Peace of Mind, Health of Body: Why the Correlation of Food Security, Physical Health, and Mental Wellbeing Holds Important Implications for Humanitarian Actors

**ABSTRACT:** Over 800 million people in 70 countries are classified as “food insecure.” Much humanitarian emphasis focuses on the negative physical consequences of food insecurity, neglecting its deleterious psychological effects. Negative perceptions of food security often coincide with acute mental distress, a complicating factor that intervention policies frequently overlook. This paper posits that understanding the relationships among food security, mental health, and physical health is critical to the formation of effective aid policies. After identifying weakness in prior intervention attempts, the paper discusses how recognizing these linkages and incorporating qualitative mental health data into early planning stages would improve policy design.

**KEY WORDS:** food security, perceptions of food insecurity, mental health, qualitative data, food aid

**DISCLAIMER:** Kristina Hook is a U.S. Presidential Management Fellow. The views in this article do not necessarily reflect the views of the Department of State or the U.S. Government.

1. **INTRODUCTION**

Despite a glut of policies designed to tackle global food security, this issue continues to negatively impact populations around the world, as over 800 million people in 70 developing nations are currently classified as food insecure.[1] Though difficult to define,[2] the FAO has essentialized food security as the “access of all people at all times to enough food for an active, healthy life.”[3] This definition can be further expanded to include three dimensions of food security attainment: 1) a nutritionally sufficient, safe food supply at the household and national levels; 2) a secure source of food both during the year and from year to year; and 3) the capability of the household and the individuals within the household to “physical, social, and economic access” to sufficient food to provide for needs.[4]

Though the complicated economic, political, and environmental causes of food security are beyond the scope of this paper, scholars agree that this phenomenon rests upon issues of access and entitlement,[5] not availability; enough food is produced worldwide to provide each person with over 4.3 pounds of food per day.[6] Food aid policies typically fall into two categories: the first seeks to tackle root causes, while the second promotes recovery among those impacted. This paper will address the latter, which strive to support a population along the spectrum of recovery. Yet
while researchers have proven eager to examine the multifaceted causes of food security, they have
taken a more one-dimensional approach when discussing its impacts on a population, an
unfortunate occurrence as such policies’ effectiveness is predicated on a comprehensive
understanding of food security consequences. While many policies designed to remedy food
insecurity focus solely on improving biophysical ramifications, this author believes that complete
recovery relies upon strategies that also incorporate negative mental repercussions. Additionally,
far from an afterthought, mental health should be incorporated into early policy design stages.

This paper will establish the importance of collecting mental health data by first detailing the
impacts of food insecurity on mental health and then by establishing the impact of mental health
upon physical health. Next, food policies from the past two decades will be critiqued, as this paper
demonstrates how incorporating mental health indicators (typically measured through qualitative
measures) would address these limitations. Humanitarianism’s present emphasis on measurable
results has prompted policymakers to shy away from attempting to justify difficult-to-quantify
mental health concerns. However, this author believes that by integrating mental health data from
the start, a well-rounded, more sustainable therapeutic model can be devised.

II. PERCEPTIONS OF FOOD SECURITY

Much food insecurity research has attempted to measure the effects of this phenomenon in
biophysical terms. The correlation between food insecurity and decreased levels of health and
wellbeing has been researched by numerous scholars, and food insecurity is often discussed in
terms of its implications for physical health. For example, a correlation between food insecurity and
increased susceptibility to HIV/AIDS has been discovered, as the lack of a steady food supply
weakens the body’s immune system and resistance mechanisms.[7] Weakened immune systems
are also thought to be one of the factors explaining the relationship between food insecurity and
tuberculosis,[8] anemia and other micronutrient deficiency conditions,[9] increased child and
maternal mortality rates,[10] stunted growth and the underdevelopment of vital organs,[11] and
the prevalence of chronic diseases.[12]

Yet while the correlation between food insecurity and physical health has been widely noted, fewer
studies have tracked the relationship between a lack of steady access to food and mental health. For
the purposes of this study, this paper will adhere to the World Health Organization’s definition of
mental health as not simply the absence of a defined mental disorder but “a state of well-being in
which every individual realizes his or her own potential, can cope with the normal stresses of life,
can work productively and fruitfully, and is able to make a contribution to her or his
community.”[13] One of the difficulties associated with tracing the relationship between food
insecurity and mental health is the need to incorporate a population’s perception of food security.
Traditionally, scholars have argued over the value of measuring food insecurity through objective,
quantitative techniques or through more subjective, qualitative means. Increasingly, these two
positions are being viewed as complementary, with each method contributing to a more complete
picture of food insecurity within a particular location.

