

Promoting Health and Preventing Injury in Preschool Children: The Role of Parenting Stress

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Abstract

There is concern that parents under stress may not be effective in promoting health and preventing injury in young children, but research in this area has been limited. To explore this issue, a study was conducted to look at the relationship between self-reported parenting stress and actions taken to promote health and to prevent injury in preschool-age children. The study was conducted in collaboration with 15 Head Start programs in northeast Ohio. Five hundred thirty-one parents or guardians of children in the program completed a 10-minute survey on health and injury prevention administered through a "talking" laptop computer. This study presents new data linking parenting stress to the decreased likelihood of preventive measures being in place to reduce injury and illness risk in preschool children. Parents under stress may need social support and ways to develop a working support network to help prevent injury to young children and ensure the delivery of appropriate medical care. Early childhood caregivers and educators may have useful roles to play in such support networks.

Introduction

Although many studies have examined the stresses related to being a parent, few have studied the relationship between parenting stress and injury prevention in young children. Parenting stress can be defined as the difficulty that arises from the many demands of being a parent (Anthony, Anthony, Glanville, Naiman, Waanders, & Shaffer, 2005). Parenting stress has been linked to socioeconomic issues, family dysfunction, workplace demands, and lack of external support (Crnic & Low, 2002). Parenting children with special physical or mental health needs can also be a source of parenting stress (Tan & Rey, 2005; Virtanen, Moilanen, & Ihalainen, 1991). Parenting stress is particularly high in parents of preschool children when children become noncompliant (Kuczynski & Kochanska, 1990), especially for adolescent mothers with preschoolers (Chang, Fine, Ipsa, Thornburg, Sharp, & Wolfenstein, 2004; Larson, 2004). A structural modeling approach to the understanding of parenting stress revealed that a number of factors related directly to more stress, including high workload, low social support, perception of the child as fussy-difficult, negative life events, child caretaking hassles, a large number of children in the family, and high maternal age (Ostberg & Hagekull, 2000).

Over time, the definition of stress has evolved from a response to major life changes to a concept that reflects a more dynamic process and interaction with the environment (Knussen & Cunningham, 1988; Virtanen et al., 1991). Studies examining parenting stress and family dynamics conceptualize stress in a variety of ways that include many of the day-to-day demands of caring for developing children in addition to those experiencing difficult external circumstances (Crnic & Low, 2002).

Stress-related maternal depression and anxiety are related to many negative outcomes for children, including greater risk of injury (Mulvaney & Kendrick, 2005). Family factors, including parenting stress, predict outcomes in children with anxiety disorders who are receiving cognitive-behavioral treatment. Children of stressed parents had less favorable treatment outcomes (Crawford & Manassis, 2001). Parenting stress has been linked to preschoolers' social competence and behavior problems in the classroom (Anthony et al., 2005), poorer oral health (LaValle, Glaros, Bohaty, & McCunniff, 2000), wheezing in infant children (Wright, Cohen, Carey, Weiss, & Gold, 2002), poorer metabolic control of children with diabetes (Thompson, Auslander, & White, 2001), missed pediatric doctor appointments (Pesata, Pallija, & Webb, 1999), and sleep problems of children (Doo & Wing, 2006).

Parenting support has been shown to buffer parenting stress and enhance parenting (Bonds, Gondoli, Sturge-Apple, & Salem, 2002). Previous findings have suggested two forms of social support that act as cushions to parenting stress—the parent's own psychological resources and the parent's support network (Belsky, 1984). This finding is also reflected in a recent study that examined the connection between child maltreatment and a parent's combat-related deployment (Gibbs, Martin, Kupper, & Johnson, 2007).

Both parents and professionals are sometimes reluctant to report or ask about parenting problems. Many parents report feeling scared to access support services because they may be seen as "doing a bad job" (BBC News, 2005). The Australian Childhood Foundation found in an Australian national attitudinal survey that one quarter of parents interviewed felt they would be negatively judged by others if they admitted to having problems with their parenting (Tucci, Mitchell, & Goddard, 2004).

Studies have identified professional barriers to reporting child maltreatment. These barriers include a lack of knowledge on the part of the professional of what to look for and a fear by the professional of negative consequences for the relationship with the parent/s. Staff also perceived negative consequences for the professional (such as increased burden and time) if they intervened on behalf of the parents experiencing stress (Alvarez, Kenny, Donohue, & Carpin, 2004).

