

FOOD INSECURITY AND COPING MECHANISMS AMONG SLUM CHILDREN

ADDIS ABABA UNIVERSITY
SCHOOL OF SOCIAL WORK

Slum Dweller Children's Vulnerability to Food Insecurity and their Coping
Mechanisms:
The Case of Koshe Slum Area in Addis Ababa

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Declaration

I, Nega Wedajo, hereby declare that this research project work entitled “Slum Dweller Children’s Vulnerability to Food Insecurity and their Coping Mechanisms: The Case of Koshe Slum Area in Addis Ababa” is my original work and has not been used by others for any requirements in any other places and sources of materials used in this project have been duly acknowledged.

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This project has been submitted for examination with my appropriate approval as college advisor

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Certification

This is to certify that this paper entitled, “Slum Dweller Children’s Vulnerability to Food Insecurity and their Coping Mechanisms: The Case of Koshe Slum Area in Addis Ababa” is an original work prepared by Nega Wedajo based on his field study in: Koshe, Addis Ababa for the partial fulfillment of the requirements for the Degree of Masters in Social Work of the College of Social Science, Addis Ababa University. He has completed the work under my supervision and guidance and, thus, I duly approve this thesis to be submitted for defense.

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By Nega Wedajo

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Acronyms

AAU	Addis Ababa University
AIDS	Acquired Immune Deficiency Syndrome
ALERT	African Leprosy Tuberculosis and Rehabilitation Training
CRC	Child Right Convention
FAO	Food and Agricultural Organization
FDRE	Federal Democratic Republic of Ethiopia
HIV	Human Immunodeficiency Virus
KII	Key Informant Interview
NGO	Non-Government Organization
PSNP	Productive Safety Net Program
SPSS	Statistical Package for Social Sciences Software
UN	United Nations
USDA	United States Department of Agriculture

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Abstract

Children whose food and nutrition requirements, or socio-demographic characteristics, may place them at special risk need further study by being members of food insecure slum dwelling households. It is hypothesized that family characteristics influence children's vulnerability to food insecurity and that food insecurity adversely affects children's school performance. Data from 2015 were utilized in the age group of 10-18 years from a survey of a cross sectional study in Koshe-the largest Waste Dump, and slum of Addis Ababa. Non probability and probability sampling were utilized. A sample of 112 students and 8 key informants participated in the survey. Quantitative and qualitative data were collected via questionnaire and key informant interview respectively. The USDA's Household Food Security measures were adapted to measure food insecurity scales specific to the context. The study found that significantly most of the surveyed children suffer from problems of food insecurity, in terms of affordability ($M=3.7$, $SD=1.146$); adequacy ($M=3.64$, $SD=1.256$) and acceptability, ($M=3.45$, $SD=1.263$). Chi-square tests show that there is significant association between vulnerability of children to food insecurity such as income $X^2(4.710$ $N=110)$ $df=1$, $p<0.05$; Family Size $X^2(2, N = 111) = 7.313$, $p=0.026$; and family employment ($X^2(1, N=112)=4.115$, $p<0.05$). The study also found food insecurity is associated with children's wellbeing ($X^2(1, N = 107) = 6.689$, $p=0.01$) and school performance ($X^2(1, N = 107) = 6.689$, $p=0.01$). Qualitative data also supported the above results. Children's coping mechanisms were identified as scavenging in the dump site ($M=4.13$, $SD=1.4$) which has negative effect on their wellbeing.

Key Words: Coping Mechanism; Food Insecurity; Koshe Area; School Performance; Wellbeing Slum Dweller; Vulnerability;

Chapter One

Introduction

Background of the Study Area

Koshe, Addis Ababa's giant 50-year-old garbage dump, is from the highway. It runs as far as the eye can see: a giant, murky, grey-brown raised area of partially decomposed garbage, with occasional bright specks of color. This 36-hectare site is found in Kolfe Keraneo Sub City, Woreda 01, behind ALERT hospital adjacent to the ring road to Ayer Tena. Before Addis Ababa began to expand, it was in the outskirts of the city and therefore determined to be the city's waste dump area (Life in Abundance, 2013:12).

Most of the early settlers of Koshe were leprosy victims who largely migrated from various parts of the country to receive medical treatment for leprosy at ALERT hospital formerly known as Zenebework hospital. Though the leprosy victims were supposed to go back to their origin after medical treatment, most of them preferred to remain in this area fearing stigma and discrimination they would encounter at their respective home villages. The area was largely covered by forest and people began settling in the area by clearing the forest. The new settlement was named after the Zenebework hospital, established in 1932. Emperor Haileselassie named the hospital after one of his daughters, Princess Zenebework. In 1967, construction of ALERT Hospital was started and completed and inaugurated in 1971 (Mesele, 2005).

According to the baseline survey conducted by Life in Abundance (2013:9), there are a number of homeless people who live in plastic shacks by the waste dump mostly making a living on alms receiving and trash collection. The survey also revealed that large number of community members who depend on aid.

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The Guardian newspaper recently deodorized the devastating situation of the area in its article published on August 22, 2014. It says:

The scratching population numbers 200–300, but expands after holidays with casual pickers. More women than men do it by a ratio of about three to one, and, while people in their 20s and 30s predominate, ages range from teens to seniors. Most live in the villages around the dump in simple, rusted, corrugated iron dwellings, sometimes with satellite dishes. Rubbish has provided a source of local employment and subsistence for generations over its 50-year history, and is firmly embedded in local calculations of subsistence and accumulation.

The moment of discharge unleashes a tense scramble for the most valuable items; a competition in which masculine physical strength prevails, and young, agile, women put up a good fight. Scratchers then go on searching or rest until the next truck arrives, or regroup around the bulldozers unearthing new bounty. The social and material relationships of the dump demand skilled navigation. From the vantage point of the dump, the scratchers rework the geographies and hierarchies of the city.

A baseline survey report by Life in Abundance (2013:14), indicated that there are a number of small taverns which run cheap sex businesses. The local taverns also serve as pensions for homeless daily labors and new migrants in addition to providing traditional liquor, cheap food and cheap sex.

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Background of the Study

Children are more vulnerable to malnutrition, disease, abuse and exploitation than adults Yisak & Tassew cited in Dessalegn et al (2013:551). It might be assumed that urban children are more advantageous than rural populations in health, prosperity and better education. However, UN-HABITAT's report has broken new ground by showing that children in the urban slum suffer from an urban penalty. The report further stated vulnerability of slum dwellers in developing countries are as badly off if not worse off than their rural relatives. In Ethiopia, child malnutrition in slums and rural areas is 47 percent and 49 percent respectively, compared with 27 percent in non-slum urban areas (UN-HABITAT, 2006). When it comes to children, the penalty is far more severe than that of other segments of the society.

Despite heightened international efforts to bring more attention to poverty and human development, the most vulnerable children are still the most invisible. As impoverished young children grow, they will be less likely to succeed in school and more likely to provide inadequate parenting. This will perpetuate the cycle of poverty and poor human development (Chilton, et al. 2007).

The FAO, the World Health Organization (WHO), and various other researches demonstrated that food insecurity and under nutrition do not have to be severe to have long-lasting consequences. Even the slightest forms of food insecurity (with or without clinical manifestation of malnourishment) can affect a young child's development and learning potential.

Statement of the Problem

Inadequate food intake in children is associated with a number of serious health, behavior, and cognitive deficits. Children who are food-insecure are in poorer health and are more likely to be developmentally "at-risk" than food secure children, according to parental reports (Casey, et al. 2008: 65). Children in food insecure households have more stomach aches,

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frequent headaches, and colds than children who are in food-secure households. Higher rates of hospitalization, iron deficiency, and chronic health conditions are reported among food-insecure children (Nord, 2009). It is also reported that food insecurity is associated with higher rates of behavioral problems in school-aged children, psychosocial deficits, as well as higher anxiety and depression.

According to (Cook and Jeng, 2009), hungry children do worse in school and have lower academic achievement because they are not well prepared for school and cannot concentrate. They have more social and behavioral problems because they feel bad, have less energy for complex social interactions, and cannot adapt as effectively to environmental stresses. Hungry children are sick more often, and more likely to have to be hospitalized. They are also stunted – that is, they suffer growth impairment that precludes their reaching their full physical potential. Cook & Jeng (2009) further put up that hungry children incur developmental impairments that limit their physical, intellectual and emotional development. Food security is especially important for children because the nutritional content of their diets affects not only their current health, but also their physical, mental, and social development—and thus their future health and well-being.

The empirical study report released by FAO (2008) indicated that in Ethiopia, 80 percent of urban households rely on purchased goods from different markets. The study also revealed that urban households purchase much of their food which is vital for their living. One-fourth of the total urban population of Ethiopia lives in Addis Ababa making food security an issue of great concern where the problem has been exacerbated by the current food price increase.

Researchers have demonstrated the adverse effects of food insecurity on children during the elementary school years. Food insecurity among elementary-age children may influence their

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lives over extended periods; even those transitioning out of food insecurity show academic and social impairment (Mills & Vericker, 2012). School-age children experiencing higher rates of food insecurity report increased anxiety, exposure to traumatic life events, chronic illness, and internalized behavior problems (Kleinman et al. 1998; Weinreb et al. 2002: cited in Mills, & Vericker, 2012). The studies have also indicated that children learn better when well-fed, and their attendance at school is far higher when meals are offered as well as lessons.

Several researches were produced on urban and rural food security in Ethiopia. However, except (Yishak & Tasew, 2013) who dealt with how far productive safety net program (PSNP) protected children from vulnerability, their study did not focus on slum children's vulnerability to food insecurity; particularly in slum areas like Koshe. Children whose food and nutrition requirements, or socio-demographic characteristics, may place them at special risk need further study by being members of food insecure households. Among those are children who seek special care and children who have been exposed to extraordinary hardships or stresses. This latter category includes children living in chronic poverty. Thus this research tries to address those issues by exploring the vulnerability and impacts of food insecurity; unrevealed predicaments of food insecure children around Koshe area and the way they cope up with the problems emanating from food insecurity.

Basic Research Questions

This research is expected to answer the following basic research questions at the end:

1. What is the vulnerability status of children to food insecurity?
2. How does food insecurity affect the wellbeing of children?
3. What is the linkage between food insecurity and children's school performance?
4. What are the main coping strategies of food insecure children?

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Objectives of the Research

This study aims at achieving the following general and specific objectives.

General Objective

This study aims at exploring vulnerability to food insecurity and coping mechanisms among children in Koshe area of Addis Ababa as well as impacts of food insecurity on their wellbeing.

Specific Objectives

The specific objectives of this study are:

- To examine the vulnerability status of the children in the study area to food insecurity;
- To scrutinize the effects of food insecurity on the well-being of children around Koshe;
- To examine the linkage between food insecurity on children's school performance;
- To identify the major coping strategies utilized by the children to cope up with food insecurity.

Research Hypotheses

This research explores vulnerability of children to food insecurity and their coping mechanisms. The study also investigates effects of food insecurity on children's wellbeing and their coping mechanisms. Randomly selected food insecure children from the selected school are assessed in relation to key predictors, taking advantage of the study design. Based on the above research questions and objectives, two hypotheses related to child food insecurity were tested:

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Hypotheses 1 Family economy is associated with children's vulnerability to food insecurity

Hypotheses 2: Family size is associated with children's vulnerability to food insecurity

Hypotheses 3: Children's lower school performance is associated with food insecurity

Significance of the Study

Previous studies suggest that children in food-insecure households face more health and development problems, compared to children in food-secure households. Hence, this study, by revealing the vulnerability context of food insecurity among children in the selected area of Addis Ababa will help policy makers gain new insight that can shape future policies. It will also inform advocacy, legislation, social mobilization and program design. Finally, it can the findings of this research can be a starting point for future research on food security and nutrition.

The results of the research are intended to fill in gaps of current knowledge regarding impacts of school performance among food insecure adolescents' in elementary schools. It will serve as ground for further training and possible feedback in the implementation of research findings at all levels of interventions to researchers and development actors. This information will be combined with other studies to assist interested government and non-government agencies in Ethiopia in developing their long-term program to reduce chronic food insecurity, especially from the lives of food insecure children in slum areas like Koshe.

Scope of the Study

This research is thematically and geographically limited to its intent: what the vulnerability of food insecurity looks like in children and the coping mechanisms employed by them, from the perspectives of the children themselves, their teachers and school directors and

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social workers who know the area well. The poverty prevailing in Koshe is multifaceted; especially when it is in the lives of children. However, this study limited to food insecurity.

The study briefly discussed the main factors that impact children's food insecurity status in the increase and volatility of food insecurity taking sample students from a selected school. It highlighted key features and facts of the current state of food insecurity in the case of children at Koshe. It further discussed the main dimensions of food security: food adequacy; food sufficiency; food affordability; acceptability of food intake; and availability. It briefly discusses the drivers of forces behind the observed problems in food security. The research paper further draws implications to social work practices and recommends key actions for the way forward at addressing the root causes of food insecurity in the case area. In conclusion, the report underscores the need to address food insecurity in a comprehensive, structural and sustainable way.

Limitation of the Study

A number of limitations are acknowledged in this study. A growing body of research has demonstrated associations between children's health, development, and well-being and measures of food security and food sufficiency. Since measures of child food security scales are not available at a national level, the ones in this survey were adapted from the USDA's Household Food Security Module covering the last 12 months period, by reviewing in terms of the observed case. Hence the possibility of some misclassifications might not be ruled out. Therefore other researchers and policy makers could focus on this area and develop food security scale that serves as a national level pertaining to the Ethiopian context.

