

STRENGTHENING FAMILY AND COMMUNITY RESILIENCE IN TRAUMATIC FLOOD DISASTERS: INTERVENTION GUIDELINES AND MODEL PROGRAM

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Abstract

In post major flood disasters management, besides assessing psychological impact for survivors, strengthening family and community resilience from traumatic loss after such catastrophic events is important for optimal recovery. With traumatic experiences, the body, mind, spirit and relationships with others can be wounded. Thus, there is a need to build resilience before and after disaster. Intervention guidelines and model programs assessing disaster resilience and vulnerability among families and communities are necessary components of effective flood management planning. The aim of this study is to assess the psychological impact of traumatic loss situation, and to develop and implement intervention guidelines and model programs to foster family and community resilience. Method used through personal observation, in-depth interviews and focussed discussions. Locations include two major affected flood areas of Kelantan and Pahang. Quantitative survey using Resilience Scale™¹⁴ item by Wagnild& Young, (1991) was used to interview 245 respondents comprised of families, community leaders, youths, and NGOs. Qualitative research consists of semi-structured questions and participatory approach was administered to gather insights from different groups of affected areas through Focus Group Discussion (FGD) and in-depth interviews. Data was analyzed using SPSS and QSRNVivo. Results revealed five common themes and responses of traumatic experiences after disaster that lead to resilience: 1) Emotions, Feelings, Behaviour and Thoughts, 2) Spirituality and Belief System, 3) Communication, 4) Social Support and Interaction, 5) Sensitivity to Environmental Factors. The Outcome of this study is to develop intervention guidelines and model programs to strengthen family and community resilience for coping and adaptation, and do not suffer long-term disturbances.

Keywords: Family and Community Resilience, Traumatic Loss, Flood Disaster, Intervention Guidelines, Model Programs.

1. Introduction

In post major flood disasters management, besides assessing psychological impact for survivors, strengthening family and community resilience from traumatic loss after such catastrophic events is important for optimal recovery. With traumatic experiences, the body, mind, spirit and relationships with others can be wounded. The predominant therapeutic models used for treating trauma and survivors of major disaster have been individually focused and pathology based, centred on identifying and reducing symptoms of posttraumatic stress disorder (PTSD), categorized as a mental disorder. A bio-psycho-social understanding of trauma, its treatment, and prevention, including attention to variables that influence vulnerability, resilience, and the course of posttraumatic recovery are deemed necessary. Attention to family and community impact of major flood trauma is essential. Intervention guidelines and model programs assessing disaster resilience and vulnerability

among families and communities is a necessary component of effective flood management planning. The aim of this study is to assess the psychological impact of traumatic loss situation and to develop and implement intervention guidelines and model programs to foster family and community resilience.

2. Problem Statement

In traumatic loss due to major flood disasters, symptoms such as depression, anxiety, and relational conflict and cut-off are common. Survivors blocked from healing may perpetuate suffering through self-destructive behaviour or revenge and harm toward others. Massive trauma or loss of hope and positive vision can fuel transmission of negative intergenerational patterns (Danieli, 1985). When traumatic loss is suffered from flood disasters, posing high risk for complicated recovery, resolution in the sense of some complete, "once-and-for-all" getting over it should not be expected. Thus, resilience should not be seen as readily getting "closure" on the experience or simply bouncing back and moving on. Recovery is a gradual process over time. Entire families can experience primary effects of mass trauma. Family functioning and vital kin networks can be disrupted, especially with complex, ongoing, or recurrent trauma. Therefore, attention to the family and community impact of major flood trauma is essential in any treatment approach. Moreover, family and community networks can be essential resources in trauma recovery when their strengths and potential are mobilized. Trauma recovery can be best fostered by shifting from a pathology focus and expanding the predominant individual treatment approaches to mobilize the capacity for healing and resilience in families and communities (Rutter, 1999; Walsh, 2003, 2006). Individuals experienced resilient in coping and adaptation will rebound within several months, and do not suffer long-term disturbance. Treating traumatic loss with family and community interventions is helpful when major flood disasters occur. Systemic interventions to the community level might provide useful guidelines for enhancing opportunities for families to find support among friends and neighbours suffering from similar experiences. Therefore, intervention guidelines and model programs can be used for strengthening family and community resilience in facing traumatic loss and major flood disasters.