This reconciliation within the research community has resulted in an increased number of studies
that rely on the anthropologically influenced concept of perceptions of food security, which asks
how a subject views and self-identifies his own food security levels. A relatively new research angle,
increased scholastic attention to perceptions of food security illustrates how the food security field
has evolved over the past 75 years. With an original emphasis on food production, due in part to
the impacts of the two world wars, Amartya Sen’s contributions in the 1980s revolutionized the
field, as he emphasized vulnerable populations’ access (or lack thereof) in the existing social and
legal systems in which they lived.[14] Since this time, increased emphasis has been placed the
actual and perceived capability of individuals and communities to access food. Now, instead of
simply a global or national issue, food security is also measured at the household and individual
levels.[15] As a result, researchers increasingly incorporate subjective response questions into their
quantitative household surveys in order to measure a subject's own opinion of his capacity to
achieve food security.[16] For example, in a pioneering example of this concept, the United States
government originated the use of self-assessment indicators in a national survey of 45,000 American households.\[17\] This 18-question survey asked respondents about behaviors that have been associated with food deprivation, and measured both the prevalence and the severity of hunger in the United States through the respondents’ eyes.

Since this ground-breaking survey, many countries have incorporated similar qualitative elements to their food security studies, which have traditionally rested upon statistical, quantitative data collection. Kennedy argues that since such qualitative approaches include the perceptions of food security by the people who are most affected by this problem, they can even be considered “more direct measures of food insecurity than other proxy measures.”\[18\] Because this combination of quantitative and qualitative data presents the most precise portrait of food insecurity thus far, the addition of perceptions of food security holds important implications for sustainable development and humanitarian relief policymakers. Nevertheless, in order to comprehensively address the mental health concerns that arise in food-insecure locations, new methods of incorporating perceptions of food security indicators into existing mental health frameworks will need to be devised.

III. LINKAGES BETWEEN FOOD SECURITY AND MENTAL HEALTH

While the incorporation of qualitative data has helped to capture the voices of those most impacted by food insecurity, a new research theme has also emerged from this data, as several researchers noted that increased indicators of acute mental distress coincided with decreased perceptions of food security. Often overlooked by humanitarian policymakers, further research is required to more fully explore the potential relationship between mental health and food security. However, several projects are noteworthy in their attempts to show this correlation.

One such study is Hadley and Patil’s work on the relationship between food insecurity and maternal anxiety and depression among maternal caregivers in rural Tanzania.\[19\] Using adapted versions of the USDA’s food security module and Hopkins Symptom Checklist (HSCL),\[20\] data was gathered on food security, anxiety, and depression among four ethnic groups in two communities. Participants were asked to respond to twenty-five statements “I feel alone”. The responses were then assigned values ranging from 25-100, with higher scores correlating with higher degrees of emotional distress. Averages of the scores were used to weigh the severity of common anxiety and depression symptoms. To preserve the highest degree of accuracy possible, several focus groups were conducted before the data was collected. In addition, round-table discussions tweaked the formatting of each question and trained data collectors in interviewing techniques.

Their results consistently found that a strong relationship existed between the maternal caregiver’s score on the food security index and her score on the HSCL, even with the authors’ attempts to control for covariates at the individual level, such as marital status and age.\[21\] Despite large differences in factors such as schooling, household size, and polygyny frequency, rates of high anxiety and depression were found to correspond most closely with food insecurity rather than with these other factors. While the authors qualify that the relationship between anxiety and/or depression and food insecurity must not be oversimplified, they also state pointblank that it is “overwhelmingly clear that both food insecurity and maternal anxiety and depression have shared roots in much larger structural factors that operate through gender and poverty.”\[22\] Three preliminary suppositions are proposed as explanations for their findings. The first suggests that high rates of food insecurity may result in nutritionally poor diets, thus affecting mental and cognitive health. Another potential explanation is that food insecurity, particularly during the dry seasons when alternative forms of resources are difficult to obtain, perpetuates societal mechanisms of inequality, thus elevating mental anxiety and stress. A third explanation is the possibility that the maternal caregivers interviewed in this study used expressions of hunger as a means of conveying their larger issues of anxiety and depression.