The other main limitation of the study was related to exclusion of heads of households which the children belong to. This was due to the fact that the study was limited in its scope in

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that it solely focused on assessing experiences of the children from the children themselves; it does not show the views of the households the children came from.

Finally, causality is difficult to establish in this study since it used cross-sectional data. Therefore, limitations in design stemming from cross-sectional data, reliance on single-item measures of food difficulties, or failure to adequately control for factors that may confound the observed relationships make it difficult to assess the robustness of the findings.

The data that employed the term school children only as a reference child (children) to enumerate without duplication may be misleading for policy purposes because the data might not show work contribution and regular presence in the case school. Also the data could not cover the entire case of food insecurity, while collecting the data from the informants given the context itself varies across different communities. While individual-level data are used, generalizations cannot be made about the focal children in the survey.

Organization of the Thesis

This report is structured in five chapters. The first chapter presents the research topic together with the justification and background. It also includes problem statement, research questions, objectives, scope, limitation and structure of the paper itself. Chapter two provides a review of the literature on food insecurity and vulnerability to it pertaining to children. It also emphasizes on the impacts of food insecurity on the wellbeing of children and coping mechanisms to food insecurity. Descriptions on how food insecurity and coping mechanisms defined by several authors and measures of food insecurity and coping styles are posited. Chapter three of this study describes the research methodologies adopted for gathering and organizing data for the effect of the study. It also triggers selection criteria employed to identify the case study area. Chapter four deals with presentation of the data gathered, with regard to

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vulnerability of child food insecurity and the coping strategies; analysis and discussions made on the results/findings. Conclusion, recommendations and synthesis of the results for the development of policy actions with respect to research objectives and significance; as well as implications for social work practice are drawn in the fifth chapter.

Operational Definitions

Food: Food is operationalized in this study as substances, whether in liquid, concentrated, solid, frozen, dried or dehydrated forms; to be ingested or chewed by humans and are consumed for their taste or nutritional value.

Meal size: meal size is operationalized in this research as the amount of meal a person picks on their plate for a one time serving or the amount of meal served at a time.

Number of meal per day: refers to the frequency of eating or how many times a person eats food in a day.

School absenteeism: as operationalized in this study, school absenteeism is any illegitimate absence from school for at least a day.

School performance: educational attainment at school manifested by class participation in the class, grades/results attained in academic achievements.

School dropout: in this research, this term is operationalized as abandoning school due to different reasons.

Family economic status: is operationalized as the employment status and income earned by the family.

Scavenging: refers to the act of scratching items for use, from garbage. As operationalized in this research, it is an act of scratching valuable items from waste dump.

Waste dump: garbage landfill where rubbish/unwanted items are disposed in

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Alms receiving: this term is operationalized in this research as an act of begging for money or other items on the streets or door-to-door in order for making a living as a means of survival.

Leftover food: any form of discarded food from hotels, cafes, restaurants, or any other places.

“Isken”: refers to a food prepared from mixture of expired meat, fish and chicken that come from grocery stores/supermarkets.

“Bulle”: a term used by the community around Koshe to mean leftover food from hotels restaurants, churches, the waste dump and other places.

“March muz”: a term used by the community around Koshe to refer to a partly spoiled banana.

Chapter Two

Review of Related Literature

This section is devoted to presenting the scholarly views regarding the topic under study. Therefore, the concern of this section will be on cross validating the ideals in the data analysis to follow in reference to the works of acknowledged researchers and authors.

Conceptual Definitions

This research focuses on studying the vulnerability contexts of slum dweller children to food insecurity and their coping strategies. Specifically, the study bases on children in Koshe, one of the slums in Addis Ababa. Each of the concepts to be examined in the research is defined as hereunder:

Slum Dwellers

Before defining the concept 'slum dwellers', it is good to see what slum itself does mean. Different organizations have coined different definitions of slum for their working purposes. However, the definition given by UN-HABITAT is found best fitting. A global report released by UN-HABITAT (2003:8) defines slum as a wide range of low-income settlements and/or poor human living conditions. This definition summarizes the essential characteristics of slums: The first criterion is economic condition, while the second is low standards of living. This spread of associations is typical, not just for the definition of slums but also of our perceptions of them. Dwellings in such settlements vary from simple shacks to more permanent structures, and access to basic services and infrastructure tends to be limited or badly deteriorated. Slums have, however, also come to include the vast informal settlements that are quickly becoming the most visible expression of urban poverty in developing world cities, including squatter settlements and illegal subdivisions. The quality of dwellings in such settlements varies from the simplest shack

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to permanent structures, while access to water, electricity, sanitation and other basic services and infrastructure is usually limited.

Characteristics of slums

Several definitions are used by national and local governments, statistical offices, institutions involved in slum issues and public perceptions. UN-HABITAT (2003) summarized the following attributes of slums are summarized from the report.

Lack of basic services: Lack of access to sanitation facilities and safe water sources is the most important feature, sometimes supplemented by absence of waste collection systems, electricity supply, surfaced roads and footpaths, street lighting and rainwater drainage.

Substandard housing or illegal and inadequate building structures: Slum areas are associated with a high number of substandard housing structures, often built with non-permanent materials unsuitable for housing given local conditions of climate and location. Factors contributing to a structure being considered substandard are, for example, earthen floors, mud-and-wattle walls or straw roofs.

Overcrowding and high density: Overcrowding is associated with a low space per person, high occupancy rates, cohabitation by different families and a high number of single-room units.

Unhealthy living conditions and hazardous locations: Unhealthy living conditions are the result of a lack of basic services, with visible, open sewers, lack of pathways, uncontrolled dumping of waste, polluted environments, etc. Houses may be built on hazardous locations or land unsuitable for settlement, such as floodplains, in proximity to industrial plants with toxic emissions or waste disposal sites, and on areas subject to landslip.

Insecure tenure; irregular or informal settlements: A number of definitions consider lack of security of tenure as a central characteristic of slums, and regard lack of any formal document

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entitling the occupant to occupy the land or structure as *prima facie* evidence of illegality and slum occupation. Many definitions emphasize both informality of occupation and the noncompliance of settlements with land-use plans.

Poverty and social exclusion: Slums are areas of social exclusion that are often perceived to have high levels of crime and other measures of social dislocation. In some definitions, such areas are associated with certain vulnerable groups of population, such as recent immigrants, internally displaced persons or ethnic minorities.

Minimum settlement size: Many slum definitions also require some minimum settlement size for an area to be considered a slum, so that the slum constitutes a distinct precinct and is not a single dwelling.

Slum dwellers are characterized by low income, inadequate living conditions and sub-standard facilities. These communities are usually inhabited by socially disadvantaged people (people regarded as lower caste). Unlike squatter settlements, the residents of these slum areas generally own their land and houses, which are very small in size. These communities are also officially recognized by authorities (UN-HABIT, 2006). Slum conditions are physical and statutory manifestations that create barriers to human and social development. Thus the term “slum” is used in the report to describe a wide range of low-income settlements and poor human living conditions whereas slum dwellers are those whose residences are in the slum.

Child

Since the main focuses of this research are ‘children’, it is essential to conceptualize ‘child’ for the purpose of this specific study. The definition of ‘child’ varies across cultures, social constructs and political contexts. Children are also viewed by their respective parents, friends, communities and societies at large in a various ways. In some societies it is possible for

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a person to become a fully grown-up man or woman without necessarily being recognized as an adult in the local community as long as s/he has not passed through specific cultural benchmarks that confer that status (Mavise, 2010:322).

The most widely used definition throughout the world is the one which is adopted by the UN. The term ‘child’ is defined as “every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier” (UNCRC, Article 1). Though this definition does not apply to every context, but several nations including Ethiopia that signed the CRC accept this definition. Like in many other parts of the world, the definition of ‘child’ in Ethiopia as the concept has both age-based and socially constructed meanings. In addition, there is an overlap of ages between the definition of ‘youth’ and ‘child’ in that, the age demarcation for ‘youth’, in the definition of UN as well as the Ethiopian youth policy, begins at the age of 15. However, the constitution of the FDRE and other legal documents in the country accept a person less than 18 years or age as ‘child’. Therefore, in this study, child is conceptualized as a person below the age of eighteen years old.

Coping Mechanism

In order to conceptualize the term coping mechanism, it is good to see how the term coping is defined. Coping refers to fairly drastic changes, some expected, some not, in the internal and external environment that defy the usual ways of behaving and require the development of a range of new behaviors (Saleeby, 2001:207). Most often, such environmental factors prompt a range of difficult feelings—agitation, uncertainty, anguish, anxiety, dread, guilt, grief—depending on the nature of the situation. According to Hutchison (1999: 139-144), coping can be defined as the efforts to master the demands of stress and includes the thoughts, feelings, and actions that constitute these efforts. Another way to look at coping is by the way the person

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responds to crisis. Coping efforts may be problem-focused or emotion-focused. The function of problem-focused coping is to change the situation by acting on the environment. This method tends to dominate whenever we view situations as controllable by action. In contrast, the function of emotion-focused coping is to change either the way the stressful situation is attended to (by vigilance or avoidance) or the meaning to oneself of what is happening. The external situation does not change, but our behaviors or attitudes change with respect to it, and we may thus effectively manage the stressor. When we view stressful conditions as unchangeable, emotion-focused coping may dominate.

An important element to every response or attempt at coping is the cognitive appraisal of the stressful event: the meaning the event or the situation conveys; whether it is a threat or harmless; and the ability to cope with it. How you assess the situation triggers feelings, and these, in turn, help fashion behavioral strategies. If the event or the situation threatens harm, is actually harmful, or represents a loss, then it becomes a stressor. A perceived threat (it has not happened yet but is thought to be likely to occur) is the most common source of stress and pushes to maintain the status quo or anticipate and attempt to plan for the distress the event would bring. Appraisal of an actual event as harmful or damaging requires overcoming, reducing, or tolerating the effects of the stressor. On the other hand, evaluation of the event as a challenge means that one may regard it as an opportunity, even though it may require struggle and introduce obstacles (Saleebey, 2001:209).

Maxwell (1996: 293-4) makes the distinction between "coping strategies" (fallback mechanisms to deal with a short-term insufficiency of food) and "adaptive strategies" (long-term or permanent changes in the way in which households and individuals acquire sufficient food or income). She notes a number of drawbacks about the use of "coping strategies" in food security

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research: first, they are something of a catch-all, although some of the clarifications just mentioned help to reduce this problem; second, they imply that people somehow "get by", when in fact coping strategies are an indication that things are getting worse; and, third, they are almost by definition nutritionally unsustainable, and are likely to be economically and environmentally unsustainable as well. Nevertheless, even though coping strategies are an indication of food insecurity, the distinction between "coping" and "failure to cope" is an important distinction to note in the famine literature (Dreze and Sen, 1989 cited in Maxwell, 1996).

Food Insecurity: Food insecurity is a difficult concept to measure since it deals in very broad terms with the production, distribution and consumption of food. Food insecurity lends itself more readily to measurement and analysis. It should be stressed that food security and famine and hunger are not to be confused: food security refers to the availability of food whereas famine and hunger are the consequence of the non-availability of food, in other words the results of food insecurity (Napoli, 2010: 9).

According to guidelines developed by Cook & Frank (2008:193), food insecurity is defined as ‘‘Limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

The Food and Agriculture Organization (2008), defines food insecurity as ‘‘not having adequate physical, social or economic access to food for an active and healthy life’’.

Vulnerability: In this paper, vulnerability is understood as being a subset of food security analysis, thus the vulnerability in question is vulnerability to food insecurity. One of the most widely accepted definitions of vulnerability is that of Chambers (1989:1):

Vulnerability refers to exposure to contingencies and stress and difficulty in coping with them. Vulnerability thus has two sides: an external side of risks shocks and stress to

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which an individual or household is subject: and an internal side which is defenselessness, meaning a lack of means to cope without damaging loss.

As noted by Riely (2000:2), vulnerability to food insecurity begins with a more or less view of the chronic or current level of food security and then incorporates the elements of risk and coping capacity to an analysis that is more forward-looking and dynamic. Thus vulnerability is the state of being easily damaged exposed to attack or harmful or dangerous situation.

Food Insecurity Theories and Definition

Food insecurity is related to, yet distinct from, concepts such as poverty and malnutrition (Webb et. al., 2006: 1404), and is experienced at a range of spatial scales from households to regions, as well as a range of time scales. Food insecurity refers to “limited or uncertain access to nutritionally adequate and safe foods due to lack of resources” (Kleinman RE, Murphy JM & Wieneke KM, 2007: 278). As stated by the World Food Summit (1996), food security exists when all people, at all times, have physical and economic access to sufficient, safe, nutritious food to meet their dietary needs and food preferences for an active life. According to World Food Council (1988:23), food security implies two things. First it implies that food is available, accessible, affordable—when and where needed—in sufficient quantity and quality. Second, it implies an assurance that this state of affairs can reasonably be expected to continue; or, in other words, that it can be sustained. To put it simply, food security exists when adequate food is available to all people on a regular basis.

