Child Maltreatment and Disaster Prevention: Qualitative Study of Community Agency Perspectives

Shannon Self-Brown, PhD* * Georgia State University, School of Public Health, Atlanta, Georgia
Page Anderson, PhD† † Georgia State University, Department of Psychology, Atlanta, Georgia
Shannan Edwards, MS†
Tia McGill, MPH*

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Introduction: Child maltreatment (CM) is a significant public health problem that increases following natural disasters. Ecological approaches have been used to study these complex phenomena, and the current research fits within this perspective by conducting qualitative interviews with disaster response and family-serving community agencies. The purpose of the study was to identify whether or not community agencies identified CM as an issue that is relevant for disaster planning and response and their perspectives on risk and protective factors for CM risk following disaster.

Methods: Agencies (n=16) from 2 geographical areas participated - one that recently experienced a natural disaster (Louisiana (LA), n=7) and one that had not (Georgia (GA), n=9). Agency representatives completed semi-structured telephone interviews (n=16) and follow up in person focus groups (n=14). Theory-driven, thematic analyses were completed.

Results: Results suggested that community agencies agree that post-disaster environments increase the risk for CM and that CM prevention has a role in disaster response planning. Risk and protective factors were identified according to Bronfenbrenner' s ecological framework.

Conclusion: Study results support the need to include CM prevention efforts within disaster planning and provide guidance for future research to inform such efforts. [West J Emerg Med. 2013;14(4):402–408]

INTRODUCTION

General population studies indicate that a significant proportion of people in the United States experience natural disasters.[1] Children are a vulnerable population requiring special consideration during and following disaster.[2]A recent nationally representative study of U.S. youth indicated that 13.9% reported lifetime natural disaster exposure, with 4.1% reporting exposure in the past year.[1] Comprehensive disaster response planning for children addresses the basic needs of nutrition, shelter, sanitation, and clothing, as well as mental health consequences related to disaster exposure. [2-4] Absent, however, is disaster planning and prevention related to disaster-related secondary intentional injury risk, such as child maltreatment (CM).

Data suggest that CM incidence rates can increase following natural disaster. Specifically, Keenan et al[5] found that rates of intentional child traumatic brain injury increased in the 6 months post Hurricane Floyd. Similarly, Curtis et al.[6] found that following 2 of 3 disasters studied, the incidence and confirmation of child abuse reports was higher 3 and 6 months following disaster. Children who experience maltreatment or abuse are at great risk for deleterious behavioral, academic, psychological and health problems.[7-10] Given the increase in CM following disaster, and the pervasive impact of CM, research on disaster response and CM prevention efforts is warranted. This area of research is especially relevant for medical professionals working in emergency medicine, as children are often seen in medical settings post-disaster and, thus, these professionals could serve as important contributors to disaster planning and coordinated response efforts targeting CM prevention.[11]

Bronfenbrenner's ecological systems framework,[12] which emphasizes a broad contextual approach to human development and risk and resilience to stress, has been applied to both post-disaster risk[13] and child maltreatment risk.[14] This framework describes multiple contexts that make up a child's ecological system, which vary in their proximity to the child and include the macrosystem (cultural values and beliefs), the exosystem (processes that take place between multiple contexts, one of which does not directly involve the child but has implications for child development), the mesosystem (linkages between proximal ecologies within which the child develops), and the ontogenic level (factors within the individual that impact developmental adaptation).[14] Factors within different ecologies can increase the risk for CM post-disaster. For example, disaster might directly impact family microsystem factors that have been associated with CM, such as parental stress, mental health and substance abuse[15], or parenting behaviors.[16] Disasters also have the potential to disrupt higher order ecologies, by decreasing the availability of important community resources that provide CM prevention and disaster response services. No research exists on this topic to date.

