

Post-9/11 Helpseeking by New York City Parents on Behalf of Highly Exposed Young Children

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This study examines factors related to helpseeking among New York City parents on behalf of their young children after the September 11th terrorist attacks. Data were gathered from 180 parents about their children (under age 5) through in-depth parent interviews 9–12 months postdisaster. Parents were asked to describe their children's disaster-related experiences, their own and their children's mental health status, and post-9/11 helpseeking behavior for their children. Predictors of parental helpseeking for children's services included the emergence of new fears in children since 9/11, parent symptoms of depression, and parents' own helpseeking. The strongest predictor was children's direct exposure to the attacks. Fifteen percent ($n = 27$) of parents sought services for their very young children. Findings suggest that following 9/11, a familial orientation to helpseeking combined with children's specific disaster-related experiences may provide a basis for seeking services for young children, rather than children's apparent mental health status.

Keywords: posttraumatic stress disorder, service utilization, young children, September 11th terrorist attacks

The September 11th terrorist attacks on the World Trade Center resulted in rapid deployment of a disaster mental health services infrastructure throughout New York City to address the anticipated psychological needs in the aftermath of the disaster. Like Project Heartland established in response to the Oklahoma City bombing (Call & Pfefferbaum, 1999; Pfefferbaum, Call, & Sconzo, et al., 1999), Project Liberty was created with funding from the Federal Emergency Management Agency (FEMA) to accommodate the diversity of need among residents within New York City and 10 surrounding communities in response to the September 11th disaster. Mental health professionals, educators, and policy makers immediately recognized the potentially devastating effects of the attacks on school-age children and youth in the New York City area. Despite this important acknowledgment, however, the possibility that very young children might be adversely affected received little emphasis and has not been reflected in the array of services that developed in response to the disaster.

Services targeting children and adolescents following 9/11 included individual agencies and some Project Liberty programs, as well as focused and long-term school-based services within the public schools in the lower downtown area near Ground Zero,

where the attacks occurred. Curiously, a similar systematic effort to assess and respond to the mental health needs of very young children was not undertaken. In the absence of a disaster-response delivery system, including outreach, aimed at the full age spectrum of children, parents of young children were left without guidance to assess the effects of the disaster and the potential need for services. Thus, in the event of another catastrophic community trauma like 9/11, it is particularly important to understand the criteria parents used to determine whether they pursued mental health services for their youngest children so that appropriate education and outreach can be made available.

A solid body of research documents children's reactions to natural and technological disasters (Breton, Valla, & Lambert, 1993; Hanford, Humphrey, & Brussel, 1986; LaGreca, Silverman, Vernberg, & Prinstein, 1996; Lonigan, Shannon, Taylor, Finch, & Sallee, 1994; McFarlane, 1987; McFarlane, Policansky, & Irwin, 1987; Pynoos, Goenjian, & Steinberg, 1998) and diverse traumatic events, including single-incident traumas (e.g., Malmquist, 1986; Nader, Pynoos, Fairbanks, & Frederick, 1990) and chronic exposure to violence (Almqvist & Brandell-Forsberg, 1997; Macksoud & Aber, 1996; Sack, Angell, Kinzie, & Rath, 1986; Sack et al., 1994; Smith, Perrin, Yule, & Rabe-Hesketh, 2001). Research documenting the effects of the September 11th attacks indicates that school-age children in New York City were experiencing psychological sequelae at higher-than-population rates of posttraumatic stress disorder (PTSD), major depression, and anxiety disorders, including separation anxiety at 6 months postdisaster (Applied Research & Consulting, Columbia Mailman School of Public Health, & New York State Psychiatric Institute, 2002). Significantly, children with higher levels of personal and family exposure to the disaster and younger children (grades 4 and 5) were found to be at greater risk than nonexposed and older children. The purpose of the present study was to assess children's responses to

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exposure to the disaster in a sample of 180 New York City families with children who were age 5 years or younger on September 11, 2001.

