Abstract

Objective: Findings show that socio-economic development programs geared toward helping African nations to become self-reliant and self-sufficient are not successful in accomplishing their goals. This article tries to explore, although with limited internally generated database, that the neglect or lack of integrated program model that include mental and behavioral factors are primarily the underlying factors. Methods: The article reviews research findings, literature and evidence-based reports that link human mental well-being to individual, family, community and national social development and disability. Of major interest are the effects of untreated traumatic stress factors (e.g., life-event natural or man-made stressors, or acute or chronic stress not otherwise listed), as well as the direct or indirect influences of mental health, personality and interpersonal relationships to self-sustenance. Results: Based on sufficient scientific findings, it is determined that if programs in socio-economic, education, medical and public health, gender-based initiatives, conflict-resolution and mitigation, etc are sufficiently and adequately designed to integrate mental health, especially among a population with a history of war, violence, abuse, neglect, and extreme poverty, there will be actual and significant successful results in moving people out of extreme poverty, endemic health care problems, and social and political stability. Conclusions and Recommendations: The effects of psychological trauma in all aspects of human life and well-being are real and indisputable. We suggest that the international community (through the United Nations), the developed nations (through their funding agencies), funding organizations and foundations, NGOs, as well as the national governments
and policymakers of benefiting countries should invest on researches that explore more on the relationship between mental and behavioral health and other aspects of human well-being. More funding should be made available to integrated and interdisciplinary program models that adequately as address the hidden but destabilizing pains and injuries of psychological traumas.

Keywords: Interdisciplinary, Mental wellbeing, Susceptibility, Vulnerability, neuroendocrinological reactions

Introduction

Long before Cohen and Williamson (1991) published their article “Stress and Infectious Disease in Humans,” Andrew and Tennant (1978) had already predicted a direct link between stress and physical illnesses. Unlike Cohen & Williamson, Andrew and Tennant did not link any specific physical problems to mental health, but they paved the way to a new awareness of the relationship between the human mind and the world in which his exists. The recognition of a possible correlation between psychological conditions and the physical well-being of humans gave Andrew and Tennant recognition as revered pioneers of psychobiophysiological (PBP) perspectives of human activities and well-being. While recognizing the great achievements made by studying humans from a diverse perspective, it is equally important to acknowledge the danger of treating human problems as incompatible segments that are unconnected to other problematical dimensions of existence. Today, a multidimensional approach to human health and well-being has not only made tremendous impacts in the growth of modern health care, but has also improved the way human nature and its environment is perceived. There is no other population where an integrated and a multidimensional approach to programs/project is needed more than in developing and low-income nations of the world, where natural and man-made conditions have exposed many to mental and emotional turmoil.

Despite the numerous scientific findings that implicate mental health in the totality of human physiological and socioeconomic problems such as poverty, underachievement in academics, low productivity, food scarcity, abuses and infectious/chronic diseases (Yang & Glaser, 2000; ScienceDaily, 1999; Biondi & Zannino, 1997) to name some, there is little to no effort by African governments as well as foreign non-governmental organizations (NGOs) to develop plans that objectively treat human problems in unity with mental wellbeing. Judging the data from the 17,502 organizations registered with the UN’s Department of Economic and Social Council (ECOSOC), 80.3% registered as NGOs, 92% of which are associated with providing direct economic and social services to people. Within that number, 88% of the NGOs reported providing, economic, socio-development, medical, education, and agricultural services to developing (low income) countries. Not surprising, an estimated 82% of these services are reported to be provided in Africa. In Africa, for example, there is no foreign NGO structured or equipped to operate strict integrated program, where mental, emotional, cognitive and
personality problems are weaved into social, development and economic programs/projects. A few local NGOs (many of which were or still are local partners of foreign), that try to provide such services do not have both the strategic structure and the training required to operated such encompassing programs..

I would like to show in this paper that no matter the amount of funds and time spent in providing services to a population in need, the goals of the program will not be realized unless grants are made available for NGOs whose programs or projects are designed to address many dimensional problems that interplay to cause unsuccessful sustainability of the population in need. There is, today, a consensus among field researchers and the international community that the abject lack of integrated programs/projects that address mental, medical, social, and economic wellbeing of population in an interconnected manner is behind the inability of NGOs to conduct programs that result in long-term sustainability (UN/WHO, 2010). This can explain why the good intentions that created the funds and the efforts invested in addressing Africa’s problems have not translated into long-term sustainable development and national stability.

