

A REVIEW ON THE PSYCHOLOGICAL ISSUES AND PSYCHOSOCIAL INTERVENTION: FLOOD DISASTERS IN MALAYSIA

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ABSTRACT--*In Malaysia, flood disasters are distinguished from other types of collective stress because flood disaster is a crisis. Regardless of the level of injury or loss experience, most of the victims in the affected area will face a certain amount of emotional distress and anxiety. It is because during, flood disasters, individuals, families and communities suffer from trauma and stress in every dimension of their lives especially from the loss of life and health, properties, personal belonging, job, community infrastructure and social ties. The physical impact of flooding contributes to psychological, emotional and social effect in these victims. As a result, they exhibit reactionary patterns in terms of emotions, mental and behaviour which, will be elaborated in this article. Considering the psychological issues as a result of the flood disaster in Malaysia, it is necessary to provide psychosocial intervention. Therefore, psychosocial care and support is an essential component. Thus, intervention and psychosocial rehabilitation are also discussed in this article. The key element of psychosocial intervention is the concept of resilience and the involvement of community members in providing psychosocial support to overcome the psychological issues faced by flood victims.*

Keywords--*Disasters, floods victims, psychological effects, psychosocial intervention, resilience*

I. INTRODUCTION

Disasters are defined as incidents that occur in a sudden manner, complex in nature, resulting in the loss of lives, damages to property or the environment as well as affecting the daily activities of the local community. Such incidents require the handling of resources, equipment and extensive workforce from various agencies as well as effective coordination and the possibility of complex actions over a long period time (Malaysian National Security

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Council, Direction No. 20, 2013). According to Claudio (2009), Asia Pacific countries continue to suffer disproportionately from disasters caused by natural factors. Even, Malaysia geographically lies outside the Pacific Rim of Fire and is thus relatively free from any severe ravages and distraction caused by natural disasters such as typhoons, earthquake and volcanic eruptions. However, according to the Malaysia Meteorological Department, floods are the most common natural disaster recently which have damaged properties and human lives on a massive scale. Most floods that occur are a natural result of cyclical monsoons during the local tropical wet season that is characterized by heavy and regular rainfall from November to March every year (Wan Hassan, Subramaniam & Yap, 2012).

Besides the natural process and the environmental factors, floods cases in Malaysia have become more severe due to uncontrolled and unplanned infrastructure development. For instance, in December 2014, Malaysia was shocked by the worst and massive floods on the east coast of the country, and it happened entirely unexpectedly. Environmental destruction indirectly impacts the tourism sector and its links to the economy of a country (Hamzah et al., 2012). It inevitably causes effects to the social development of a country. Kelantan was the most affected state in Malaysia, and almost all the district were severely affected. As reported, a total of twenty-one people were killed and estimated 2,400 houses were utterly destroyed (total loss). Malaysia lost more than 1 billion Ringgit Malaysia due to the destruction of the environment and infrastructure as a result of floods (Workshop on Kelantan Flood Disaster Management, 2015). The physical destruction may also cause psychological distress to flood victims (Che Su et al., 2018; Nur Hafizah, Azlinda & Noremy, 2018). Data from the crisis intervention and psychological support conducted by the Department of Social Welfare Malaysia found a total of 14,995 children and 289 adults were suffering from depression and trauma as a result of the floods (Rohani, 2015).

Therefore, psychosocial support and care are essential components in providing service to flood victims, especially those with emotional distress and trauma (Noremy, Azlinda & Taufik, 2017b; Norizan, 2016). Psychosocial refers to the dynamic relationship between psychological and social effects. Each is dependent and is related to the other (Johal, 2009). The psychological effect provides varying impacts in functional terms such as cognition (mental), affective (emotions) and behaviour. While social effects refer to familial ties, business networks, and economic status. In the situation of crises as in flood disasters, victims tend to demonstrate emotional, mental, and behavioural reactions as discussed below:

Emotional Reaction

Emotional reactions include sad, worry and fear (Norizan, 2016; Mitchell, Sakraida & Zalice, 2005; Revell & McCurry, 2010). Fear is among the most common feeling experienced by victims. Fear is caused by the recurrence of traumatic memories by flood victims when they are in a state of full consciousness. It can also occur during sleep. Flood victims show fearfulness of the same recurrence of the floods disaster episode that would lead to property destruction, their lives and livelihood (Norizan, 2016).