Hadley and Patil’s work in Tanzania is one example of a shifting emphasis towards mental health data collection in developing countries. They are not alone in this endeavor, however; previous
ethnographic works have also examined social effects of food insecurity. For example, Dirks’ study of social responses to famine documented occurrences in societies across the world where traditional customs, behaviors, or rituals are altered or dropped as food shortages increase in severity.\cite{23} Similarly, Turton’s work among the Mursi, nomadic pastoralists in south-western Ethiopia, demonstrated that responses during times of food shortages included selling cattle or calling in cattle debts, a very serious act in this culture as it effectively severs ties with one's affinal kin due to bridewealth customs.\cite{24}

These studies, which provide examples of significant alterations in behavioral patterns as food conditions worsen, not only have societal implications, but also point towards the link between a lack of access to food and ensuing emotional and psychological stressors. Perhaps most dramatically indicative of this idea is Pike’s work among the Ngisonyoka Turkana, a subset of the larger Turkana ethnic group in Kenya. Previous research on pastoralists has often focused on environmental adaptations as grazing lands grow increasingly scarce, especially problematic as these groups already tend to inhabit marginal environments.\cite{25} Given pastoralists’ dependence on land to support their lifestyle, it is not surprising that researchers have been able to trace the correlation of environmental factors to drought and food security,\cite{26} vulnerability,\cite{27} and economic stratification.\cite{28} While agreeing that any research on subsistence pastoralism must incorporate aspects of the physical environment, Pike also noted that few researchers have studied the effect of violent armed conflicts, despite its documented presence in pastoral life. To trace this effect among Ngisonyoka women, Pike’s questionnaire asked women what stressor worried them the most on a daily basis. The women identified four total stressors: hunger, raids, illness, and mobility challenges. Despite an escalation in violence in the late 1990s, the women overwhelmingly agreed that “hunger” was their primary worry, with 72% of the women singling out this response. Pike’s conclusion that hunger weighed most heavily on women’s minds, even in the midst of constant mobility issues, environmental challenges, and threats of violence, is extremely significant, for hunger is an issue that affects more pastoral groups than simply the Ngisonyoka Turkana. In Hadley and Patil’s work in Tanzania, one of the four ethnic groups surveyed were the Datoga people group in north-central Tanzania.\cite{29} Various factors, including tense relationships with colonial administrators, have left the Datoga disadvantaged and stigmatized, with their grazing lands frequently being turned into farming fields. Hadley and Patil predicted that if food insecurity was indeed tied to anxiety and depression, the more food-insecure Datoga caretakers would score higher on the HSCL than the neighboring Iraqw population, a hypothesis upheld by their data. The Datoga group surveyed scored the lowest on the USDA’s food security module, but the highest on the HSCL, demonstrating a correlation between food insecurity and increased mental anxiety. These low scores of food security also corresponded to other literature on the high levels of deep-seated poverty among the Datoga, in part due to the challenges that accompany the preservation of a pastoral lifestyle.\cite{30} Because modern challenges to pastoral lifestyles have resulted in increased poverty, which is in turn viewed as a major cause of food insecurity, \cite{31} the collection of mental health data among food-insecure pastoral groups demands more research attention.

Additionally, the incorporation of mental health data and perception of food security may also highlight specific conditions that decrease a specific population’s food security. For example, USAID found that two different droughts were perceived differently by two different people groups in Niger due to how the droughts affected their survival strategies.\cite{32} Sedentary farmers considered the 1984-1985 droughts to be a worse environmental force, possibly because this drought resulted in a total harvest failure. Meanwhile, pastoral respondents to the USAID’s survey felt the 1968-1974 drought was the worst, potentially because the successive years of subnormal soil moisture took a toll of grazing pastures. As this case illustrates, food insecurity is not a static concept with a predictable toll on any given population. Rather, due to differing survival strategies, a certain set of circumstances may disproportionately harm the food security levels of one group but not the next. A framework that better incorporates existing perceptions of food insecurity and mental health data may therefore improve the overall effectiveness of food aid if it can accurately identify which populations or population subsets require the most targeted assistance.
The research projects discussed above are not alone in their conclusion that food insecurity can be a primary root cause of mental health issues. Pike and Patil have described hunger as the “most potent physical and psychological stressor” for marginalized groups across the globe.\[33\] Research also indicates that the relationship between food insecurity and poor mental health transcends particular geographic regions or age-brackets. For example, studies among the Serbian ethnic minority in Kosovo during the politically unstable period of September-October, 1999, found that as food security diminished with age (due to the older population’s inability to reach food distribution sites), symptoms of severe depression escalated.\[35\] Similarly, after times of major droughts and crop failures, significantly higher numbers of Indian men committed suicide or were found to be at increased risk for depression than during times of plentiful food resources.\[36\] Further proving that hunger and mental anxiety transcend geographic barriers, women who reported hunger as a concern in locations as distant as Gao, India and Harare, Zimbabwe were appreciably more prone to poor mental health diagnoses.\[37\]

Additionally, the link between poor mental health and food insecurity has been widely reported in Western countries. Studies in the United States have linked food insecurity with increased suicidal symptoms in adolescents;\[38\] with academic, behavioral, and emotional problems among children;\[39\] and with high rates of maternal depression.\[40\] The effect of reduced food security on different members within one family unit has also been examined. In one study, food insecurity among families in U.S. cities was linked with increased anxiety and depression in mothers and behavioral problems in their pre-school aged children.\[41\]

