35–44		42.9%	47.2%	43.7%	51.5%	47.7%
45+		19.2%	15.2%	16.2%	20.1%	17.2%
Race/Ethnicity						
White (Non-Hispanic)		66.1%	72.3%	67.4%	71.7%	70.7%
Black (Non-Hispanic)		11.9%	11.3%	14.4%	10.7%	12.0%
Other (Non-Hispanic)		5.9%	3.2%	3.4%	3.9%	3.5%
Hispanic		16.1%	13.2%	14.8%	13.8%	13.9%
Education status						
No or some high school		16.4%	23.2%	18.7%	18.9%	20.4%
High school graduate		33.1%	31.5%	33.5%	35.2%	33.3%
Some college		23.4%	23.8%	24.1%	24.2%	24.0%
College or beyond		27.1%	21.6%	23.7%	21.8%	22.2%
Unknown						
Family Characteristics						
Single-Parent Status						
Single parent		21.7%	26.1%	28.0%	24.5%	26.1%

Child Activity Limitation Status								
	TOTAL	No Limitation	Resolved ^a	Newly Reported ^b	Ongoing ^c	Overall Chi-square P-value	Any Limitation (Resolved, Newly reported, or Ongoing)	Chi-square P-value ^d
Family Size								
Family size 4 or less		70.6%	61.9%	59.6%	61.5%	<0.0001	61.1%	**
Family size greater than 4		29.4%	38.1%	40.4%	38.5%		38.9%	
Unknown								
# additional children w/Limitations in family								
0		100.0%	89.2%	90.7%	87.7%	0.52 ^d	89.1%	NA
1		0.0%	9.8%	8.4%	10.9%		9.8%	
2–4		0.00%	1.01%	0.87%	1.40%		1.1%	
Ratio of family income to poverty threshold								
Below 100% (Poor)		11.7%	18.8%	17.7%	16.1%	<0.0001	17.5%	**
100–199% (Near poor/Low)		18.6%	22.6%	24.1%	24.5%		23.7%	**
200–399% (Middle)		35.5%	31.5%	33.7%	35.6%		33.6%	NS
400%+ (High)		34.2%	27.0%	24.5%	23.9%		25.2%	**
Region of US								
Northeast		18.2%	18.8%	17.4%	20.6%	0.33	19.0%	NS
Midwest		23.0%	21.7%	25.2%	24.9%		23.8%	NS
South		34.8%	37.5%	34.1%	33.8%		35.3%	NS
West		24.0%	22.0%	23.3%	20.7%		22.0%	*
MSA Status								
MSA		81.2%	81.4%	79.5%	79.5%	0.60	80.2%	NS
Non-MSA		18.8%	18.6%	20.5%	20.5%		19.8%	
Unknown								

Abbreviations: NA, not applicable; NS, not significant

* p <0.05;
** p<0.0001

^a Limitation reported in Round 2 but not Round 4.

^b Limitation reported in Round 4 but not Round 2.

^c Limitation reported in both Rounds 2 and 4.

^d p-value for difference between resolved, newly reported, and ongoing limitation status

[§] Statistically significant chi-square test for each category of characteristic

Table 2
Parental Health, Mental Health, and Work Days Lost, by Childhood Activity Limitation Status

Childhood Activity Limitation Status		Any Limitation (Resolved, Newly reported, or Ongoing)				Overall Chi-square P-value	
	No Limitation	Resolved	Newly Reported	Ongoing			
TOTAL: weighted	25245859	1733556	1336169	1592657			
TOTAL: unweighted (n=18,827)	15667	1136	909	1115			
<u>Time 5: Parent Health and Mental Health</u>							
<u>Health status</u>							
Fair/Poor	7.0%	14.6% [*]	12.3% [*]	17.1% ^{*a}			<0.0001
<u>Mental health status</u>							
Fair/Poor	3.8%	9.2% [*]	8.4% [*]	11.8% ^{*b}			<0.0001
TOTAL: weighted	10289080	1657116	478575	604588			
TOTAL: unweighted (n=7,573)	6524	361	322	366			
<u>Work Days Lost to Care for Others[†]</u>							
Mean (SD)	0.29 (1.57)	0.34 (1.36)	0.53 (2.31)	0.89 (3.60) ^c			
1 or more	10.8%	11.8%	14.5%	20.4% ^{*e}			<0.0001
7 or more	0.8%	1.2%	1.5%	3.4% ^d			0.004
14 or more	0.2%	0.4%	1.3% ^d	0.9% ^c			0.006

* Indicates statistically significant difference in comparison to parents of children with no limitations (p<0.0001).

[†] Analysis of work days lost due to care for others was conducted using a subset of all participating parents (specifically, those who were employed full-time, n=7573). Significantly different than parents of children with:

^a newly reported limitations (p<0.05);

^b newly reported or resolved limitations (p<0.05);

^c no limitations (p<0.05);

^d no limitations (p<0.01);

^e resolved limitations (p<0.01).

Table 3
Multivariate Analyses of the Odds and IRR of Poor Parental Health, Mental Health, and Work Attendance Status at the End of the Study Period*

Covariates	Physical Health Status		Mental Health Status		Work Days Lost to care for others at Time 5†	
	Odds of Poor Health at Time 5		Odds of Poor Mental Health at Time 5			
	OR	CI	OR	CI	IRR	CI
Child Limitation Status						
Resolved	1.63	[1.23, 2.15]	1.43	[1.06, 1.93]	1.25	[0.73, 2.12]
Newly Reported	1.52	[1.16, 2.00]	1.89	[1.35, 2.65]	1.87	[1.04, 3.35]
Ongoing (reference = No limitation)	1.93	[1.53, 2.43]	2.36 ^a	[1.79, 3.12]	3.06 ^a	[1.70, 5.51]
Additional Children with limitations						
>=1 additional child with limitations in family (reference = only 1 child with limitations in family)	1.48	[0.94, 2.34]	1.66	[1.08, 2.55]	0.57	[0.26, 1.24]

OR=Odds Ratio; CI=Confidence Interval; IRR=Incidence Rate Ratio

* All models controlled for gender, age, race/ethnicity, education, single parent status, family size, ratio of family income to poverty threshold, US region of residence, MSA status, baseline (Round 1) fair or poor parental health and mental health, and baseline number of work days missed to care for others.

† Analysis of work days lost due to care for others was conducted using a subset of all participating parents (specifically, those who were employed full-time, n=7573).

^a Significantly different than parents of children with resolved limitations.