In this study, we explore the relationship between reports of parenting stress and the same parents' reports indicating whether they engaged in key practices to promote health and safety in their preschoolers. We used the recommendations from *Healthy People 2010* and examined how parenting stress relates to parents' ability to meet recommended guidelines for preventing illness and injury (U.S. Department of Health and Human Services, 2000). *Healthy People 2010*, a project of the U.S. Department of Health and Human Services, developed a set of 467 objectives in 28 focus areas, establishing national goals to reduce significant preventable threats to health (<http://www.healthypeople.gov/About/goals.htm>). Indicators related to health and safety of preschool children include factors related to injury (falls, poisoning, guns, access to dangerous substances, burn risks), general preventive recommendations (regular check-ups, oral exams, immunizations), and developmental delays (U.S. Department of Health and Human Services, 2000). Based on these indicators and the recommendations made within *Healthy People 2010*, the authors developed a screening instrument (see the [appendix](#)).

Methods

The study was conducted in collaboration with 15 Head Start programs in northeast Ohio. The Head Start centers were collaborating on an existing project and consented to allow parents and guardians to be recruited for the project when they dropped off or picked up their child from the child care center. Parents or guardians of children in the program were asked to complete a 10-minute survey on health and injury prevention that was administered through a "talking" laptop computer, which was developed for the Healthy Town—Families with Children program (Healthy Town, 2008). Once respondents completed the survey, they received recommendations on child safety customized to the answers they gave to the screening instrument. For example, if a parent indicated the presence of a gun in the home, he/she received information on gun safety. Parents received a paper printout listing injury risk factors for their individual child along with a set of safety tips and Internet Web links to obtain more information. Parents received \$25 for their time participating in the initial screening and a 2-month follow-up interview.

Study respondents represent a convenience sample of 531. Of those, 424 (79.8%) were mothers, 54 (10.2%) were fathers, and 29 (5.5%) were grandparents. The remaining 11 (2.1%) were classified as "other relative" of the children in the program, and 13 (2.4%) did not specify. The questions on the survey focused on the individual child in the

program, with the children ranging in age from 2 to 5 years old. Slightly less than half (46.5%, 247) of respondents were Caucasian, 36.5% (194) were African American, 7.7% (41) were Hispanic, 5.6% (30) were multiracial; 2.6% (14) did not specify, and the remaining respondents (.9%, 5) categorized themselves as "other." For 260 (49% of the sample), the child in the program was the only child in the home under age 6; 42.9% (228) of the sample had other children under age 6 living in the home.

For the purposes of this exploratory analysis, respondents who answered "yes" to the question, "Do you feel stressed about being a parent most of the time?" were compared to those who said "no." Of the total respondents, 141/531 (26.6%) of the parents/guardians responded yes, and 390/531 (73.4%) said no.

Results

Table 1 shows the results comparing the two groups of parents on questions related to general medical care and on their home situation. Those reporting parenting stress were significantly more likely to have missed a doctor appointment for a child than were the parents who did not report stress. Of the 141 who reported parenting stress, 14 (9.9%) said they had missed an appointment, while among those who did not indicate parenting stress, 20/390 (5.1%) reported a missed appointment. Those reporting parenting stress were significantly more likely to be unaware of their child's immunization schedule (20/141, 14.2%) as compared to those who did not report parenting stress (23/390, 5.9%).

Significant differences in social support were found. Those participants reporting parenting stress were significantly more likely to report that they did not have someone to turn to when they needed help with their child (35/141, 24.8%) as compared to parents who did not report parenting stress (16/390, 4.1%). Parents reporting parenting stress were significantly more likely to have moved more than three times in the past year (15/141, 10.6%) as compared to the parents who did not report parenting stress (20/390, 5.1%). Those reporting parenting stress were more likely to lack enough money for food (41/141, 29.1%) as compared to those who did not report parenting stress (39/390, 10%).

Parents were asked to report whether they lived in an older house or apartment to determine lead exposure risk. While the study did not give a definition of "old" home and the perception by parents was subjective, parents reporting parenting stress were more likely to report that they lived in an old house or apartment (61/141, 43.3%) as compared to parents who did not report parenting stress (128/390, 32.8%).

