2006

Responding to the Storm: Exploring the Psychological Support of Emergency Responders After the May 2004 Storms in Southeast Nebraska

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Submitted on October 5, 2006 to:

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[2] This work was supported by a contract with the City of Lincoln, Nebraska

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Executive Summary

A large number of emergency personnel were involved in the response to the May 2004 storms that devastated a 52 mile swath of Southeast Nebraska. Emergency workers who responded the night of the storm were exposed to bad weather, darkness, and uncertainty about their own safety. Later, they were asked to work alongside survivors and neighbors who had lost everything amidst widespread destruction of farms, homes, and businesses. Some, but not all of the emergency personnel were offered formal psychological support services like critical incident debriefing to assist with the emotional processing of the event.

The research literature is mixed regarding the type of psychological support that is best for emergency response personnel after they respond to a disaster. This has resulted in some confusion on the part of practitioners about the most effective way to offer support services to emergency workers. The Lincoln Metropolitan Medical Response System was interested in understanding how local service structures could be better utilized to support responders after large scale events like the May 2004 storms. Rather than rely on the literature alone, an exploratory study was completed to discover what emergency workers relied upon to support psychological or emotional health after the storms and how they preferred to experience that support.

Thirteen in-depth interviews and four focus groups were held with emergency personnel who responded to the May 2004 storms. An on-line survey was also administered but the response rate was quite low (eight responses). The interviews and focus groups were conducted a little over a year after the storm. The information was analyzed using qualitative research methods with the aid of the software program Atlas.ti.

Formal debriefing service was highly thought of by many responders. They reported feeling better as a result of being in a debriefing. Some responders appreciated unobtrusive service of mental health and faith professionals who offered water and assistance at the disaster site. Most emergency responders said they relied on peers for informal support. Participants reported positive effects of going through this response experience. They said it brought them closer together as a team, made them appreciate what they had, and strengthened their knowledge and confidence related to responding to such events.

The research resulted in several practical recommendations based on the preferences and experiences of responders. First, respondents indicated that they might have taken advantage of more formal support services if they had been offered rather than relying on department heads to request them. Responders were very concerned about maintaining the confidential nature of their work and tried not to talk to their families about the event or their personal experiences. This left peers as the primary audience

for any discussion of the event. A second practical recommendation is to equip responders to provide appropriate psychological support to each other since this is the preferred way to get emotional support for many of the responders. Although it requires no formal training to be a friend, it may be beneficial to equip responders with psychological first aid skills so they are more comfortable facilitating referrals to professionals when a peer needs more formal support. A third recommendation is to increase communication about the importance of self care. Most responders participating in the study reported that they did not heed the advice of experts regarding self care. This was particularly true of physical care (exercise, diet, avoiding alcohol).

The overall conclusion of this study was that Nebraska responders are well trained and confident of their collective ability to respond to disaster. They rely on each other for support more than they rely on formal support systems. This could be because of the limited access they have to these systems and because it is more natural to turn to peers for such support. As a result of this research, Nebraska's Critical Incident Stress Management Program is studying ways it can increase accessibility to services after disaster. It may be beneficial to consider equipping peers to appropriately support each other and to care more prudently for themselves after disaster response. Using mental health and faith professionals in unobtrusive support roles during the disaster response increases their acceptance by responders. Educating these professionals about the advantage of adopting a consultant model as part of their service to emergency responders may increase their effectiveness with this population.

Responding to the Storm: Exploring the Psychological Support of Emergency Responders After the May 2004 Storms in Southeast Nebraska

Emergency responders are trained to react calmly and professionally under conditions that would seem stressful for non-emergency personnel. They are prepared to respond to out-of-the-ordinary events like critical incidents and less frequent large scale emergencies such a mass casualty event or a disaster. Emergency responders in Nebraska tested their disaster response skills after tornados swept across 52 miles of Southeast Nebraska leveling homes, farms, and businesses in May 2004. Emergency responders called immediately to the scene were faced with bad weather, darkness, and uncertainty about their own safety. They searched for survivors and possible casualties throughout the night. In the light of day they worked in the midst of devastation alongside survivors and neighbors who had lost everything. The nature of the work coupled with the conditions and circumstances of the disaster made it a stressful and emotional experience for many of the responders.