The literature addressing parental helpseeking behavior for children's mental health services before the September 11, 2001, terrorist attacks identifies several factors within the family that are associated with use of services. Variables associated with lower service utilization include demographic factors such as limited economic resources (Fontana, Fleischman, McCarton, & Meltzer, 1989; McKay, McCadam, & Gonzales, 1996), lower levels of educational attainment among caregivers (Spoth, Goldberg, & Redmond, 1999; Spoth, Redmond, Jeffrey, & Shin, 1997), single parents (Dumka, Garza, Roosa, & Stoerzinger, 1997; Weber & Stoneman, 1986), and minority status of parents (Briones et al., 1990; Hoberman, 1992; McMiller & Weisz, 1996). Among the most consistent findings in this line of research is an association between perceived child mental health need and parental helpseeking for child services (Leaf et al., 1996; Teagle, 2002; U.S. Public Health Service, 1999; Verhulst & Van der Ende, 1997). However, it is unclear whether these same variables or alternate contextual variables, such as exposure to the event, are associated with parental helpseeking for their children after a significant human-caused community trauma, such as the September 11th attacks, because there has been little research on the topic.

In fact, we identified only one such study in the literature (Stuber et al., 2002). In this research, Stuber and colleagues reported on utilization rates and determinants of counseling for children ages 4–18 in Manhattan following September 11 in a sample of 112 parents from a larger, representative sample of New York City adults ($N = 1,008$). Parents were surveyed by telephone approximately 1 to 2 months after the disaster and were asked to report on family demographics, caretaker mental health, children's behavioral reactions to the disaster, and children's experiences immediately after the attacks, including whether parents witnessed the disaster in person (Galea et al., 2002). Twenty-two percent ($n = 25$) of the children across the age range were reported to have received counseling, only three of whom were under age 5. In the multivariate model, counseling was more likely among boys, children with siblings, and children who had a parent with PTSD symptoms. Because of the nature of the survey, however, it was not possible to examine the influence of other potentially significant variables, including children's direct exposure to the attacks or child traumatic stress symptoms, on parental helpseeking on behalf of their children.

Our purpose here is to examine the rate of and variables associated with parental helpseeking on behalf of young children (age 5 years or younger on 9/11) in a sample of 180 New York City families. One of the most stable findings from the literature on older children's responses to trauma is that children's adaptation is influenced directly by the mental health functioning of caregivers in their lives (Breton et al., 1993; Garbarino & Kostelny, 1996; Green et al., 1991; Laor et al., 1997; Pynoos et al., 1998). Similarly, the critical role of caregivers has been incorporated into a relational perspective to understand the expression of PTSD in younger children (Scheeringa & Zeanah, 2001). The relationship of primary caregiver mental health status and child outcomes is particularly salient in light of findings from the Stuber et al. (2002) survey, which indicate that parents were twice as likely to meet criteria for PTSD as nonparents in the near-term aftermath of

September 11th. Thus, although we are developing an understanding of the predictors of adverse outcomes in children following traumatic events, we know little about the critical elements that factor into parental decision making about whether to obtain services for their youngest children in the aftermath of a community trauma like the 9/11 attacks. We hypothesized, in particular, that mental health symptoms in children and parents are correlated with parental helpseeking on behalf of children.

Method

Data Collection

A sample of 180 parents with at least one child under age 5 years on 9/11 was recruited through 11 early childhood centers in New York City in the summer of 2002. Of participating centers, nine are located in lower Manhattan below the "frozen zone" (14th Street), within several blocks to 1 mile of Ground Zero. One site is located in Brooklyn with windows facing the World Trade Center site, and one center is located further uptown, not within visual distance of the World Trade Center site. Parent report data about target children were obtained through in-depth interviews conducted from June 2002 through October 2002 in New York City. Prior to the interviews, we obtained informed consent from each parent as described in a protocol approved by both the Columbia University and Barnard College institutional review boards. All interviewers had a background in social work and/or psychology and had been trained by the investigators specifically for the present study. Training focused on interviewer sensitivity to potential trauma material and the ability to assess and respond to participant distress. Interviews were audiotaped with the written consent of the participants for the purposes of transcribing narrative components of the interview and for training purposes. Interviews lasted an average of 1.5 hr and were conducted at a location selected by each participant, typically the family home.

Participants

Data were gathered on 180 families, including one target child within the 0–5 year age range. All parent and child participants were highly proficient English speakers; thus, translators and translations of instruments were not necessary. Ninety-six percent of the parents responding to the survey were mothers, 93% were married, and 93% were college graduates. The average parent was 40 years of age ($SD = 5.24$). Seventy-nine percent of parents were White, 10% were Black or Hispanic, and 11% were Asian/Mixed/other. Overall, 71% of children were White, 6% were Black or Hispanic, 17% were of a mixed racial background, and 6% were Asian/Pacific Islander/other. Fifty-four percent of the sample of children was female. Thirteen percent of the focal children were less than 3 years old, 52% were 3 to 4 years old, and 35% were 5 years old. Chi-square analysis revealed that parental helpseeking for child mental health services did not differ by child race (White/non-White) [$\chi^2(1, n = 180) = 0.19, p = .66$], child sex, [$\chi^2(1, n = 180) = .14, p = .29$], or child age (<3, 3–4, 5 years) [$\chi^2(2, n = 180) = 2.32, p = .31$].