3. Literature Review

The word '*trauma*' comes from the Latin word for wound. After experiencing major disasters, widespread grief, helplessness, fear, anxiety, guilt and anger will be dominant emotions in the weeks and months to come (Bolin, 1985). Traumatic stress investigators, although individually focused, are increasingly interested in understanding resilience. Studies found that acute stress symptoms are very commonly experienced immediately after extreme trauma situations. However, most individuals are resilient in coping and adaptation, which leads to rebounding within several months, and do not suffer long-term disturbance (Litz, 2004; McFarlane, 1996). In the acute phase of a disaster, fostering resilience has more to do with social than psychological assistance. Australian expert, Minas (2006), said what people need (after initial, immediate needs such as food, water and shelter) is basic comforting and an outlet to talk about what has happened if they want it. Psychological evidence shows that it may not be especially helpful to rush in and insist that people talk or so-called "critical incident stress debriefing" when they are struggling with basic survival. It's been found to be ineffective. However, many people will require help as later, survivor guilt is common, while others will feel abandoned, angry and perhaps suffer flashbacks. Trauma recovery can best be fostered by shifting from a pathology focus and expanding the predominant individual treatment approaches to mobilize the capacity for healing and resilience in families and communities (Rutter, 1999; Walsh, 2003,2006).

Major flood disasters, both natural and human-caused, produce widespread disruption and loss for families and communities (Walsh, 2006). As one mother put it, "it's a cascade of sorrows". Each survivor's experience is unique in sources of suffering and resilience. Recent research underscores the importance of early intervention for those who have suffered trauma and traumatic loss (Litz, 2004). Relieving acute distress and mobilizing resources for recovery can be crucial in preventing more serious and chronic symptoms of PTSD.

Attention to the family and community impact of major trauma is essential in any treatment approach. Moreover, family and community networks can be essential resources in trauma recovery when their strengths, resilience and potential are mobilized.

4. Mythology

Ethical Approval to conduct a study was obtained from the Ethics Committee of the Research Management Center, Universiti Malaysia Perlis.

The study involves phases below:

Phase 1: Initial visit and Pilot study

An initial visit and pilot study were done in selected areas in Kelantan (ManekUrai and Kuala Krai) where 26 families affected by flood disasters were interviewed. Observations look into details on facilities, infrastructures, operations and procedures; while interviews focused on experiences towards disaster and their traumatic experiences.

Phase 2: Quantitative Survey

This phase involved Face-to-face interviews using questionnaire developed from findings of pilot study, and the Resilience Scale™ 14 item by Wagnild& Young, (1991). 129 respondents in GuaMusang, Kelantan and 116 respondents in Temerloh, Pahang comprising of families, community leaders, and NGOs were interviewed by trained enumerators to investigate the resilience level of the flood disaster victims. Data was analysed using QSRNVivo. From results of the RS-14 survey, the mean ranking score of respondents' resilience level was then categorised by high, moderate and low resilience level.

Phase 3: Focus Groups Discussion (FGD) and In-Depth Interviews

This qualitative research in data collection consists of semi-structured questions designed from output of quantitative survey, personal observation, key informant (community leaders) discussions and public meetings. Participatory approach was used as much as possible to gather insights from different groups of affected communities. A FGD and in-depth interviews was done to 22 selected respondents in GuaMusang, Kelantan, and 25 selected respondents in Temerloh, Pahang who have high, medium and low resilience level.

The qualitative data collected was analysed and coordinated by using computer software QSRNVivo. The data collected using questionnaires was analyzed using SPSS.

5. Results and Discussion

Phase 1: Initial Visit and Pilot Study

Through observations, we found that resources are limited in the wake of emergency, and recognized that communities need to be on their own after an emergency before help arrives. Thus, they need to build resilience before and after disasters.

Following disaster, survivors experience grief, guilt and fear. Some of the survivors revealed below:

S1: "It is the worst trauma I have seen in my 30 years of experience.