Experts have not reached consensus about the best way to provide emotional or psychological support to emergency responders after a large scale disaster. After a particularly stressful event or a large scale disaster, responders may be offered formal support services (e.g., their department's Employee Assistance Program or the Nebraska Critical Incident Stress Management Program) or informal opportunities to support each other. Offering any interventions or services to emergency responders is useless if they won't access them. Planners and service providers could be better prepared to meet the emotional and psychological support needs of emergency responders if they had a better understanding of the type of services responders would access. The Southeast Nebraska storm response provided an opportunity to learn from emergency responders what worked, what didn't, and how they preferred to have this kind of support made available to them.

Background

Emergency responders are at high risk for divorce, suicide, posttraumatic stress disorder and related psychological disorders because of the stressful nature of their daily work (Friedman & Higson-Smith, 2003; Fullerton, Ursano, & Wang, 2004; McNally et al., 2003; Violanti, 1996). A number of strategies or support services have been recommended by experts to reduce responder risk for these negative consequences.

The five broad categories of support strategies recommended for emergency responders by experts include: Debriefing or formal psychological supports; Management strategies and practices; Pre-disaster training; Peers, family and friends as a source of support; and Self-support activities.

Debriefing is the most widely mentioned formal support mechanism in research. Although the literature contains some research that discredits debriefing, most evidence indicates that, if used properly, it is an effective and appreciated support for first

responders. Research repeatedly indicates that emergency responders find debriefing helpful and would recommend it to others (Hokanson & Worth, 2000; North et al., 2002; Reneck, Weisaeth, & Skarbo, 2002). Although debriefing is appreciated, responders often report that coworker support alone would have been sufficient (Reneck et al., 2002). It is possible that the most beneficial part of debriefing may be the bonding among coworkers that it facilitates.

Debriefing is not the only formal support service that may help facilitate positive recovery for responders. Some agencies and departments offer confidential access to employee assistance programs for one-on-one or group counseling. Experts recommend that the emergency response agencies pay particular attention to the issue of confidentiality because some responders may hold the belief that their job may be at risk if they disclose a need for psychological assistance (Duckworth, 1991; Levin, 2005). Traditional mental health care, like counseling, may be particularly useful to responders who also have to deal with a lot of outside stress or who have pre-existing psychological problems, as these factors increase the risk of experiencing more serious emotional reactions after responding to a distressing call (Paton et al., 2004). It is also recommended that agencies or departments consider having some way to check on the longer term psychological or emotional well being of responders after a serious incident, especially with high-profile incidents that attract a lot of media coverage (Duckworth, 1991).

Managers in emergency response organizations play a critical role in support of emergency responders (Fullerton et al., 1992; SAMHSA, n.d.; Young, Ford, & Watson, 2006). The environment and culture of the organization influences how acceptable it is for an emergency responder to seek support or assistance after a distressing call. It is well-established that being connected to other people is a protective factor against the negative effects of extreme stress. Managers can promote a supportive environment among coworkers by creating regular opportunities for communication, for education about managing stress, and for team building. Managers can also help mitigate responder stress by modeling the expression of grief or distress as acceptable in extreme circumstances. Management practices can also lessen the effects of stress on responders. For example, managers can set the expectation that personnel take needed breaks and make it a regular practice to require no more than 12 hour shifts followed by at least 12 hours off duty, especially during prolonged responses. Managers may also communicate and assign tasks with a clearly defined purpose in mind, and be available and accessible to personnel if needed (Duckworth, 1991; Fullerton et al., 1992; Levin, 2005; Paton et al., 2004; SAMHSA, n.d.; Young, Ford, & Watson, 2006).

Training and education can help responders feel more confident and in control during a response (Duckworth, 1991; Fullerton et al., 1992). In addition to training related to job tasks and skills, responders should be informed of potential reactions they may have after an especially distressing or taxing event, and what they can do about these reactions (Duckworth, 1991; Paton, 1997). One way for workers to help others and understand their own feelings is through training in psychological first aid (IFRCS, 2001). There is currently no research that supports psychological first aid as a method

of preventing post traumatic stress disorder, but it is widely used internationally to equip people to help each other after a distressing event or after a disaster.

Peers, family and friends are additional resources for emergency responders. Both the Centers for Disease Control and Prevention (CDC) and the National Center for Post Traumatic Stress Disorder (PTSD) encourage contact with family and friends in order to mitigate stress. Family is likely to be the most long lasting source of emotional support; therefore, training and support programs for family members are recommended to make this support as effective as possible (Paton, 1997). It's not appropriate for responders to discuss the details of a call or event with family members and friends. Peers (other emergency responders) that are accepting and tolerant are an additional source of support. Peers provide support that can include discussion of event details if needed.

