

Mental Health Implications of Flooding in Nigeria and Its Effects on Farmers Health and Wellbeing

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Abstract

This paper sought to unravel the implications of flooding on mental health in the food affected areas of Nigeria. The paper tried to review the psychosocial factors contributing to mental health issues in flooded areas, investigate the immediate and post experience of flooding, and assess the post-flooding mental health impacts on the society. It was found that flooding have a wide range of psychosocial and mental health impacts. Emotional instability, stress reactions, anxiety, depression, somatisation, post traumatic stress disorder (PTSD) and other psychological symptoms were reported to be observed commonly after the disaster and other traumatic experiences. These psychological effects have a massive impact on the concerned individual and also on communities affected. The psychosocial impact of flood disaster can be of immediate experience or post event experience which manifest as any or some of the following: Depression, Grief, Anxiety, Substance Abuse and Family Problems, Stress and Secondary Psychosocial Stressors, Vulnerability, among others. It was found from literature that flooding affects the health and wellbeing of farmers and by extension their productivity. The paper therefore recommends as follows: that Psychological First Aid be adopted as one of the approaches for managing people who have been affected by flooding; people who are affected should not only be offered a single session of stress debriefing or counseling, constant monitoring and counseling are needed for recovery from any form of mental health issue that may arise after flooding and other long term planning made as well. Also people who are at risk of developing a mental disorder may require specialist mental healthcare for effective management of their situation and to nip it by the bud.

1.0 INTRODUCTION

Floods are the most common type of global natural disaster and a natural event which have a negative impact on mental health. Flood is the inundation of water bodies into dry lands and residential areas where it causes damages and destruction to lives and properties. It can occur when water bodies rise into areas above their normal levels. All water bodies have their catchment areas and containing valleys; oceans have their containment basins, ponds are contained in their bowels

and rivers flow in their channels where their spread is limited when there is heavy rainfall and runoff prevented to some extent. A flood is an overflow of water that submerges land that is usually dry. Flood can also be said to be the accumulation of too much water at the natural or artificial banks of a water body, causing destruction of lives and properties of people in the affected areas. Flooding event has been a huge environmental issue all over the globe and are of great concern in most aspects of human life and activities as can be seen in various sectors like in agriculture, civil engineering, economy and public health where as mental health is also becoming a serious concern of the impact of flooding and one of the areas researchers are looking into.

The causes of flooding is not limited to one, but can be attributed to heavy rainfall above normal level which comes as a result of the impacts of climate change and global warming coupled with human changes to the environment that often increase the intensity and frequency of flooding, for example the use of lands such as deforestation and removal of wetlands, changes in waterway course or flood controls such as with levees, and larger environmental issues such as climate change and sea level rise. In particular climate change's increased rainfall and extreme weather events increases the severity of other causes for flooding, resulting in more intense floods and increased flood risk. Other causes of flooding includes; capacity infiltration, large amount of discharge, increased urbanization and basin shape. Though the various causes of flooding can differ within regions of the world as what effect global warming might bring to one region might be different in another region.

In Nigeria, the government has blamed the floods of 2022 on unusually heavy rains and climate change, but flooding was widespread on 13 September in Nigeria with the perennial release of water from the Lagdo Dam in neighboring Cameroon. Excess water released from the dam which flows and entered down River Benue and its tributaries, flooding communities in the states of Kogi, Benue as well as other states in the northeast. When Lagdo Dam was constructed in 1982, there was an agreement by Nigerian authorities to build a second, twin dam in Adamawa State to contain the overflows. Known as the Dasin Hausa Dam project, it was to be situated in Dasin Village of the Fufore local government area, but was never built by the Nigerian government.