Table 1
Parenting Stress and Health Services and Environmental Risks

	Stressed about Parenting (n = 141)	Not Stressed about Parenting (n = 390)	χ^2
Lack social support	24.8% (35)	4.1% (16)	51.210 (df = 1)***
Moved more than three times in the past year	10.6% (15)	5.1% (20)	5.107 (df = 1)*
Not enough money to buy food	29.1% (41)	10.0% (39)	29.456 (df = 1)***
Live in an old house or apartment	43.3% (61)	32.8% (128)	4.925 (df = 1)*
Have a regular doctor for child	97.9% (138)	98.5% (384)	.216 (df = 1)
Recently missed any doctor appointment for child	9.9% (14)	5.1% (20)	3.983* (df = 1)
Child has been seen by a dentist at least once	87.2% (123)	92.3% (360)	3.242 (df = 1)
Unaware of when child is due for immunization or booster shot	14.2% (20)	5.9% (23)	9.556 (df = 1)**

*p < .05.
**p < .01.
***p < .001.

Table 2 presents the analysis of responses to questions related to injury prevention. Parents feeling stressed about being a parent were significantly more likely to report someone as a smoker in the home (85/141, 60.3% as compared to 188/390, 48.2% in the parents who did not report parenting stress). Parents reporting parenting stress reported leaving alcohol or cigarettes within a child's reach significantly more often (24/141, 17%) than the non-stressed parent group (23/390, 5.9%). Parents reporting parenting stress were less likely to have the phone number of the poison control center in case of inadvertent poisoning (73/141, 51.8%) as compared to the non-stress parenting group (157/390, 40.3%).

In some regards, parents reporting parenting stress did not differ significantly from the parents who did not report parenting stress. About half of the total sample had checked the temperature of the hot water in their home to prevent scalding (302/531, 56.7%), virtually all respondents reported having a smoke alarm in their home (520/531, 97.9%), and most said that they locked up dangerous products, such as cleaning supplies and paint (485/531, 91.3%); the differences between the two groups on these variables were not significant. While also not statistically significant, parents reporting stress stated that their child was less likely to wear a seat belt or to be in a child safety seat consistently as required by law (11/141, 7.8%) as compared to the parents who did not report stress (15/390, 3.8%), although the overall rates of seat belt use were more than 95.1% (505/531) for the sample. Only a small percentage of households reported a gun in the home (39/531, 7.3%).

Table 2
Parenting Stress and Injury Prevention

	Stressed about Parenting (n = 141)	Not Stressed about Parenting (n = 390)	χ^2
Alcohol or cigarettes left in child's reach	17.0% (24)	5.9% (23)	15.883 (df = 1)***
No phone number of poison control center posted	51.8% (73)	40.3% (157)	5.594 (df = 1)**
Checked the temperature of home hot water	56.7% (80)	56.9% (222)	.001 (df = 1)
Lack regular seat belt use	7.8% (11)	3.8% (15)	3.479 (df = 1)
Have a smoke alarm in the home	96.5% (136)	98.5% (384)	2.058 (df = 1)
Have a gun in the home	8.5% (12)	6.9% (27)	.384 (df = 1)
Someone in the home smokes	60.3% (85)	48.2% (188)	6.048 (df = 1)**
Keep dangerous products locked up (household cleaners, paints, etc.)	87.9% (124)	92.6% (361)	2.795 (df = 1)

*p < .05.
**p < .01.
***p < .001.

The survey included several questions related to child development. For all questions, the parents feeling stressed most of the time reported more concern about their child's development (see Table 3).

Table 3
Parenting Stress and Child Development

	Stressed about Parenting (n = 141)	Not Stressed about Parenting (n = 390)	χ^2
Child squints when looking at things	17.7% (25)	9.2% (36)	7.358 (df = 1)**
Child seems uncoordinated	28.4% (40)	12.3% (48)	19.203 (df = 1)***
Child's speech is hard to understand	29.1% (41)	20.8% (81)	4.040 (df = 1)*
Child may be hard of hearing	10.6% (15)	6.9% (27)	1.962 (df = 1)
Child should be able to do more for his/her age	39.0% (55)	23.3% (91)	12.762 (df = 1)***

* $p < .05$.
** $p < .01$.
*** $p < .001$.

Discussion

The convenience sample used in this study reflects the responses of a limited number of parents and guardians in one geographic region. Still, this study indicates a set of interesting and significant relationships between reports of parenting stress and the same parents' reports indicating they were less likely to engage in key practices that promote health and safety in their preschoolers. It should be noted that the majority of parents in both stress groups reported doing quite well with regard to the risk factors we examined. Over 90% of the total sample reported that their children have a regular doctor, have visited the doctor for a regular child care visit, and have seen a dentist at least once. Over 85% of parents do not expose their children to risks for accidental poisoning, such as leaving alcohol, cigarettes, or dangerous products within reach. Given the consistency of negative information about low-income families reported in the literature, their success in this study related to most risk factors deserves to be noted.