Responders can help themselves by actively caring for their physical and emotional well-being. The CDC, Substance Abuse and Mental Health Services Administration (SAMHSA), and the National Center for PTSD recommend that rescue workers decrease personal stress by following a balanced diet, engaging in regular exercise, getting adequate sleep, maintaining a normal routine yet slowing down and resting after a response effort, journaling, using meditation and/or prayer, staying involved in the community, and staying active with hobbies. They also emphasize maintaining a healthy and realistic perspective. Responders are encouraged to find stress reduction techniques that work best for them. Stress reduction training programs should also emphasize what the responder can expect to experience after a distressing event or unusual call. The overriding theme from experts is that there are reactions that responders can expect to experience as normal or common which should not trigger alarm. Instead, the responder can recognize these reactions and take steps to lessen their effects.

The research literature is mixed regarding which type of support is best for emergency responders. There is disagreement about when each type of support should be offered. This has resulted in some confusion on the part of mental health practitioners and those responsible for making support mechanisms available to emergency responders. It becomes particularly confusing when a distinction is made between the type of support that is made available after critical incidents versus after a larger scale emergency like disaster or mass casualty situation. Rather than rely on literature alone, the Lincoln Metropolitan Medical Response System commissioned a study to discover what local emergency workers relied upon to support their psychological or emotional health after a local disaster and in retrospect what they would have relied on had it been more available.

Study Protocol

The University of Nebraska Public Policy Center received approval from the University of Nebraska Institutional Review Board for this study protocol, ensuring that the confidentiality of all the responders participating in the study was adequately protected. The Public Policy Center research team included two emergency responders who received training on confidentiality and protection of subjects prior to assisting with data

collection. Their role was to conduct interviews and focus groups with responders. The team chose to use emergency response peers as researchers to increase the comfort of those who volunteered to participate in the research.

Any emergency responder who participated in the response to the southeast Nebraska tornados and thunderstorms in May 2004 was eligible to participate in this research. Emergency responders represented in this study included fire and rescue personnel, emergency medical technicians, law enforcement, and animal control personnel. Responders were recruited initially through a letter that was sent to all emergency departments that responded to the storm. This list was made available by the Lancaster County Emergency Management Agency, a key member of the Lincoln Metropolitan Medical Response System. After the letter was sent, personal calls were placed to the departments by the emergency responders on the research team.

Focus groups and interviews were used to gather the opinions of responders about psychosocial support services available to them and their intervention preferences after a disaster response. An online questionnaire was used to collect additional information about the impact of responding to the May 2004 storms. Thirteen in-person interviews and four focus groups with emergency responders were conducted. These interviews and focus groups heavily represented fire and rescue units, but also included law enforcement, emergency medical technicians, and animal control personnel.

Eight surveys were submitted online by emergency responders. Results from the online survey provide limited information on the effects of responding to the May 2004 tornados. Because only eight responders took the online survey, statistical analysis of the information was not conducted, as the information probably does not represent a broad cross-section of responders to the May 2004 Southeast Nebraska tornados. The survey responses to open-ended questions were grouped with the results from focus groups and interviews and analyzed as qualitative data using the software package, Atlas.ti.

The questions that were asked in focus groups and interviews are listed in Appendix A. The on-line survey asked similar questions. All of the responses were examined and compared for similarities and differences. Responders were asked about the type of emotional or psychological support that was most helpful, for them and for other responders. They were also asked about the type of things that responders did for themselves that seemed to be helpful in some way. Then they were asked about the type of supports that should be available after future disaster responses. Finally, they were asked to discuss any positive psychological or emotional effects that emerged from their experiences as responders to the May 2004 storms.

Findings

The types of psychological or emotional support relied upon by emergency responders after the May 2004 storms can be grouped in three general categories, formal services, informal services, and self help. Following a discussion of these categories,

recommendations are offered to guide provision of future support of emergency workers after a disaster response.

Effects of Response. Before discussing the types of support, it is interesting to note that most participants reported experiencing low levels of distress associated with their part in the disaster response. These interviews and focus groups took place about a year after the event, so all participants had time to process the event in their own way. There were several participants that talked about experiences they had immediately following and in some cases months after the response, like having trouble sleeping and having re-occurring thoughts about the event. At the time the study took place most responders reported experiencing relatively low levels of distress.