Measures

Exposure. To capture the specific experiences of both parents and children on 9/11, parents were asked to report on the following: (a) whereabouts of all family members, including children, at the time of the attacks; (b) evacuation status of all family members; (c) time to reunion between parents and young children; (d) child exposure to adult reactions, including crying or screaming; and (e) perception of life threat to self and child. Parents identified specific in-person exposure experiences from a checklist to assess direct exposure for themselves and their children.

Sample questions were as follows: "Did you see the planes fly into the building(s)?" and "Did you see people jumping or falling?"

Child mental health and behavioral status. These domains were assessed with several standardized measures and adapted measures to assess domains of functioning found to be conceptually and empirically related to traumatic experiences in young children. Child internalizing and externalizing behaviors were measured using the Child Behavior Checklist (Achenbach & Rescorla, 2000) for children older than age 2 years and the Brief Infant and Toddler Social & Emotional Assessment Scale (Carter & Briggs-Gowan, 1998) for younger toddlers. Child traumatic stress symptoms were assessed using the parent report portion of the PTSD Semi-Structured Interview for Infants and Young Children (Scheeringa & Zeanah, 1994). This interview component included 19 items representing traumatic stress symptoms, with additional questions corresponding to traumatic stress response in young children (e.g., posttraumatic play, new fears, and aggressive behavior). Children's sleep disturbances were assessed with five questions based on the work of Laor and colleagues with preschool children exposed to SCUD missile attacks (Laor et al., 1996). In considering children's posttraumatic stress symptoms, the *Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV;* American Psychiatric Association, 1994) criteria were adapted to require one C cluster symptom of avoidance rather than three, along with three B cluster (reexperiencing) and two D cluster (hyperarousal) symptoms. This approach of using one C cluster symptom is more consistent with the manifestation of posttraumatic stress in very young children and has been used by researchers who study this age group (e.g., Scheeringa, Zeanah, Drell, & Larrieu, 1995). Using this modification, 14% of children were reported to have symptoms consistent with a diagnosis of PTSD after the events of 9/11 (DeVoe, Klein, & Linas, 2003).

Parent PTSD, anxiety, and depression. PTSD symptoms were examined using the Post-Traumatic Stress Disorder Checklist-Terror (Weathers, Litz, Huska, & Keane, 1994; adapted by Norris, 2001, for 9/11 research), which corresponds directly to the *DSM-IV* (American Psychiatric Association, 1994) criteria for the disorder and was anchored specifically on the terrorist attacks. Parents also completed the Brief Symptom Inventory (Derogatis, 1993), from which symptoms of depression and anxiety were identified. Parents were asked to give retrospective accounts of symptoms of PTSD, depression, and anxiety during the near-term aftermath of 9/11 (1–3 months postevent), as well as their current symptoms at the time of the interview (9–13 months postevent).

Helpseeking. We asked 10 questions related to the utilization and helpfulness of services. Specifically, parents were asked to identify whether they had sought any of the following since 9/11: crisis counseling, individual or family therapy, ongoing individual therapy, couples counseling, debriefing, information session for parents, pastoral or religious counseling, and consultation for psychiatric medication. One additional question related specifically to children: "Since 9/11, have you sought counseling for your children?" Parents rated the helpfulness of services on a 5-point Likert-type scale, ranging from (1) *not at all helpful* to (5) *extremely helpful*.

Statistical Analysis

There were three steps involved in the data analysis plan. First, we conducted a series of chi-square analyses to examine whether parent helpseeking for child mental health services after September 11th differed by important child demographic characteristics. Second, we examined whether the predictor variables independently predicted parental helpseeking for child mental health counseling by entering each variable into a single predictor logistic regression. Third, variables significantly related to the outcome variable at a level no greater than .05 at the bivariate level were entered into a hierarchical logistic regression analysis to examine which variables were associated with parental helpseeking beyond other variables. Checks for multicollinearity among predictors revealed no sig-

nificant problems (Menard, 1995). Three blocks of variables were entered according to the following categories: (a) child mental health and behavior, (b) parent mental health, and (c) child exposure to the disaster.