Flooding event has been a major concern all over the globe to both the developed and developing world which has been a major environmental concern because of the effect it has on both life and properties and the environment at large. Several causes and effects of floods impact majority of people particularly those in the river line areas, where it impacts on social, health as well as economic life. But emphasis will be laid particularly on the mental health implications of flooding in Nigeria which has been a neglected and unseen circumstances of post-flooding event by the government which has dealt with people in affected areas on the long term. When the mental state of an individual is affected, it goes a long way to affect the productive nature and general well being of the individual. Natural events such as floods expose people to several health-related problems from incidence of disease or unhealthy to death (Alderman *et al.*, 2012). Survivors can experience longer-term psychosocial effects such as distress, anxiety, pain, depression, and social dysfunctions and might sometimes lead to psychosis and insomnia. Severe distresses in the worst cases may become mental disorders or so-called psychopathologies (Watts *et al.*, 2015). Distress

may occur during the event itself or after the event, the latter is known as post-traumatic stress disorder. There is a range of such disorders, most of the psychological symptoms resulting from a disaster are a normal reaction to an abnormal event that do not need to be pathologized and do not result in clinical disorders. Several risk factors interact to determine the degree to which people suffer psychologically from natural disasters (Alderman *et al.*, 2012). They include factors related to the hazard itself that characterize flood severity to people such as water depth, flood type and duration, and factors related to negative consequences of floods such as injuries, threat to life, property damage, financial losses, and displacement.

Floods often cause damage to homes and businesses if they are in the natural flood plains of rivers. While riverine flood damage can be eliminated by moving away from rivers and other bodies of water, people have traditionally lived and worked by rivers because the land is usually flat and fertile and because rivers provide easy travel and access to commerce and industry. Flooding can lead to secondary consequences in addition to damage to property, such as long-term displacement of residents and creating increased spread of waterborne diseases and vector-borne diseases transmitted by mosquitoes.

2.0 AIMS AND OBJECTIVES

Due to the prevalence of flood in Nigeria and the after effects it has on the areas affected, the aim of this study seeks to understand the implications of flooding on mental health in Nigeria. The objectives includes:

1. to review the effects of flooding on farmers health and wellbeing,
2. to understanding the psychosocial factors contribution to mental health issue for an immediate and post experience of flooding,
3. to assess the impact of mental health on the society after a flooding disaster.

3.0 LITERATURE REVIEW

Effect of Flooding on Farmers Health and Wellbeing

Health impacts of floods intimate the impact of floods on the human community and its relation directly to the location and topography of the area, as well as human demographics and characteristics of the built environment. The health impacts of floods are wide ranging, and depend on a number of factors. However, the health impacts of a particular flood are is specific to the particular context. The immediate health impacts of floods include drowning, injuries, hypothermia, and animal bites. Health risks also are associated with the evacuation of patients, loss of health workers, and loss of health infrastructure including essential drugs and supplies. In the medium-term, infected wounds, complications of injury, poisoning, poor mental health, communicable diseases, and starvation are indirect effects of flooding. In the long-term, chronic disease, disability, poor mental health, and poverty-related diseases including malnutrition are the potential legacy.

Weiwei, Gerard, Michele and Xiang-Yu (2010) in the work *Health Impacts of Floods* explains floods are the most common hazard to cause disasters and have led to extensive morbidity and mortality throughout the world. The impact of floods on the human community is related directly to the location and topography of the area, as well as human demographics and characteristics of the built environment. This study identifies the health impacts of disasters and the underlying causes of health impacts associated with floods. A conceptual framework is developed that may assist with the development of a rational and comprehensive approach to prevention, mitigation, and management. This study involved an extensive literature review that located >500 references, which were analyzed to identify common themes, findings, and expert views. The findings then were distilled into common themes. The health impacts of floods are wide ranging, and depend on a number of factors. However, the health impacts of a particular flood are specific to the particular context. The immediate health impacts of floods include drowning, injuries, hypothermia, and animal bites. Health risks also are associated with the evacuation of patients, loss of health workers, and loss of health infrastructure including essential drugs and supplies. In the medium-term, infected wounds, complications of injury, poisoning, poor mental health, communicable diseases, and starvation are indirect effects of flooding. In the long-term, chronic disease, disability, poor mental health, and poverty-related diseases including malnutrition are the potential legacy. This article proposes a structured approach to the classification of the health impacts of floods and a conceptual framework that demonstrates the relationships between floods and the direct and indirect health consequences.