**Rationale of this Paper**

The consequences of war, armed conflicts, geopolitical instability, extreme poverty, and insecurity are extensive and carry the potential to negatively disrupt the lives of its victims, but apart from the immediate costs in lives, properties, and displacement of people, the direct and indirect impacts of war and armed conflict can have profound mental, cognitive and emotional destabilizing effects in individuals, families, communities, as well as on the entire nation. These destabilizing effects and feelings of insecurity are not only felt in physical injuries or material losses, but their most devastating effects are mental and emotional injuries, which unlike other injuries are subtle and at the same time destructive if not adequately diagnosed or treated. The lack of adequate mental health treatment can result in complicated emotional, behavioral, personality, and cognitive problems that can entangle a nation in a web of destabilization and impoverishment for decades or even generations.

As Africa becomes a battle ground of wars, brutal and senseless armed conflicts, political instability, and human rights violations, too many people have become victims of brain, mental, and emotional traumas, yet treatment is inadequate at best and unavailable at worst. For victims who survive these crises, attempts are not made to alleviate their plight. Nevertheless, programs intended to adequately address post-traumatic stress turmoil, traumatic brain injury, and other psycho-medical or psychosocial problems are inadequately structured to deal with the multi-dimensional factors involved. In fact, the glaring and ambient neglect in this important area of mental health in connection to economic development programs and funding plans in Africa’s disaster and post-disaster rehabilitation usually results in a waste of funding and effort. This is
because, in spite of large funds committed in Africa each year and thousands of foreign and local NGOs that sought and received funding for programs in Africa, evidence shows that things are not getting better in many parts of Africa (WHO, 2010, ScienceDaily, 1999) and there a great concern that Africa will be the only continent the will not come close to attaining the Millennium Development Goals set for 2015 (UN, 2009).

As a matter of fact, Africans (professionals and policymakers) are as culpable as the non-governmental organizations (NGOs) and the funding bodies that have failed to recognize that mental health is the "behind the scenes" problem that hinders the successful accomplishment of goals and objectives so diligently conducted. The assertion that mental health is not a problem in Africa can be understood only in cases where there is a lack of awareness of the links between psychological problems and psychosocial developmental issues. It is difficult, however, to believe that foreign NGOs and funding organizations from developed nations remain unaware of the importance of mental health in survivability of traumatized persons. Perhaps their limited funding opportunities to capable and well equipped NGOs with integrated programs may include (a) the cost of sustaining the program, (b) the limited number of well trained and specialized volunteers or personnel and; (c) a lack of grant opportunities for new generation NGOs.

a) Costs of sustaining mental health programs: Unlike physical traumas, it takes a longer time period to adequately execute integrated programs that address emotional trauma and the availability of obtaining grant awards that cover such long-term rehabilitation is often difficult because many funding organizations are reluctant to commit to long-term programs.

b) Limited number of well trained and specialized volunteers or personnel: It is often difficult to get enough trained and specialized mental health volunteers, especially in Africa where the profession is almost inconsequential. In developed countries like North America and Europe where most volunteers are recruited from, specialized trained mental health professionals in integrated programs are limited and therefore overloaded with work in their own countries and consequently there is no time to volunteer.

c) Lack of opportunities for new generation NGOs: Due to stringent rules and regulations established by funding organization and grant-makers, new NGOs with operational models and intervention that fit into the latest scientific findings are denied funding opportunity in favor of mega-NGOs who perhaps rid on name recognition and connections rather than on operational model designed to address the real problems faced by the people.

Many funding organizations and grant-makers in the past have failed to realize that the institution of social development programs like agriculture, food security, information network,
poverty alleviation, human rights, infectious disease eradication, conflict mitigation, etc., without addressing emotional, behavioral, personality, mental, and cognitive illnesses, result in unsuccessful long-term and sustainable program/projects. Notwithstanding other circumstantial reasons responsible for limited interest in mental health programs, it is now known that for every $500,000 invested in Africa for socioeconomic development using the traditional model that treats human needs and problems as separate entities, generated only a 2% success in sustainability and self-reliance. When then the same amount is used for an integrated and interdisciplinary model approach (the human problem is conceived from a multidimensional perspective) a 42% success on self-sustenance was achieved.