Purpose of Current Study

To date, there has been a paucity of research examining whether disaster planning should include CM prevention/ intervention, policy, and resources. The purpose of this exploratory study is to further explore the association between CM and disaster by soliciting the opinions of representatives of community agencies who have been involved in disaster prevention, or providing services to children and families. Participating organizations were located in the capital cities of 2 states--one with extensive experience with natural disaster in recent years (Baton Rouge, Louisiana), and one with relatively less experience (Atlanta, GA). Several exploratory research questions were addressed that impact various ecological contexts: Do community agencies perceive a relationship between CM and disaster? What have participants relevant experiences related to CM in post-disaster environments? Should CM be addressed in disaster planning? Are there recommendations for programming and policy related to CM in disaster planning and post-disaster environments? Who are the most important professionals to include in disaster planning and response to assist with targeting CM efforts?

METHODS

Participants

The current study, funded by a collaborative grant from the Centers for Disease Control and Prevention and Georgia State University, included 16 representatives of stakeholder agencies in Louisiana and Georgia. To identify relevant organizations, members of the research team contacted experts in child welfare in each state and conducted internet searches. In each state, attempts were made to recruit representatives from pediatric medicine, child and adult mental health, child protection, CM prevention, disaster planning, and schools. A research team member attempted to recruit each agency of interest via an email or a voice message that explained the purpose of the study. In total, 27 agencies were contacted about study participation. Specifically, 11 contact attempts were made to agencies in Louisiana, and contact was successful with 7 agency representatives, all of whom consented (3 female, 4 males). Organization representatives were located in Baton Rouge or New Orleans and worked in pediatric medicine, child and adult mental health, child protection, and CM prevention. In Georgia, 16 agency contact attempts were made, 9 of which were successful. All 9 representatives who were successfully contacted consented (6 females, 3 males). Representatives were from agencies in metro-Atlanta that focused on education, disaster response and preparedness, child and adolescent mental health, CM prevention, and pediatric medicine. All agency representatives held Director or Co-director leadership positions. Further information describing the agencies is excluded to protect confidentiality.

Study Measures

A semi-structured interview, consisting of 22-27 questions, served as the primary mode of data collection for this study. The research team developed an initial draft of the interview and vetted it with 2 experts in CM and disaster research for review. Following review, the research team incorporated recommendations and finalized the measure, which included semi-structured and open-ended questions. Question topics included: Agency mission and focus of work, Agency roles related to CM and disaster planning, Experiences related to the connection between disaster and maltreatment, Opinions regarding the need to address CM in disaster planning, Opinions on the types of professionals who should be involved in the planning and response efforts, and recommendations for improving the current programming and policy related to CM during a disaster and within the post-disaster environment.

Procedures

We conducted research over a 2-year period. Procedures were conducted separately and sequentially for the 2 study sites; with Louisiana agencies participating in Year 1 and Georgia agencies in Year 2. Research team members contacted agencies of interest by phone or email to explain the purpose of the study. Interested respondents (those who replied or responded to recruitment email on phone call) were informed about the purposes and procedures of the project, and asked to consent to the study, which was approved by the Georgia State University Institutional Review Board.

All agency representatives (n=16) who responded to initial recruitment agreed to participate in this study were asked to complete a 1-hour telephone interview. Following the interview, participants were invited to an in-person

group meeting that included all participating agencies within that particular state (e.g., separate meetings for agencies in Louisiana and Georgia).

Telephone Interview. Following consent, a telephone interview was scheduled. Study participants were sent a hard copy of the interview questions prior to the interview. Interviews were conducted by one of the 4 research team members. All participants gave permission for the telephone interview to be audio recorded. The interview continued until responses were collected for all the interview questions, usually about an hour. All interviews were transcribed and reviewed by each participant for accuracy.

Follow-Up Group Meeting. Group meetings were held to bring the stakeholder agencies within each state together to review the interview data collected, provide feedback about conclusions drawn by the investigative team, and to discuss collectively whether there were additional recommendations for CM efforts in the aftermath of disaster. These meetings were held in centralized locations for participating agencies and were led by the 2 principal investigators. All participants agreed to participate in the groups; however, on the day of the scheduled group, one organization representative in each state cancelled, leaving 6 participants in Louisiana and 8 in Georgia. All group-meeting attendees were reimbursed $100 for the 3 hours of time devoted to participation in the project (1 hour for interview, 2 hours for group meeting).