Michele et al., (2010) explains that health consequences of floods may be categorized broadly as direct or indirect. Direct consequences are those resulting from direct exposure to the water and the flooded environment, and include drowning, injuries from debris, chemical contamination, and hypothermia. Indirect consequences are those associated with risks associated with the damage done by the water to the natural and built environment and include infectious diseases, malnutrition, poverty-related diseases, and diseases associated with displaced populations. The health consequences of flooding may be described in terms of time as immediate, medium-term, and long-term. There is no clear definition of these terms; indeed, in many respects, these periods overlap. Health impacts of flooding: A global systematic review by Ahern, Kovats, Matthies and Roger (2004) highlights based on published evidence, the greatest burden of disease due to flooding in developed countries appears to be due to the longer-term mental health sequelae, with implications for mortality and use of health services. Controlled epidemiological studies of flood events in the South are few but indicate considerable burden of disease due to diarrheal diseases and mental health outcomes. Outbreaks of mosquito borne infections often follow flooding but are associated with limited health burdens, with the exception of malaria. The disruption of water supply and sanitation systems and the destruction of hospitals and clinics represent important health problems in poorer countries although quantitative evidence of health impacts is sparse. Individual risk factors for drowning, infectious disease and poor mental health consequence include age, social contacts and level of household income. Quantifying the full impact of flooding on health, i.e., the intermediate and longer-term health impacts in addition to deaths by drowning.

The burden of ill health depends on both the severity of flooding (measured as depth, flow and persistence), and the setting (developed versus developing countries).

Mental Health Implications of Flooding

The mental health implications caused by the memory of damage and losses associated with flooding in Nigeria is a long term health issue of post-flooding event which remains an unseen circumstances and neglected aspect on the impact of flooding in Nigeria. This is particularly important for communities that are likely to be repeatedly flooded where levels of mental health disorder will damage long term resilience to future flooding.

There are a variety of factors that affect the prevalence of mental health disorders in the aftermath of flooding including pre-existing mental health, socio-economic factors and flood severity. However, much attention is being given on the short term impacts immediately following the flood event and less attention has been given to the longer terms effects of flooding. Understanding of factors affecting the longer term mental health outcomes for flooded households is critical in order to support communities in improving social resilience.

Floods can cause widespread devastation, resulting in loss of life and damages to personal property and critical public health infrastructure. Between 1998-2017, floods affected more than 2 billion people worldwide. People who live in floodplains or non-resistant buildings, or lack warning systems and awareness of flooding hazard, are most vulnerable to floods. (World Health Organization, 2020). While greater assessment of impact of flood can be monetized, there remain certain impacts cannot be redressed with financial aids. One of such impacts is the mental health impacts of flood.

The Nigerian 2012 rainy season has been worse than earlier years, and heavy rains at the end of August and the beginning of September led to serious floods in most parts of the country. The Nigerian authorities contained the initial excess run-off through contingency measures, but during the later weeks of September water reservoirs have overflowed and authorities were obliged to open dams to relive pressure in both Nigeria and neighboring Cameroon and Niger, leading to destroyed river banks and infrastructure, loss of property and livestock and flash floods in many areas. By 29 Sep, the floods had affected 134,371 people, displaced 64,473, injured 202 and killed 148.

By the end of October, more than 7.7 million people had been affected by the floods, and more than 2.1 had registered as IDPs. 363 people were reported dead, almost 600,000 houses had been damaged or destroyed. Out of Nigeria's 36 states, 32 have been affected by the floods. By January 2013, the rivers were back at their usual water levels and further flooding was not expected in the short term .

The 2022 Nigeria floods have affected many parts of the country. From the Federal Government Data, the flood has displaced over 1.4 million people and killed over 603 people and injuring more than 2,400 persons. About 82,035 houses have been damage, 332,327 hectares of land have also

been damaged. While Nigeria typically experiences seasonal flooding, the floods were the worst in the country since the 2012 floods.

As of October, over 200,000 homes have been completely or partially destroyed by the floods. On 7 October, a boat carrying people fleeing the floods capsized on the Niger River, causing 76 deaths.

The flooding was caused by heavy rainfall and climate change as well as the release of water from the Lagdo Dam in neighbouring Cameroon, which began on 13 September. Flooding began in the early summer of 2022 and is expected to continue through November.