Participants were asked specifically to talk about any positive effects that they attributed to the May 2004 storm response, both for individuals and for their departments. This question was included as the last question asked to allow participants to reflect on personal or organizational growth that may have taken place since the storm. We thought it was important not only to discuss interventions and coping mechanisms, but to reinforce the positive outcomes that can emerge from large scale operations like the May 2004 response.

Several responders reported that their department's involvement in the response had an "*educational*" benefit. They talked about the value of recapping the lessons learned and incorporating them in training and the new knowledge and skills they acquired as a result of participating in the response:

> "It strengthened our training program up here, knowing more the basics and technological terms…"

> "Knowledge of some resources that are available…that I didn't realize was available to us."

Involvement in the response also increased responders' *confidence* in their abilities, knowledge, and skills. Confidence in their collective ability to respond to a large incident was also increased:

> "You are able to accomplish something, it builds confidence and it increases people's experience and skill…"

> "It just proved that you can handle a situation like that, even though we are a small rural department… It's like, you know, a lot of small departments came together and did some pretty awesome stuff that night."

Responders were impressed by the level of *cooperation* they were able to achieve among several different departments all responding to the same event. It was heartening to many to know that differences between departments could be put aside, allowing them to effectively work alongside each other:

> "Regardless of where you go, and regardless of whether you are talking about law enforcement, emergency medical people, fire departments or whatever, we all constantly bicker and fight about little things. But when you get the big call like that, all of that melts into the distance and just goes away. … That seems to be the biggest thing. The cooperation level is huge when those calls come in."

Several responders mentioned *social benefits* of having responded to the May 2004 storms. People reported that they became closer as a department or squad. They also experienced a closeness or bond with responders from different squads or departments. This sense of team or camaraderie was an important side benefit that was very important to many participants.

> "I'd say your squad gets a lot closer, because you do! It wasn't a two hour thing, it was half the summer, really I guess. It definitely helped our squad."

Some responders talked about the positive effects the response had on them personally. They talked about being more *appreciative* of their own life and of trying now to be less selfish. They also talked of more practical personal outcomes like being stimulated to take practical steps to improve their own family's emergency plan.

> "It makes you appreciate, I guess, every minute, because the next day or next hour, things could change."

These positive effects may or may not be related to the type of psychological or emotional support that participants relied upon.

Formal Services. Formal services related to psychological or emotional support includes what is normally thought of as traditional mental health service or service that is offered by a professional. This includes organized or formal critical incident stress management (CISM) interventions and organized outreach by professionals or teams of professionals.

Formal *CISM debriefing* was mentioned often as a vehicle for responders to take care of themselves and as an intervention that should be made available to all responders after a large scale response. People who participated in a CISM debriefing reported that it left them feeling better. Few departments who were part of the May 2004 response actively engaged in formal debriefing or other CISM interventions though most reported that they knew it was available through the Nebraska State CISM Program. Participants said that the "chain of command" was lax in notifying people when and where CISM services were offered. Debriefing was reportedly offered in the middle of the day, which would have forced responders involved in recovery efforts to interrupt their work, become emotionally vulnerable, and then return to work. Despite the difficulties associated with accessing CISM debriefing service, most participants thought that it was a worthwhile intervention and asked that it continue to be offered after a large scale response. Few participants mentioned CISM interventions other than debriefing, suggesting that there

may be little awareness or value placed on interventions like defusing, demobilization, or one-on-one CISM service.

> "I honestly think that the Critical Incident Stress Debriefing team that is set up at the state level is extremely under-utilized, in that a lot of the departments still have that mindset that they can take care of their own problems and their own issues, and that they don't realize the benefit of bringing people from the outside that are trained listeners to help them process that information."

> "It should be mandatory that you go through a debriefing of some sort… because I thought about it for months afterward. You can't get that out of your mind."

> "I guess I have always been real happy with the CISD program. That's probably my biggest concern, is that that stays in operation."

Participants also talked about more traditional psychological or mental health services ("standard services" with "trained counselors") as options for some responders. The value of instituting formal outreach as a long-term intervention was echoed by a number of participants. They believed that some responders who experienced distress after the event may not have actively sought out service on their own, but they may have been amenable to talking with someone if follow-up by a professional was instituted as an expectation for all responders. This was envisioned by most as a service that could take place several months after the event:

> "I guess maybe my suggestion would be maybe a follow-up in a two or three month period, and then maybe a six month period. The first couple weeks, first month, there is abundant help and resources. But after that, things kind of trickle, trickle down, and you see fewer and fewer people or support, but yet… that's where it starts getting emotionally tough on some of the people, too."