Interview Design and Data Analysis

We used a theory driven approach to analyze semi-structured interviews. First, audio-recorded interviews were transcribed.[17] Second, the PIs and two graduate research assistants read the raw data independently and generated codes from theory that were used to identify themes within and across participants. Specifically, each member of the research team extracted responses that represented different levels of the ecological model theory [12] which was selected as the classification system for these data based on the work of Weems and Overstreet.[13] Each ecological context was operationalized as follows: 1) Macrosystem- participant responses reflect cultural values and beliefs at the policy level that impact children; 2) Exosystem- responses that reflect a relationship between 2 or more contexts, and includes 1 context that does not directly involves the child, but impacts child development; 3) Mesosystem- responses that reflects linkages between proximal child/family contexts; 4) Microsystem- responses that directly represent contexts in which the child develops. Because of the nature of the study participants, interview and focus group questions did not include ontogenic level content, and this context was not operationalized for the study. Third, the 2 PIs developed lists of codes, which were then matched and integrated into a single codebook. When coding discrepancies arose, they were resolved through discussion and enhanced definition of codes. For codes that could not achieve consistency of agreement, the codes were dropped.[17] The final list of codes, constructed through a consensus of team members, consisted of a numbered list of themes that related to CM prevention in the aftermath of disaster. Excerpts from participants' interviews have been selected to illustrate identified themes. Finally, the interview themes identified by the researchers were presented to participants in Louisiana and Georgia, during the group meeting for discussion and feedback. We coded feedback and included it in the final themes presented in the results section.

RESULTS

Overall, participants agreed that disaster exacerbates risk factors for CM. For instance, a Louisiana (LA) participant indicated that following Hurricane Katrina, "People don't have the resources they did before…Just knowing the stressors that cause abuse and neglect, there was a natural thought that it would go up much higher than normal." No participants had implemented or knew of any agencies that had implemented CM prevention programming as part of disaster response, and all agency representatives agreed that it could and should be incorporated.

Themes identified according to ecological context are presented below. Illustrative quotes identified by state only to protect confidentiality.

Macrosystem Factors

*Culture of Disaster Response: Short-term versus a long-term view***.** GA and LA participants consistently reported that the culture of disaster response is to serve the immediate, basic needs of impacted individuals. As one LA participant indicated, "The focus is really on the crisis intervention and the immediacy of needing housing and financial assistance and not much care to the larger picture of the trauma, the psychological trauma and familial trauma that is taking place." Similarly, a GA participant stated, "The mental health needs [and protection] of children is really secondary to finding shelter and food." Participants emphasized both a short- and long-term view for disaster recovery: "Years later [post-Katrina], most of the money is gone, and yet…our mental health needs in our population have skyrocketed. [There is] more acting [out], more substance abuse, dual diagnosis, more mental health than we've ever had in our kids before, that needs to be addressed (LA participant)."

The impact of policy (or lack thereof) in the every phase of disaster planning. Participants from both states stressed that for CM to be addressed, policy decisions would need to be put in place for all phases of disaster planning (preparedness, response, and recovery). One GA participant noted the importance of involvement by community and state family-focused agencies in the preparedness phase of disaster planning. "First and foremost would be communication, to

somehow help communities plan ahead and not just react to the disaster, but think carefully about building protective factors and preventive things…both long term and short term." Related to response and recovery, participants discussed the importance of establishing the appropriate funding streams for handling CM. Participants noted that there is increased attention to providing funding for substance abuse/mental health issues post-disaster, and that it could be beneficial to include CM prevention as part of this funding mechanism.

Exosystem Factors.