Floods continue to affect Jigawa State (northern Nigeria), resulting in an increased humanitarian impact. According to Nigeria National Emergency Management Agency (NEMA) and media reports, at least 50 people have died across Jigawa since the beginning of the rainy season. Hundreds of households have been displaced to 11 temporary camps, as floods have destroyed many houses, infrastructure, farmlands, livestock, and properties. On 23-25 August, moderate to heavy rainfall is forecast over most of Nigeria, including Jigawa State.

According to media reports, since the beginning of 2022, 300 people have been killed in separate flood-related incidents, 100,000 have been displaced and 500,000 affected across the country. Media report (quoting national authorities), as of 18 October, 603 fatalities, over 2,400 injured, nearly 1,303,000 displaced people and a total of more than 2,504,000 affected people across the Country. In particular, the Bayelsa State is the worst affected, with around 700,000 either displaced or affected people. In addition, same sources also report around 203,400 damaged houses, of which over 82,000 fully damaged or destroyed. This has led to devastation of houses, bridges, roads and other infrastructure across the country. (Akinloye, 2012, Usip, 2015). Whereas many government reports globally often presents the impact of flood in terms of monetary value, fatality, and damages, and emergency response mostly focus on financial and medical aids to the affected individuals and communities, there exist a sublime impact that may never be evaluated financially, or redressed even long after the flood incidence. This is the psychological impacts of flood, for instance, the post traumatic stress disorder, depression and anxiety cannot be quantified financially. The loss of a love one, an heritage site, permanent disability or exposure to scary scenes can affect an individual long after the flood event, irrespective of financial aid available. This review therefore considers the psychological impacts of flooding in Nigeria.

Flood Impacts

Flooding has become a major environmental hazard in Nigeria in recent years due to a growing population, rapid urbanization and extreme weather events and non response of the government towards finding solutions to reduce the impact (Oladokun and Proverbs, 2016). Flood events have social consequences on individuals and communities which spans over long period of time. These consequences are losses experienced in the community or by an individual as a result of flood event. Flood impacts can have both direct and indirect impacts. Direct impacts can be those impacts that result from a physical contact between floodwaters and humans, economic assets, or other objects. Examples of direct impacts are the destruction of houses, crops, or livestock by

floodwaters, the loss of life caused by drowning or injuries and deterioration of health conditions owing to waterborne diseases. On the other hand, indirect damages are induced by the direct impacts and may occur – in space or time – beyond the immediate limits or outside of the flood event such as a loss in productivity resulting from a disruption in supply chains or interruptions to flows and linkages Hammond *et al.*(2014). Both impacts can be further be subdivided into substantial and Insubstantial impacts. Substantial impacts are those that can be expressed in monetary terms, with existing market prices. This can be referred to as goods, and they include infrastructure element, buildings, agro – products, etc. On the other hand, insubstantial impacts are non marketable goods which cannot be easily quantified monetarily because of lack of market price e.g. long term health effects, destruction of cultural heritage and loss of a loved one Philip *et al.*(2017)

Psychosocial and mental health implications of flooding in Nigeria

Natural disasters, including flooding have been reported to have a wide range of psychosocial and mental health impacts. Emotional instability, stress reactions, anxiety, depression, somatisation, post traumatic stress disorder (PTSD) and other psychological symptoms are observed commonly after the disaster and other traumatic experiences. These psychological effects have a massive impact on the concerned individual and also on communities affected Makwana (2019). The psychosocial impact of flood disaster can be of immediate experience or post event experience.

The immediate effect; can be related to severe physical injury, exposure to extreme danger, witnessing death of close ones or mass dead and injuries, traumatic experience of helplessness, hopelessness, separations, and the need to choose between helping others or fighting for one's own survival. Maladaptive reactions during exposure to disaster such as paralyzing anxiety, uncontrolled fright behavior and group panic, may be incompatible with survival. Studies have shown that the level of preparedness, disaster training and education, and previous experiences greatly determine the good outcome. Usually, the ability to cope with the disaster at this stage determines the psychological/mental impacts at post disaster level. Programmes aimed at reducing panic in the community are very vital at this level (World Health Organization, 1992).