S2: "We are in despair; lost everything and can see no future; we are losing the will to live"

S3: "I am suffering from nightmares and flashbacks of the wave. I feel guilty of surviving when others did not".

The psychological impact of the flood disaster was immense for many survivors. Several main reasons for this, namely the loss of family members and friends, loss of homes and material possessions, loss of means for earning a livelihood, dislocation and temporary resettlement in army camps, and the profound uncertainty and loss of a predictable and secure future.

As families and communities affected by the flood assess the devastation, try to come to terms with the loss, and begin to rebuild their lives, attention must turn to the future and the inevitable question: how can families and communities recover after such a disaster? Thus, assessing disaster resilience is a necessary component.

Phase 2: Quantitative Survey

A) Resilience level of respondents in GuaMusang, Kelantan is shown in Figure1.

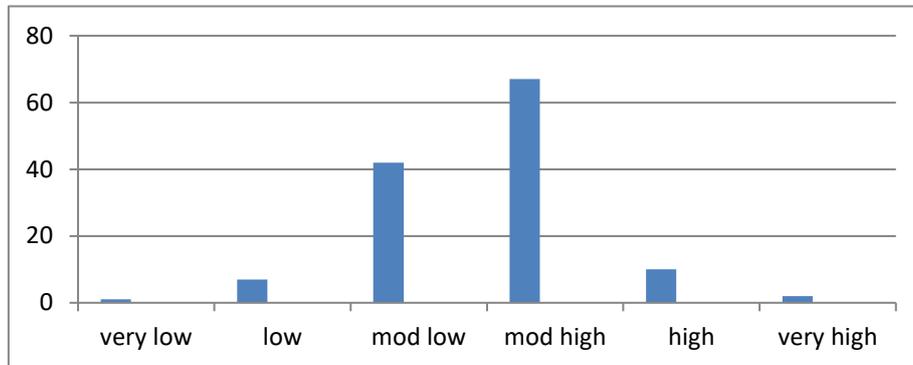


Figure 1. Resilience Scale-14 Result-GuaMusang, Kelantan

Figure 1 above shows majority of respondents (84.60%) are between moderate low and moderate high level of resilience, whereas 6.18 percent are very low and low level of resilience, and only 9.30 percent in a very high and high level of resilience.

B) Resilience level of respondents in Temerloh, Pahang is shown in Figure 2.

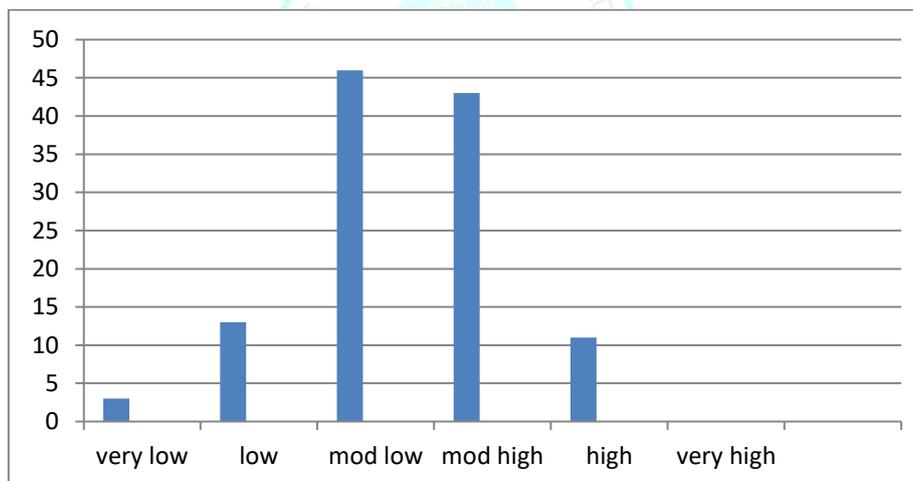


Figure 2. Resilience Scale-14 Result Temerloh, Pahang

Figure 2 above shows majority of respondents (77.0%) are between moderate low and moderate high level of resilience, whereas 13.50 percent are very low and low level of resilience, and only 9.50 percent in a very high and high level of resilience.