Fortunately, the recent acceptance by the United Nations (UN) which maintained that the Millennium Development Goals (MDGs) will be unsuccessful if the international community as well as the policymakers of member countries continue to neglect or ignore the obvious effects of untreated behavioral, mental, emotional, and personality problems on development projects in general. The UN further recognized that poor mental and emotional well-being is often both a cause and a consequence of poverty, compromised education, gender inequality, ill-health, violence and other global challenges, and advised that a mental health and psychosocial perspective should be integrated into all development policies, programs, services, etc (UN/WHO, 2010; Onyut et al, 2009). As much as this recognition opens a new perspective for global health initiative, it also ushers in a new hope for millions who for far too long have endured the sufferings of neglect and hopelessness. Nevertheless, implementation is the crucible that will measure the UN’s assertion.

In support of integrated Programs in Africa

To assert that Africa needs a unique approach to the problems facing the continent is overemphasizing the obvious because not only do scientific findings and evidence-based reports support the importance common sense evidence also supports this position. From the brutal wars and armed conflict in Liberia, Sudan, Sierra Leone, Ethiopia, the Congo, Uganda and Eritrea to the gruesome genocide in Rwanda and Darfur, millions of soldiers, militias, child-soldiers, and war-lords as well as civilians who were exposed to horrifying experiences, we came to know much about the relationship between the human mental wellbeing and its day-to-day activities (Onyut et al, 2009). It has been reported that since the beginning of the war in the Democratic Republic of Congo (DRC) in 1998, more than a million women and girls have been brutally raped, assaulted or tortured, while about 180,000 families have had one or two of their relatives or friends killed or permanently and profoundly disabled. The report went on to state that more than 8 million civilians have been emotionally affected. This situation can be observed in Uganda, Eritrea, Ethiopia, Southern Sudan, Liberia, Chad, Niger to mention a few (Onyut et al, 2009). It is also known that out of 28 sustained armed conflicts in the world, 22 have taken place in Africa with a firm knowledge that many people are suffering from serious cases of PTSD/TBI (WHO, 2006). Unfortunately, of the millions that needed urgent and immediate psychological
care, only 2% have had some type of screening or treatment. In a country where millions of its population has been exposed to such an overwhelming and traumatizing experience and have not been treated, it is not an overstatement or exaggerations to suspect the detrimental effects of untreated PTSD and TBI among the people. If this is the case, a successful implementation of programs among this population must be interconnected, integrated and multidimensional.

**Mental wellbeing as a Neglected line of Defense**

In spite of the remarkable advancement in health science and technology in this modern era, mental health is still the most misunderstood and ill-conceived entity in human health, yet every aspect of human life (sound reasoning, learning, innovation, organization, personal and interpersonal relationships, productivity, creativity, sexuality and reproduction, judgment, respect and defense of others, personal and collective responsibilities, and the care of one’s body) is directly or indirectly interwoven with mental health and wellbeing. In his field research in Nigeria, Ajaelu (2003) discovered that about 93% of the people believed that mental health is about helping and treating mad (crazy) people. Among educated people (college/University), 80% believed that mental health deals with treating mad people (the mentally ill), 65% believed that most mental illnesses are caused by demons, witchcraft or poison from one’s enemy or wrath of God, and 80% did not see any connection between mental health and other aspects of human life. About 75% of medical (third and fifth year) students reported apprehension toward specializing in psychiatry because “psychiatrists are affected by (crazy) behavior of their patients and often behave like them.” Invariably, these stigmatizing views are not isolated or unique to Nigeria, rather research findings show that this views are universal even in developed countries like United States, Canada, France, United Kingdom, etc (Scheffer & Haanstra, 2005; U.S. DHHS, 1999; Stuart, 2006; Lilley, 2002; Read, 2006; Newswise, 2008; Halliwell, 2009). The difference, however, is that in developed countries the percentage of educated population that has false notion of mental health is smaller than those recorded in Nigeria. Furthermore, unlike in developing countries, the government, policymaker, and professionals in developed nations fund public education and awareness programs on mental health.

Mental or emotional illness is comparable with physical or medical illnesses in the sense that both are known to elicit the same burden of disease like pain and suffering, limitation and inhibition in physical, behavioral, cognitive, and emotional abilities (Vann, 2009). To be healthy, the interplay between the mind (brain) and the body (physical) must be balanced in such a way that one compliments the other and the neglect of one leads to the suffering of the other. In this sense, to be mentally healthy include the ability or capacity that promotes optimum functionality, resilience, flexibility/balance, placidity, survivability, self-efficacy, as well as ability to contribute positively to the growth, development, and stability of the environment one finds him/herself. With a definition as broad as this, mental and behavioral illness goes beyond cases of psychosis, but includes even the mild case of borderline personality who, although appears “normal” to onlookers, is marred in behavior and thought process antithetical to healthy life and
wellbeing. Consequently, the cause of and susceptibility to mental, emotional, behavioral or cognitive problems as a result of stress can be best explained under the diathesis-stress model and biopsychosocial model (NIMH, 2010; Martin et al, 2010; WHO, 2001).