The recurrent theme associated with formal service provision was that it should be *pro-actively offered* rather than left to responders to initiate. Some participants thought that relying on department heads to call for CISM was difficult because of the intense nature of the response. They noted that it was likely that CISM would be an afterthought for most departments during a large scale response. Other response/recovery activities will take priority over remembering to call for CISM service or expending the energy to organize a formal debriefing:

> "I think it would have been a good idea for them to have initiated it, just because there was so much going on in this area."

> "The thing that I would do, is probably more adamantly advertise the CISM team…, so that those people would hopefully access their uses more than they do."

The formal outreach interventions at the recovery site offered by mental health professionals and faith leaders (clergy) were generally appreciated by responders. They did not recognize this outreach as formal service provision, even though it was. The general approach used by disaster behavioral health professionals involved unobtrusive outreach to responders through offers of water or practical assistance at the disaster site. Responders appreciated the approach:

> "The mental health people seemed to be in tune with the needs of responders. Had they been pushy, they wouldn't have been welcome."

Informal Support. A few emergency responders saw no need for emotional or psychological support service after the May 2004 response. In general, they thought they adapted fine on their own, without any support or intervention:

> "I have to be honest with you, I didn't really see that psychological support was a big issue for [my department]."
>
> "Afterwards, I believe I was contacted by somebody to see if we had any troubles, but nobody did.
>
> "You know, not to minimize it, but I just don't think that [responders] experienced a significant amount of emotional trauma by being down there. Most of them seemed to adapt and do pretty well."

However, even some of those who said there was no need for support services indicated they did talk about the disaster with other responders. Talking with peers was the method most often used by emergency responders for emotional or psychological support after the May 2004 storms:

> "We would sit and talk with each other about things that were going on, and kind of helped each other through it."
>
> "I think that typically, just talking to co-workers about things, co-workers they feel comfortable confiding in."
>
> "We kind of try and search out the other members, might call them on the phone and see if they are having any problems."
>
> "I will say that we have all learned to talk about it more, not hold it in. We had a really bad [incident] worse than the tornado… and it taught us that, you know, not to be scared to talk about our feelings towards an incident."

Reliance on peers for emotional support took several different forms. It did not always involve deep conversation; instead it was evident in humor, touches or hugs from peers, taking time to unwind together before going home, or going out for a beer together. A high value was also placed on any show of appreciation from management or command

staff. Responders viewed appreciation as a form of emotional support that extended beyond peers and managers to survivors and other volunteers.

> "I guess for me, the best emotional support or anything I got out of it was having people that I knew in the area just come and say, 'Hey, thanks, I appreciate everything you did.'"

> "The next morning, the sunlight was coming up, and you could see the total destruction, and you went up to some of these people that lost everything, and they're thanking you for being there."

Responders talked about feeling supported when spending time with their families. Some also said that going to church or visiting with faith leaders doing outreach at the disaster site was helpful to them. They felt appreciated and supported by area clergy and said it had the effect of helping responders put events in perspective and understanding the limits of what they can humanly do:

> "Pastor was very involved in the clean-up, and helping support us, and talking to us, and understanding that, you know, it's a natural disaster, and we couldn't do anything about it."

Responders were also very appreciative of organizations that provided food and water during recovery activities, after the initial response was over. Having someone else look after their needs allowed responders to focus on their role in recovery operations. This was viewed by responders as psychologically and emotionally supportive.

> "They had food for us. They were always checking to make sure that we had something to drink if we needed it, and places for us to sit and rest."

Self-care. The appreciation for others who looked after responders' physical needs during the recovery effort was well placed because participants reported using few of the self-care activities recommended by experts to take care of themselves after responding to the May 2004 tornados. No participants mentioned self-care activities relating to physical health (exercise, proper nutrition, sleep). Some even specifically mentioned their non-use:

> "I don't need to exercise more. I guess we are so busy with our jobs, we don't do too much else."

Management or command staff can help responders manage their own self-care. Encouraging breaks, and requiring responders to alternate a shift on with a shift off would allow them to engage in self-care activities such as proper sleep. Otherwise, because of their desire to help, emergency responders may push their physical limits without breaks or sleep:

> "That night, the next morning, and probably the next several days. A lot of people with very little sleep, and yet they were constantly out there trying to help."

The self-care activities that responders did utilize tended to focus on areas other than physical health. Humor was the most mentioned self-support mechanism used:

> "I think there is a certain amount of humor that goes on that probably would not be appreciated by possibly the general public... in general, firefighters, EMTs, paramedics… they're probably not the best at maybe showing their emotions… so the emotional level there is kind of, maybe skewed a bit."