Besides that stress, hopelessness and sad as well as resentment are also emotional reactions that are common among disaster victims (Division, Mental Health, 2008). In many cases, resentment is often the result of a tensed situation. Victims often vent out their anger to family members, friends, neighboured and other people. Anger is also directed towards medical personnel who do not attend to their needs in an emergency situation. Worse, is when the medical personnel themselves are disaster victims (Zahara et al., 2009) thus aggravating the situation further.

Mental Reaction

Mental reactions such as thoughts distortion and stress are often experienced by victims, even extending to trauma (Mitchell, Sakraida & Zalice, 2005; Revell & McCurry, 2010). According to Swain, Kar and Mishra (2001), natural disaster victims often face somatic stress and demonstrate an obvious increase in the degree of anxiousness. The engendering of anxiousness is attributed to the needs and future viability of family members. Victims' inability to fulfil the needs of family members often result in despondency and a sense of hopelessness and feeling distress which are all resultant effect of mental reactions within victims themselves. In addition, Revell and McCurry (2010) also state that natural disaster victims undergo Post-Traumatic Stress Disorder (PTSD) in certain conditions.

In a study conducted by Noremy and Azlinda (2018), the effects of flood in Kelantan, Malaysia gave cause to post-traumatic cases such as mental shock among flood victims especially those who had a total loss of their properties. Psychological effects were faced by flood victims through emotional distress to the extent that they undergo deterioration not just in physical ability but also in mental strength (Che Su et al., 2018).

This is consistent with the study by Brown, Mellman and Alfano (2011) where after 12 months of the hurricane Katrina in New Orleans, United States of America, 46% of teenagers aged 8 to 15 was reported to have sleep disorders while 25% was reported to have fear of sleeping alone. From the entire sample, it was found that 40% exhibited symptoms of Post-Traumatic Stress Disorder (PTSD). It is a chronic post trauma stress resulting from the critical situation that disrupts the lives of victims.

Behavioural Reaction

The suffering arising from natural disasters will also lead to behavioural reactions such as anxiousness, anti-social behaviour and uncontrollable actions such as crying and howling in sadness. Children however experience psychological effects such as behavioural changes during the early developmental stage by showing overt reliance to their parents in fear and worry, reticence and not loquacious and a lack of focus in school (Division Mental Health, 2008).

There are flood victims who experience sleep disorders, rise in conflicts with other individuals, loss of appetite and lethargy and fatigue (Mitchell, Sakraida & Zalice, 2005). Revell and McCurry (2010) add that behavioural disturbances can be seen in degree of woes and dysfunctionality in family. Out-of-control disposition is shown by the victims as well that in certain cases it is to such degree that there is willingness for suicidal attempts as a result of self-blame from the disaster that had taken place (Plum, 2003). As such, reactions from disasters are varied and

multi-faceted and they are dependent on the individual and the degree of extremity of the disaster faced. These reactions be it emotional, mental or behavioural are symptomatic reactions that are not out of the ordinary and often witnessed after an unexpected situation like flood disasters. All reaction can be summarized as below (table 1):

Table 1: *Summary on reaction and symptoms of emotions, mental and behavior faced by disaster victim*