Connecting Displaced Families to New Communities. In both states, participants shared stories about families displaced by disaster who struggled with getting connected to community resources. One LA participant suggested, "When families are displaced, they have limited knowledge of available community resources and have lost records. It would be nice to have a preplanned central location for families to report to learn about available financial, job, housing, and health information." This could be a requirement for disaster preparedness committees in every community to help reduce the stress of relocated families.

Community Support for Parents. Participants agreed that providing support to parents is essential to reduce the CM risk post-disaster. Participants suggested that states or communities could identify a coalition of prescreened child professional volunteers who would be ready to offer family and child services after disaster, or opportunities for subsidized child care post disaster. A GA participant stated "… there is a huge resource that we don't provide that we could do a better job of, and that's subsidized child care... after a community-wide trauma one of the things that would help the community to heal would be to automatically be able to help parents taking care of their kids so they can their lives back together."

Help for the Helpers. In disaster aftermath, many service professionals are dealing with their own personal loss and disaster-related stressors, which reduces their capacity to help others: "We had some staff in trailer parks…staff wasn't eligible for congressional relief, which was frustrating because we could help your case load, but we couldn't help you (LA)." Additionally, many helpers are displaced to other communities or are reassigned as a part of disaster plans. One LA participant reported that of the "staff of 1,800 employees in Office of Child Services, 900 of them went to shelter duty, 600 evacuated, so that left 300 to do the daily work of the agency for almost 3 solid months after Katrina. So the impact on us as the caregiver was huge." Participants emphasized the need for plans and policy that would allow for creative ways to enhance qualified providers to serve families, especially during the initial response phase in which disaster affected providers are in need, to help implement the necessary interventions for the most vulnerable children and families.

Mesosystem

*Existing Community Agency Relationships make a Difference***.** Participants across both states discussed the importance of preexisting relationships among child and family serving agencies. One LA participant stated, "One of the reasons that we did have the successes that we did is because of the trust and collaborative networks that were in place before [Katrina]." Another LA participant reported how much agencies relied on one another, post disaster: "[for] 6 months or so after the hurricane, we met several times per week… individuals and teams…were invited to discuss issues that were going on in the community and how we could provide assistance. So we had everyone from representatives of the schools, mayor's office, state capital, department of public health, hospital administrators to private practitioners, attending these debriefings."

Rethinking Agency Roles and Finding Creative Ways to Work Together Post-Disaster. Participants across both states recognized the need for family-serving agencies to be very flexible and adaptable in the response and recovery period post-disaster. Participants from LA reported that funding was provided for mobile, multi-disciplinary medical and mental health care to Katrina impacted families. One participant described, "In immediate aftermath, there must be options for mobile care. Transportation is a huge issue and so services must switch gears to outreach. Mobile medical care should receive outside funding so that they can offer services to anyone and are not reliant on insurance reimbursement."

Participants discussed the importance of including trusted agencies in disaster response, including schools and faith-based agencies "…the school system typically is one that is viewed as a partner with families, one that is seen as a positive resource (GA)." and "…people will trust their spiritual leaders…I would think that would be a good mechanism for getting out to people, to say you know it's so normal and so natural after something of this magnitude for depression and acting out behavior…I think faith based is a great idea because they do so much for people in a concrete basis and are the natural place for people to go (GA)." The group highlighted the need for planning for such approaches during the preparedness phase and establishing policy, such that each organization would have an organized plan for implementation in disaster circumstances.

Microsystem

*Strain on Parent-child relationships***.** Participants noted the many challenges parents may face post-disaster. One LA participant stated that, "caregivers are like a rubber band that is stretched just about as far as it can go…adults literally don't have time to have it in them to provide what the children need 'cause they're in such a bad place…." Participants also reported that parents may often not have the time to spend engaging in positive interactions with their children and that

negative interactions may increase. As one LA participant stated, "People [are] so frenetic or busy that they don't have time [to deal with their children]… People are too much in survival mode to be worrying about keeping kids in line [using positive discipline methods], and this results in a reliance on excessive discipline." Similarly, such "survival mode" could also place parents at risk for emotional and physical neglect.