Recommendations and Conclusions

Most responders reported low levels of current distress related to their participation in the disaster response. They did note however, that immediately following the event and for some time afterward some experienced difficulty sleeping and troublesome thoughts or memories. There were a number of positive outcomes related to the response including increased knowledge about disaster response and recovery skills, increased sense of confidence in themselves and their departments, and an increase in personal feelings of connectedness with other responders. This connectedness is expected given that most responders highly preferred to receive emotional support from their peers (other responders.) This is largely consistent with what experts recommend. Gaining support from peers was also reported as more accessible than other forms of emotional support during the response. Responders were very concerned about maintaining the confidential nature of their work and tried not to talk to their families about the event or their personal experiences. This left peers as the primary audience for any discussion of the event. Families and friends were seen as sources of support, but not in the same way that peers were.

A less accessible but highly preferred source of psychological support was the formal service of debriefing. Other formal support mechanisms available through the Nebraska Critical Incident Stress Management Program were not mentioned by those involved in this study. There were a number of comments about how debriefing services should be made more accessible to responders after a disaster like the May 2004 storms. Responders indicated that they might have taken advantage of more formal support services if they had been offered rather than rely on department heads to request them.

Professional services from mental health workers or clergy were accepted as a source of support but not sought out by most responders. Outreach at the disaster sites was noticed by responders but not identified as a formal support mechanism. This low profile approach is generally advocated by disaster behavioral health experts as a primary way to provide support to and in-field triage of emergency responders. This outreach seemed to be effective.

Three practical recommendations arise from this study:

1. Equip responders to provide appropriate psychological support to each other. Although it requires no formal training to be a friend, it may be beneficial to give responders psychological first aid skills. This will increase the confidence of peers providing support and increase the likelihood that it is applied appropriately. It may also make peers more comfortable with facilitating referrals to professionals when the person they are providing psychological first aid to requires more formal support. Several models of psychological first aid training are available and appropriate for responders.

2. Pro-actively offer formal CISM services after a large scale response. Emergency workers highly value CISM interventions, but the current Nebraska system of relying on command staff to initiate calls for service after a disaster may contribute to the perception that CISM is not accessible. This was particularly noticeable after the May 2004 storms. Only a small number of responders were involved in a formal debriefing. No responders reported receiving educational material or follow-up contacts from the state CISM team. The normal route of Nebraska CISM team activation and service delivery was not altered to accommodate the needs of responders after a large scale response. The Critical Incident Stress Management Act (Neb. Rev. Stat. §§ 71-7101 to 71-7113) indicates that the Nebraska State Patrol receives all initial requests for stress management sessions. The CISM program is tasked with providing a stress management session for emergency service personnel who appropriately request the service. The interpretation to date of what this means has been that command staff must request stress management services (e.g., debriefing) through the State Patrol and that it cannot be made available without such a request. The CISM program must also “assist in providing the emotional and educational support necessary to ensure optimal functioning of emergency service personnel.” This may be interpreted as including pro-active outreach to emergency personnel about the mechanisms through which formal stress management sessions may be accessed. Since the initial results of this study were made known, the Nebraska CISM Program has begun addressing the policy issues related to delivery of service to emergency personnel after a disaster or large scale response. The relevance of the CISM Program is high for responders but it may not remain so if the barriers to accessibility are not effectively addressed.

3. Increase dialogue with emergency responders about the importance of self-care. Most responders participating in the study reported that they did not heed the advice of experts regarding self-care, particularly in the area of physical care (exercise, diet, avoiding alcohol). It was surprising to hear from responders what a low priority their own health was during and immediately after the disaster response in May 2004. It may be beneficial for emergency response departments to consider wellness activities and awareness as a mechanism to enhance the psychological health and well-being of responders. It is unlikely that responders will take up new physical health practices during a disaster response, therefore it is advisable to train and practice self-care before disaster strikes. Command staff

can influence self-care habits of responders by taking care of themselves and creating expectations that adequate rest, exercise, and nutrition will be a priority for responders during large scale response efforts.