**Causation, Susceptibility and Vulnerability to Stress**

The observation of Posen (1995) that “stress is the most common cause of ill health in our society,” buttress the major component of this paper, which underscores the reason why the effects of mental health problems have been implicated in almost all aspects of human health and well-being. To help us explore the factors that contribute to the causation, susceptibility and vulnerability of stress, we must examine the dynamics and characteristics (clusters of syndromes) of the complex interactions between biological (neuroendocrinological reactions), psychological (personality, behavioral, cognitive, and emotional ability), and environment (social, and life-event factors) components of human activities. Anxiety is the major cause of stress and even though experts and researches have estimated that about 70% to 80% of all health and socioeconomic problems are related to stress, yet not all stresses are bad for us. In fact, both anxiety and stress are essential part of the body’s mechanism (evolution) that keeps humans at pace with the experiences needed to survive as individuals and as a group of people (community/nation). Bad stress arouses sustained and “violent” psychophysiological reactions in response to a real or perceived or eminent threat to survival. Any phenomenon, whether natural or man-made, emotional or physical, actual or imagined, that causes stress is call a stressor. For example, war and education are stressors.

The impact of stressors are transmitted and felt by animals (human included) as stress, which when balanced leads to accomplishment, motivation and actualization of tasks and responsibility. The balance between the good stress and the bad stress is maintained the body defense system that regulars and stabilizes the amount to stress needed at any given time to accomplish a desired task. Incapacitation of this defense system leaves that body vulnerable to the bombardment of stress. Due to the endless desires (some of which are irrational) of humans and the threats that are imposed on attending them, we encounter many stress-inducing events every day in our lives, but the innate body defense system works to stabilize human activities to keep extraneous or acute stresses in check. It is not clear, however, whether the same interferon and complement system involved in antigenic defense system that fights microbial or pathogenic organisms is also involved in defense against extraneous and acute stress. Actually, there may be some resemblance or similarity because it is established that the hypothalamic-pituitary-adrenal axis (HPA or HTPA axis), also known as the limbic-hypothalamic-pituitary-adrenal axis (LHPA axis), is related to body reactions to stress (Gonçalves, 2010; Ryan, et al, 2004) and the regulation of body immune system, mood and emotions, sexuality, digestion, and energy storage (Thompson, 2004; Kolchens, 2000; Lappin et al, 1992; Casiday & Frey, 1999). More will be said of the activities of HPA-axis in relation to stress later.
Since each individual is unique and constituted differently (genetics, biologically, environment, personality), the way each person responds to stress differs from one individual to another and the impact of traumatic evident (stressor) affects individuals on a different scale. For this reason, a universal consensus as to the causes of stress is not realistic. This is because what constitute stress in one individual or a culture may not be the case in another and what elect profound traumatic stress episode in one may not affect the other at all (see Figure 1). Basically, an individual becomes susceptible or vulnerable to stress when he or she is unable to cope (resilience) with day-to-day responsibilities (life-events). The factors responsible for weak resilience include but not limited to:

- **Predisposition**: genetic/diathesis disposition that interacts with the environment and stressors to trigger mental or physical disconnectedness.
- **Vulnerability**: susceptibility due to state of the mind, maturity, strength, survival skill, opportunity, level of information and freedom at one’s disposal during and after the traumatic event; and
- **Coping ability**: level of involvement or interacts with and proximity to stressors and the frequency or duration one has been exposure to stressors.