Dimensions of Food Insecurity

To examine food security whether a change from security to insecurity or insecurity to security, it is crucial to see from the view point of food security/insecurity dimensions. Factors

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that may lead to a situation of food insecurity include non-availability of food, lack of access, improper utilization and instability over a certain time period. The following dimensions are the core to define food security situations:

Availability: food availability addresses the “supply side” of food security and is determined by the level of food production, stock levels and net trade (FAO, 2008). The World Food Program defines availability as “The amount of food that is present in a country or area through all forms of domestic production, imports, food stocks and food aid”. (WFP, 2009: 170).

Access: The World Food Summit defines access as having “physical, economic and social access”. The World Food Program defines food access as “A household’s ability and the amount of food regularly through a combination of purchases, barter, borrowings, food assistance or gifts”. (WFP, 2009: 170). Food access consists of three elements, which are physical, economic/financial and socio-cultural. The physical dimension can be illustrated by a situation where food is being produced in one part of a country but an inefficient or non-existent transport infrastructure means that food cannot be delivered to another part suffering from a lack of food. From the economic viewpoint, food security exists when people can afford to buy sufficient food. The idea that food insecurity arises when food is available but people are unable to afford it is still quite a recent development in the history of food security. A further economic consideration is the importance of market systems to ensure access to food as OXFAM points out: “Even in rural areas most people, and especially the poor, rely on market systems to provide food and essential goods and services but also for selling their produce” (OXFAM, 2007). The third element is the socio-cultural dimension which arises when food may be physically available and the potential consumer has the money to buy the food but is prevented from doing so for being a member of a particular social group or even gender. Social conflict and civil strife

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can seriously disrupt food production and lead to the loss of livestock for example with dire consequences for a household's future food security (Riely et al. 1995:22).

Utilization: The World Food Summit's definition of utilization (the third element of food security) is "safe and nutritious food which meets their dietary needs". The availability of and access to food on their own are not enough, people have to be assured of "safe and nutritious food". The food consumed has to provide sufficient energy to enable the consumer to carry out routine physical activities. Utilization also covers factors such as safe drinking water and adequate sanitary facilities to avoid the spread of disease as well as awareness of food preparation and storage procedures. The utilization dimension refers to the quality and safety of food but also to the preparation and the storage procedures (Napoli, 2010:31)

Utilization therefore covers a range of aspects that hinge on the consumer's understanding of what foods to select and how to prepare and store them. It is often a mistake to assume that the members of so-called traditional societies know how best to use food resources and it is also a fact that dietary habits (breast-feeding, weaning foods) change very quickly, even for traditional societies.

Stability: according to FAO (2008), of the other three dimensions over time, even if food intake is adequate today, you are still considered to be food insecure if you have inadequate access to food on a periodic basis, risking a deterioration of your nutritional status. Adverse weather conditions, political instability, or economic factors such as unemployment and rising food prices may have an impact on food security status. For food security objectives to be realized, all four dimensions must be fulfilled simultaneously. The World Food Summit says that stability must be present "at all times" in terms of availability, access and utilization for food security to exist. The literature distinguishes between chronic food insecurity where food needs

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cannot be met over a protracted period of time and transitory food insecurity, where the time period is more temporary (Maxwell, 1996).

Food security Measurement

Food hardships have been conceptualized by researchers in various ways. An 18-item scale was developed by the USDA to assess household food insecurity with and without hunger, where hunger represents a potential result of more severe forms of food insecurity, but not a necessary condition for food insecurity to exist (Price, Hamilton, and Cook, 1997). Other researchers have used selected items from the USDA Food Security Module to assess food hardships (Nelson, 2004; Bickel et al., 2000) which is also adapted for this survey.

The failure of early attempts to alleviate food insecurity has arguably been due to their overwhelming emphasis on food availability. While food security clearly depends on agricultural conditions and aggregate food production, it also depends on socio-economic conditions, including the distribution, access, and affordability of food. It is important to note that aggregate food availability is a poor predictor of other food insecurity indicators, and food insecurity does not arise exclusively –or even predominantly– because of covariate shocks to an entire population (Ziervogel et al. 2006). Thus, the correlates and causes of food insecurity are likely to be found at the level of households and individual livelihoods.

This paper considers there to be three components of household food security: food quantity available in the household, food quality as captured by dietary diversity and the presence of important nutrients, and the stability of adequate food supplies as well as affordability, the purchasing power of food. It should be noted that this is not intended to be the most comprehensive framework, but rather the one most appropriate for the present analysis, given data availability and the household level of analysis.

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While accurate measurement of household food security is essential for effective research and well-targeted policies and programs, there is no standard methodology for measuring food security, and despite an improved theoretical understanding of food security, the FAO notes that there exists no "perfect single measure that captures all aspects of food insecurity" (FAO 2002). The absence of such a 'gold standard' makes it unreasonable to use a single benchmark to proxy food security. In light of its multidimensional nature, it is generally agreed that a suite of indicators and methods are needed for the assessment of food security.

While the argument for creating an index is compelling, there may be drawbacks to combining diverse factors to one score, particularly when trying to understand the determinants of food security and the channels of impact. While poverty is multidimensional, the value of a single index for sound development policy-making merits skepticism. In practice, policymakers can already refer to multiple indicators to measure different aspects of poverty, while the use of a single index necessarily relies on assumptions regarding which aspects of poverty should be included and how they should be weighted. The same argument can be levied at the construction of a multidimensional food security index, and it is not clear that collapsing these dimensions to a single composite index can be useful (Ravallion 2011).

Perceptions of Food Insecurity Measures in Ethiopian Context

A focus group discussion was made by FAO (2013) by involving participants aging between 15 to 40 years in Adama and Addis Ababa to determine the feasibility and comprehension of questions regarding food security. The study employed ten food security scale questions and the study result indicated that food security is perceived by the people as the ability to consume three meals in a day: breakfast, lunch, and supper or dinner. For the participants, the inability of families to access three meals in a day was perceived as a factor of

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food insecurity. The report released by FAO (2013) stated that participants understand “food” as either the consumption of the three important meals of the day, or at its most basic level, “anything” that one can eat to survive. Regarding skipping meals, participants understood this concept as postponing eating for four or more hours, having lunch as dinner at 5:00 pm, eliminating one of the three meals of the day (breakfast, lunch, or dinner), eating twice a day instead of three times a day, being unable to find food at the desired time, and being unable to eat at the usual time. While there is consensus on this meaning that one eats fewer than three meals a day, a few participants understand it as not eating for a whole day. To some participants, “skipping” is when one misses the three meals of the day.

Factors Affecting Child Food Insecurity

Wide-ranging factors—individual, familial, societal, and macroeconomic—have been found to influence food insecurity (Cook and Frank 2008; Habicht et al. 2004). Food insecurity is closely related to limited household-level resources. The prevalence of food insecurity varies considerably among household types but is predominately a feature of lower-income versus middle- or upper-income households (Nord and Brent 2002).

A series of socio demographic factors that may influence food insecurity or child outcomes will be included as controls. Income is one of the primary causal factors used in explaining food insecurity. Income is also an important influence on many of the child outcomes of interest. A family’s income may vary somewhat from year to year. Measures using several years of family income tend to be more stable and indicative of permanent income than those based upon one year of family income (Mayer, 1997).

Researchers have concluded that poverty, in conjunction with inadequate state action mitigating the effects of poverty, is the primary cause of hunger and food insecurity (Cohen

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1990; Martorell 1996; Nestle & Guttmacher 1992). Given this emphasis on poverty as the primary cause of food insecurity, policy proposals have focused on addressing poverty and economic issues such as unemployment, underemployment, and housing, in addition to food assistance programs (Cohen, 1990:23-27).

Parental health and household structure are associated with children's well-being in various ways, including parents' diminishing energy for providing care and developmental stimulation. Parents' physical health limitations, becoming disabled, or having a disability lasting two years have been found to be positively related to becoming or remaining food insecure (Bhargava, Jolliffe, & Howard 2008; Hofferth 2004). Low emotional well-being, mental health challenges, reduced self-esteem and skills mastery, and maternal depression have all been associated with food insecurity (Bhargava et al. 2008).

Market Variable

High and volatile food prices remain one of the key driving forces behind the changes in food security status of millions of people worldwide. The high food prices since the 2008 food crisis have had prolonged effect on both food availability and food access in Africa. The surge in global food prices was still observed in the third quarter of 2012, causing large spikes in the price of rice, maize, wheat and many other staples across Africa. Given the fragile balance between global food demand and supply and the low levels of global cereal stocks in recent years, food prices are set to stay extremely unpredictable (UNECA, 2012:7). According to FAO's (2008b) report, 20 million people in the Horn of Africa live in urban slums, and rising food prices have greatly reduced their purchasing power and wiped out their assets. As one mother put it, 'I get angry because every time I go [to the market because] food prices are higher'. Increase in food

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prices has been the most important problem plaguing the food security situation in urban Ethiopia.

A number of structural and closely connected forces aligned to drive prices up. In the short term, these included rising energy prices, recently increased subsidies for biofuel production, weather disruptions, lower holdings of international cereal stocks, and restrictive trade policies. Contributing factors included income and population growth (leading to higher demand for food in general, and for processed foods or meats that required higher amounts of cereal inputs), as well as land and water constraints, underinvestment in rural infrastructure and agricultural innovation, and lack of access to inputs. Between 2000 and 2007, demand for cereals exceeded supply, and stocks fell. Country trade policies aimed at easing the domestic effects of the price increases, such as export bans and import subsidies, worsened the volatility of the international food markets (Braun, 2008b).

The extent to which the global food price increases translated to changes in prices in developing countries varied greatly and depended on such factors as degree of import dependence, transport costs, market structures and amount of market competition, and domestic policies such as price wedges. Higher food prices contributed substantially to overall inflation in many developing countries, and over the past two years, food price inflation exceeded overall inflation in most of the countries where a high proportion of the population is food-insecure (Braun, 2008).

As stated above, an increase in prices of staples can lead to a substantial drop in ability to purchase other needed goods. The impact is greatest among the poorest households, who spend the most, in percentage terms, on food. Using data from household surveys in nine developing and transition countries, FAO found that in urban areas a 10 percent rise in staple food prices

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hurt the bottom 20 per cent of the income distribution the most (Cohen & Garrett, 2009).

Therefore, the rising cost of food by itself is the major factor that is contributing to food insecurity.

Consequences of Food Insecurity

Food insecure children are highly likely to perform poorly in school and endure health and developmental problems. Development problems in children do not start when they are old enough to go to school; in utero under nourished children suffer growth restrictions due when their mothers are malnourished. This poor uterine growth is indicated by low birth weight (infants weighing < 2,500 g at birth) and is associated with poor development such as lower cognition scores, decreased activity and expressiveness, poor language development, and behavioral difficulties. Beyond intrauterine growth restriction, poor nutrition contributes to stunting, defined as height for age below two standard deviations of mean reference values for normal growth (Chilton, et.al, 2007). Several consequences of food insecurity could be raised but some of them are discussed in the following sections.

Food Insecurity and Children's Well-Being

Research has demonstrated associations between children's health, development, and well-being and measures of food security and food sufficiency. Most studies are based on household-level food insecurity (or food insufficiency), not specifically with food insecurity among children. Children in food secure households are more likely to be in better conditions in all of those aspects than children from food insecure households. Nord, (2009) summarized findings of 13 studies on child health and development outcomes associated with food insecurity and food insufficiency. According to him, these studies found the conditions to be more likely for children in food-insecure or food-insufficient households than for children in otherwise

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similar food-secure households. Food insecure children are found to have poorer health, higher numbers of chronic health conditions characterized by more stomach aches, frequent headaches, and colds among children. In addition to poorer psychosocial functioning such as more anxiety and depression in school-age children and psychosocial development in school age children, “internalizing” behavior problems, higher rates of depressive disorder and suicidal symptoms are demonstrated. Regarding education, lower math achievement and other achievement gain, lower math and reading gains and lower arithmetic scores and higher likelihood of repeating a grade.

Furthermore, the study conducted by NCH (2011), identified consequences of food insecurity as follows:

Hunger: Food insecurity and hunger stem from poverty and a lack of reliable income sources, making the homeless population the most vulnerable. Abnormal eating practices such as making meals last for hours, or binge eating, as well as significant increases in social introversion, irritability, anxiety, anger, and depression. Physical symptoms of hunger such as gastrointestinal distress; dizziness; headaches; hypersensitivity to noise, light, and cold; reduced strength; and poor motor control. Cognitive changes which include impaired concentration, reduced alertness and comprehension, and poor judgment.

Health: Children that continually go hungry often have poor health, behavioral and emotional problems, and difficulties in socializing with peers. Obesity among food insecure children is also extremely common; due to the low quality of food they receive (NCH, 2011). Children that are obese suffer through asthma, respiratory problems, diabetes, low self-esteem, and even much higher rates of suicide. Cognitively, children that enter kindergarten malnourished have been shown to do much more poorly on math tests and to learn less during the year, beginning their educational journey with a serious handicap.

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Alienation: Families and individuals that experience food insecurity also often experience a sense of alienation from society. This stems from the lack of control over how they feed themselves and their family, and their reliance upon the charity of others. Only those who have run out of options obtain food from emergency sources as a last resort. This forced giver-receiver relationship alienates the hungry from the rest of society, and makes them feel shame and distress about their food insecurity (Cook & Karen, 2009).