Results

Prevalence of Helpseeking on Behalf of Young Children After the 9/11 Terrorist Attacks

Of the 180 parents, 15% ($n = 27$) sought counseling services for their children because of the September 11th terrorist attacks. Almost half of parents (45% of utilizers; $n = 12$) described the mental health services their children received as very or extremely helpful, 33% of utilizers ($n = 9$) described them as somewhat helpful, and 22% of parents ($n = 6$) who sought help for their children described them as not very or not at all helpful. Interestingly, more than half of the full sample ($n = 107$; 59%) of parents reported seeking mental health services for themselves after 9/11.

Children's Mental Health After the 9/11 Terrorist Attacks

The bivariate relationship between the child mental health variables and parental helpseeking for child mental health counseling after the 9/11 terrorist attacks are summarized in Table 1. Overall, parents reported that children experienced significant mental health symptoms after 9/11. More than half (52%) of parents reported that their children had developed new fears since 9/11. Twenty-three percent of parents reported their children's behavior became more aggressive, and 43% reported their children developed problems in going to sleep after 9/11. Of child separation anxiety variables for children age 2 or older, almost half of parents (44%) described these children as having begun to cling to adults or being too dependent, and 33% became too upset when separated from parents. Separation anxiety for children under the age of 2 was also examined but was excluded from the analysis because of the small number of children in this age range who were reported to experience signs of separation anxiety (e.g., cries or hangs onto you when parent leaves: yes/no).

Parent Mental Health After the 9/11 Terrorist Attacks

The bivariate relationship between the parent mental health variables and parental helpseeking for child mental health counseling after the September 11th terrorist attacks is summarized in Table 2. Overall, parents reported experiencing significant mental health problems after the events of 9/11. Almost half (49%) of parents reported a number of symptoms indicating full PTSD diagnosis, according to the *DSM-IV* criteria (American Psychiatric Association, 1994; DeVoe et al., 2003). Thirty-two percent of parents reported at least one symptom of depression (range = 0–4), and 69% reported at least one symptom of anxiety (range = 0–4), as assessed by the Brief Symptom Inventory (Derogatis, 1993).

Children's 9/11 Disaster Event Experiences

The bivariate relationship between children's 9/11 disaster event experiences and parental helpseeking for child mental health counseling after the September 11th terrorist attacks is summarized in Table 3. More than a third (37%) of parents indicated that their

Table 1

Bivariate Relationship Between Child Mental Health Variables and Whether Parent Sought Mental Health Counseling for Their Child After the September 11th Terrorist Attacks

Child characteristic	Children in sample (<i>n</i> = 180)		Children for whom help was sought (<i>n</i> = 27)		B (<i>SE</i>)	Wald (χ^2)	Odds ratio	95% CI	<i>p</i>
	<i>n</i>	%	<i>n</i>	%					
Full child PTSD diagnosis									
Yes	31	17	10	37	1.31 (0.46)	7.99	3.70	1.49–9.16	.01
No	149	83	17	63					
Child afraid of new things									
Yes	93	52	20	74	1.14 (0.47)	5.95	3.13	1.25–7.84	.02
No	87	48	7	26					
Child is a lot more aggressive than previously									
Yes	42	23	8	30	0.39 (0.46)	0.70	1.47	0.59–3.66	.40
No	138	77	19	70					
Child has difficulty in going to sleep									
Yes	49	43	12	63	0.97 (0.52)	3.48	2.64	0.95–7.32	.06
No	64	57	7	37					
Child clings to adults or is too dependent (≥ 2 yr old)									
Yes	75	44	14	56	0.36 (0.28)	1.65	1.43	0.83–2.48	.20
No	96	56	11	44					
Child gets too upset when separated from parents (≥ 2 yr old)									
Yes	57	33	10	40	0.22 (0.33)	0.45	1.25	0.65–2.39	.51
No	114	67	15	60					

Note. A significance level of .05 was used in the bivariate analysis. Variables that were significantly related to parental helpseeking for child mental health counseling at the bivariate level were included in the final multivariate model. One symptom of posttraumatic stress disorder (PTSD) C cluster: Avoidance of stimuli was used as a criterion for inclusion. CI = confidence interval.

child witnessed at least part of the World Trade Center disaster in person, and 44% reported that their child had a lot or daily exposure to media accounts (TV, newspaper, or photo) of 9/11 the first week after the disaster.