The link between household food insufficiency, reduced mental health, and decreased quality of life has also been established among populations as diverse as Canadian food charity recipients,\[42\] urban American welfare receivers,\[43\] rural populations in the Lower Mississippi Delta region,\[44\] marginalized populations in Australia,\[45\] and low income groups in English inner cities.\[46\] Over the last decade, food insufficiency has become recognized as a significant problem in Western countries. The correlation between food insecurity and poor mental health in industrialized nations has become so accepted in research circles that many new studies are seeking to build off this supposition and advocate for specific “policy-level interventions to reduce [food-insecure populations’] exposure to household food insufficiency.”\[47\]

**IV. LINKAGES BETWEEN MENTAL HEALTH AND PHYSICAL HEALTH**

As the correlation of mental health and food security is increasingly accepted in Western scholastic circles, why have researchers just begun to collect mental health data in food-insecure populations in developing countries? One explanation may certainly be the myriad of other problems that confront humanitarian actors. Another challenge involves creating accurate measurements to quantify mental health in rural, non-Western regions. However, this paper argues that the strong relationship between food security and mental health has important implications for food security policies due to the long-noted relationship between mental health and physical health.

Growing interest in the relationship between physical and mental health has led to research foci like the correlation between anxiety, depression, and health-related qualities of life.\[48\] Other reports have argued against the tendency to measure either a sample group’s mental health or the group’s physical health, but not both concurrently. For example, Campbell and Lewandowski maintain that a failure to quantify the health problems that stem from battered women’s physiological abuse resulted in an incomplete portrait of their suffering, and therefore made treatment options much less effective.\[49\]

Building off of such studies, some researchers now approach the study of the mind and body as if they are a single system to form a new area of exploration, coined “the neuroscience of the mind.”\[50\] This term incorporates research ranging from physical events at the molecular level to behavioral, societal, and psychological factors, seeking to discover broad theories that connect all of these factors. Recognizing the human brain’s role in integrating health, emotion, thought, and behavior, the value of this approach is the “extent to which it has mended the destructive split...
between ‘mental’ and ‘physical’ health,” according the U.S. Department of Health and Human Services.\[51\]

Other research endeavors have approached mental health and physical health as a cause-and-effect relationship. Vaillant’s well-known study of over 200 men monitored their mental and physical health over the course of their lifespan. Assessed from the ages of 21 to 49, fifty-nine men were measured as having the best mental health.\[52\] Among this group, only two died or became chronically ill by the age of 53. Meanwhile, of forty-eight men with the worst mental health from the ages of 21-46, eighteen died or became chronically ill. Even after factors like the health impacts of tobacco, alcohol, genetic history, and obesity were controlled for through multiple regression analysis, mental health as a predictor for physical health in one’s latter years remained statistically significant.

While debate continues over aspects of the bidirectional relationship of mental and physical health, a connection between the two is rarely outright disputed, and is recognized in fields as diverse as anthropology, psychology, and medical sciences. Given food-insecure populations’ increased risk for poor mental health, this connection holds important implications for policymakers. Combining research from various literature bodies, this paper contends that a dynamic, proliferating relationship exists among the three factors of food levels, mental wellbeing, and physical health. Further, this cycle may be self-perpetuating over time.

Policymakers should monitor research that examines how stress and anxiety influence a person’s behavior. As discussed previously, obtaining adequate sustenance is often reported as a top stressor for those living in food-insecure environments. This fact is significant, for studies have linked the origin and development of depression to chronic psychosocial stress.\[53\] Further, depression has also been associated with feelings of hopelessness,\[54\] a lack of energy,\[55\] the decreased ability to take care of oneself or one’s family,\[56\] and a reduced level of productivity.\[57\] Since increased rates of both stress and depression have been measured among the food-insecure,\[58\] understanding how depression is manifested physically is critical when creating, monitoring, and evaluating aid programs. For instance, if food insecurity has created conditions of crippling depression, are aid recipients less able to provide for themselves and their families, thus worsening their pre-existing circumstances? Further, if negative mental health is influencing one’s behavior and decision-making faculties, is this person able to use available resources to its maximum potential? As this topic is further explored, aid workers specifically trained to recognize the impacts of reduced mental health are more than an added bonus. Rather, their role is urgent and essential to the food security program’s long-term success. Thus, food security policymakers must be proactive in collecting research in this field. The field of international humanitarian assistance must display its flexibility in dealing with the multidimensional effects of food insecurity, and it must be exemplary in its willingness to incorporate research from various disciplines, including the psychological and medical domains.