Food Insecurity and Childhood Hunger

Although hunger is related to food insecurity, it is a different phenomenon. Food insecurity is a household-level economic and social condition of limited access to food, while hunger is an individual physiological condition that may result from food insecurity (National Research Council, 2006). Hunger is, thus a potential—though not inevitable—outcome of food insecurity. “Hunger” is understood to refer to conditions across a broad range of severity, from relatively mild food insecurity to “the uneasy or painful sensation caused by lack of food” (one dictionary definition of hunger) to prolonged clinical under nutrition (Nord et al., 2009). Specific information about the incidence of hunger would be of considerable interest and might be of value for policy and program design, but collection of precise and useful statistics about hunger is hampered by lack of a consistent meaning of the word and a validated method for measuring it. Regarding physiological hunger resulting from food insecurity, the American National Research Council, (2006) pointed out that hunger should refer to a potential consequence of food insecurity that, because of prolonged, involuntary lack of food, results in discomfort, illness, weakness, or pain that goes beyond the usual uneasy sensation.

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Food Insecurity and Coping Strategies

Poor urban households engage in a variety of approaches to deal with higher food prices. Common strategies include reducing food consumption quantity or dietary diversity. In light of these factors, how might urban poor people respond to rapid food price rises? The impact on the urban poor is likely to be significant. Food, which takes a large proportion of their cash expenditures, is essential. Therefore, they will try to cushion the shock by reducing their outlay on such items as transport, health and education, which are already squeezed – with substantial negative effects on time spent getting to work and, in the longer term, on their own or their children's economic productivity and well-being. And households are likely to adjust their food consumption. Families can reduce food expenditures by eating less, including skipping meals; or shifting to lower-quality food or less diverse diets. They may choose to buy on credit or take from neighbors or find a way to access food programs (Cohen & Garrett, 2009).

These changes in consumption patterns brought on by higher food prices will mean increased micronutrient deficiency disorders and a higher incidence of disease, child and maternal mortality, poorer school performance and, over time, reduced worker productivity. Because under these circumstances poor households often cut back on non-food necessities (such as health and education) and may also deplete assets and savings, food price increases can have multiple negative long-term impacts on household well-being and future human capital (Bouis, 2008; FAO, 2008a). Families can also adjust food distribution within their households to cope with higher food prices. It is common for mothers to forgo food when it is scarce, and boys also frequently get larger rations than girls (Baker, 2008).

In the recent crisis, energy cost was a substantial factor behind the rising prices in staple grains. In such crises, the prices of other goods, including transport and different food items, may

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also rise. Shifting to different foods therefore may not gain the household much, and higher transport costs may make travelling to markets, such as wholesale markets or even supermarkets where per-unit costs may be less, more difficult. The pressure on expenditures may also limit poor families' ability to buy goods in bulk at a discount. Low-income city residents may be left with little choice but to continue to buy in small quantities from the local kiosk or market, at a higher per-unit cost (Cohen & Garrett, 2009).

Another coping strategy may be for the household to attempt to increase income. As shown above, even poor families often have some ability to add household members to the workforce, especially women and children, although this may come at a cost to childcare, individual health or education. In sum, poor people already have a less diverse diet, they eat lower-quality foods, and they may already be participating in social programs or borrowing from neighbors. They have few extra resources, however, so their coping mechanisms during rising prices may lead to a real loss in food security. These effects are likely to differ across income classes and household locations. Upper-income households may have to lessen food expenditures and decrease diversity somewhat, but with manageable effects on food security (Cohen & Garrett, 2009). Poorer families simply eat less and less nutritious food.

Conceptual Framework

This research focuses on the vulnerability and coping mechanisms of children to food insecurity and the food impacts on their wellbeing. The independent variable is vulnerability of food insecurity and the intervening variable is food insecurity. The outcome variables are children's wellbeing, school performance and coping strategies. This conceptual framework explains the causative relationship between variables. It is assumed that vulnerability context such as family size, and family economic status affects food security. Food insecurity affects

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children's school performance through affecting their wellbeing while coping strategies are also the outcomes of food insecurity.

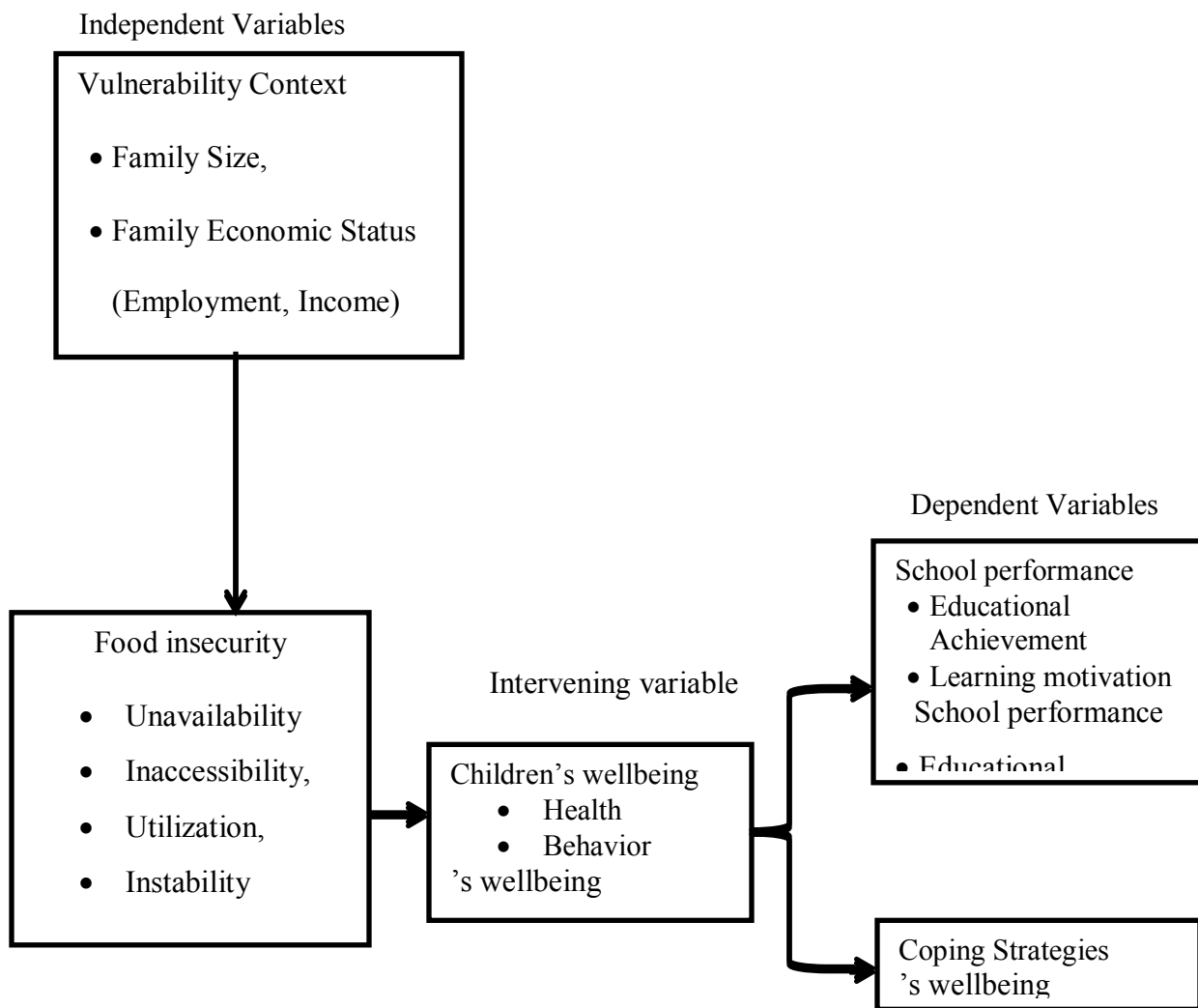


Figure 1. Conceptual Framework (Researcher's model)

Chapter Three

Research Design and Methodology

In order to come up with a considerable details that spell out what would really occur in the course of the research process, the detailed plan outlining how the research project carried out was succinctly designed. First of all, the intent of the research was identified before the design was considered. Hence the aim of this research is to describe the phenomena-impacts of food insecurity on children's well-being and the coping mechanisms employed by the children themselves. To this end, research participants, how they were selected and the kind of information was gathered from or about them was addressed. Considerable details about what would occur in the following stages of the research process were also the issues that were spelled out in this section.

Study Design

This research employed cross-sectional survey design with the aim to generalize the findings of the sample to a large number of populations. O'Leary (2004:154) stated that this type of survey uses a sample or cross-section of respondents selected to represent a target population. The goal is to be able to generalize the findings of the sample to the population with a high degree of confidence. Hence, this research design was chosen since it is easier to draw a generalizable conclusion for wider population from the sampled population that participates in the study. Dejong, Monette, & Sullivan (2005:158), stated that surveys are efficient in that many variables can be measured without substantially increasing the time or cost. Survey data can be collected from many people at relatively low cost and, depending on the survey design, relatively quickly.

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Inclusion and Exclusion Criteria

In order to have clear data over the issue, the minimum age of the students for this study is purposefully restricted to >10 years. The justification for determining the criteria to involve students in the age range of 10-18 years was due to their ability to describe themselves, level of understanding the concept, and maturity. Hence, students enrolled in grade 5-8 were case samples for the survey. Then the sample for this study was limited to children from the classes mentioned and who were available during the specific data collection date and time.

Sampling Technique and Sample Size

In order to determine the appropriate area for this research purpose, both probability and non-probability sampling methods were employed. With the intent to collect data from representative samples that would help to reflect vulnerability of slum dwelling children's food insecurity, Koshe area was purposively selected taking to account the vulnerability and poverty level of the community, in addition to slum condition of the area. Having selected Koshe, systematic random sampling was employed to select the school and participants of this survey. This sampling technique was chosen based on the suggestion given by (Singh, 2006:87). According to him, this method requires having complete information about the population its advantages of reducing the field cost; the chance it gives the researcher to use inferential statistics and the room it has for comprehensiveness and representativeness of population as well as observations of the sample may be used for drawing conclusions and generalizations.

As identified from the school, there are 902 students who are between grades 5 up to 8. A school based cross-sectional study was used in conducting this survey. Based on the suggestion given by (Singh, 2006:94), descriptive research typically uses larger samples and it is sometimes suggested that one should select 10-20 per cent of the accessible population for the

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sample taking to account the time and budget constraints the researcher encountered, a sample of 15 percent of the total population was determined for this particular study. Thus, having identified the school and taking sample size of (n) from the population size = (N), available in the sample frame (class attendances), each N/n th individual student was selected from the attendance list and thus the desired sample size was drawn. Then 15 percent of the total population was calculated and 135 students were sampled for the survey. This was done through collecting attendance sheets of each of the classes where every student on the 7th interval was selected from the school attendance lists and the samples were arranged in a systematic way. However, only 112 participated on the actual data collection and the reminder could not participate due to unknown reasons.

Sources of Data

In order to have a good insight over the issue, both qualitative and quantitative data were employed for the effect of this research study. The primary data were questionnaire and key informants interview and they were both thoroughly prepared so as to achieve the objective of the study. Exhaustive review of related literature pertinent to the topic was made to review documents regarding food insecurity. To this end, various secondary data pertaining food insecurity theories and concepts and coping strategies in relation to children, published and unpublished such as research papers, journal articles, books, reports relevant to the study were thoroughly reviewed. A detailed review of available researches were conducted to enrich the research paper in the study area or elsewhere but sharing the same issues, books, and previous efforts and reports. Previous findings, matters rose for future research and identified gaps were all given due emphasis to come up with valuable recommendations.

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Questionnaire

Questionnaires that would measure the variables of the study were designed. The questionnaires were designed on the way they could address the research questions, objectives and the research hypotheses. The questionnaires were adapted from the USDA household food insecurity module, designed in the context of the area and translated to Amharic. Then validity test was done to further check the translation.

Key Informant Interview

The key informants were purposively identified during the pre-assessment session via preliminary discussions held with the principals and some teachers at the selected school where the survey was conducted. This was done taking to account their exposure to the children and their tenure in the community. A list of semi structured open-ended questions was prepared for the interviewees and pilot test were held to check their relevance. The key informant interviewees (KII) selected were 8 in number and they were 3 social workers who work in NGOs operating in the community and that have exposure to the case under study, a school principal and 4 home room teachers.

The draft KII guide was prepared, then its relevance was checked and appropriate modifications were made accordingly. Following this, an action plan had been developed and the practical work was begun with data gathering and pre-assessment to gain eye opener facts about the case.

Document review.

In order to gain subterranean information and conceptualize the prevailing problem, a one-year-long school reports pertaining to children's educational performance were reviewed.

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Statistical data regarding primary school leaving national exam results, dropouts, class repetition available at the case school were reviewed.

Data Collection Technique

For the purpose of this research, instruments such as questionnaires, key informants' interviews and document reviews were employed to collect data from first hand informants so as to tap all the necessary information by triangulating the different methods to closely study the problem from different directions and come up with a better finding. Once the research design was determined, the way the problem would be approached, was triangulation, which is integration of both qualitative and quantitative methods was found suitable to address the research problems and test the research hypotheses. Thus employing triangulation or approaching a problem from a number of different directions was believed that it would yield better result. Triangulation uses more than one research strategy, method or source of data in the study of social phenomena, through mixing data or methods, and having gotten diverse viewpoints to throw light on the research problem (Dejong et.al, 2005). Hence, through the combination of the two strategies, that is qualitative and quantitative, it was possible to study different aspects of the study variables through the application of triangulation, using more than one source of data to confirm the authenticity of each source so that to achieve the objective of the study.