The overall conclusion of this study was that Nebraska responders are well trained and confident of their collective ability to respond to disaster. They rely on each other for support more than they rely on formal support systems, but they place value on and accept formal support when it is made available. The experiences of emergency responders during and after the May 2004 storm response affirm many of the service delivery plans that are in place within Lancaster County and Southeast Nebraska. For example, the Region 5 Behavioral Health All-Hazards Plan relies heavily on CISM and using mental health and faith professionals in unobtrusive support roles during disaster response to increase their acceptance by responders. Educating these professionals about the advantage of adopting a consultant model as part of their service to emergency responders may also increase their effectiveness with this population. The consultant model involves mental health professionals providing education and expertise to emergency responders as peer helpers. The clear preference for relying on other peers for support creates a need for mental health professionals to serve as consultants or trainers in addition to being a clinical resource if needed.

Emergency responders appreciated and relied upon relief agencies like the American Red Cross and Salvation Army to provide food and water during recovery efforts. They also cited the work of faith leaders as an important piece of support. Emotional and psychological health is closely tied to good physical and spiritual health. During the May 2004 storm response a combination of natural and formal supports were used by emergency responders to maintain good psychological health. The accessibility and extent of their use provide a snapshot that can be used to give Nebraska’s emergency responders the best and most effective support possible after future disaster responses.

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Appendix A – Focus Group & Interview Questions

Focus Group Questions

1. What were the ways that you saw others provide emotional or psychological support to emergency responders that were the most helpful? (Follow up question – which of these are provided formally [by professionals or as part of a system] and which are provided informally?)

2. What kinds of things have you seen emergency responders do to take care of their own emotional and psychological health after a disaster response? (Follow up question – which of these seemed to be most helpful)

3. What kinds of emotional or psychological supports do you think should be available to emergency responders after future disasters?

4. Some people report positive or good things that they have experienced in their life as a result of being part of a large scale disaster response. Please describe any positive effects you have experienced or seen in other emergency responders as a result of participating in the response to the May 2004 tornados.

Interview Questions

1. Please describe your role in the response to the May 2004 tornados in southeast Nebraska.

Now think back to the first few weeks after the May 2004 response:

2. What were the ways that you saw others provide emotional or psychological support to emergency responders that were the most helpful? (Follow up question – Which of these are provided formally [by professionals or as part of a system] and which are provided informally?)

3. What kinds of things have you seen emergency responders do to take care of their own emotional and psychological health after a disaster response? (Follow up question – which of these seemed to be most helpful)

4. What kinds of emotional or psychological supports do you think should be available to emergency responders after future disasters?

5. Some people report positive or good things that they have experienced in their life as a result of being part of a large scale disaster response. Please describe any positive effects you have experienced or seen in other emergency responders as a result of participating in the response to the May 2004 tornados.

Appendix B – Recruiting Letter (sent to area emergency response departments)

Dear [Department Head]

Emergency responders are at increased risk for divorce, suicide, posttraumatic stress and related psychological disorders due to the stressful nature of their job. The most effective methods for helping emergency responders address their stress and reduce their risk for negative consequences are currently being debated in the research literature.

After a particularly stressful event or a large scale disaster, responders are offered, but do not always access formal support services. Planners and service providers could better meet the emotional, social and psychological support needs of emergency responders if they had a better understanding of the services and supports responders find acceptable.

The University of Nebraska Public Policy Center has partnered with the Lincoln Metropolitan Medical Response System, in coordination with Lincoln/Lancaster County Public Health Department and Lancaster County Emergency Management to conduct research that will help us to understand the types of emotional or psychological support that are viewed as most helpful by local emergency responders after a large scale incident like the May 2004 tornados.

Members of your department who responded in the first weeks after the May 2004 tornados are invited to take part in this research. They may complete an anonymous web-based survey, agree to a half hour interview, or participate in a small group discussion called a focus group.

It would be very helpful if you could:

1. Announce or post the availability of the on-line survey to members of your department.
   - The survey takes 5-10 minutes and can be accessed through the link at: **www.disastermh.nebraska.edu**

2. Announce the opportunity to participate in a focus group or interview to members of your department. You may have enough members (4-10) interested to have a focus group composed only of members of your department.
   - A focus group is a small discussion group of between four and ten participants that lasts about an hour. Interviews can be done in person or on the phone and will take about a half hour. Participants will be asked to share opinions about how to support the emotional or psychological health of emergency responders after a large scale incident like the May 2004 tornados.

To participate in the interviews or focus groups, your department members may contact a member of the research team listed below. You may also receive a follow up phone call from one of the research team members listed below to see if anyone in your department is interested in being part of the focus groups or interviews. Anyone can access the on-line survey now without further personal contact with the researchers.

Thank you for support and partnership in this very important work!