Single Predictor Logistic Regression Analyses

The single predictor logistic regression analyses revealed that several variables were significantly related to parental helpseeking for child mental health services after the September 11, 2001, terrorist attacks. Among child mental health variables (see Table 1), both full child PTSD diagnosis [$\chi^2(1, n = 180) = 7.99, p < .01$] and child new fears after the terrorist attacks [$\chi^2(1, n = 180) = 5.95, p < .05$] were related to parental helpseeking for child mental health services [odds ration (OR) = 3.7 and OR = 3.13, respectively], whereas child sleep and separation anxiety variables were not. Among parent mental health variables (see Table 2), parental symptoms of depression [$\chi^2(1, n = 180) = 9.88, p < .01$; OR = 2.35], parental symptoms of anxiety [$\chi^2(1, n = 180) = 5.51, p < .05$; OR = 3.31], and parent helpseeking for self [$\chi^2(1, n = 180) = 9.08, p < .001$; OR = 6.75] were related to parental helpseeking for child mental health services, whereas full parent PTSD diagnosis only approached significance. Regarding child exposure to the attacks, both child seeing the WTC attack in person [$\chi^2(1, n = 180) = 22.60, p < .0001$] and child 9/11 media exposure [$\chi^2(1, n = 180) = 5.27, p < .05$] were significantly

related to parental helpseeking on behalf of children. Indeed, parents of children who witnessed the attacks in person were more than 8 times [OR = 8.4] more likely to seek assistance for their children than parents of children who did not have in-person exposure.

Hierarchical Logistic Regression Analysis of Parental Helpseeking for Counseling for Their Child

To test the hypothesized model, all significant variables from the single logistic regression analyses were entered by block into the hierarchical logistic regression model to determine their association with parental helpseeking for mental health counseling for their child at the multivariate level. The variables were entered into the final model by block in the following order: (a) child mental health and behavioral functioning variables, including PTSD diagnosis and the onset of new fears since 9/11; (b) parent mental health variables, including parental symptoms of depression, anxiety, and parental helpseeking for self after 9/11; and (c) child exposure variables, including in-person exposure to the terrorist attacks and media exposure in the first week after the terrorist attacks. The order of entry was chosen on the basis of hypothesized relevance of the domain to helpseeking for children. Specifically, we expected that children's mental health symptoms and behaviors would be the primary motive for their parents to seek counseling for their children. Next, we anticipated that parents who were

Table 2
Bivariate Relationship Between Parent Mental Health Variables and Whether Parents Sought Mental Health Counseling for Their Children After the September 11th Terrorist Attacks

Parent characteristic	Parents in sample (n = 180)		Children for whom help was sought (n = 27)		B (SE)	Wald (χ^2)	Odds ratio	95% CI	p
	n	%	n	%					
Clinically significant number of parent PTSD symptoms									
Yes	89	49	18	67	0.84 (0.44)	3.63	2.31	0.98–5.46	.06
No	91	51	9	33					
Parental symptoms of depression									
< 1	122	68	13	48	0.85 (0.27)	9.88	2.35	1.38–3.99	.002
1–1.99	44	24	8	30					
≥ 2	14	8	6	22					
Parental symptoms of anxiety									
< 1	56	31	4	15	0.48 (0.21)	5.51	3.31	1.08–2.44	.02
1–1.99	60	33	10	37					
≥ 2	64	36	13	48					
Parent sought counseling for self									
Yes	107	59	24	89	1.91 (0.59)	9.08	6.75	1.95–23.35	.001
No	73	41	3	11					

Note. A significance level of .05 was used in the bivariate analysis. Variables that were significantly related to parental helpseeking for child mental health counseling at the bivariate level were included in the final multivariate model. PTSD = posttraumatic stress disorder; CI = confidence interval.

themselves having mental health symptoms might be more likely to obtain help for their children because of the relationship between these symptoms and possible challenges in their roles as parents of young children. Last, we considered that parents might have obtained assistance for their children on the basis of their children’s exposure to the disaster alone.

The results of the hierarchical logistic regression model are summarized in Table 4. The full model was highly significant [$\chi^2(7, n = 180) = 54.29, p < .0001$], with 87.78% of the cases correctly classified.