Data Collection Procedure

Two weeks before the commencement of the actual data collection, a support letter from AAU school of social work was delivered to Biruh Tesfa School and the school principal approved me that I could conduct the research at the school. Then key informants selected on convenient basis given their exposure to the area and specifically to the children, that is, teachers

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at the school, social workers and nurses working in NGO's in the area. Except a nurse who had personal engagement, two of the social workers and all of the five teachers selected showed me their willingness to participate in the interview and also scheduled their convenient times.

Pre-Test

The questionnaires were tested on randomly chosen students for their reliability and validity before they would be used for actual data collection. The questionnaire was tested on five selected students (not included in the sample) from the school community in Koshe area. This made the data collectors to be more familiarized with the contents of the questionnaires and also think of acceptability of the different approaches during data collection and interviewing, acceptability of the questions to be asked, sequences in the questionnaire, willingness of respondents to collaborate the study, wording of questions (clear or not), and Space for answer.

The questionnaires were first prepared in English and then translated to Amharic. To check the consistency of the forms, a half an hour brief orientation was provided to the teachers who assisted me in collecting the data a week before the actual data collection was made. The five questionnaires were distributed to students who would not participate in the actual data collection. The teachers facilitated the process during pretest to check the validity of the questionnaire and they were familiarized with the process. The questionnaires were distributed and data were collected based on written consent of the students. The teachers and social workers showed their willingness to participate in the study and they were contacted at convenient time and places they chose.

Ethical Consideration

It is obvious and quite significant to consider issues of ethics mainly, informed consent and privacy of research subjects while conducting research which are basic ethical issues that arise in social science research Dejong, et.al, (2008:53). According to these authors, informed consent refers to telling potential research participants about all aspects of the research that might reasonably influence the decision to participate. In order to respect privacy of the research subjects, editing data which deals with offering participants the opportunity, after the data was collected, to destroy any data they wish to remain private; anonymity, which deals about not linking any data to a particular respondent; and confidentiality, which deals with not making data collected from participants, public in a way that that can be linked to an individual (Dejong, et.al, 2008:57). Therefore, due consideration was given to the ethical issues of research in order to keep best interests of the respondents and respect their dignity than focusing only on fulfilling the objectives of the research.

Data collection was done after obtaining a letter of support from Addis Ababa University School of Social Work. The support letter was then delivered to the management of the selected school and tape recorded oral consent was obtained from the study population.

By the nature of the research under study, participants live in extreme poverty. This raises ethical issues of vulnerability and expectation. Interviewees offered up valuable time so it would not be imperative that this would not be used wastefully. Also, tact and respect was of top priority. Another major ethical issue in regard was to gender and being able to access people for open and honest opinions. To overcome the problem of a partner censoring a person's view, it will always be preferable to conduct the interview without intimidation from anyone else present – pausing where necessary.

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Informed written and verbal consent was obtained from the students and the key informant interviewees. For the students, a written consent form was attached on the first page of the questionnaire in the introduction. The consent form in the introduction states that all information would be held in confidence and that any contributions may be withdrawn whenever they do not feel comfortable to fore go. Each of the teachers and social workers were asked their consent to participate in the interview before the data collection. All data is held in a secure environment, protected. The teachers and social workers were promised that their words would be kept confidential and anonymous. Particular attention was given to ensure participants understand the nature of research. In order to overcome distrust among participants of the survey, teachers who have long time contact with the students explained them the objective and process of the research after selecting them. The final report would not intend for the participants as negative comments may be misconstrued. Also, it may be possible for individuals that are from close-knit communities to be identified.

Method of Data Analysis

Before starting the data analysis process, analysis plan was prepared for both the quantitative and qualitative data in order to scan the data gathering instruments in the context of data analysis. Both the data collected through questionnaire and key informant interview were edited, coded and classified based on the objectives of the research.

First, quantitative data collected through questionnaire were entered in double, checked for missing values and outliers and analyzed using SPSS for windows version 21 (SPSS Inc. version 21, Chicago, Illinois). All the variables were measured with the values and computed using descriptive and inferential statistics in order to test the hypotheses and answer the research questions. Then, qualitative data gathered through key informant interviews were analyzed

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through transcription and text management as suggested by Bernard (2004:495). The raw data gathered from the key informants through the field notes and the tape records were carefully transcribed case by case followed by putting codes directly to the transcribed texts of the field notes. Themes of the transcribed texts were then organized in accordance with the points of discussions put on the interview guides. Finally, analysis was made in choosing segments of text verbatim quotes from respondents as exemplars of concepts or exemplars of exception to the review of the literature. Due consideration was given to avoid subjectivity and involvement with the stories and it was attempted to get balanced verbatim quotes from the narration of the stories.

Chapter Four

Results and Discussion

Findings from the Survey

This chapter presents findings of the survey which are descriptive relating to the independent variables how food insecurity affects children's well-being and school performance. The chapter in general presents descriptive pictures of the vulnerability of children's food insecurity and the coping mechanisms they employ.

Vulnerability to food insecurity among children in Koshe area of Addis Ababa and the impacts on their well-being, school performance and coping strategies were assessed with the measures developed. The survey employed both detailed qualitative and quantitative description of the children's experiences over the last twelve months. The food insecurity status of the children in their respective households was assessed by the responses to a sub questions about the conditions and experiences of the children through questionnaires that ask them recall their experiences. To provide further information on how the children's well-being–health and school performance are affected by food insecurity, and how they cope, key informant interviews were made to better achieve the objective.

Before proceeding to the analysis, reliability test was done to check whether the collected quantitative data is reliable, by performing Cronbach Alpha. The test result indicated that the data has high level of reliability (Cronbach's alpha=.803). This shows that the data fed to the SPSS software were reliable to be analyzed.

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Demographic Characteristics of the Survey Participants

In this survey, 135 students from grade 5-8 were systematically selected to fill out questionnaire and 112 participated in the survey. All of the students who participated in the survey completed the questionnaire and returned it.

Of the 112 students who participated in this survey, 57 of them were male while 55 were female. Most of the participants were from grades 7 and 8 where 33 students participated from each class while those who are from grade 5 and 6 were 21 and 25 respectively. Age distribution of the respondents indicates that 75 (67%) of them were 13-15 years followed by those who were between the age of 16-18 years are 22 and those who were between 10 and 12 years are 15. All of the participants' age is below 18 and are all children as defined by the national child policy and the UN (See table 1).

Table 1. Age and Sex of Respondents

Variable	Measure	Frequency N=112	Percent
Sex of the respondents	Male	57	50.9
	Female	55	49.1
Age of the respondents	10-12	15	13.4
	13 – 15	75	67.0
	16-18	22	19.6

Vulnerability Status of Children to Food Insecurity

Family Economic Status

One of the objectives of this research is to identify factors that determine vulnerability of children to food insecurity. Accordingly, the participants were inquired to report whether their parents/guardians have permanent job. Most of the participants, 80 (71.4%) replied that their parents/guardians are employed whereas parents/guardians of 32 (28.6%) of the respondents are unemployed. In addition, the participants were inquired whether their parents/guardians' were

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able to cover cost of food given their income. It is also indicated that 61.6% of the children heard their parents being worried about food due to shortage of money. This indicates the prevalence of food insecurity and the vulnerability context of the children and the anxiety that comes out of it (see table 2).

Table 2. Descriptive data indicating family characteristics of the children

Variable	Measure	Frequency N=112	Percent
Parents/guardians have a job	Yes	80	71.4
	No	32	28.6
Family income adequate to cover cost of food	Yes	58	51.8
	No	54	48.2
Parents worried because they could not afford food	Yes	69	61.6
	No	43	38.4

To further check out the vulnerability context of the children, the kind of employment their parents/guardians' engaged in were identified as indicated in figure 2. As it is shown in the figure, 45 (40.2%) of the participants reported that their parents/guardians are engaged in daily labor while those who live on scavenging waste dump, alms receiving and dependent on support obtained from NGOs altogether account for 43.8%. It is with this family size, employment status and income that the children's food security could be assumed.

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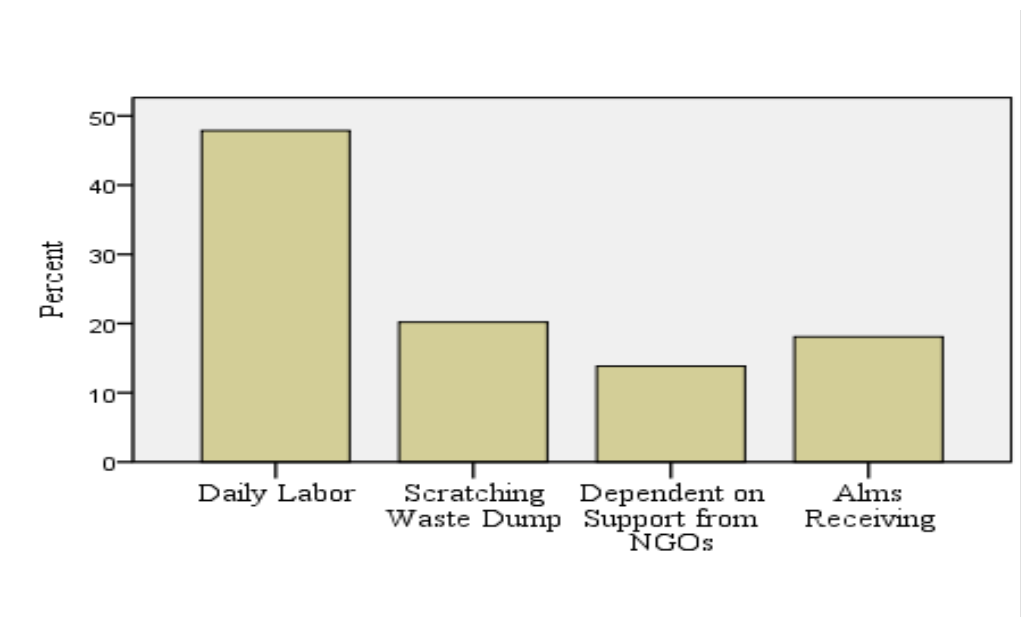


Figure 2: Family Employment

Vulnerability of food insecurity was measured in terms of families' ability to afford food. Data pertaining to insufficiency of family income to purchase food and being worried about shortage of money to cover cost of food are indicated in table 2. The chi-square table indicates that there is association between adequacy of family income to purchase food and children's worry about the next meal, and was further investigated by inquiring the children to recall their last 12 months experiences of being worried about their next meal. The participants' report on adequacy of family income and their worries about whether being able to have the next meal were cross tabulated keeping family income as a predictor. The chi-square test in table 3 shows a significant association between the two variables with a chi-square value $\chi^2 (1, N=111)=4.710$, $p<0.05$. This shows that we are 95% confident that there is significant relationship between family income and children's food insecurity. Thus the hypotheses is accepted and the null hypotheses is rejected in this case.

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Table 3. Chi-Square test result indicating association between family income and vulnerability of children to food insecurity

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.710 ^a	1	.030		
Continuity Correction ^b	3.920	1	.048		
Likelihood Ratio	4.742	1	.029		
Fisher's Exact Test				.037	.024
Linear-by-Linear Association	4.667	1	.031		
Number of Valid Cases	111				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 25.30.

b. Computed only for a 2x2 table

Another chi-square test was performed to check whether family employment has association with children's food insecurity. The chi-square test result shows that there is significant relationship between family employment and children's food insecurity. The chi-square value of $X^2(1, N=112) = 4.115, p < 0.05$ indicates that we can be more than 95% confident for the association. Hence, we reject the null hypotheses "family employment has no association with vulnerability of children's food insecurity."

Table 4. Chi-Square tests result indicating association between family employment and vulnerability of children to food insecurity

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.115 ^a	1	.043		
Continuity Correction ^b	3.082	1	.079		
Likelihood Ratio	4.836	1	.028		
Fisher's Exact Test				.055	.033
Linear-by-Linear Association	4.078	1	.043		
N of Valid Cases	112				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.71.

b. Computed only for a 2x2 table

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Children's Food Insecurity Status and Vulnerability Context

Children's vulnerability to food insecurity can be revealed in several ways. However, the children living with their parents/guardians, who belong to food insecure households, are vulnerable to food insecurity and highly likely to share food insecurity experienced in the respective households they belong to. This survey presents experiences of vulnerability to food insecurity among children around Koshe area from the view point of the children themselves. Several issues were assessed to measure how the vulnerability context looks like.

Children's Food Insecurity Status

Owing to the major indicators of food insecurity, that means, affordability, accessibility, availability and adequacy, the existing status of children in the study area was assessed to measure their vulnerability context to food insecurity.

Depending on their purchasing power and availability and adequacy of food at home, parents/guardians know how often and how much to feed their children depending on their livelihood status and ability to get food. To this end, parents/guardians might reduce meal size or let their children skip meal. However, there are also times when children never eat the entire day. Table 4 presents experiences of children spending the whole day without food. During the last 12 months, there were times when both the children and their family members in their respective households go an entire day without eating. The survey result indicates that 39 (35.1%) spent the whole day without eating whereas most of them (64.9%) had not experienced this.

Table 5. Descriptive data indicating children's experience of skipping meal for a day long

Children's perception	Measure	Frequency	Percent
Often spent the whole day without food N=111	No	72	64.9
	Yes	39	35.1

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Children's Food Situation and Parents/Guardians' Response

As the family's bread winners, parents/guardians are supposed to provide meals for their children even if they themselves are food insecure. However, their ability to do so can be restricted depending on availability and affordability.