Reaction	Symptoms	Emotions	-	Sad
and worry	<ul style="list-style-type: none"> - Fearfulness - Stress, hopelessness, and resentment - Vent out their anger to family members, friends, neighboured and other people 			
Mental	<ul style="list-style-type: none"> - Thoughts distortion - Mental Shock -Trauma -Post Traumatic Stress Disorder (PTSD) 			
Behaviour	<ul style="list-style-type: none"> - Anxiousness -Anti-social behaviour - Uncontrollable actions (crying and howling in sadness) - Sleep disorders - Rise in conflicts with other individuals - Loss of appetite - Lethargy and fatigue - Suicidal attempts 			

II. PSYCHOLOGICAL ISSUES IMPACT FROM FLOOD DISASTERS

Physical impact from flood disasters contributes to social and psychosocial impacts where destruction and physical damages indirectly leads to psychological effects of flood victims in Malaysia (Che Su et. al, 2018; Noremy, Nur Saadah & Nor Jana, 2019b; Sarina, Rahmah & Nur Hafizah, 2018). The general symptom often experienced by flood disasters victims can be categorized into two reactions which are normal reaction and abnormal reaction which are determined by the type and situational crisis (Fernando, 2002).

Symptoms of normal reaction can be further divided into three stages. The first stage is denial of the reality of the situational crisis. This stage has two psychological processes namely denial where victims resolutely refuses to accept loss and numbness felt where there is a void of feeling to the disaster. However, normal reaction does not deter and impede normal functionality and the symptoms would manifest within several hours or days after the

occurrence. It is generally seen that in this stage, victims experience shock and does not know how to react to the shock. Denial is a form of defensive mechanism of the mind from traumatic experience. In the short term, it may be beneficial to victims, but if it progresses in the long term, it may contribute to psychological effects that can worsen the victims' condition.

The second stage is when victims feel sorrow when they have lost their loved ones. Fernando (2002) illustrates that victims tend to sleep more often and would be depressed. However, this is also a normal reaction of sadness but this have to be ensured to not be extensive as it would cause severe psychological problems. The waves of sadness is usually felt after several weeks or months upon the episode.

The third stage is known as the restructuring phase and tends to happen after several months. In this stage, victims start to realize and are able to accept the reality of the situation befell them. The victims are ready to adapt with life anew and begin to ruminate on future planning. They are able to revert to daily routine as usual.

On the other hand, abnormal reactions, also known as pathology are when symptoms such as severe emotional state manifest which normally extends until the sixth month of the tragedy, even years. Abnormal reactions happen in conditions that involve sudden deaths within family members or close friends. They tend to occur among those who are emotionally suppressed and those with history of neuropsychological confusion. Besides that, victims will also exhibit obvious psychiatric problems if they receive late psychosocial support. If such is the case, victims will demonstrate reactions of self-seclusion or isolation, unable to respond to external stimuli (non-functional in daily life), attempts in suicide and self-annihilating behaviour (Kar, 2000).

In that regard, those who have been pre-disposed to psychological problems in the event of a disaster are dependent on certain demographics such as age, ethnicity, and educational background. Those with low attainment of education tend to be more exposed to psychological issues (Lindell & Whitney, 2000) and are susceptible to other influences such as limited source of self-economy, political marginalization and limited social networking (Omar & Alon, 1994). Fernando (2002) further states that psychological problems are multifactorial. Among the psychological effects from traumatic situations include fatigue, exposure to unhealthy situations, lack of rest, health problems, injury all of which contribute to mental confusion.

Noremy et al. (2017a) articulate that the effect from the floods in Malaysia has brought about issues pertaining to needs, finance, security and safety. Floods in Malaysia impacted tremendously in social and economic daily activities to the point that they contributed to physical, social and emotional distress among flood victims (Sarina, Rahimah & Nur Hafizah, 2018; Gasim et al., 2010). The experience had negative impacts in their mental health and psychosocial wellness and if there is no administration of assistance, relief or treatment for the victims, the position can be threaten for a long term.