Many people are familiar with the words immunity or immunization or vaccination or stress management or immune-augmentation therapy or other treatments precaution we need to enhance our immune defense systems. Immunity, as we know, deals with the innate non-specific immune defense system that all species are born with. Immunization or vaccination, on the other hand, refers to specific-acquired immune system meant to boost or help the natural innate immune system, especially in those with weak (natural) immunity. The same mechanism can be appealed to resilience or coping system. Those factors that restrain or weaken our chances to maximize our potentials are referred to as vulnerability factors. One is said to be vulnerable when the individual is constrained or put in a condition of powerlessness. The technique through which stresses are handled is called coping method, which can be conscious or unconscious, voluntary or involuntary, biological or psychological. The stress equilibrium formula is measured by low vulnerability factor (LVF) plus high resilience factor (HRF) which is equal to low-body stress index (LBSI) and represented as: \( \uparrow VF + \uparrow RF = \downarrow BSI \). What it means is that as long as the underlying vulnerability factor remains high \( \uparrow VF \), it requires a little stressor to trigger a high-body stress index \( \uparrow BSI \), which is precursor to major emotional and behavior problem (see also Holmes et al, 1967). It is possible, therefore, that four siblings raised in the same environment and exposed to the same traumatic experience respond differently. One may experience no episode at all, while others may have mild or major traumatic episodes (Onyut et al, 2009).
Figure 1: The Diathesis-stress model: Like the Buffer-solution mode, diathesis-stress model states that the balance and proper function of the human body and mind depends on a combination (mixture) of weak and strong internal and external elements.

The figure shows four siblings (P1, P2, P3, and P4) brought up in the same environment. P1 is extremely vulnerable and with a low resilience, P2 is moderately vulnerable, with a medium high resilience, P3 is mildly vulnerable with a borderline resilience, while P4 is insignificantly vulnerable and highly resilient. If these four siblings are exposed to further traumatic experience, P1 will have a profound problem, P3 will have a severe problem, P3 will have a mild problem and P4 will move around as if nothing had happened. The formula is the smaller is vulnerability, the bigger stress is needed to break down the threshold of resilience (body defense), and greater the vulnerability, little stress is needed to break down body-defense barrier that triggers illnesses (mental or physical).
Mental Health illnesses Associated with Stress

The process through which traumatic stress factors that affect development is studied is referred to as trauma models of psychopathology (Ingram et al, 2005). The trauma model indicates that horrifying experience in one’s life can bring about a profound psychological or physical damage if not adequately handled. The events that bring about such damage are multifaceted and the damages they cause are also diverse. As we indicated previously, all traumatic experiences or events do not lead to psychological or physical traumas. Some traumas, through the mediation of coping systems, may be resolved spontaneously without the onset of any emotional or behavior illnesses. Even those who are symptomatic of traumatic events are affected differently depending on type, severity, and duration of signs and symptoms. Signs and symptoms of stress can be presented as behavioral, cognitive, social, emotional, and medical (physical) problems (see Table 1). There are three major distinctions of trauma models of psychopathology, which include but not limited to (a) Acute Stress Reaction (ASR), (b) Post traumatic Stress Disorder (PTSD), and (c) Traumatic Brain Injury (TBI).

Acute Stress Reaction (ASR)

Acute stress reaction is a temporary but heightened state of emotional reaction in response to a terrifying or traumatic event. It is “temporary” because acute stress reaction is generally typified by anxiety and a feeling of confusion and hopelessness that takes place within one month of a traumatic event and quickly dissipates. Such reaction may last for hours, days or weeks. In Africa, the cluster of dissociative and anxiety symptoms may be completely or partially somatized and the signs of restlessness and “out of body experience (disconnectedness) may be typical. Acute stress disorder is also called psychological shock, mental shock. Stress response is controlled by multiple factors of which several neurochemical actions have been implicated. The activities in the neuroendocrine response in the sympathetic nervous system are directly and indirectly involved in the release of epinephrine and in some situations a release of norepinephrine from the adrenal gland in the medulla ((Van den Berghe, 2001). When we perceive threat, there is activation of the sympathetic nervous system, alerting it to get ready for action. If the threat is resolved, the body goes back to its former stat, but a more intense and prolonged threat triggers the release of norepinephrine which acts on the heart, blood vessels, respiratory centers, and other sites priming the body for a reaction to the impending danger or threat fight or flight response. The constant firing and radical physiological changes in the brain result in intense visceral actions (epinephrine reaction) that brings about the fight-or-flight response", also called the "fight-or-flight-or-freeze response", the "fright, fight or flight response", "hyperarousal (Taylor et al, 2000; Saxon et al, 2001; Lescouflair, 2003). Another major player in the acute stress response is the hypothalamic-pituitary-adrenal axis.