The post event effect; many different emotional reactions may occur after a disaster. In the beginning, many people fell numb or even elated however, the stress effects may show, although these reactions are often short lived, and may be considered a normal reaction to a traumatic experience. Common post-disaster reactions include intense feeling of anxiety, which may be accompanied by flashbacks or intrusions and frightening memories of the experience, anxiety and intrusion memories or re-experiencing, especially of life threatening or gruesome encounters with death. These symptoms are expected to settle over the first weeks. Where these reactions are maintained at a high level, and for over few weeks, they present a post-traumatic stress disorder (PTSD). Spontaneous recovery occurs in the majority of cases, but in a small proportion, the conditions can last many years, and in very fewer cases a life time Kreimer (2001).

The post flooding effect that impacts on mental health following a disaster include Post-Traumatic Stress Disorder (PTSD). This is characterized by inability to recover after extreme flooding disaster. It is a most severe psychiatric disorder following as a result of flooding can be seen as post-traumatic stress disorder. This implodes as a result of delayed and/or late response to a flood disaster which is of significant threat to life, and is likely to extend as distress in almost the inhabitants in the affected area. It is a mental health condition and the symptoms may include flashbacks, nightmares and severe anxiety, as well as uncontrollable thoughts about the flood disaster. (Mayo Clinic, 2020, WHO, 1992). This can be the case in any part of Nigeria affected by flooding and the condition may go on for months or years bringing back memories, the trauma which is often accompanied by emotions and reactions which can physically be noticed.

Depression

This can be visualise as a state of mind producing serious, long-term lowering of enjoyment of life or inability to foresee a happy future. This extends as sadness, feelings, loss of interest or pleasure, disturbed sleep or appetite, guilt or low self-worth, loss of concentration, and extreme tiredness after a flooding event. Depression may include a depressed change of mood, reduced or loss of interest or pleasure in activities the individuals once enjoyed, a loss of sexual desire, sudden change in appetite, unintentional weight loss or gain, sleeping too much or too little (insomnia), agitation, restlessness, and pacing up and down, slowed movement and speech, loss of energy, feelings of worthlessness or guilt, difficulty in thinking, concentrating or making decisions, and recurrent thoughts of death or suicide, or an attempt at suicide. This period of unhappiness or low morale might lasts longer than several weeks after the flood disaster and may include ideation of self-inflicted injury or suicide. Depression can be dominant in Nigeria in states where food production is of Paramount that is the river basins where most inhabitants are predominantly farmers, the general well being of the individuals after such flooding event can be worse leading to a long term effect and dissociation from real life if adequate urgent mental health attention are not followed up sequel to the flooding.

Grief

Grief is one of the attributes of mental health disorder of flood victims, it is a pain of mind arising from misfortune, important personal loss, misconduct of oneself or others in the aftermath of flooding event. Grief can be seen as the response to loss, particularly to the loss of someone or something that has died, to which a bond or affection was formed after a flooding disaster Wikipedia, (2020). Although conventionally focused on the emotional response to loss, it also has physical, cognitive, behavioral, social, cultural, spiritual and philosophical dimensions. As observed by WHO (1992), for the flood plain areas of Nigeria in states like kogi, Benue, Adamawa, Jigawa and some Eastern part of Nigeria particularly communities of Anambra and Delta states are increasing likely to experience significant losses, and the emotional reactions which may occur after flooding are likely to be those of grief. There may be grief for the loss of loved ones, or home, treasured possessions, livelihood of the community. The severity of the quality of being unhealthful due to incidence of disease is greater for the individual when associated with personal

loss due to death of a loved family member. The emotional reactions of grief include sadness, distress, anger and longing and yearning for what has been lost.

Anxiety

is a response of the individuals in a flood prone areas to a perceived threat of flooding event which is triggered by an individual's beliefs, feelings, and thoughts and characterized by worrying thoughts, tension. Blood pressure, respiratory rate, sweating, pulse rate, and dizziness tends to be on the increase. Difficulty of swallowing substances, and chest pain might be experienced. Common anxiety signs and symptoms may include excessive worrying, feeling agitated, restlessness, fatigue, difficulty concentrating, irritability, tense muscles, trouble falling or staying asleep, panic attacks, avoiding social situations, and irrational fears. This generally alters the mental state of an individual in the pre and post flooding event.