Taking the standard measure of food insecurity (covering the last 12 months period) to measure food security indicators—accessibility, availability, adequacy and affordability the children were asked to reflect feeding situations in their respective household during the previous 12 months. All of the participants completed the survey. Accordingly, the children's vulnerability to food insecurity has been affected in terms of availability, adequacy, and affordability. As the children reported, their reasons for not having food as needed were mainly their parents/guardians' lack of ability to afford 64(66.7%) and lack of adequate food at their homes 23(24%) while food insufficiency is still the other challenge for 9(9.4%) of them. On the other hand, the children reported although they were able to eat, they could not get the kinds of food they wanted due to lack of money to buy the foods 80(80.8%) while inaccessibility 19(19.2%) was the other matter. In short, during the last 12 months, neither they had the kinds of food they wanted (though they always had food) nor the food they have at home was inadequate.

Table 6. Descriptive data indicating children's food hardships

Factors	Frequency	Percent
Could not get the foods I wanted due to lack of money	80	80.8
Could not eat the kinds of food due to unavailability (N=99)	19	19.2
Often did not eat due to lack of money	64	66.7
Often did not eat lack of adequate food	9	9.4
Often did not eat due to inadequacy of food (N=96)	23	24

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Response to Unaffordability of Food

The lack of consistent access to adequate and acceptable food can be determined by the ability to afford the food itself. Although food insecurity level varies across households in terms of the severity of food insecurity experienced, children's vulnerability context also varies depending on the experiences of the households they belong to. However, for children in slum areas where there is poor socio economic condition, there is none like affordability that determines food security status and the response to unaffordability of food depends on the context.

Participants completed the survey about their past 12 months experience in their respective households. Responses were on a 1-5 Likert-type scale with 1 being always; 2=usually; 3=often; 4=sometimes and 5=never. The item with the highest mean score describes the severity of the context. The children reported that their parents/guardians' worried whether their food would run out before they got money to buy more food ($M=3.68$, $SD 1.125$). The item with the highest mean score ($M=3.7$, $SD = 1.146$) indicates that the food at home did not last and the parents/guardians did not have money to get more food as it is indicated in table VI. Having same kind of foods ($M=3.16$, $SD=1.075$) and cheaper and low quality foods ($M=3.64$, $SD=1.256$) were reported as the mean scores for each of the variables indicated. To measure vulnerability of children's food insecurity, respondents were asked to reflect actual number of meal they have per day. The children were also asked how many times they eat a day (minimum 1 and maximum 4 times a day). As it is shown, on average a child eats less than three times a day ($M=2.78$, $SD=.802$). These indicate how severe the vulnerability context of the children looks like, given all the shocks stemming to inability to afford food. This in turn shows that the children could not be sure whether they would get their next meal or not.

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Table 7. Descriptive statistics indicating feeding condition and stress due to food shortage

Feeding Condition	N	Mean	S.D
Worried about whether we run out of food	110	3.68	1.125
Our food did not last and we did not have money to get more.	110	3.70	1.146
Ate same kinds of food	111	3.16	1.075
Ate low quality and cheaper food	111	3.64	1.256
Number of meal per day	112	2.78	.802

When parents/guardians do not have adequate food at home, their strategy to stabilize the shock could be either keeping their children to have reduced amount of meal or forcing them to skip. Hence as a result of parents/guardians' failure to provide with sufficient food to their children due to shortage of food and/or lack of money to buy food, children are forced to adopt their parents/guardians' coping mechanisms. Participants of the survey were questioned how their experiences during the last 12 months looked like given the prevalence of food hardship in their respective households. The children replied that they were not being able to eat until they get full with mean score of 3.7411 and SD of 0.97487 whereas reduction of meal size was reported (M=4.0804, SD=0.94094) and this was significant. Another important thing is being forced to skip meal (M=3.8868, SD=1.13239). Although other reasons exist, being unable to afford food remains one of the biggest challenges to the households the children belong to. When their families encounter lack of money to buy food relying on a few kinds of low-cost food is the other reality of the children that they adopted from their parents/guardians (M=3.5, SD=1.16248). In addition, having unhealthy meal due to lack of money was reported by the participants (M=3.4505, SD=1.263).

Table 8. Descriptive data indicating eating trends of children

Trends	N	Mean	S.D
Never ate until I get full	112	3.7411	0.97487
Reduced the size of meal	112	4.0804	0.94094
Forced to skip meal	106	3.8868	1.13239
Relied on only a few kinds of low-cost food	112	3.5000	1.16248
Had unhealthy meal due to lack of money	111	3.4505	1.26303

The association between food insecurity and family size was examined via chi-square test. Skipping meal and reduction of meal size were the dependent variables whereas family size is the independent variable. The chi-square test in table 9 shows a significant association between the two variables with a chi-square value of $X^2(2, N = 111) = 7.313, p = 0.026$. This shows that we are more than 95% confident in that family size is associated with vulnerability of children to food insecurity.

Table 9. Chi-Square tests indicating Association between family size and food insecurity

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.313 ^a	2	.026
Likelihood Ratio	7.819	2	.020
Linear-by-Linear Association	7.170	1	.007
N of Valid Cases	93		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.59.

Children's Coping Mechanisms to Food Insecurity

Yared (2013), Cohen & Garrett (2009) and Baker (2008) identified that when facing acute food shortages, households follow a number of coping strategies that sometimes are negative and unsustainable to the household. One such example is consuming their productive inputs, such as borrowing, reducing meal size, seed stocks, consuming other

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holdings, or consuming unusual foodstuffs. In the context of children who are participants of this survey, the latter had happened during the last 12 months in situations where food shortage was most acute and survival was at stake.

Although parents/guardians, whenever they do not have any choice, impose their own coping mechanisms up on the children, the children on the other hand cope up with food insecurity. These can be manifested through the children's level of understanding their parents/guardians inability to provide food due to any of the determinant factors. Table 11 presents the result obtained from this survey and skipping meal at home and eating leftovers from restaurants or scratched food from Koshe—the waste dump. Questions regarding how often they willingly skipped meal and how often they ate leftover and scratched food were presented and the occurrences were measured using a 5 point Likert scale with 1=always; 2=usually; 3=often; 4=sometimes and 5=never. The responses indicate that the children willingly skipped meal as the data revealed ($M=3.6789$, $SD=1.29014$). On the other hand, the number of children who reported that they ate both scratched food from the waste dump and leftovers from restaurants is shocking as the average mean score 4.1308 and SD 1.10815 indicate.

Table 10. Descriptive statistics indicating children's coping mechanisms to food insecurity

Coping Mechanisms	N	Mean	SD
Skipped meals because we could not afford food	109	3.6789	1.29014
Ate both scratched food from the waste dump and leftovers from restaurants	107	4.1308	1.10815

As such, reports of households eating unusual foodstuffs have been considered as an alarm to the food security situation of the children in the area. Bearing these in mind, assessment was made to identify if the children have their own way of coping mechanisms in addition to adopting the coping mechanisms employed by their parents/guardians. To this

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end, it was assessed if there was any likelihood of children consuming leftovers, scratched food from the waste dump, or begging.

Table 10 presents the percentages of children that reported having consumed those kinds of food to cope up with shortage of food they encounter. They reported that they go to Koshe—the waste dump site to scavenge food (16.1%), while those who beg leftover food from restaurants are 9.8%. Another 8.9% cope up with their food shortage through begging people for money or food. On the other hand, sharing what they have at hand among each other was reported as one of the most important means of coping with food insecurity (52.7%). Due to the difficulty to get enough food as a result of their parents/guardians' shortage of money, 52(46.4%) of the children who participated in this survey responded that they ate scavenged food from the waste dump and leftovers from restaurants. From this it can be concluded that the children's health is at risk given the kind of food they eat.

Table 11. Descriptive data indicating children's coping mechanisms to food insecurity

Coping Mechanism	Frequency N=98	Percent
Beg other people	10	10.2
Beg for leftovers from restaurants and hotels	11	11.2
Scratch food from Koshe	18	18.4
Share with my friends	59	60.2

Food Insecurity Impacts on the Children's Health

Health problems the children experienced as a result of being food insecure was investigated. Few questions that measure the previous month health status of the children related to food insecurity were designed. The ailments the participants diagnosed include mainly diarrhea (26.8%), frequent headache, (17.9%) common cold (11.6%), sore throat and dizziness (8.9%) as indicated in Figure 3.

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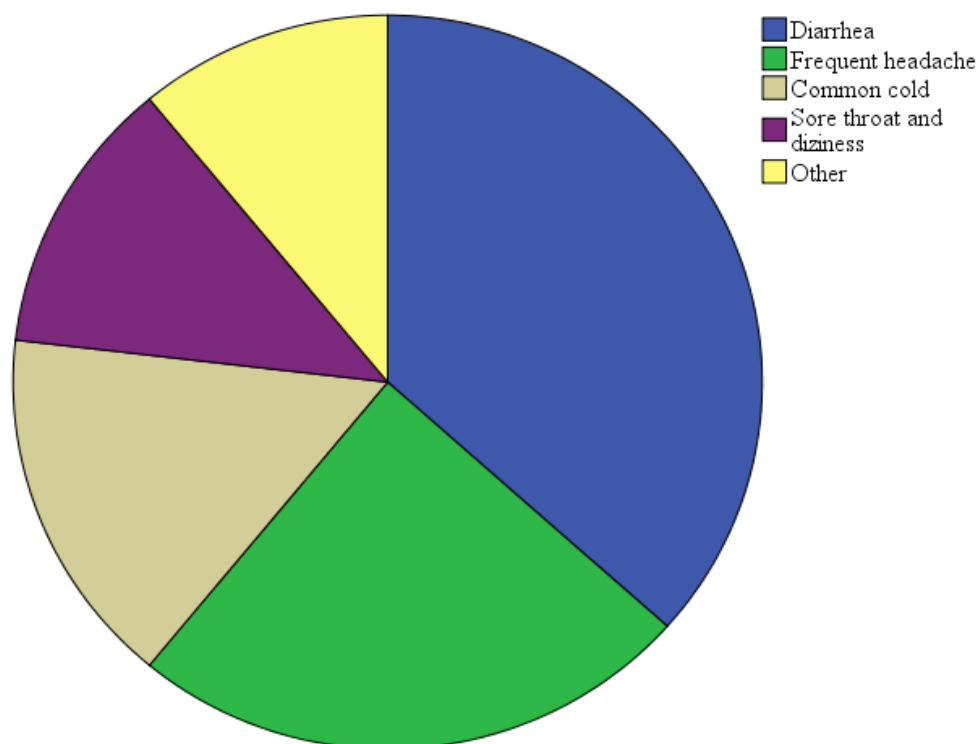


Fig. 3. Health Problems diagnosed during the previous month

A chi-square test was performed to check whether there is association between food insecurity and children's health taking eating leftover and scratched food as an independent variable whereas getting sick the dependent variable. The chi-square test in table 12 shows that there is significant association between the two variables with a chi-square value of $\chi^2(1, N = 107) = 6.689, p=0.01$. This shows that we are 95% confident in that children eating leftover and scratched food and their health statuses are significantly associated. Therefore, we can not reject the hypotheses since the result supports it.

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Table 12. Chi-Square tests result indicating association between eating unhealthy meal and ailments

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.689 ^a	1	.010		
Continuity Correction ^b	5.631	1	.018		
Likelihood Ratio	6.859	1	.009		
Fisher's Exact Test				.011	.008
Linear-by-Linear Association	6.626	1	.010		
N of Valid Cases	107				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.07.

b. Computed only for a 2x2 table

The participants were asked whether they were sick during the last month and their responses are summarized in table 13. Nearly three-quarter (72.3%) of the surveyed participants reported that they were sick during the previous month alone. Out of the reported cases, more than half of them had been frequently sick of the particular diseases they reported. The responses indicate that the children are sick of diseases related to food security.

Table 13. Descriptive data indicating children's ailments due to food insecurity

Variable	Measure	Frequency	Percent
Have been often sick (N=112)	No	31	27.7
	Yes	81	72.3
	Total	112	100

Food Insecurity and School Performance

Examining the impacts of food insecurity on children's school performance was one of the objectives of the study. To assess how food insecurity can affect educational attainment of the children, different questions that measure school performance were presented. In the first instance, the children were inquired whether they have goal to learn and 83% said they do have goal attainments while 17% of them do not have goal. Table 14 indicates the children's trend of coming to school without food. The children's learning was examined by inquiring them whether

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they ever had to go to school without eating because of shortage of food or money to buy food during the last 12 months. As indicated in table 14, during the last 12 months, the children reported that they came to school without food as most of them reported ($M=3.79$ and $SD=1.26$). Those who reported that they did not eat lunch this year are also significantly high ($M=3.5225$ and $SD=1.4$).

Table 14: Descriptive data indicating children's trends of going to school without food

Trend	N	Mean	SD
Come to school without having food.	112	3.7946	1.26019
Never brought lunch	111	3.5225	1.40030

Table 15 presents case summary of children's learning motivation and concentration on lessons whenever coming to school without having food. The case summary includes the counts and expected counts, and also has percentage of total. It is indicated that there are 30 participants who reported they are neither motivated to learn nor pay attention to their teachers well whenever they come to school without food and this is 27.3% of the 112 children surveyed. The lower row and the right column provide total percentages for the two levels of each variable indicated in the table. It is also shown that 41.8% of the participants reported that they do not pay attention to their teachers whenever they come to school having eaten less or no food. More than one-third (33.6%) of the children who participated in this survey responded that they are less motivated to learn when they come to school without food.