Post traumatic Stress Disorder (PTSD),
Post traumatic Stress Disorder (PTSD), which was a core prominent nomenclature in the DSM-IVTR's Anxiety Disorders, is now categorized under Trauma-and-Stress Related Disorders in DSM-5. It comes under the Reactive Attachment Disorder and Disinhibited Social Engagement Disorder. It is defined as exposure to actual or threatened death, serious injury, or sexual violence; presence of one (or more) intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred; persistent avoidance of stimuli associated with the traumatic event(s), and negative alterations in cognitions and mood associated with the traumatic event (APA, 2013). It is characterized by exposure or witness to events or experiences that are extremely terrifying, systemic and sustained barrage of assault on an individual’s life with no immediate proximity of surviving or escaping from the ordeal. The onset of PTDS is usually associated witnessing or experiencing events or stressors that are violent in nature and life-threatening. These stressors include but not limited to combat or armed conflict, car accident, physical, verbal, sexual abuse, discriminations, rape, and extreme poverty. Other incidents are sudden and an unexpected death of a close and intimate relation, torture, incapacitating injury and terminal diseases. Depending on the type, level and duration of the stressor, the effects of stress may trigger in an organism a short term or chronic stressors over the longer term and the intensification of stress may result in general adaptation syndrome, which follow a three-level reaction to stressors. The diathesis-stress model is based on the concept that PTSD is caused by inappropriate coordination between the brain and the environment.

These traumatic memories are easily awakened by harmless stressful circumstances akin to the previous experience. Even though PTSD is prevalent among those who served or lived in intense combat areas, studies show that PTSD is found among persons who either witnessed or were themselves involved in abusive and violent relationships, brutal murder, actual or threatened death or serious injury to self, sudden loss of a close friend, torture, kidnapping, or forced immigration that created intense fear, helplessness, and horror (Ron de Kloet et al, 2005; Aldwin, 2007; EhealthMD, 2008). The symptoms of PTSD can be a) re-experiencing the trauma, b) numbing or avoidance, and c) hyperarousal symptoms.

a) Symptoms of re-experiencing the trauma

There is a general agreement among clinicians and researchers that symptoms related to re-experiencing the traumatic events is calibrated by the interplay between the environmental input (stressor) and memory (as a center for sensory registration, interpretation (codification), and storage of information and experience) (Laniu et al, 2008). Without going into details, the memory, as an information processing center, is directly implicated in the PTSD’s symptom of re-experiencing traumatic events. Like every other encounter we have with the world around us (environmental input), the memory of intense and horrifying experiences are internalized,
received, encoded, stored, and analyzed as an unresolved threat to survival and well being. Before information or an experience is permanently stored in the long-term memory (LTM), a mind’s mega-storage system, it passes through the working-memory (WM)\(^2\), and the short-term memory (STM) (Baddeley et al, 2010; Ericsson et al, 1999; Kellogg, 1995).

In an unthreatening situation, new information or experience passes from the environment (real or imaginary) through the audio-verbal and visuo-spatial imaging which sends sensory imprint (impression) to the mind by involving other neural codification processes. The information or experience is moved to the WM, a system that stores and manipulates the information required to carry out complex cognitive tasks, where further encoding and analysis of the solution and resolution are carried out (Baddeley et al, 2010). The knowledge of the problems and their solutions are encoded in a schematic structure called schematic solution blueprint (SSB positive or SSB+), and temporally stored in the STM. When the information is no longer needed and there is a need to create rooms for incoming information/experience, the analyzed and encoded information in STM is moved to the LTM through a process called rehearsal (see Figure 2). The information can be retrieved whenever problems or situations of the same or similar nature are encountered. In our lifetime, we accumulate a lot of SSB+ which invariably becomes a key factor in our coping skill, resilience to problems, decision-making, problems-solving, judgment, etc.

In a traumatic situation, however, the process is totally different because what the sensory impression registers in the mind (brain) is threat to life and well-being. For this reason, reception, interpretation, and identification of the threat will require urgent attention. This urgency is transmitted in a form of an alarm, generally referred to as fight-flight-freeze response system. In the case of PTSD, the threat was not resolved initially because the WM could not come up with immediate solution and it is encoded, stored in the LTM as the schematic solution blueprint with a problem (SSB negative or SSB-). Whenever there a similar situation, even though it is not threatening as the further episode, the memory retrieves the SSB negative previously store as threatening to life and well-being. The body will sound an alarm as an impending danger, thereby triggering the HPA-axis response (Tsigos et al, 2002; O'Reilly et al, 1999; Schneider, 1999), but this time around, it is a false alarm. This process will continue until the mental encoding (SSB negative) is reconstructed (cognitive-behavior reconstruction) to SSB positive (Light et al, 2010).