However, psychological effects differ from one individual to another. There are victims who have been impacted emotionally to a greater degree compared to others. For instance, children who have lost their parents, individuals who have neurological disorders, those who have limited psychical mobility or disability people as well as the elderly or single mothers who do not have social support or family support. These groups are deemed in

greater need of quick of help and psychosocial support (Division Mental Health, 2008). However, in many cases, most of the victims fail to consider themselves to be in need of psychosocial services and therefore are unlikely to request them. During flood disaster, Malaysia provides basic services and security where the government gives food, water, shelter and basic health care to the affected community. Malaysia also has specialized services where psychosocial treatments are provided by registered counsellors under the Department of Social Welfare, Malaysia. However the number of trained professionals is till low. This means that Malaysia has very limited resource to psychosocial issues resulting from flood disasters.

In the rehabilitative phase, Revell and McCurry (2010) found that many victims are unable to overcome the aftermath of natural disasters effectively due to emotional distress. They tend to feel hopeless and do not possess the strength to rebuild their lives to normality without having the necessary security they need. Five to ten percent of the population continue to have emotional and mental disturbances after several months even after community and family protection is recovered. They face psychological issues caused by social ties, psychology factors and biological factors such as harrowing experiences during natural disasters, loss and immense pressure, physical inability, and mental health problems. This population requires continuous intervention from professionals (Division of Mental Health, 2008). However, in the early stage, victims require access to medical treatment, shelter, food, clean water and financial aid (Resnick et. al., 2000). Psychosocial assistance needs to be provided to avoid critical progression of psychological problems.

III. PSYCHOSOCIAL INTERVENTION

Considering the psychosocial issues and problems as a result of flood disaster in Malaysia, it is necessary to provide psychosocial consequences. Therefore, psychosocial care and support is an essential component in response as each of such events is capable of causing traumatic stress to the floods victims. Thus, psychosocial support needs to be based on an understanding of the potential psychological impacts, the stressors that the disasters bring and their impacts on individual, families and communities. Psychosocial support strategies need to be delivered in ways that will take into account different levels of need, different patterns of impact as well as the feasibility and cultural appropriateness of the response. The goal is to fulfil the basic and psychosocial needs, to achieve emotional rehabilitation, and maintain good health in the long term and strengthen the coping strategy to deal with disasters effectively. Revell and McCurry (2010) mention that psychosocial-relief for short-term intervention includes psychological treatments, crisis intervention, encouragement of support and social networking between friends and family. Effective long-term intervention focuses on educational attainment of the individual and family with regard to stress management, systematic crisis management as well as spiritual support.

Johal (2009) sees psychosocial intervention in disaster management as the understanding in potentiality in mental health impact on a larger scale and its effects to the population in general. Thus, support through psychosocial intervention intends to assist community for adaptation to new environment and readjustment of social

structure after the event of flood disasters. This intervention also aims to develop the potential of the individual to overcome the effects of flood disasters.

With this, there are four psychosocial interventions that would be discussed. First is the International Federation of Red Cross and Red Crescent Societies (IFRC) whose approach in disaster management entails not only to attend to the basic needs of victims but also to help them build their ability and skills to use existing resources. This would ensure their confidence and readiness to face a crisis in the future. This approach does not necessitate to see the victims as passive actors. Instead, they ought to be given encouragement to get involved in the evaluation process, planning and execution in order to manage disasters (IFRC, 2009).

On an international institutional standard, psychosocial support is seen as the process of restoring resilience amongst individuals, family and community. The approach takes into account of executing activities that has cultural relevance and appropriateness and at the same time emphasis on coping mechanism. According to Noremy et al (2019a), coping strategy of victims is significant in dealing with crisis situations such as floods. Using effective coping strategy, the victims are able to manage emotions, solve problems effectively and drive them to the goal of overcoming crisis.