Substance Abuse and Family Problems

In the aftermath of flooding and with the destruction and loss that comes along with it especially the loss of something of significant value, person, livelihood, heritages. Some individuals tend to resort to use drugs and abuse of other banned substances to heal from their losses. It has been noticed of increases in alcohol and drug consumption after flood disaster, while social withdrawal, particularly in association with numbing, can be the most frequent form of unhealthful practices in interpersonal relationships. Family problems may arise when a breadwinner of the family may have lost the means of livelihood to flooding and left with nothing to fend for the family, the abuse of substances coupled with family problems may push individuals towards depression, psychosis, insomnia etc. giving rise to PTSD. The stress of the aftermath, the preoccupation with painful memories or losses, or the disruption of home, family and community life and even work, may all adversely affect adjustment. Family problems and conflicts may occur, children may be over protected, and sometimes family violence may result. (WHO, 1992).

Stress

Stress is a feeling that is initiated when a person perceives that demands exceed resources mobilized by individuals. This effect of demand exceeding resources can be felt mostly on the long term after flooding when there is dependency on the flooded areas for some goods and services and other socio-economic activities, and as a result of loss of some livelihood and valuable resources are not able to offer those services which will break the economic chain of trade between the area of flood and the area depending on them or if at all there will be limited resources to provide for their needs and this might result to mental stress. The symptoms of stress disorder can be seen as; intrusion symptoms, negative mood, dissociative symptoms, avoidance symptoms and arousal symptoms.

Secondary Psychosocial Stressors

Certain specific stresses can arise in the wake of flooding disasters which impacts on mental health which can be felt upon social changes. These include the displacement of individuals to other

geographical areas, housing people in camps, unemployment, inactivity and lack of recreational possibilities, the fostering of dependency in survivors, general disruption of the social fabric and the breakdown of traditional forms of social support. Studies have identified a variety of individual secondary stressors associated with adverse mental health outcomes, including: acute unemployment, financial loss, problems with insurers and concerns about health. (WHO 1992 and Tempest *et al.* 2017). This secondary psychosocial stressor deprives most individual of their social life and societal status and in general their way of life in the aftermath effect if flooding where they are made to relocate, readjust and adapt to a certain life and routine different from the ones they are used to. This goes a long way to affect most individuals psychologically especially if conditions takes longer to return to normalcy.

Vulnerability

The state or condition of being weak or poorly defended. The psychological effects of flooding are more drastic among children, women and dependent elderly population. After any sudden flooding disaster, they become the most vulnerable or exposed population because they have special needs which has to be taken care of (Makwana, 2019). There are various behavioural, mental characteristics and emotional issues and unstableness observed in older children and adolescents after flooding disaster. The psychological impact on children due to disasters can be in the form of PTSD (Peek, 2008).

4.0 SUMMARY OF LITERATURE FINDINGS

From the review of literature, it can be observed that mental health of individuals is likely to be much more affected in the areas associated with repeated flooding disasters. Mostly women, children, the productive population of the country Nigeria, some individual diagnosed with pre-existing psychological issues and the elderly are vulnerable to the mental health implication of flooding .

The quality of life in flood affected areas in Nigeria might be filled with social vices and societal problems long after the flooding disaster if necessary steps are not taking with the right agencies to rehabilitate individuals of the mentioned above. Because of the high mental health implications of flooding both psychosocial and psychological, the mental health implications can transcend to much abuse of substances and abuse of human life in such areas, sexual assault and increased sexual drive, psychosis; a mental disorder which is characterized by a disconnection from reality sets in and the number might be on the rise if necessary steps of rehabilitation of individuals in flooded areas are not followed up. Insomnia is another condition expected in such areas which hamper the productivity of such areas.

There will be an expected increase in cases of PTSD in the affected communities, when compared with PTSD prevalence before the flooding looking backwards. Comparing affected and non-affected areas will indicate a widespread of PTSD or PTSD-related symptoms in the flooded states of Nigeria and it's communities. A body of knowledge is of the opinion that PTSD, or symptoms

associated with PTSD, could be responsible for the development of other mental health problems such as depression, anxiety or substance abuse disorders.