This is the reason why people with PTSD often experience flash-back, shocks, and nightmares and depending on the frequency and severity of the re-experiencing symptoms, their common

\(^2\) Working memory is a system for temporarily storing and managing the information required to carry out complex cognitive tasks such as learning, reasoning, and comprehension. Working memory is involved in the selection, initiation, and termination of information-processing functions such as encoding, storing, and retrieving data.
signs may include interference with usual concentration, decision-making, problem-solving, mood stability, sense of well-being, and performance and participation in day to day activities. It is obvious, however, that without first addressing these signs and symptoms, the individual cannot do well in school, at job or handle any type of personal and interpersonal responsibility (Light et al, 2010).

Numbing or avoidance symptoms in PTSD

The efforts and time spent in avoiding the stimuli that remind victims their traumatic experiences is a major attribute of PTSD, and this symptom makes it difficult for people with PTSD to engage in social activities or interact with people, move freely around, or hold thoughts or entertain feelings that remind them of the trauma (APA, 2002). There is difficulty remembering all or part of the traumatic events and a loss of interest in activities one used to enjoy or participated in. There is also feeling of isolation or detachment from others and emotionally numb Sense of a limited future (you don’t expect to live a normal life span, get married, have a career)
Figure 2: Cognitive and Biology of the Memory in symptoms of re-experiencing the trauma
Sometimes the avoidance cluster of PTSD symptoms is divided into two separate clusters reflecting avoidance symptoms (making an effort to avoid trauma-related reminders, difficulties remembering parts of a traumatic event, and feeling as though your life will be cut short) and emotional numbing symptoms (loss of interest in once pleasurable activities, feeling distant from others, experiencing difficulties having positive feelings).

Hyperarousal symptoms Stress-inducing Factors Implicated in PTSD

The survivor part of us is not able to listen to "reason". It is going to be constantly looking for danger from now on whether or not others think it is reasonable. Real physiological changes occur in the brains of survivors which make them quick to react. In order to live through the trauma, survivors may develop the capacity to go from being completely fine into a killing rage in seconds. That defensive mechanism helps them live. Some survivors may stop sleeping soundly. Sleep can get you killed, so they won't take the risk. Survivors may be uncannily able to read the moods of those around them because the moods of their abusers defined their lives. Sometimes they also become hypervigilant, searching for physical danger everywhere they are and all of the time.

Due to hypervigilance and lack of sleep, it is hard for survivors to concentrate on everyday things. They may do poorly in school and in their everyday lives that leads them to believe they are stupid or inept when actually they have a symptom of PTSD. Survivors often react faster and more completely to sudden noises or movements. These are lifesaving skills that the survivor feels they need while they are still at risk. These are reality based, effective survival skills. They keep you alive. They don't go away by themselves.
Table 2. Two Types of stress-inducing events

<table>
<thead>
<tr>
<th>Natural</th>
<th>Man-Made</th>
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<tbody>
<tr>
<td>Earthquake</td>
<td>War</td>
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<tr>
<td>Cancer</td>
<td>Armed conflict</td>
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<tr>
<td>Cardiovascular</td>
<td>Rape</td>
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<tr>
<td>Accident or physical injury</td>
<td>Extreme poverty</td>
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<tr>
<td>Living with HIV/AIDS or other forms of terminal illnesses</td>
<td>Kidnapping, torture or forced law</td>
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<tr>
<td>Unexpected death of a family member or a close friend</td>
<td>Kidnapping, torture or forced law</td>
</tr>
<tr>
<td>Unexpectedly witnessing a dead body or body parts</td>
<td>Enduring physical, sexual, emotional, or other forms of abuse</td>
</tr>
<tr>
<td>Hurricane</td>
<td>Terrorist attack or terrorism</td>
</tr>
<tr>
<td>Flood</td>
<td>Slavery</td>
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Behaviorally, the manifestations of PTSD signs may be subtle, but well informed individuals (friends and caregivers) can notice sharp but progressive changes in nervousness, strain, trembling, distrust, avoidance, nightmares, and agitation. Such experience may inflict profound and indelible damage in the mental processing mechanism and in neural pathways (central nervous system (CNS)).
Table 1. The Effects of undiagnosed and untreated PTSD on:

<table>
<thead>
<tr>
<th>Behavioral</th>
<th>Emotional</th>
<th>Social</th>
<th>Cognitive</th>
<th>Medical/Physical</th>
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<tbody>
<tr>
<td><strong>Behavioral</strong></td>
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<td><strong>Social</strong></td>
<td><strong>Cognitive</strong></td>
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<td><strong>Children</strong></td>
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<td><strong>Children</strong></td>
</tr>
<tr>
<td>Disruptive</td>
<td>Abusive &amp; irritability</td>
<td>preoccupied</td>
<td>Anger</td>
<td>Concentration, Truancy</td>
</tr>
<tr>
<td>Agitation</td>
<td>Aggressive Agitation</td>
<td>Confused</td>
<td>Catatonic</td>
<td>School dropout</td>
</tr>
<tr>
<td>Timid, nail biting,</td>
<td>Impulsivity and</td>
<td>Distracted</td>
<td>feeling lonely</td>
<td>Lack of creativity,</td>
</tr>
<tr>
<td>nervousness</td>
<td>inability to relax</td>
<td></td>
<td></td>
<td>Procrastination Manipulation</td>
</tr>
<tr>
<td>Tantrum</td>
<td>Ruthless, pacing,</td>
<td>Withdrawn</td>
<td>Withdrawn, isolated or</td>
<td>Poor sense of safety and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>depressed</td>
<td>regulation</td>
</tr>
<tr>
<td>Adaptive skills</td>
<td>Substance abuse</td>
<td>Blurt out answers</td>
<td>Melancholic and moodiness</td>
<td>Forced one into Sexual</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>activity</td>
</tr>
<tr>
<td>Attention</td>
<td>Suicidal</td>
<td>Phobias</td>
<td>Phobias</td>
<td>Interaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cruel to people</td>
<td>Anarchy</td>
<td>Nightmare</td>
<td>excessive worrying</td>
<td>Mugging, Violation of rules</td>
</tr>
<tr>
<td></td>
<td>general negative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>outlook</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lies</td>
<td>Anarchy</td>
<td>Manipulate</td>
<td>Resent</td>
</tr>
</tbody>
</table>


Conclusion

The central point of this paper has been to demonstrate that to neglect mental health in the development, rehabilitation or reconstruction programs of a population with horrifying experiences of war, armed conflict, neglect and abuse, extreme poverty, and natural disasters will not result in sustainable and long-term benefit for the people. For example, if the major objective of funding an agriculture or health care project among the people we classified as low-income, poor, underdeveloped, and marginalized, uneducated or sometimes ill-motivated, the first line of action, I believe, is to understand the level of their executive function. The reason is that the ultimate aim of a good program is to make the beneficiaries of the program the protagonist of their own feature. The program is only to up-start life again for them after going through destabilizing experience. Unfortunately, it has been demonstrated in this paper, as well as many other sources that many funded programs and projects among Africans in crisis have totally neglected, in many cases with every good intention, mental health as an important factor and the result of this neglect is becoming obvious.

The paper, as you can see, is not to apportion blames or criticisms on any sector, after all help from foreign grant-makers, funding organization, or NGOs to African nations in crisis is not an obligation but philanthropic and charitable gestures. As an organization that devotes about 96% of its resources in Africa, we believe that if we are going to hold the people responsible for lack of responsiveness after investing trillions of dollars in programs, we might as well evaluate as to whether the problem is from the beneficiaries or from the benefactors.

In spite of the limited and/or lack of scientific research backing most of the implementation models used to execute programs in Africa, available database shows that inability to screen and treated PTSD could be attributed as a major factor for unsuccessful sustainable programs. Connect this problem include:

a) Lack of programs that target combat soldiers and civilians who are directly or indirectly exposed to horrifying or brutal violence, threats, terminal illness and disability, sudden death of a loved one, as well as extreme poverty to integrated and comprehensive programs that address both psychological problems and socio-economic needs concurrently. Other traumatic events like child abuse and molestation, rape and discriminations, conflict resolution, and gender-based violence will produce great outcome if social-economic and educational programs like agriculture, capacity-building, personal and community developments are interactively and operationally linked to mental health.

b) Studies show that the severity psychological traumas, like ASR, PTSD and Traumatic Brain Injury (TBI) cause immense suffering for those affected, amplify people's vulnerability, susceptibility to cognitive, behavioral, personality, medical, and emotional problems well as the major factor in the cause of extreme poverty.

c) Integrated programs that address the debilitating effects of mental illness, especially among Africans in crisis will move people out of poverty and make them the protagonist
of their own future, their children, and their community. Such program will also lead to promotion in human right, strategic plans geared toward ensuring effective treatment, prevention and advocacy programs that reduce stigma.

**Reference**