Truly,

Denise Bulling, primary investigator
402-472-1509
dbulling@nebraska.edu

Stacey J. Hoffman, secondary investigator
402-472-4673
shoffman@nebraska.edu

Martin Klein, Statewide CISM Coordinator
402-472-2520
mklein2@nebraska.edu

Harry Walles, EMT,
Regional Disaster Chaplain
402-416-5675
harrywalles@alltel.net

Appendix C – Consent Form

Purpose of the Research:
This research is being conducted by the University of Nebraska Public Policy Center on behalf of the Lincoln Metropolitan Medical Response System, in coordination with Lincoln/Lancaster County Public Health Department and Lancaster County Emergency Management.

This research will help us to understand the types of emotional or psychological support that are viewed as most helpful by emergency responders after a large scale incident like the May 2004 tornados.

Procedures:
Three focus groups and six to twelve interviews will be conducted by an emergency responder with special training to assist with this research. Your department head was approached to help identify people to participate in these interviews and focus groups. All emergency responders who participated in the May 2004 tornado response are also invited to take part in a web-based survey.

There are three different parts to this research, focus groups, interviews, and a survey. You may participate in one or more parts of this research.

- Focus groups will last about an hour, and will be held Interchurch Ministries of Nebraska offices (215 Centennial Mall South) or at the Bess Dodson Walt library branch (6701 S. 14th Street.). A focus group is a small discussion group of between four and ten participants. You will be asked to share your opinions about the best ways to support the emotional or psychological health of emergency responders after a large scale incident like the May 2004 tornados. Because of the nature of a focus group, confidentiality cannot be guaranteed. However, participants will be asked to not share what is said outside of the group.

- Interviews will each last approximately half an hour, and will be conducted either by phone or in person at Interchurch Ministries of Nebraska offices (215 Centennial Mall South) or at the Bess Dodson Walt library branch (6701 S. 14th Street.**)**. You will be asked to describe your role in the May 2004 tornado response and to share your opinions about how to support the emotional or psychological health of emergency responders after a large scale incident like the May 2004 tornados.

Please initial here to indicate you have read this page _____

- The web-based survey will take about 5-10 minutes to complete. You will be asked about your involvement and reactions to the May 2004 tornado response. The survey will also request basic demographic information (gender, age, and ethnicity). You can access the survey through the link on the Nebraska Disaster Behavioral Health website: **www.disastermh.nebraska.edu**

Risks and/or Discomforts:
There are no major risks we know of that result from taking part in this research. You will be asked to remember details of your response to the May 2004 tornados and thunderstorms. This may be uncomfortable for some people.

Benefits:
By taking part in this research, you are helping shape and improve future support services offered to emergency responders in this area. You will also be adding to the body of knowledge regarding support for emergency responders in general.

Confidentiality:
Any information obtained during this research will be kept strictly confidential. Data will be kept in a locked cabinet in the investigator's office or within secure, protected files on a computer. The information obtained in this study may be published in scientific journals or presented at scientific meetings, but the data will be reported as aggregated data. In other words, your answers or comments will not be linked to you.

Your responses to the online survey will be anonymous. There will be no way to connect your name, address, or any other identifying information with your responses. You may skip any questions you'd rather not answer.

Compensation:
There will be no compensation for your participation in this study.

Opportunity to Ask Questions:
You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. You may direct questions to Denise Bulling, primary investigator, at (402) 472-1509 or dbulling@nebraska.edu, or to Stacey Hoffman, secondary investigator, at (402) 472-4673 or shoffman@nebraska.edu. If you have any questions about your rights as a research participant that have not been answered by the investigator or to report any concerns about the study, you may contact the University of Nebraska–Lincoln Institutional Review Board, telephone (402) 472-6965.

Please initial here to indicate you have read this page _____

Freedom to Withdraw:
You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the University of Nebraska, the investigators, the interviewer, or any other associated entities. Your decision will not result in any loss or benefits to which you are otherwise entitled.

Consent:
You are voluntarily making a decision to participate in this research study. Please sign below to certify that you have decided to participate having read and understood the information presented above. Also please check which part of the research you are agreeing to, focus group or interview, and whether you agree to be audiotaped for the interview. You will be asked to give consent separately to participate in the online survey when you take it. Your signature will not be required for the online survey.

I am agreeing to participate in a:

_____ Focus Group

_____ Interview

I agree to be audiotaped for the interview.
_____ Yes
_____ No

_____ _____
Signature Date