The second psychosocial intervention is based on the Inter-Agency Standing Committee (IASC, 2008) which refers to the psychosocial support and mental health during an emergency. There are six principles to this intervention namely equal rights, inclusion, free impact on physical and emotional state, building of recourses and capability, durable support system and support from diverse community on needs basis. The key to forming psychosocial support through this approach is to open up all stages of support system that can tend to the needs of diverse groups with the understanding that all individuals have different ways of internalizing effects of disasters, and thus would need different strategies of support and relief.

The IASC (2008) states that the layers of the pyramid are all important and they have to be executed simultaneously and known as *Psychosocial Intervention Pyramid* with four different stages of intervention. The first stage is the placement of emphasis on basic needs and security such as access to food, shelter, clean water and basic healthcare needed by the victims. The next stage is community and family support especially in the event of loss, separation of family, fear and loss in self-trust which are remedied by care and support from guardian, family, friends and community members. The third stage is non-specific supports that deals with moderate psychological issues which include psychological emergency relief, mental healthcare by medical authorities. The fourth stage is specific service that involves psychological and psychiatric support to victims who are undergoing mental distortion and can only be supported by trained medical professionals.

Thus, the second stage can be seen as advocating social ties in a community post disaster. It is seen to fulfil and solve psychosocial needs where victims are strengthened by the mutual feeling of helping and caring for one and another. In this regard, external resources may be reduced through community networking and community mobility between members. This indirectly facilitates the government to lower the sourcing of professional service that would be costly for aid, assistance rehabilitative support post disaster (Noremy, Azlinda & Taufik, 2017b).

Presently, aids in emotional management of flood victims are still largely dependent on counsellors and psychologists and not self-reliance on strategic planning on the accord of the victims themselves which inextricably slows rehabilitation from crises faced by the victims.

The third psychosocial intervention, is based on community resiliency model. Paton and Johnston (2001) describe a resilient community to be one that has the ability to rise and recover from the effects of natural disaster to normality, fully functional with existing resources. Additionally, a resilient community has the capability to ensure the economic, administrative and social institutions capacity is continuously functional and intact. Such community will leverage upon physical and economic strength to minimize disturbance and suffering post disaster. As such, this would provide the impetus for growth and rebuilding of livelihoods as it involves strategic planning from personal and external resources.

From a social and psychological perspective, resilience is seen to be an operational function deriving from the personal traits of an individual to showcase spirit of solidarity within community of belonging despite being plagued by crises. Essentially, this means that an existing support of social network is able to mitigate the negative effects of natural disaster and in turn maximizes the potential of the individual for development, recovery and rehabilitation (Violanti et al., 2000). Noremy and Azlinda's (2018) study affirm this that the sense of belonging within the affected community is able to help members actively and proactively to overcome hardship in the aftermath of flood. Such support is internal whereby resilience among victims is effectively increased through networking and strength in communal bonds. Promoting community for disaster risk reduction is thought to be a prudent step to ensure community are prepared to face risk factors of any kind that can potentially destroy and cause damage post disaster (Alam et al., 2015).

Peek (2008) states that the ability and potential to adapt to situation post disaster can be summarized into two important elements. Firstly, it is the emphasis in aid-relief assistance to face destruction, loss and damage. This involves the component of resiliency to leverage on internal resources within the community. Secondly, it is the premium placed in external resources for community to face possible hardship and challenges and for adaptive preparatory on the aftermath of disaster. The external recourses is delineated to mean social networking support from friends, family, community and existing social system within the environment of the victims. It is thus seen that natural disaster victims who possess resilience are able to reduce psychological problems and ensure retention of positive mental health (Noremy et al., 2019a).