The implications of this study are important because previous research has shown that parent-referred 3-year-olds with early signs of hyperactivity and other externalizing problems who were followed up at age 6 and compared with controls continued to have adjustment difficulties at home, at school, and with peers (Campbell, Ewing, Breaux, & Szumowski, 1986). Parents and toddlers engaged in "highly stressful and coercive relationships" who face economic hardship and limited resources benefit from interventions related to parenting stress, child behavior problems, ineffective discipline strategies, and low parenting self-efficacy (Gross, Sambrook, & Fogg, 1999). Our experience in administering a safety-related questionnaire in Head Start settings suggests that it is possible to detect parenting stress in early childhood programs. We think it reasonable to suggest that if early childhood settings were to provide support to families experiencing stress, they might be able to help reduce the children's risk of injury and exposure to dangerous situations in the home.

Especially for those parents experiencing high levels of stress, knowing what to do to prevent injuries may not translate into action. Screening for parenting stress so that staff can provide or arrange for parenting support may be a key to preventing injuries in early childhood. Implementation of screening procedures and support provisions may be challenging. For example, a number of studies indicate that teachers and caregivers sometimes feel discouraged about their attempts to communicate and work with parents. Research has shown that many teachers feel that interventions for parenting stress require a great deal of their time and that there are few rewards, other than internal ones, to encourage a teacher to engage in family matters (Epstein & Becker, 1982).

Another challenge to implementing provisions for parents experiencing stress is controversy surrounding screening for factors related to parental competence. Although schools are required to identify mental and other health impediments to learning under the Federal Rehabilitation Act and Individuals with Disabilities Education Improvement Act (U.S. Department of Education, 2004), screening for parental competency has been highly controversial and politicized. Concerns include fears of stigma, liability, cost of screening, and issues of misidentification and coercion of parents by school or child care center personnel. There are also issues of cultural and racial bias and the need for culturally and linguistically sensitive screening tools. These issues are emerging in multicultural and ecocultural models of assessment in multicultural school psychology (Esquivel, Lopez, & Nahari, 2007; Brassard & Boehm, 2007).

In this study, we have pilot tested a simple screening instrument aimed at providing insight to parents on the risks their children face. The finding that parenting stress may be related to the presence of other risk factors presents a new dilemma for further investigation.

One of the keys to preventing injury in childhood may be related to providing support for parents to reduce the stress they experience. This pilot study demonstrates that screening in child care centers for injury and other health risks should include questions related to parenting stress. Based on these preliminary results, we recommend the development of standardized interventions to provide support to stressed parents that would not burden teachers and staff. Clearly, it is important to provide resources to those who serve families with children in order to address parenting stress with an eye to reducing preschool children's risk of injury in the home.

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Appendix

Screening Questions: Healthy Town—Families with Children

- Do you live above the first floor or in a house or apartment with an upstairs?
- Do you live near a swimming pool?
- Do you have a child who lives or plays in an older house or apartment?
- Do you have a child who lives or plays in a house or apartment that is being remodeled?
- Do you have a child who plays in the dirt outside?
- Do you have a regular doctor or clinic for your child?
- Did you recently miss any doctor appointments for your child?
- Do you know when your child is due for a baby shot?
- Does your child always wear a seat belt or ride in a child safety seat?
- Does your child ride a bicycle?
- Do you have a smoke alarm?
- Is there a gun in your home?
- Does anyone in your home smoke?
- Do you have any medicines or vitamins in your home?
- Do you keep detergents, other household cleaners, paints, or cosmetics like nail polish remover locked up or out of a child's reach?
- Does anyone ever leave alcoholic beverages or cigarettes out on a table?
- Is the phone number of the poison control center near or programmed into the phone?
- Have you ever checked the temperature of the hot water from your home faucet?
- Has your child been seen by a dentist at least once?
- Does your child use a toothbrush and toothpaste every day?
- Does your child eat three meals a day?
- Does your child have a weight problem?
- Do you have enough money to buy food?
- Do you have a child who squints when looking at things?
- Do you have a child who seems uncoordinated?
- Do you have a child whose speech is hard to understand?
- Do you have a child who may be hard of hearing?
- Do you think that your child should be able to do more for his or her age?
- Have you moved more than three times in the past year?
- Do you have someone to turn to when you need help with your child?
- Do you feel stressed most of the time about being a parent?