Participants also discussed that child mental health symptoms may go unrecognized by parents and lead to increased risk of maltreatment. As an LA participant stated, "[when child problem] behavior is starting to show up 3 to 6 months after the traumatic event, parents or others tend to think it's related to something else, so it's misdiagnosed." Similarly, a GA participant stated, "parents [post-disaster are] trying to survive and the mental health needs of their children is secondary to finding shelter and food…[when] the housing issues had been settled, and the daily substance issue had been settled, then the mental health issues started to manifest themselves." Participants stressed that psychoeducation about common parental responses to trauma and how to be good assessors of their children's well-being is essential.

Child Supervision and Safety. Participants noted their concern for children who reside post-disaster in shelters, non-familial support systems, or homes with multiple adults. They reported that parents are often so preoccupied that they many not consider how such environments may increase risk for their children. One LA participant disclosed "I used to work [in a] juvenile correction facility and there was a little kid in there – he was only like 13 – and he was in there for shaken baby. He had been left to babysit a whole gaggle of kids with no understanding of how to care for them." Participants indicated that disaster preparedness at the family level should include planning for childcare and supervision in circumstances where a primary caretaker would be unavailable to parent (temporarily or permanently) due to the disaster.

Increases in Overall Family Risk Related to CM Perpetration. Participants noted that several individual-level risk factors for maltreatment increased post-disaster. Specifically, participants noted that there were significant increases in adult mental health problems, divorce, parent incarceration, and parent substance abuse following disaster. Participants also noted how these types of issues tend to occur more often in the recovery phase versus the response phase, again highlighting the importance of those involved in disaster planning to view recovery as long-term term. For example, one LA participant stated, '[from]1- 6 months[post-disaster, parents are focused on] trinity of recovery: house, job, school…Six-nine months post is when you begin to see increases in divorce from all stress, and alcoholism…"

DISCUSSION

Prior research identifies a link between post-disaster environments and increased rates of CM. [1,5-6] For over a decade, there has been a call for improving and expanding what is considered appropriate disaster response planning.[18] There has been very little attention to whether or how such planning should include CM prevention, intervention, policy, and potential intervention resources. The purpose of this exploratory study was to identify community agency perspectives on risk and protective factors for CM at various levels of the ecological system in post-disaster environments, so to inform disaster-planning efforts and directions for future research. This issue is especially relevant to medical professionals because they are first-line responders to disaster, as well as intricately involved in the post-disaster recovery of communities, and, thus, are in a unique position to advocate for protecting children from intentional injury post-disaster.

Qualitative data collected in this study indicated themes at various levels of the ecological framework. At the macro-level, study participants had strong reactions regarding the current culture of disaster response policy and programming, which, as identified in work by Smith and Wenger,[19] emphasizes the management of short-term federal assistance rather than a systematic identification of community needs and the development of a comprehensive strategy for long-term recovery. Recent work has shown the long-term mental health impacts of Hurricane Katrina, with one study indicating that nearly 30% of participants continue to report disaster related psychological distress 3.5 and 4.5 years post- hurricane.[20] These compelling data have led to recommendations for policy change in post-disaster mental health response.[21] Current findings should serve as an impetus for the funding of more comprehensive, longitudinal research examining CM outcomes post-disaster, to help quantify whether similar initiatives and efforts are needed to target CM in such circumstances.