In addition to the importance of monitoring the behavioral effects of depression on food-insecure populations, the link between stress and physical health offers additional applications for food policy design. Theories of stress have long proposed that the internal belief that one can exert control over a stress-inducing event is an important coping strategy that helps individuals to effectively manage stress.\[59\] Taylor and Aspinwall have defined this perception of control as the “belief that one can determine one’s own internal states and behavior, influence one’s environment, and/or bring about desired outcomes.”\[60\] Furthermore, they state that this sense of perceived control is strongly connected to self-efficacy, that is, the internal belief that one’s actions can produce a specific outcome in a specific circumstance. Thompson and Spacapan’s investigation into the coping strategies of many different sub-groups of a society also supports this notion, particularly their conclusion that the positive perception of control has been linked to good health, behavioral changes that support good health, emotional wellbeing, enhanced performance on cognitive tasks, and successful coping with the stressful event.\[61\]

These findings on perception of control\[62\] also lend credence to the belief that a sense of control is
especially important to vulnerable populations. Mental health research conducted among low-level employees,[63] the elderly,[64] medical patients,[65] and children[66] found that the positive benefits of a sense of control are even more vital to vulnerable populations, due to these groups’ increased risk for the adverse physical and mental health effects of stress. Conversely, individuals who already have few outlets to exercise control over their lives appear to be increasingly harmed by a reduction in their preexisting sense of control.[67] Researchers have noted that interventions designed to increase perceptions of control seem to benefit vulnerable sub-groups the most.[68]

Such research is based primarily on models of stress in Western countries, as unfortunately, few studies have sought to examine how a sense of control impacts populations in developing nations. One suggestion for further research is to examine the relationship between positive perceptions of food security and positive perceptions of control in food insecure environments. Nevertheless, the modern trend of transferring authority and ownership of assistance projects to local populations[69] may complement a positive link between mental health and control, particularly if the transference of responsibilities is accomplished in ways that increase perceptions of control and allow local populations the opportunity to contribute in meaningful ways. If Vaillant’s findings that mental health serves as a predictor of physical health[70] hold true when tested among developing populations, efforts to improve psychological wellbeing could strengthen existing intervention efforts that target a community’s physical recovery from food-insecure living conditions.

V. SUMMATION OF FINDINGS

Given the amount of data covered, the following section summarizes key findings. This paper argues that incorporating the apparent relationships among food security, mental health, and physical health is vital to improving food security policies. Additional information on these linkages and the ways in which they fit together may hold valuable insights in dealing with the issue of global food insecurity. To begin, this paper noted that the correlation between food insecurity and decreased physical health and wellbeing remains well-accepted in research circles, as demonstrated through case studies linking food insecurity to higher rates of HIV/AIDS, tuberculosis, anemia, micronutrient deficiencies, increased child and maternal mortality, stunted growth, underdevelopment of vital organs, and the prevalence of chronic diseases.

Secondly, this paper also highlighted research linking food insecurity with decreased mental health. The relationship between food insecurity and poor mental health is apparent in Western countries, as illustrated by research conducted among different population groups in Australia, Canada, England, and the United States. By using case studies conducted among such diverse people groups as maternal caregivers in Tanzania and Kenya, pastoral groups in Niger, elderly Serbian minority groups in war-torn Kosovo, and male farmers in India, this paper has striven to illustrate that increased rates of poor mental health correspond most closely with food insecurity, despite differences in geographic location, age, gender, or other varying circumstances.

After noting the relationship of food insecurity and decreased physical health, and then exploring the relationship between food insecurity and poor mental health, this paper has finally sought to unify these two linkages by investigating a variety of research linking mental health to physical health. Drawing from many case studies in industrialized countries, this paper has noted that a correlation between mental wellbeing and health-related quality of life is well-accepted in research circles. This paper has also referred to Vaillant’s widely cited research among American men, which indicates that mental health is a predictor for physical health in one’s latter years.[71] Though much of the research linking mental health to physical health has been conducted among sample groups in Western contexts, this paper has sought to demonstrate that similar research efforts should be undertaken in developing nations. This author believes that the collection of such data could offer food policymakers valuable insights in determining how poor mental health can negatively impact decision-making faculties and how a sense of control, particularly for vulnerable and marginalized groups, can increase chances of recovery from the mental and physical ramifications of food insecurity.

This analysis leads to the conclusion that a dynamic, multiplying, and self-perpetuating
relationship among food security, physical health, and mental wellbeing exists. But with few studies seeking to explore these linkages, humanitarian agencies may currently be at a distinct disadvantage when creating food security policies. Given that such findings may result in more effective food security policies, why have researchers neglected such linkages?