Phase 3: Focus Groups Discussion (FGD) and In-Depth Interviews

Findings from FGD and In-Depth Interviews revealed that following disaster, families felt stunned, disoriented, and unable to integrate distressing information. Common themes and responses were:

A) Emotions, Feelings, Behaviour & Thoughts

Victims felt intense or unpredictable feelings such as anxiety, fear and overwhelming grief. Repeated and vivid memories of the event were also mentioned. These memories occurred for no apparent reason and made it difficult to concentrate or make decisions.

As one man despaired that he had been unable to hold onto his disabled wife as they fled their home in raising floodwaters. When asked what helps him keep going, he replied, "It's her inspiration. Her last words to me were 'Take care of the kids and grandkids.' It's hard every minute, every day, but I can do it; her voice and her spirit give me the courage and determination."

Results from the study also found that each survivor's experience is unique in sources of suffering and resilience depending on level of resilience (low, moderate or high) as some responses gathered below:

S4: "Feel unsafe; threatened...rain for a longer period as well as loss of human life." (low resilience)

S5: "At first we were in a state of shock and disoriented, at a total loss about what to do. Then we dusted ourselves off, took stock of our predicament, and took charge to clear out the debris and figure out our options. We just kept hugging each other and taking it step by step." (high resilience)

S6: "Become strong...continue to live because of children!" (high resilience).

B) Sensitivity to environmental factors

Continuous rains, sirens loud noises or other environmental sensations that stimulate memories of the disaster creating heightened anxiety. These "triggers" may be accompanied by fears that the "stressful event will be repeated."

One of the survivors said:

S7: "If heavy rain falls continuously, I feel scared, can't sleep and worry... now December is coming!"

On infrastructures, facilities and social supports, majority responded during the early disaster phase, the urgent needs are clean water, good, safety and shelter. But, in the post disaster phase, the most important step is a new house and land besides one's psychological well-being and resilience.

C) Spirituality & Belief System

It is crucial to understand each family and communities' belief system, rooted in cultural and spiritual traditions, which influences survivors' perceptions and coping responses to traumatic experiences.

After a flood destroyed his home, a father in one family recounted to a researcher:

S8 : "At first we were in a state of shock and disoriented, at a total loss about what to do...then we dusted ourselves off, took stock of our predicament, and took charge to clear out the debris and figure out options. We just believe in *Allah* and His will! We just kept hugging each other and taking it step by step..." (high resilience).

Other survivors said below:

S9: "Accepted disasters due to God's willing (*Berserah kepada Allah*), and a test from God... Have strong religion and belief in God." (high and low resilience).

D) Communication

Families and communities need clear, consistent information and circumstances of traumatic events. Traumatic loss triggered a wide range of intense feelings, rage, fear, sorrow, guilt among survivors, with ripple effects throughout kin and community networks. When painful or unacceptable feelings can't be expressed and supported, or when differences are viewed as disloyal or threatening, there is a higher risk of somatic and emotional disturbance and destructive behaviour.

One of survivors revealed below:

S10: "...the urgent needs including provision of accurate and timely information, communication and reuniting family members who have been separated..." (high resilience)

High resilience survivors express their feeling in whatever ways they felt comfortable -such as talking with family or close friends. Whereas a low resilience survivor became withdrawn, isolated or disengaged from communication with others and from usual social activities.

A woman told the researcher:

S11: "I secluded myself from others...grief, fear, helplessness, anxiety, anger! I don't want to meet my family...I don't want to talk to them..." (low resilience)

E) Social Support and Interaction

Social support is a key component to disaster recovery and resilience. Family and friends can be an important resource.

However, some families and communities who have experienced tragedies and hardship have reported better relationships, greater sense of strength even while feeling vulnerable, increased sense of self-worth, a more developed spirituality and heightened appreciation for life.

As one of survivors reported:

S12: "I find support from those who've also survived the flood disaster!" (high resilience).

Support groups are available for survivors. Group discussions helped the survivors to realize that they are not alone in their reactions and emotions.