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Table 15. Case summary table indicating children's learning motivation and concentration on lessons in the class

			Could not pay attention to teachers when coming without food		Total
			No	Yes	
less motivated to learn when coming to school without food.	No	Count	57	16	73
		Expected	42.5	30.5	73
		Count			
	% of Total		51.8%	14.5%	66.4%
	Yes	Count	7	30	37
		Expected	21.5	15.5	37
Count					
% of Total		6.4%	27.3%	33.6%	
Total	Count		64	46	110
	Expected		64	46	110
	Count				
	% of Total		58.2%	41.8%	100%

Since one of the objectives of this study was to examine the impacts of food insecurity on children's school performance, participants were inquired about their school performances in relation to being unable to get food. The case summary includes the counts and expected counts, and also has total percentage. As it is indicated in the table, almost one fifth (19.8%) of the participants reported that they were less motivated whenever they attend classes while they were hungry and their results declined due to this. The lower row and the right column provide total percentages for the two levels of each variable indicated in the table. The data revealed that 38 (34.2%) of the survey participants reported that they were less motivated to learn when they come to school without having food. Almost one-third of the participants believe that their low educational attainment has been due to food insecurity.

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Table 16. Association between of food insecurity and children's school performance

			Lower school performance		Total
			No	Yes	
Less motivated to learn coming to school without having food.	No	Count	59	14	73
		Expected	49.3	23.7	73
		Count			
		% of Total	53.2%	12.6%	65.8%
	Yes	Count	16	22	38
		Expected	25.7	12.3	38
		Count			
		% of Total	14.4%	19.8%	34.2%
Total	Count	75	36	111	
	Expected	75	36	111	
	Count				
	% of Total	67.6%	32.4%	100%	

The data summarized in table 17 reveals school performance of the children who participated in this survey. As reported by the participants, low scores were achieved mainly in Math (43.8%) and Science 25.9%. Others also reported that their scores in languages and social science were lower (13.9%) and (9.8%) respectively. This indicates how much food insecurity is affecting children's school performance by lessening their computation and problem solving skills.

Table 17. Descriptive data indicating children's school performance

Subjects	Frequency N=104	Percent
Math	49	47.1
Science	29	27.9
Language	15	14.4
Social Science	11	10.6

Effects of food insecurity on the school performance of the children have also been further assessed in terms of absenteeism, and dropouts. All of the 112 children participated in this survey completed the report and there was no missing data. Out of the 112, considerable

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number of them were absent from school ($M=.1964$; $SD=.41827$) whereas those who were tempted to quitting school due to food insecurity reported as a way to respond to their problem ($M=.1964$ and $SD=.399$) and this is revealed in table 18. Considerable number of children participated in the survey ($M=.1518$. and $SD=.3604$) reported that they have dropped out of school because of food insecurity.

Table 18. Descriptive data indicating effects of food insecurity on children's school performance

Effects food Insecurity	N=112	Mean	SD
Absent from school due to lack/shortage of food		.2232	.41827
Thought of quitting school due to food hardship		.1964	.39908
Have dropped out of school due to being unable to get food		.1518	.36043

Qualitative data gathered through document review and key informant interview regarding drop outs and class repetitions were coded and summarized. Table 19 presents summary of these data. In the first semester of this academic year alone, 33 students (grade 5-8) dropped out of school (22 more than from the previous academic year).

Regarding school repetition, out of the 241 children who took grade 8 national exam during the previous academic year, 93 (38.6%) failed. At school level exams, 44 students failed out of 269 in grade 7. However, it seems better in the lower grades as it was only 19 failed out of 213 in grade 6 and 21 students did not pass from the 183 students in grade 5. This means one in five students repeats class.

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Table 19. Descriptive data regarding class repetition in the academic year 2013/2014

Class	Grade 5	Grade 6	Grade 7	Grade 8	Total	Percent
Sat on exam	183	213	269	241	906	100
Passed	162	194	225	148	729	80.5
Failed	21	19	44	93	177	19.5

This has further been assessed through a chi-square test to identify whether there is any association between motivation to learn and skipping meal. A chi-square test was performed and significant relationship was found between the two variables, $X^2(4, N = 111) = 28.106, p = 0$. Thus we are utmost confident that there is significance association between learning motivation and food security. Thus we reject the null hypotheses and accept the hypotheses "food insecurity affects school performance"

Table 20. Chi-Square test indicating association between learning motivation and food insecurity

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.106 ^a	4	.000
Likelihood Ratio	30.006	4	.000
Linear-by-Linear Association	27.407	1	.000

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.08.

Findings of Qualitative Data

Qualitative data were collected through key informant interview and the interview results were recorded, transcribed and thematically grouped as to how they go with the research question. The interview was done through semi-structured/guided interview made with key informants identified in the study area. The results are presented as follows:

Vulnerability Context

The key informants were inquired their experiences about the specific situation prevailing in the area. A social worker who has been working in the study area since 2013 describes situations of the children and their families as the worst of all situations he ever encountered. His reflection about the situation is summarized as follows:

The overall situation of children in Koshe, particularly food security is worse. Most of the parents/guardians live on low wage employment. They struggle to find any job so virtually all are underemployed. When there is no job, especially single mothers go to scratch food and other “valuable” items from the waste dump. If they get food, they help themselves with but if they get anything that costs, they sale them for cheap or exchange for food. There are a lot of parents/guardians’ who live on alms receiving and aid from NGOs. There are also single mothers engaged in commercial sex to help their family. Hence the parents could not provide the children with food on regular basis (KII 8, May 5, 2015).

The children’s vulnerability is so severe in that this has been manifested in many ways as the teachers asserted. It is summarized as follows:

Factors determining vulnerability of the children to food insecurity were assessed and the teachers as well as social workers stated that the children’s vulnerability to food insecurity is acute given the multifaceted nature of poverty and vulnerability prevailing in the area. Even those foods of low quality are not easily accessible and adequately available; even so, they are unaffordable. About 500 younger children are engaged in school feeding program provided by an NGO at the school which is unhealthy (KII 1,2,3,4,5).

The teachers said that children do not get the support since it is believed that they have better coping strategies compared to the younger ones.

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A teacher who has been working in the school for four years ago and a member of the school's charity club said the following:

There are more than 100 children in the school living with HIV and have trouble adhering to ART treatment due to food shortages. Once student said she often missed class due to ailment. Her mother said that both she and her daughter and she are living with HIV/AIDS and they do not have reliable income to buy even the cheapest food. She told me that her daughter doesn't have much hope or the belief that she can learn. (KII 2, May 5, 2015)

Educational Performance

Concentration and Motivation to Learn

The teachers said that it is hard to get attentions of children mainly of those who come to school without food. The following is summary of the interview made with them:

Most of the time, a majority of the children come to school without eating and spend the whole day without food. Due to this their concentration on the lessons taught at class is very much limited. Their hunger makes it very difficult to focus and follow instructions. However, there are exceptional students who perform well despite struggling with hunger. But most students focus on their hunger rather learning. They are highly dependent on the high performing students and it is often hard to get medium achievers in some classes as the disparity falls between the extremes of either high scorers or low scorers (KII 2, KII 3, KII 4, and KII 5 May 5, 2015).

The children's motivations of learning are lower as KII 5 said. He said that most of the students don't attend free tutoring because they can't stay after school. Teachers said there are two main reasons for this: 1) students can't stay extended hours without food, and 2) they should go search for food since most of them never bring lunch.

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According to (KII 5), the children have the lowest score in subjects with computations such as math, physics and chemistry. They get difficult to comprehend and solve problems. On the other hand, KII 3 strengthens this and added the following:

Missing classes and being absent from school are the most common phenomena among children with severe food insecurity. I do not want to be strict on them since I know why they do so. I know their reality and I obviously know why they are either absent, late or miss class. They miss classes with or without permission and if I ask them about their absenteeism and lateness, I know I would hear similar reasons something related to fulfilling basic needs, mainly food. Therefore, I do not want to ask them.

Absenteeism Drop out Class Repetition

The idea was further supported by other key informants participated in the survey and their responses were summarized as follows:

The children in their turn also work on a day-to-day basis laboring, washing cars or assisting taxi drivers. Others sell chewing gum or small packets of tissues. And when work is scarce, some take to the streets to earn a living begging. Older children work throughout the night wearing torches attached to headbands (KII 7, KII8).

This is what has also been shared among the other teachers. Another word of a social worker who lived his entire age in the area was summarized as hereunder.

Since scavenging is a 24-hour activity, and with people arriving after their working day is over, the students work after school either accompanying their parents or alone. The next day would be hard for them to attend the teacher since they are dizzy due lack of sleep. Children of visually impaired parents/guardians are supposed to lead their parents for begging to the streets; and they would not manage to come to school on time or they

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never come when it is hard to do so. Being absent from school is the most common phenomena in the school. At least two students are absent every day in a class. There are some students who repeated classes as a result of frequent absence and low performance (KII6).

All the above cases were just short summaries of what have been said by the participants of this survey.

Well-being

Health and Behavior

The common behaviors the children exhibit at school are: irritation, aggressiveness, sadness and hopelessness as reported by the teachers. “Calling parents for the children’s misbehaving does mean punishing the children with food on the next day. Hence I choose not to call the parents.” (KII 2). This idea has also been shared by other teachers. Alienation due to knowledge of one’s own status resulting in shame and low self-esteem are often observed.

According to (KII4), physical ailments such as common cold, dizziness and nausea, diarrhea were the major health problems common to the children as the teachers said. There are higher numbers of children living with HIV and it is often terrible for them. The students were either absent from school or forced to miss classes and go home due to sicknesses related to those mentioned (KII4). Depression, anxiety and stress are also prevalent as all the teachers asserted. The children are physically inactive especially in the afternoon classes and it is difficult to get the students’ attention in the last class periods (KII3).

Coping Mechanisms

The teachers spend most of their times with the students and it is believed that they know them better. The teachers were enquired if they know any special ways of coping mechanisms

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employed by the students in addition to the common ways coping with food insecurity.

According to them, begging leftover food from restaurants is one of the most significant coping strategies for younger children. They also run to the nearby fanciest private schools to beg leftovers from students in those schools. Children whose parents are engaged in alms receiving also do same business during weekends and school vacations (KII2).

“The way the children cope up with sometimes could comply with their parents/guardians’ coping strategies. However, when they are extremely starved, they go to the waste dump to scavenge food or beg from restaurants” (KII 4).

The teachers reported that hunger is the most common phenomena in the school given the prevalence of food shortage among the children. Younger children wait for the last siren to run to the nearby fanciest private schools to beg leftovers from students of the schools. If they do not succeed in that, they go begging restaurants’ for left overs (KII 6).

The teachers said that there is no special way of coping strategy devised unless situations do not allow doing so. However, the commonly known ways of coping in the area seasonally vary. The following is summarized from what a teacher said about the situation in the area:

Eating expired and unhealthy foods are typical meals that are served among poor households. *Bulle*, (left over begged from restaurants, churches scavenged from the waste dump and other places) *Isken*, (food made of a mixture of chicken, beef and fish that are collected from the waste dump), *march muz*, (partly spoiled banana) are eaten whenever they could not access and unable to afford the other foods. (KII2).

On the other hand, those who bring food share their meals with their friends and the others do the same in their turn (KII 5). A social worker reported that the leftover itself not easily accessible and it is cycled in 4 levels and utilized until “*tela*”–local beer is brewed with (KII 8).

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The teachers disclosed that there are certain difficult situations they encounter. Those children who do not bring food snatch and/or steal food from those who bring. Snatching and stealing lunch boxes are common phenomena in the school as reported by the teachers. There are girls who are engaged in commercial sex work; there are also girls who are affiliated with older guys to respond to their daily needs. This is mainly prevalent among orphan girls (KII 4).

Discussion of the Analysis

The study has two major components namely: 1) children's vulnerability to food insecurity and 2) the impacts of food insecurity and the strategies they employed to cope up with the vulnerability. The former includes both descriptive and qualitative information regarding determinants of food insecurity such as accessibility, availability, affordability, acceptability adequacy/sufficiency. The latter is the key component of the research that provides information pertaining to the variables and answers the research question and test hypotheses.

Major Findings

A total of 112 participants completed the survey. The demographic data of the students revealed that participants of the survey are proportional where the number of male students was slightly bigger than that of female. Regarding age, the selection criteria excluded those whose age is greater than the age category of a child provided by the UN; those who completed the survey are all below 18. Most of the participants were those students in higher grades (7th and 8th) and relatively smaller in lower grades (5th and 6th). This might be due to younger students' level of understanding and willingness to participate in such issues can be lower than older ones. However, as observed during the data collection, older children estimated to be in their mid-teens attend in lower grades and this raises the case why they remained to be in lower grades while

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they were supposed to be in higher grades. (This will be discussed later in relation to school performance).