VI. IMPLICATIONS FOR FOOD INSECURITY INTERVENTIONS

To be fair, research examining the relationships among mental health, physical health, and food security exists only in a nascent stage. Debate will undoubtedly continue over the bidirectional relationship of physical and mental health, as well as over the implications that such a relationship would have for those living in food-insecure developing nations. Yet because many researchers have noted the apparent link between good mental health and good physical health,[72] this paper argues that the failure to incorporate perceptions of food security and mental health data into sustainable development and humanitarian relief programming is a significant shortcoming. If food shortages wreak havoc on mental health and poor mental health in turn worsens physical health, certainly policies that seek to eliminate solely the biophysical effects of food shortages will achieve reduced results. In order to bolster such a statement, this section examines food security interventions conducted over the past two decades through five separate but interrelated critiques. As these critiques are now presented, this paper will also indicate how the inclusion of mental health data would improve upon these concerns.

Problem 1: The Causes of Food Insecurity are Inaccurately Identified

A foundational problem with food policy design is the tendency to treat food insecurity as a single event instead of as a dynamic phenomenon. Unfortunately, the propensity to view food crises as the result of a single causal factor often leads to a misdiagnosis of the original problem, and consequently, inappropriate responses to the emergency situation. Instead, food crises must be seen in light of a larger context. De Waal’s work over two decades ago in Darfur, Sudan pioneered this perspective, as he argued that the 100,000 deaths that this region experienced were the result of a medical crisis precipitated by the population’s inability to obtain food resources.[73] Instead of policies that only sought to provide foodstuffs, an approach that tackled the crisis through a more diversified response (such as by providing healthcare, measles vaccinations, better sanitation, and/or potable water) would have bolstered the core food security policy over time. The international community has made strides since de Waal’s well-founded criticism of humanitarian aid responses in Darfur. Still, the inclination to view food insecurity as a single-factor event remains.

Incorporating mental health data and a more qualitative approach would allow concerns other than obtaining food to emerge as people were given the opportunity to express their anxieties. Additionally, this approach would also show that many groups treat food insecurity as a process on a continuum. Mental health data should be collected over time, and if mental health concerns began to spike in a vulnerable community around a particular season or during a particular year, an awareness of future food security challenges might be noted before large-scale disasters like famines hit. The incorporation of mental health data through qualitative studies could also improve Famine Early Warning Systems Networks (FEWS NET). Presently, these Early Warning Systems focus on monitoring socioeconomic information, rationalizing that gauging a community or a household’s pool of financial resources will indicate a decreasing ability to obtain food resources.[74] However, socioeconomic indicators are not always successful in measuring security. For example, a family’s socioeconomic status may remain the same from year to year, but in some cases, these financial resources are no longer able to procure the same amount of food as in previous years due to market fluctuations or inflation. Therefore, integrating mental health questions into socioeconomic surveys could shed light on whether the family feels it will be able to remain food secure at its current socioeconomic status.
**Problem 2: Food Aid Policies Disrupt Local Coping Strategies**

Secondly, food policies also suffer from a failure to make local coping strategies and intervention policies complementary. Local coping strategies may be economic (e.g., planting different crops or herding a variety of animals), social (e.g., sending children to live with relatives), or ecological (e.g., moving locations in order to access better grazing lands or water access for herds). Further, these coping strategies may be anticipatory insurance strategies, or they may be crisis survival strategies.\[75\] One current problem with many relief interventions is that such measures often disrupt traditional coping mechanisms. Cutler's work among famine victims in Northern Ethiopia supports this notion.\[76\] He demonstrated that in the 1970s, such populations did not expect to receive assistance from emergency aid programs when food shortages occurred. Thus, when resources became scarce, these populations enacted traditional migratory coping strategies, that is, they moved to find better land with more plentiful resources. Such practices had the added advantage of maintaining ecological balances, as the migratory strategies allowed formerly occupied sites to lie fallow for a time. However, just ten years later, these same populations had grown to expect food assistance from international relief programs. Traditional migratory strategies were abandoned, as these same people groups migrated directly to aid distribution sites. Similarly, traditional practices of rotating farming or grazing lands were disrupted, as certain groups settled permanently around the sites of aid distribution, with the expectation that emergency food stores would always be provided from such sites.

Such food policies not only disrupt traditional coping mechanisms, but also promote unrealistic expectations among famine victims. Instead of creating food policies that contradict or disrupt such coping mechanisms, food policies should be enacted in ways that support, not compete with, time-honored coping strategies. Gathering mental health data from a population over time can shed light on which aspects of traditional coping strategies people find to be successful and which aspects cause anxiety or fear. With this data, intervention policies can find ways to bolster the weaker areas of traditional coping strategies without disturbing or conflicting with these mechanisms.