At the exosystem level, participants discussed how challenges that emerge at the community level can ultimately impact or disrupt contexts that directly involve the child. First, participants had strong opinions about how communities could be prepared for working with displaced families if such a need were to arise. Specifically, it was suggested that communities maintain up-to-date community resource guides as part of disaster planning to assist displaced families. Community support for parents was also strongly recommended. Innovative ideas for volunteer-led or subsidized child care were discussed. Such efforts take time, coordination, and funding; thus, future program development work is needed to best identify the most effective community procedures for providing these types of services. However, such an effort could be a very important way to prevent CM in post-disaster circumstances, by providing overstressed parents a reprieve at times they might need it most. Lastly, data at the exosystem level also suggested a significant need for policy that provides support to community helpers (i.e., clinicians, medical providers, shelter staff, community resource staff)

who are responsible for delivering recovery services, and, ultimately, those who could provide service delivery for CM prevention and intervention efforts. Community helpers often suffer tremendous personal losses as the result of a disaster; equal to or greater than those families they were serving. Identifying ways to develop local provider capacity is critical to prevention and intervention programming success. Funding streams to subsidize communities that lose personnel should also be considered.

Themes that emerged at the mesosystem level, focused on the relationships between community agencies that serve families during the disaster planning and preparedness phases, as well as in response and recovery. For instance, the perceptions of several Louisiana participants was that having pre-existing relationships among family-serving agencies allowed for quick and efficient successes related to the needs of youth in the aftermath of Katrina. Cooperation among such agencies allows for the combination of resources without duplication, which is an imperative first step in post-disaster response and recovery. A second theme that emerged for this context was rethinking agency roles and finding creative ways to work together in the post-disaster environment. Most relevant to the medical community, mobile units for health and mental health services obtained through grant funding following Katrina were reportedly very effective and may provide a unique venue for assessing and responding to CM risk in the community post-disaster. Protocols delineating procedures that worked effectively, as well as those that failed, would be very helpful to future recovery efforts. Ultimately researchers are encouraged to study the cost-effectiveness of such planning and recovery efforts, in order to determine what should become standards for best practices in these circumstances.

Lastly, at the microsystem level, participants across both states agreed that parents' post-disaster experience significant stress, have little time, energy or capacity to invest in a nurturing parent-child relationship, provide inadequate supervision, and engage in negative coping behaviors (i.e., substance abuse, criminal behavior, mental health issues, and intimate relationships). Approximately 80% of maltreatment is perpetuated by caretakers within the family;[22] thus, it is critical to consider brief, immediate interventions that can target parental stress and related factors, as a primary prevention method for reducing CM risk post-disaster. Interventions available at multiple ecological levels for parents and families will likely have the greatest public health impact.

LIMITATIONS

Although a diverse group of child and family serving agencies was represented in this study, overall, the number of participants was small, the types of agencies recruited across states were not consistent, and participants held administrative roles, which likely impacted responses. Qualitative data collected from practitioners "on the ground" may have resulted in different themes and recommendations. Additionally, no information was collected from families, which made it difficult to identify relevant themes and recommendations at the ontogenic level. Clearly, there are important prevention efforts that could target the individual child risk of CM post-disaster. Lastly, because there were only 16 participants representing agencies across 2 states, these results are limited in their generalizability.

CONCLUSION

In conclusion, findings from this exploratory study suggest that community agencies working with families and in disaster preparedness recognize the potential importance of addressing CM prevention as a part of disaster planning and recovery. These findings warrant further exploration of the risk factors, across the ecological framework, that directly impact CM incidence rates in post-disaster circumstances. Longitudinal research is also needed, specifically to identify the trajectories that result in greatest risk for CM following disaster, so that relevant policy and programming can be put in place for the highest risk families. As future research reveals more about this topic, a comprehensive list of recommendations and guidelines for dealing with CM, similar to what was outlined for child mental health by The National Center for Disaster Preparedness, should be developed. Specific recommendations for how medical personnel working in emergency medicine can play an instrumental role in disaster planning efforts should also be considered. Efforts to increase physician awareness and recognition of the physical and mental stressors that could most increase risk for CM and other forms of intentional injury of children in post-disaster circumstances are an important next step.

Address for Correspondence: Shannon Self-Brown, PhD. Georgia State University, School of Public Health, PO Box 3995, Atlanta, GA 30302. Email: sselfbrown@gsu.edu.

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