In general, a person or group with low resilience has a high vulnerability as revealed in this study areas, which are poor with limited resources to meet essential needs, indigenous groups who may be socially marginalized; such as those who are poor, socially isolated, and those who may lack support physically and emotionally and large families.

Suggestions and Conclusions

Based on the study, we found that fostering recovery from major traumatic events is a gradual process overtime. Therefore, it is essential to facilitate healing and resilience by encouraging individuals, families, and communities to actively engage in the process below:

A) Spirituality Belief Systems

1. Making Meaning of Traumatic Loss Experience

Normalize, contextualize distress

Gain a sense of coherence as shared challenge: comprehensible, manageable, and meaningful

2. Positive Outlook: Hope, Encouragement

Affirm strengths, build on potential

3. Spirituality

Faith, rituals (e.g. prayer, meditation)

Meaningful bonds, pursuit

Growth, transformation, appreciation

B) Organizational Patterns

1. Flexibility to Adapt and Destabilize
 - Restore structure, routines
 - Reorganize; reallocate role functions
 - Strong leadership: coordination, collaboration
2. Kin, Community Connectedness
 - Lifelines, mutual support, social networks
3. Economic and Institutional Resources

C) Communication/ Problem Solving

1. Clear, Consistent Information, Messages
 - Clarify trauma
2. Open Emotional Expression, Empathic Response
 - Respect individual, cultural differences
 - Share pleasure, humour, and respite amidst sorrow
3. Collaborative decision making, problem solving
 - Resourcefulness, proactive planning, preparedness

This research has shown that a number of individual/personal, community and institutional attributes can be used as indicators of resilience as shown in the Model below:

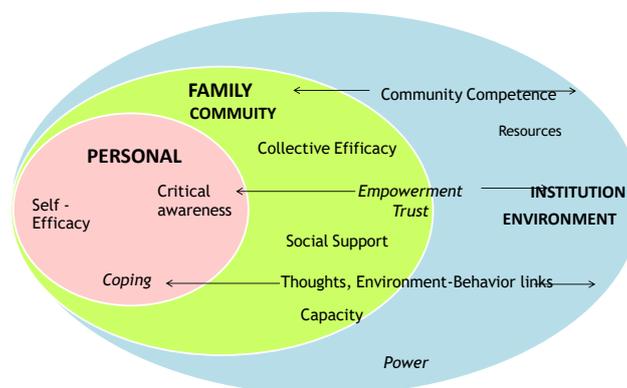


Figure 1. Model Family/Community Resilience after Flood Disaster

The resilience of a families or communities can be assessed on the basis of the following attributes:

A) Elements that support Resilience at an Individual/Personal Level

1. **Self-Efficacy**-belief in the ability to do something about mitigating the effects of disasters. Self-efficacy develops as a result of individual or community effectively solving problems and dealing with challenges in everyday life and builds up over time as they accumulate such experience.
2. **Coping**-deal with problems by undertaking action directly, rather than worrying. Action coping is a form of 'problem focused coping', and relates to peoples' ability to solve problems in life by confronting and resolving them. Problem focused coping has been found to predict resilience. In the context of disaster preparedness, problem-focused coping encompasses taking actions to reduce the risk of damage or to minimize negative consequences of damage that incurred.

3. Critical awareness-is an important predictor of preparedness. The degree to which people think and talk about disasters can influence people's understanding of disaster issues, and enhance motivation and preparedness. Discussions of disaster issues with others are an important process as it helps people understand disaster and preparedness-related issues and helps legitimize disasters as a salient issue.

4. Personal and community support-includes post disaster personal support, such as specialist outreach services, advocates and gatekeepers and community support, for example, community development officers. Establishment of family support groups that made connections across school communities is important, and enabling the sharing of ideas about how to address the emotional issues of both children and adults is deemed necessary.

5. Involvement- refers to linkages with other people, network of family, friends and acquaintances. Also consultation in developing disaster management programs in making contribution to policy and program development.

B) Elements that support Resilience at a Community Level

Resilience and vulnerability are not just characteristics that affect individuals, but also communities.