The strength of the association of the individual variables with parents’ helpseeking for mental health counseling for their child was examined by evaluating the statistical significance of individual coefficients and their odds ratios within the context of the full hypothesized model. Within the full model, only one child mental health variable, child being afraid of new things after the September 11th terrorist attacks [$\beta = 1.20; \chi^2(1, n = 180) = 3.84, p < .05$], remained significantly related to parents’ helpseeking for mental health counseling for their child. Here, parents who perceived their children as being afraid of new things after the

Table 3
Bivariate Relationship Between Child’s Disaster Event Experiences and Whether Parents Sought Mental Health Counseling for Their Children After the September 11th Terrorist Attacks

Child characteristic	Children in sample (n = 180)		Children for whom help was sought (n = 27)		B (SE)	Wald (χ^2)	Odds ratio	95% CI	p
	n	%	n	%					
Child saw WTC attack in person									
Yes	66	37	21	78	2.13 (0.50)	22.60	8.40	3.18–22.20	.0001
No	114	63	6	22					
Child 9/11 media exposure									
None	36	20	8	30	–0.52 (0.23)	5.27	0.60	0.38–0.93	.02
A little	69	38	13	48					
A lot	36	20	4	15					
Daily	39	22	2	7					

Note. A significance level of .05 was used in the bivariate analysis. Variables that were significantly related to parental helpseeking for child mental health counseling at the bivariate level were included in the final multivariate model. WTC = World Trade Center; CI = confidence interval.

Table 4
Results of Hierarchical Logistic Regression Analysis of Parental Helpseeking of Mental Health Counseling for Their Children After the September 11th Terrorist Attacks in a Sample of 180 Families (87.78% of the Cases Were Classified Correctly)

Variable	B (SE)	Wald (χ^2)	Odds ratio	95% CI	<i>p</i>
Step 1					
Full child PTSD diagnosis	1.04 (0.48)	4.69	2.83	(1.11–7.29)	.03
Child afraid of new things	0.91 (0.49)	3.48	2.48	(0.96–6.44)	.06
Step 2					
Full child PTSD diagnosis	0.83 (0.51)	2.71	2.30	(0.85–6.18)	.10
Child afraid of new things	0.81 (0.51)	2.53	2.24	(0.83–6.06)	.12
Parental symptoms of depression	0.58 (0.36)	2.64	1.79	(0.89–3.61)	.10
Parental symptoms of anxiety	–0.06 (0.27)	0.04	0.95	(0.55–1.62)	.84
Parent sought counseling for self	1.61 (0.66)	5.98	4.98	(1.38–18.01)	.01
Step 3					
Full child PTSD diagnosis	0.60 (0.60)	1.02	1.83	(0.57–5.86)	.32
Child afraid of new things	1.20 (0.61)	3.84	3.33	(1.00–11.11)	.05
Parental symptoms of depression	0.80 (0.41)	3.83	2.23	(1.00–5.00)	.05
Parental symptoms of anxiety	–0.32 (0.32)	1.00	0.73	(0.39–1.36)	.32
Parent sought counseling for self	1.89 (0.75)	6.37	6.63	(1.53–28.82)	.01
Child saw WTC attack in person	2.29 (0.58)	15.29	9.83	(3.13–30.91)	.0001
Child 9/11 media exposure	–0.93 (0.30)	9.51	0.40	(0.22–0.71)	.002
Step 1 $\chi^2(2) = 11.12, p < .01$; Model = $\chi^2(2) = 11.12, p < .01$					
Step 2 $\chi^2(3) = 18.70, p < .0001$; Model = $\chi^2(5) = 25.34, p < .0001$					
Step 3 $\chi^2(2) = 31.22, p < .0001$; Model = $\chi^2(7) = 54.29, p < .0001$					

Note. PTSD = posttraumatic stress disorder; WTC = World Trade Center; CI = confidence interval.

September 11th terrorist attacks were more than 3 times more likely [OR = 3.33] to seek mental health counseling for their child. Child PTSD was not significantly related to parental helpseeking for children in the final model, despite its clinical importance.

In terms of parent mental health variables, both parental symptoms of depression [$\beta = .80$; $\chi^2(1, n = 180) = 3.83, p < .05$; OR = 2.23] and parent seeking mental health counseling for themselves [$\beta = 1.89$; $\chi^2(1, n = 180) = 6.37, p < .01$; OR = 6.63] after the September 11th terrorist attacks were related to parental helpseeking for mental health counseling for their child. These results indicate that parents experiencing a greater degree of depression were more than twice as likely to seek mental health counseling for their child as parents with fewer symptoms of depression. Parents who reported seeking mental health counseling for themselves were more than 6 times more likely (OR = 6.63) to seek mental health counseling for their child after the September 11th terrorist attacks.