**Problem 3: Food Aid Policies Do Not Reconcile Trends at the Macro and Micro Levels**

A tendency to create policies that interrupt traditional coping strategies also highlights a third problem with many current attempts. This shortcoming involves the trend by many organizations to create policies based on a macro level understanding of global and national politics, rather than on research that examines food insecurity at the micro level of communities and households. For example, some efforts to combat food insecurity at national levels have highlighted the fact that international agriculture agreements are vital to a developing nation’s food security and have called for trade liberalization.\[77\] Yet, policies in this vein could have deleterious effects at community and household levels, such as by increasing food prices in local markets. Thus, even though such policies are designed to contribute to a nation’s food security, they may in fact reduce the levels of food security among the subpopulations that comprise the nation, as households become less able to afford food resources.

All too often, international agriculture agreements focus on cause-and-effect relationships at the macro level, with much less attention paid to the effects that trickle down to individuals, communities, and households. For example, some World Trade Organization members have advised that developing countries be allowed to evaluate and raise taxes on important products in order to protect national food security and employment interests during times of economic crisis.\[78\] However, the effect that such a position would have at the micro level has not been clearly defined. One explanation for this overarching tendency is that the effects of policies enacted at global and national levels on communities and households can be quite difficult to trace. However,
qualitative data collected through specially designed studies may offer the perfect opportunity to trace the immediate effects of national policies on communities and households, for example, if mental health studies were collected alongside the socioeconomic studies that examine the impacts of macro level food policies. Such studies may be able to offer unique glimpses into how such policies affect both the physical health and the mental wellbeing of populations who are impacted by global and national agreements. As has been alluded to, socioeconomic studies often do not capture the full reality of a situation for those living under policies. For instance, socioeconomic studies may not capture anxiety that develops if a household perceives a drop in the amount of goods and services that their financial resources are able to buy (which this author might add is directly related to Amartya Sen’s previously referred to concept of access). Thus, corresponding mental health studies or studies that incorporate perception indicators may provide new insight into ways that policies could be tailored to soften the brunt of negative consequences for vulnerable populations. Because even positively viewed policies can cause anxiety or other mental health concerns at community, household, and individual levels, mental health studies remain the food security field’s best avenue for capturing these sentiments and assessing whether micro level interventions are even temporarily needed to ease macro level transitions. The possibility exists that even well-designed macro level intervention may cause such (even temporary) micro level shocks that the ensuing reductions in community and household mental health reduce the overall effectiveness of the food security policy. In such a hypothetical case, the people living under the macro level intervention now have a more negative perception of their situation, an important unintended consequence, as reduced mental health could decrease the positive decision-making and sense of control, leading to the negative consequences discussed earlier.

It must be noted that this paper certainly does not intend to argue that global and national policies cannot contribute to food security at a micro level or that such policies always have deleterious effects on households and communities. However, a thorough examination of how people are living under a system and how they are responding to challenges perpetuated by trends at the macro level is in order. Trends at the macro level may be incoherent with realities at the micro level. Therefore, qualitative studies that examine mental health characteristics would allow social scientists to measure responses at the community, household, and individual level. Collections of qualitative mental health data that measure perceptions at small-scale levels during times of macro level change may highlight sub-populations’ perceptions of the system under which they are living, as well as keys areas to be targeted by food policies.

Problem 4: Food Aid Policies Neglect Valuable Opportunities for Bidirectional Learning

A fourth problem with food security policies is that they often focus so intently on providing a population with access to food that they miss a prime opportunity to promote learning about food resources and nutritional balances. In the future, if mental health studies are undertaken in a community, or if qualitative research questions that address a population’s perception of their food security are added to existing questionnaires, a prime opportunity for policymakers to learn how the target population views its options and resources may emerge. Here, this insight may open the door to for additional training regarding specific food resources in ways that are culturally and contextually appropriate (and therefore, much more likely to be sustainable). Such an opportunity is of increased importance when a food product is being introduced into a context, for example, when a new staple crop is introduced or in complex humanitarian emergencies when food aid is provided.

A recent trend in the field of food security research is to include concepts of nutritional awareness into the working definition of food security itself. Increased attention is being paid to issues of protein-energy malnutrition and micronutrient deficiencies, as “malnourishment” no longer means a lack of access to food, but also a lack of access to the right types of foods.

In 1996, the World Food Summit broadened its definition of food security to incorporate the ideas
of nutritional balance and food safety, now categorizing the achievement of food security as the time when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (emphasis mine).[79] This conceptual shift has spread and become accepted among food security practitioners. In Western countries, for instance, new campaigns seek to target food deserts, which refer to typically urban neighborhoods that lack access to healthy, fresh, and affordable food products.[80] Notably, this term does not imply that the population is suffering from starvation, but rather that they lack access to the types of food that promote a healthy diet and reduce diet-related diseases like obesity and heart disease.