1. Community Competence-is community characteristics essential in developing and maintaining capacity to avoid or reduce the impacts of disasters.
2. Empowerment-of local people and communities so that planning, decision making and action are neither "top-down" nor "bottom-up" but a combination of these that reflected a genuine partnership. Mobilizing and empowering community through volunteering in response team can provide a preparedness plan and emergency response skills for community.
3. Trust-is an important facet of resilience as it influences the effectiveness of personal relationships, group processes and societal relationships, of which are essential for developing an effective adaptive capacity.
4. Social Support-this attribute includes information channels, social networks and community organizations.
5. Resources and Skills-can be generic attributes (e.g., management or financial skills, human resource potential). These can be measured by their cost, availability and ease of access. Resources are more than money and include skills and knowledge.
6. Environment & shared values-this includes a positive sense of environment, a commitment to be community as a whole and agreement, broadly, on community goals. Does not exclude diversity.

In conclusion, it is important to identify how the families and communities are resilient and the circumstances that generate and reduce vulnerability and generate and sustain resilience, especially those having wish to moderate high level of resilience as shown in the findings of this research. For those who have low level of resilience, capacity to manage their own affairs is very important. They should share perceptions and interprets with one another, what has been lost, what remains the same. Broaden discussion of meaning of hope and optimism will lead individual towards therapeutic goal to help oneself and families resume their lives and help them move on in everyday life despite ambiguous loss.

Any resilience-building program needs to ensure that there is integrated development of social, economic livelihoods, environmental and cultural dimensions to community life. All programs need to be self-sustaining, not just in the sense of their having a positive effect on environmental, but also with regard in generating future resources and their capacity in interact successfully with other programs.

The Intervention Guidelines and Model Program that will be prepared from the output of this study will help to foster recovery and strengthen family and community resilience in traumatic loss and major flood disasters.

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References

- i. American Psychiatric Association. , 2013. *Diagnostic and statistical manual of mental disorders*. 5th ed. Washington DC: American Psychiatric Association..
- ii. Bolin, R., 1985. Disaster characteristics and psychosocial impacts.. In: B. Sowder, ed. *Disasters and Mental health: Selected Contemporary Perspectives*. Rockville, MD: National Institute of Mental Health, pp. 3-28.
- iii. Boss, P., 2002. *Family stress management*. 2nd ed. Newbury Park: Sage Publications.
- iv. Boss, P., 2006. *Loss, trauma and resilience: Helping people with Ambiguous loss*. New York: W.W. Norton..
- v. Buckle, P., Marsh, G. & Smale, S., 2001. *Assessing resilience & vulnerability: Principles, strategies & actions. Guidelines prepared for Emergency management Australia*, Canberra: ACT.
- vi. Committee on Disaster Research in Social Sciences (CDRSS), 2010. *Facing hazards and disasters, understanding human dimensions, the National Academies Press*. [Online] Available at: <http://www.nap.edu>. [Accessed 12 July 2010].
- vii. Kuo, B., 2011. Culture's consequences on coping: Theories evidence, and dimensionalities. *Journal of Cross-cultural Psychology*, Volume 42, p. 1102.
- viii. Kuo, B., 2013. Collectivism and coping: Current theories, evidence, and measurements of collective coping.. *International Journal of Psychology*, Volume 48, p. 388.
- ix. Litz, B., 2004. *Early Intervention for Trauma and Traumatic Loss*.. New York: Guilford Press.
- x. McFarlane, A., 1996. *Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body, and Society*. New York: Guilford Press.
- xi. Minas, H., 2006. *Disaster to Development: A Community Mental Health System for Aceh*. Geneva: World Health Organization.
- xii. Rubin, C., 2011. Recovery from disaster. In: T. Drabek & G. Hoetmer, eds. *Emergency Management: Principles and practice for local Government*. Washington DC: International City Management Association, pp. 224-259.
- xiii. Rutter, M., 1999. Resilience concepts and findings: Implications for family Therapy. *Journal of Family Therapy*, Volume 21, p. 144.
- xiv. Walsh, F., 2006. *Strengthening Family Resilience*.. 2nd ed. New York: Gilford Press.
- xv. Walsh, F., 2007. Traumatic loss: Vulnerability of family and community. *Family Process*, 46(2).