When the third block of variables was entered into the full model, both the child seeing the World Trade Center attack in person [$\beta = 2.29$; $\chi^2(1, n = 180) = 15.29, p < .0001$] and the degree of the child's 9/11 media exposure [$\beta = -.93$; $\chi^2(1, n = 180) = 9.51, p < .01$] were significantly related to parental helpseeking for counseling for their child after the September 11th terrorist attacks. Children whose parents reported that they witnessed the World Trade Center attack in person were almost 10 times more likely [OR = 9.83] to be enrolled in counseling than children who did not witness the attacks in person. By contrast, children were less likely to have parents seek mental health counseling for them when parents reported a greater degree of child exposure to 9/11 media coverage.

Discussion

In this highly exposed sample of 180 New York City families with young children, 15% ($n = 27$) sought counseling services on behalf of their young children. Because there have not been community studies of service utilization in families with young children following catastrophic events, no community-based utilization rates are available as a basis for comparison. However, the rate of utilization in this small volunteer sample is lower than that reported for children ages 4–18 years by Stuber and colleagues (Stuber et al., 2002) in their representative sample of New York City residents.

Given the scholarly focus in the trauma literature on PTSD as the primary outcome of interest, it is important to emphasize that children's PTSD symptoms did not predict parental helpseeking on their children's behalf. Rather, the only child-related symptom or behavior that remained significantly associated with helpseeking was the development of new fears since 9/11 among young children. Although parents identified symptoms of posttraumatic stress in their children, new fears appear to have been the most salient child response for parents and were more likely to compel them to pursue counseling for their young children than trauma or behavioral symptoms. Because of a lack of pre-9/11 baseline data and the retrospective nature of the study, our interpretations related to these findings are speculative. It is possible that the emergence of new fears were specific to 9/11 and thus of greater concern than more generalized fears typical of the toddler and preschool periods. Fears also can be alarming to parents or disruptive to family life because of accompanying behaviors, such as fear of the dark leading to refusal to sleep alone or refusal to enter tall buildings

when one lives in a high-rise apartment complex. It also may be that children's trauma symptoms were not particularly incapacitating, persistent, or apparent. Similarly, with regard to parent mental health status, neither parental PTSD nor parental anxiety symptoms predicted helpseeking on behalf of young children. Rather, parental depressive symptoms were associated with helpseeking in the multivariate model. One possible explanation for this finding is that parents who experienced symptoms of depression may have felt more overwhelmed with their parenting roles and responsibilities in the context of the disaster than parents without such symptoms.

Among families who did seek help for their children, those parents who themselves participated in counseling were more than 6 times more likely to seek services for their young children. It may be that in these families, formal helpseeking is an accepted and nonstigmatized strategy for addressing problems and thus is a natural consideration for any member of the family who appears to be struggling. A related possibility is that families in which parents were working with a counselor or therapist prior to 9/11 did not have to enter the mental health system for the first time when they pursued help for their children, a factor that may enhance service utilization during an overwhelming crisis like 9/11.

An interesting pair of variables associated with children having received help was exposure, specifically, in-person witnessing of the disaster and media exposure by the children. Children whose parents reported that they had witnessed some or all of the attacks in person were almost 10 times more likely to be enrolled in counseling. By contrast, children whose parents allowed frequent media exposure to the disaster in the weeks following 9/11 were much less likely to pursue counseling for their children. One possible explanation for the former finding is that the experience of direct exposure is itself of significant concern to parents, regardless of the manifestation of overt child distress. That is, parents may have wanted reassurance from a mental health professional of their child's healthy adjustment and well-being in the aftermath of such a jarring traumatic event. This type of screening is not unusual in other types of traumatic events, such as child sexual abuse, where children are evaluated on the basis of the experience rather than their symptoms or behavior (Saywitz, Manarino, Berliner, & Cohen, 2000). This finding also highlights the need to implement developmentally grounded screening procedures that would identify young children in need of mental health services in the aftermath of a disaster.