However, service focusing on mental health and psychosocial support have the potential to cause harm because they deal with highly sensitive issues. As one of the principles that guides psychosocial intervention by the IASC (2008) is "do no harm", this should be observed by professional workers who are involved in psychosocial services. An example of potentially harmful psychosocial intervention is by using Psychological Debriefing. According to Mitchell and Everly (1996), psychological debriefing was initially describe as a group intervention for emergency workers and was seen as part of an approach to the management of traumatic stress. However, it has been extended to disaster-affected populations in general which is applied on individual and as a stand-alone intervention. It was

not developed as a form of psychotherapy, instead it was an approach for the victims to share responses to extreme events such as natural disasters. However, psychological debriefing may result in the exacerbation of symptoms. It does not prevent psychopathology and fails to recognize the fact that majority of those exposed to trauma recover independently. This means that Psychological Debriefing may leave a victim feeling more vulnerable because they have revealed their feelings in front of a peer or other people and it may create anger, fear, frustration and resentment.

Psychological Debriefing is where victims are being given a platform to express their feeling in the aftermath of a disaster which may be viewed as therapeutic. However this argument does not take into account the different in cultures, prescriptions for dealing with such experiences and individual difference in coping mechanism. According to Raphael (2006), in these programmes, people gather together and share their experiences called getting debriefed even though there is no evidence that these programmes preventing the victims from developing PTSD. Therefore, formal psychological debriefing are not recommended as psychosocial intervention for flood victims in Malaysia. It is critical that any psychosocial intervention does not cause harm. Thus, during the emergency phases, intervention should support survival strategies, provide information, comfort. Those affected and protect them both physically and psychologically. All psychosocial intervention can be summarized as below (table 2):

Table 2: Summary of psychosocial intervention for disaster victim

Types of psychosocial intervention

1. Restoring resilience amongst individuals, family and community; build ability and skills to use existing resources (International Federation of Red Cross and Red Crescent Societies, IFRC 2009)
 2. Model of Psychosocial Intervention Pyramid (Inter-Agency Standing Committee, IASC, 2008)
 3. Community Resilience Model (Paton and Johnston, 2001)
 4. Psychological Debriefing (Mitchell and Everly, 1996)
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IV. RECOMMENDATION

Flood disasters have severe psychosocial consequences. The emotional pain, suffering and loss during the following disasters can lead to emotional distress and psychological disorder. Psychological problems has to be the primary issue and need to be addressed together with other material assistance. This is due to the diverse problems (material and non-material) that victims may face after disaster. Even though there can be restructuring and improvement in infrastructure, the community may continue to suffer if their psychological needs are not addressed. The primary aim of intervention is to increase functionality by focusing on psychological needs and improvement. Thus, psychosocial based activities need to be planned and executed for the entire community to fulfil individual needs and by extension the community especially in the process of rehabilitation and recovery. Such activities are

able to help all layers of community (individual, family and community itself) to resolve psychological problems, thereby providing the mechanism necessary to overcome crisis positively. Upon review of literature, it is seen that resiliency is an important factor for rehabilitation and recovery of flood victims. Psychosocial intervention is shown to resolve problems based on psychosocial needs through positive identification of the individual as a community member. Flood victims ought not to be seen as a passive subject who are often pictured to be as such after an occurrence of natural disaster. Instead, they are active actors who have to be strengthened as is consistent with past studies of their role in disaster management towards building resiliency and mitigating risks associated with psychological issues. Psychosocial support should also be seen as a process of facilitating resilience within individuals, families and communities. A resilient community is one that is able to use internal strength to face hardship of natural disaster. Service providers must enhance helping to build a social support network after a disaster. It is important to rebuild social network support and bolster the social and psychosocial well-being in community development and to address this problem in government planning. This is possible through sensitizing policy makers in the development of psychosocial community services in order to meet the current demand and challenges during flood disasters in Malaysia. This way, the need for outside resources can be reduced through community mobilization and strengthening the community's networks and relationships. Even though training professionals in addressing the psychosocial needs of victims of disasters is paramount, empowering individual and communities in organizing their own resilience building programmes as a form of an intervention that employs the element of community in the psychosocial aspects of disaster management is equally pivotal. In conclusion, psychosocial support is crucial in helping victims of natural disaster to overcome psychological issues and subsequently improve psychosocial well-being after the event of natural disaster.

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