As policymakers strive to work towards these new standards in developing nations, they have become increasingly active in making community education strategies a component of food security programs. In such contexts, this concept of “local education” is seen as a two-way process, as food security practitioners not only seek to provide information to the target population but to learn from the target population as well. One example of such efforts involves the work of the International Institute of Tropical Agriculture (IITA).[81] This non-profit organization, which seeks to find solutions to poverty and hunger through agricultural research, is composed of over one hundred international scientists. Recent undertakings include efforts to gauge whether the crops that IITA introduces to a food-insecure population are accepted as staple crops in the eyes of the community. For example, will women prepare willingly a new crop that has been introduced by an intervention effort, as in the case of cassava in many African localities? This question demonstrates that food security is more than the accessibility of a food supply, but it also tied to the perception of the community as to whether such a food supply is safe and appropriate to prepare and eat. In other words, food security hinges on more than just crop availability but on other factors as well, such as cultural acceptance and peoples’ assessments of the food source itself. It is also a process of knowing what foods to obtain for optimum nutrition and how to prepare these resources safely. In order to create educational programs that are relevant in localized contexts and that will become self-sustainable over time, qualitative research that measures peoples’ perceptions of their food security and their perception of the food materials that are available must be undertaken.

**Problem 5: Food Aid Policies Measure Food Security Only Through Physical Measurements**

One final problem with many food policies in effect today is that these strategies tend to measure food security and quality of life only through physical characteristics. Many food policies tend to focus on improving caloric intake, while devoting less attention towards addressing psychological health issues that may have developed due to living with high rates of food security for long periods of time. Relief agencies often define their food security objectives in numerical standards only, such as the USDA's classification of food-insecure people as those who consume less than nutritional standards of 2,100 calories per day.[82] These black-and-white standards also fail to give attention to the mental and physical health problems that may emerge if a population views itself as food insecure, even if such a population is currently able to meet minimum caloric requirements.

This paper has demonstrated that a relationship between poor mental health and poor physical health has been noted by humanitarian assistance, medical, anthropological, and psychological researchers. Consequently, as it become progressively clear that increased food insecurity contributes to poor mental health, policies that seek to improve a population’s quality of life must address the importance of gathering mental health data. If the mind and the body are truly as intertwined as many neuroscientists believe them to be,[83] efforts to heal bodies from the ravages of food insecurity must also provide ways to heal minds from the strain of living under these conditions.

Interestingly, a disparity can sometimes exist between a population’s perception of food insecurity and actual levels of food insecurity. A suggestion for future research therefore includes examining
how people perceive their own circumstances and why these perceptions do not always correspond with reality. The most successful food security policies will target not only improving a population’s physical health but also their mental health in order to achieve a more complete sense of wellbeing. At present, the failure to concurrently address a population’s mental health status along with their physical circumstances is a roadblock to creating sustainable, effective policies with measurable results.

VII. CONCLUDING REMARKS

This paper has striven to illustrate that only by considering the ravages of food insecurity on the mind can the international community create viable ways to provide for the bodies of those who are living in food-insecure developing communities. The close relationship between mental health and physical health has fresh implications for the field of humanitarian assistance, as research is beginning to emphasize the link between increased food insecurity and increased mental health problems. Consequently, a call for more qualitative data collections of peoples’ perceptions of food security must be issued, not only to further establish this link but also to shed more light upon the ways that existing food policies can be strengthened. With over 800 million people in more than 70 developing countries classified as “food insecure,” this paper recognizes that the issue of global food insecurity is increasingly multidimensional, dynamic, and complex. It is therefore recognized that one single approach cannot alone be responsible for the creation of more viable and effective food security policies. At the same time, approaching the problem of global food security through the eyes and mindsets of those most affected by this far-reaching problem will no doubt offer new perspectives on a problem that is as old as human society itself.

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NOTES


19. Hadley and Patil, "Food Security in Rural Tanzania."

20. Ibid., 365.


29. Hadley and Patil, "Food Security in Rural Tanzania."


31. Sen, "Poverty and Famines."


44. Stuff et al., “Household Food Insecurity.”
51. Ibid.
62. Ibid.
63. Ibid.
65. Thompson and Spacapan, “Perceptions of Control.”
67. Thompson and Spacapan, “Perceptions of Control.”
68. Langer and Rodin, “The Effects of Choice.”
70. Vaillant, “Natural History.”
71. Ibid.
72. Creed et al., “Depression and Anxiety.”; Vaillant, "Natural History."
74. Taylor-Powell, “Literature Review.”
75. Ibid.
78. Ibid.
79. Clay, “Chapter Two.”
82. Shapouri et al., “Food Security Assessment.”

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