In Nigeria, communities that is exposed to flooding disaster will show higher levels of anxiety when compared with the non-exposed communities. Overall, people from the flood-affected areas are more likely to experience an increase in depression symptoms as can be seen in the productive populations predominantly made of farmers and where the means of livelihood is solely dependent on upon the household rather Government jobs. Therefore, population affected by flooding in flooded areas are moreso likely depressed than those in non-affected zones. The Psychological Wellbeing/ Psychosocial distress; Overall psychological health and mental health-related quality of life will be significantly worse in affected areas compared to non-affected areas.

5.0 CONCLUSION

Flooding can lead to situations in which health and on the long term the post effect of flooding; mental health, can be put at risk, resulting in an increased burden on the affected areas as well as on the healthcare service providers and other institutions that provide counseling and mental well being of individuals and impacts heavily on the production chain and dependency of the affected communities.

Emergency responders should bear in mind of recovery timing and space of affected areas. The result of actions of flooding on mental health should considered and work with agencies responsible for managing the environments in which people live to support measures which mitigate the effects of flooding on communities. The vital importance of social relationship of communities and families should be recognized before disasters occur, and should support its restoration as soon as possible afterwards. Restoring communications and keeping families together are key to reducing suffering and promoting recovery from flooding.

The Nigeria government through her healthcare services and providers should be aware of the distress that flooding may cause for people who are affected. It should be noted that minority of people who are affected by flooding may develop mental disorders in the medium to longer term following flooding, or may experience aggravation of pre-existing mental disorders.

It is important to understand stress, and the stressors that are inflicted upon people by floods and how they cause short-term distress in many people, influence their medium- and longer-term wellbeing, and affect the mental health of persons and populations.

Primary stressors are naturally a part in all disasters and encompass any experiences that people have that are directly related to, or consequent on their exposure to disasters.

A majority of people experience distress after disasters. But, personal and collective psychosocial resilience are inherent in each population, and families, communities and non-statutory and statutory services offer protection for people against psychosocial adversity during and after extreme events.

Secondary stressors follow on from, or are consequential on primary stressors: they include infrastructure failure and challenges to people, families and communities returning to normality and repairing buildings, or failure to adjust to the ‘ new normality,’ i.e., the new set of living circumstances, that ensues after disasters.

Peoples psychosocial experiences can be shaped by the origin and delivery of care and the timeframes of activation of stressors: this makes it possible to describe how and where public health responses should be delivered.

Peoples psychosocial experiences in the aftermath can oscillate between distress and recovery, and the aftermath of their recovery from floods tends to be a phase of, at least, medium-term duration, which can endure for weeks, months or years. This is because: Secondary stressors often arise during the responses to the clean up, recovery and rebuilding phases after flooding. Some peoples experiences may be of the quantity, severity and duration or are associated with sustained dysfunction such that it is appropriate to call them symptoms of mental disorders.

Support networks may not provide enough support for a small proportion of people, or some people may not recover from distress even though stressors are removed. In this situation, more persistent problems, or mental disorders, can develop, or pre-existing ones are provoked. People who are affected in these ways should be assessed by the primary care services and some of them require treatment by the specialist mental health services.

6.0 RECOMMENDATION

From the review of earlier studies, it can be noted of increases in the incidence of mental health including substance use and misuse, depression, anxiety, grief, insomnia and post-traumatic stress disorder as well as family problems following flooding.

It is recommended as one of the approaches for managing people who have been affected by flooding is based on Psychological First Aid. Psychological First Aid is not an intervention but is a set of principles and actions that can be performed by anyone. It consists of humane and supportive responses for fellow humans who are suffering and needs support.

It is recommended that people who are affected are not offered only a single session of stress debriefing referred to as counseling with the responders therefore constant monitoring and counseling are needed for recovery from any form of mental health issue that may arise after flooding and other long term planning made as well. Psychological First Aid is a more appropriate response in the early stages of recovery. However, a small minority of people are at risk of developing a mental disorder and they may require specialist mental healthcare. The difference between a person experiencing distress and developing a mental disorder depends on a number of factors including the severity and duration of the flood, a person's pre-existing problems, and the overall impact of the flood on each person's life.

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