The finding regarding media exposure is more puzzling. One hypothesis is that for parents who allowed frequent media exposure by their young children, TV viewing specifically may have been a method of coping and crisis management in the first weeks after the disaster for adults who were in shock and felt the need for constant information. In the extreme, some parents may have been initially unaware of the potential effects of such exposure on their children and thus might have been less attuned to their children's distress and need for assistance generally.

Perhaps the most critical question raised by the present findings is why the vast majority of families did not pursue counseling for their youngest children, despite very high levels of family and child exposure to the disaster. Although this finding is consistent with citywide patterns of significant underutilization of traditional mental health services by the general population in New York City, the parents in this sample did avail themselves of services at

a high rate (59% obtained counseling for themselves related to 9/11) in the year after the tragedy.

Several explanations for this pattern are possible and deserve further examination. At the level of the family, parents understandably may have difficulty in acknowledging the level of exposure to the 9/11 catastrophe among their children, particularly the youngest (DeVoe et al., 2003). Even among parents who are accurate in their appraisal of their young children's exposure, assessing their children's reactions to an event like 9/11 is challenging in the rapidly changing developmental context of toddlers and preschoolers. Specifically, many potential symptoms of distress in young children are also normative behaviors in milder form and duration (e.g., separation anxiety, new fears, sleeping problems). It is also possible that resilience among the families in this sample explains the lack of service seeking on behalf of young children. Certainly, the New York City community and, in particular, the downtown communities closest to Ground Zero have demonstrated tremendous resilience in the face of the disaster.

Clinical Implications

It is possible that parents in this sample did not pursue counseling for their children because developmentally relevant services were not available. Parents also may have pursued resources to assist themselves and their children that were not assessed in the current study. On a systemic level, the mobilization of the mental health disaster response to the community largely excluded attention to very young children. Community-wide screening efforts targeting preschoolers and younger children are more difficult to implement than the school-based mental health initiatives for older children that are typical in the postdisaster context (e.g., Applied Research & Consulting, Columbia Mailman School of Public Health, & New York State Psychiatric Institute, 2002; Call & Pfefferbaum, 1999; Pfefferbaum, Nixon, et al., 1999). The lack of attention to young children is surprising, given that developmentally young children appear to be more vulnerable to stress and trauma than older children (Osofsky, 1995). On the other hand, there is less research to document the impact of trauma on very young children that could anchor the development of an appropriate mental health assessment, prevention, and intervention infrastructure in the wake of overwhelming trauma like terrorism. The failure to incorporate the needs of young children may have resulted from a lack of awareness among mental health and allied professionals of the extent to which young children can be affected by traumatic events or from a simple shortage of qualified professionals with solid grounding in early child development and trauma. It remains the case that the disaster-preparedness system is ill equipped to handle the physical and psychological issues specific to young children, a gap that should be addressed immediately by all concerned with the mental health and well-being of this most vulnerable age group. In the current study, concerning rates of psychological distress were reported by parents of very young children at 9–12 months post-9/11. These findings suggest that developmentally relevant mental health services should be made available for preschool- and toddler-age children and their parents in the aftermath of a significant community trauma like 9/11, despite the difficulties associated with their implementation.

Study Limitations

This research is of interest because it is the only early study of very young children and their parents who were directly exposed to the September 11th attacks on the World Trade Center. Despite the unique characteristics of the sample, several limitations of the study are apparent. First, we recruited a convenience sample of families with young children who attended preschools and day care programs in New York City. As a result, the sample is not representative of all families in the city. Second, the research is cross-sectional in nature and was initiated after the attacks had occurred. Thus, despite our efforts to obtain retrospective accounts of pre-September 11th information on some critical variables, such as pre-event traumatic experiences, we could not incorporate all relevant data on child and parent status prior to the terrorist attacks. Finally, several issues related to the age of the children targeted in the study should be addressed in future research, including instrumentation and the use of multiple informants and/or observational methods. Specifically, because of both ethical and practical issues related to obtaining child report data about a traumatic event from the very young, we relied on parents' reports of children's responses to the attacks. The limitations of retrospective accounts are noted and, as indicated previously, are particularly important to consider in the context of parental recollection of behaviors and symptoms in the rapidly changing developmental reality of young children. Further, because there is debate about the characteristics of very young children's patterns of response to trauma (Scheeringa et al., 1995), continued instrument development is needed to improve the quality of measures available for assessing trauma and related symptoms in very young children. Finally, because of the significant developmental changes that occur across the toddler and preschool years, longitudinal studies with representative samples of very young children's patterns of response to catastrophic community trauma are needed.

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