Regarding family size, which was examined whether it could be an attribute to one of the determinant factors of food insecurity–inadequacy/insufficiency, which was included in the categorical variables in the conceptual framework. As indicated in table 2, 79 (70.5%) of the students live in a family of 4 to 6 while 18(16.1%) said that their family size is 7 to 9. Based on family size of 5.1 per household (CSA 1994), most of the children could be categorized among an average family size. The study revealed that out of the 112 surveyed participants, 35 (31.3%) are whose parents/guardians income is insufficient to cover cost of food and as a result worried about shortage of money to cover cost of food. This shows that even though the parents/guardians are employed, they do not get wages that help them cover cost of food. In addition, considerable number of parents (more than one third of them) is unemployed. In the absence of permanent job, the parents try to cover cost of food and aid dependent, scavenging and alms receiving, all in aggregate making up 43.8%. Parents of the children worried whether their food would last before they get money for food ($M=3.68$, $SD=1.146$). This is why almost two-third ($M=368$, $SD=1.125$) of the participants reported that their parents/guardians worried as a result of being unable to afford food. Results of qualitative data also support this as mentioned by the social workers and teachers (This will be discussed in the next sections). Assuming the rising cost of food, and the low wage rates, and inconsistent employment opportunities, affording food remains cumbersome for the households the children belong to, given the increase in the price of a main staple can lead to a substantial drop in ability to purchase other needed goods. Cohen & Garrett (2009) put out that this impact is greatest among the poorest households, who spend the most, in percentage terms, on food. In addition, this strengthens what has been

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identified by (Braun, 2008), which he said higher food prices contributed substantially to overall inflation in many developing countries, and over the past two years, food price inflation exceeded overall inflation in most of the countries where a high proportion of the population is food-insecure. Thus with all these overwhelming adversities, it is very hard for children to survive the penalties of food shortage.

The results of household food balance analysis reveals that the great majority of the children in the study area were facing food shortage during the year under investigation. The children's vulnerability context can be seen in terms of their actual lives they reported. The number of meal per day from what applies to their personal experiences is quite shocking. The results showed that they eat less than three times a day with a mean score of 2.78. The children thus do not know about eating enough.

The research attempted to identify determinant variables of food insecurity—accessibility, availability, adequacy and affordability that the vulnerability of children in the study area. Using the standard measure of food insecurity measure adapted from the USDA's Household Food Security Module (covering the last 12 months period). The study found that during the last 12 months, most of the children were vulnerable to food insecurity due to all of the determinant factors of food insecurity. As the data reveal, they did not have the kinds of food they wanted (80.8%) in the needed amount mainly due to their parents/guardians' inability to afford (66.7%) and imbalance in the proportion of family size and amount of food available (20.5%). All along, food inadequacy of the existing food was the biggest factor ($M=3.7$, $SD=1.146$)

Findings from the qualitative data indicated that food insecurity affects children's school performance in several ways. High rate of absenteeism and failure to do assignments, missing classes, lower school achievements marked by computation, comprehending and problem

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solving skills are all identified as indicators of lower school performance. For example, last year alone, more than 38% of grade 8th students failed the national primary school leaving exam. Absenteeism and dropouts could be the reason for class repetition that occurs due to low score. However, it has been identified that the children are absent from school and dropout of schools whenever they are unable to fulfill their basic physiological need—food. The search of food affects their learning as it had been identified during the key informant interview.

The findings support what Boon (2010) said about people's access to food depends on the purchasing power of their income. In addition, identified factors by Cook & Frank (2008:193), like individual, familial, societal, and macroeconomic—have been found to influence food insecurity which has linkage with the findings.

Finding of the qualitative data shows that the school performance of the children is being affected due to food insecurity. Dealing with students' problem to help them not to dropout and repeat classes are the major activities the school is working on, as the school management planned to ensure quality education. However, this still remains a big challenge for the school given the students' vulnerability resulting in all of the adversities to quality education in the school. Dropout followed by frequent absence is the major problem happening as a result of the children's engagement in income generating activities such as working in Koshe, accompanying their physically disabled parents/guardians who live on alms receiving or begging by their own as an alternative to get food.

On the other hand, wellbeing of the children is adversely affected due to food insecurity. This was observed by the kind of coping mechanism they employ. As the qualitative finding shows, the children's coping mechanism by itself is putting them at risk of health and lower self-esteem.

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Tests of Hypotheses

Results of the descriptive analysis of this survey have supported the hypotheses and provided answers to the research questions. Therefore the effects of independent variables on the dependent variables are viewed with the evidences obtained from the survey result.

Family Economy

The first hypothesis was tested whether family economy affects children's food security. Taking to account the effect of economic status (employment and income) as predictor for child food insecurity, it was hypothesized that family economy affects food security of children. Findings from the descriptive data fully supported the hypotheses in terms of family economic status and they were found to be significant predictors of children's vulnerability to food insecurity as the parents/guardians are bread winners of the family. Given the size of the family, their income is insufficient to cover cost of food and nearly half of the participants' parents/guardians income is not adequate to cover cost of food at their household. Out of the 112 participants, (43.8%) said that their parents/guardians attempt to cover cost of food by relying on aids, scavenging or alms receiving as found in the study. The chi-square test indicated that there is significant association between family income and children food insecurity ($\chi^2(1, N=111)=4.710, p<0.05$). The chi square test result also indicated that family employment is associated with children's food insecurity ($\chi^2(1, N=112) = 4.115, p<0.05$).

During the last 12 months, there were times when either the children or other family members in their respective households had never eaten for a whole day as 34.8% postulated. This was further examined if happened and it was reported that they could not eat the whole day because their families did not have the money to buy food as (50%) of the surveyed children put up. The parents/guardians' lack or shortage of money could be said the major attribute to the

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problems related to these. The tested hypothesis thus supports what has been said by Mayer, (1997). According to this author, income is one of the primary causal factors used in explaining food insecurity. Income is also an important influence on many of the child outcomes of interest.

Family Size

Family size which was assumed to be one of the determinant factors of food insecurity was included in the categorical variables in the conceptual framework. It was indicated that 76.6% of the students live in a family of 4 to 9. And most of the parents/guardians have job (71.4%) and earn money. However, their income is insufficient to afford food. The hypotheses that says there is association between family size and vulnerability of children to food insecurity is also accepted with a chi-square value of $\chi^2 (2, N = 111) = 7.313, p=0.026$.

Children's Well-being

The second research question was how food insecurity affects the well-being of children around the study area. The instances through which well-being of food insecure children could be affected were thoroughly examined through mixing both qualitative and quantitative approaches. Results obtained from the data clearly asserted that well-being of children associated with vulnerability to food insecurity. The well-being of food insecure children is affected by health problems emanating from being not able to access, afford and easily get healthy food at required amount whenever needed. Experiences of the children surveyed were indicated in the finding of this study. The study reveals, food insecure children had a higher frequency of illness. As it was identified, in the previous month alone, almost three quarter (73.2%) of the participants were diagnosed with ailments such as diarrhea frequent headache, common cold, sore throat and dizziness and other unspecified health problems. This has also been supported by the interview made with the teachers and they reported that the children with

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problems of severe food insecurity exhibited behaviors like irritation, aggressiveness, sadness and hopelessness. The hypotheses that says food insecurity affects children's wellbeing is accepted as the chi-square was tested to check whether food insecurity has association with children's health. Eating unhealthy meal was taken as an independent variable while sickness of any kind pertaining to food insecurity were grouped as dependent variables. The result shows there is significant relationship between the two variables ($\chi^2(1, N = 107) = 6.689, p=0.01$). Thus hypotheses 2 is supported and the null hypothesis is rejected.

The stress emanating from shortage of food affects the psychological well-being of children by diverting their thoughts towards hunger than any other issues they should deal in their ages. The children heard their parents/guardians worried whether they would run out of food before they got money to buy more food. Hearing their parents/guardians' complains about food insufficiency is a frequent phenomenon for nearly one-third of the children participated in this survey. These in aggregate imply that the children's psychological and physical health is adversely affected by problems of food insecurity. This is also studied by Cook & Frank (2007) as food insecure children suffer from problems of psychosocial functioning and behavior, and mental health during school years (6-17 years). In addition the findings of this study supports what has been said by Cook and Frank as food insecure children physical, mental, and social development, growth and health throughout childhood (0-17 years). Their physical weakness in turn also leaves them with lower immunity to any form of sickness. What's more, knowing one's own status as food insecure and feeling insecure about the next meal leads to dependency on others and this in its turn has a negative effect on their self-esteem and cognitive development.

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School Performance

The third hypothesis tests if children's lower school performance is associated with food insecurity. The hypothesis is based on the assumption that likelihood of achieving highest academic score is better for food secure children than those who are food insecure. Hence, the null hypothesis is that food secure children's school performance is higher. The research findings partially supported this assumption. A chi-square test was performed to check whether there is any association between motivation to learn and skipping meal either to support or reject the hypotheses. A chi-square test was performed and significant relationship was found between the two variables, $\chi^2(4, N = 111) = 28.106, p = 0$. Descriptive data also strengthens this as the children reported that they come to school without food ($M=3.79, SD=1.26$) and they also did not eat lunch during the last 12 months ($M=3.52, SD=1.4$) were all significant. But children's resilience within all these circumstances could never be ignored.

The finding goes with what Nord (2009) summarized findings of 13 studies on child health and development outcomes associated with food insecurity and food insufficiency and concluded that food insecure children have lower arithmetic scores and higher likelihood of repeating a grade and lower academic performance and educational attainment during school years (6-17 years).

Coping Mechanisms

The last research question says, "What are children's coping strategies to vulnerability of food insecurity? Children are not as productive as adults given their physical, social and mental capacities to engage in business activities and/or social systems to respond to their vulnerability to food insecurity. Strategies employed to cope up with vulnerability of food insecurity among adults are studied by several researchers. Yared (2010) identified that

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households' coping mechanisms are determinants of their vulnerability to food insecurity. According to him, reducing the amount and quality of dietary items, skipping meals, engaging in income generating activities and dependency on several income earners are attributes that are common. He also identified social mechanisms such as loans and other forms of support, and dependence on aid, as other forms of coping strategies. However, the case in children's coping to vulnerability to food insecurity was hypothesized in a different way than this.

When parents/guardian rely on only few kinds of low-cost food to feed their children; cut size of meal they give to their children; or force them skip meals or whenever they are not sure about their next meal due to being unable to provide their children with food, the children then could tend to look for their own way of coping up with the plights. The children participated in this survey, have experienced these problems and hence they had their own ways of coping.

When the children understood that their parents/guardians could not provide them food due to shortage of money for food, they devised alternative ways of coping mechanism in response to their vulnerability to food insecurity. These were going scavenging food from Koshe—the waste dump site; beg other people for money or food; beg leftover food from restaurants or share what they have at hand among each other. However, when these all could not help the children find food, their last resort is eating leftover from restaurants and scratched food from the waste dump ($M=4.13$, $SD=1.108$) When these were compared to that of adults' coping strategies to vulnerability of food insecurity, the children's are in risky situations. These might be resulting in extended psychosocial and physical complications.

Chapter Five

Conclusion and Recommendations

Conclusion

This research was conducted to explore children's vulnerability to food insecurity and coping mechanisms as well as impacts of food insecurity among poor children in Koshe area of Addis Ababa. The study was done via employing a detailed both quantitative and qualitative description of current experiences of food insecurity among children dwelling around Koshe waste dump site. Children between the age of 10 and 18 participated in the survey questionnaire. The qualitative survey participated teachers and social workers who have exposure to the case at hand.

Vulnerability to food insecurity among children from in Koshe, Addis Ababa has been revealed in terms of the major determinants of food insecurity. The survey was undertaken using the standard measure of food insecurity measure adapted from the USDA's Household Food Security Module (covering the last 12 months period), The research attempted to identify those determinants variables of food insecurity—accessibility, availability, adequacy and affordability that aggravated children's the vulnerability to food insecurity, in the study area.. The finding reveals that during the last 12 months, most of vulnerability of the children to food insecurity were significantly severe.

It was hypothesized that food insecurity affects children's well-being and that food insecure children would have lower educational attainment as well. In addition, as children have fewer coping mechanisms compared to adults, scourges of their vulnerability to food insecurity remains severe. All the hypotheses were supported by the descriptive data surveyed.

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Findings from the qualitative data have on the other hand strengthened the facts obtained through the quantitative data from first hand informants. Key informant interview results affirmed that determinant factors of vulnerability of children to food insecurity as affordability, acceptability, availability, adequacy and accessibility dominantly prevail. Food insecurity effects on the children's well-being around Koshe area in Addis Ababa were discussed as ill health, and behavior. The study finding indicated that the children experienced chronic illness related to food insecurity such as: diarrhea frequent headaches and dizziness. They also tend to be alienated, sad and emotionally aggressive. Effects of food insecurity on children's school performance were also discussed and the study found out higher rates of absenteeism, drop out and low learning motivation were observed on food insecure children. The coping strategies the children employ to the problems of food insecurity were identified as negative as they eat scratched food from the waste dump and leftovers begged from restaurants. Hence this in turn risks their wellbeing.

Recommendations

The study has come up with the findings to the research questions and test of hypotheses. Several further questions are needed to be explored. Future work on this topic should attempt to assess the scale of food insecurity in relation to well-being of school age children. Since the intention of this study was not to assess children engaged in food aid program whether at school or household level, assessment of the impact of food assistance programs was not done. However, some children in the sample reported that their parents get food aid regardless of they appeared to be food insecure as they revealed in the finding. A more detailed understanding of the roles of work, welfare receipt or other programs and supports PSNP and their impacts on children's health and behaviors is needed.

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Based on the analyses, I recommend strategies for improving practice with children who may be affected by food insecurity. First, more effective assessment strategies are needed for identifying families who require food assistance. Assessments should include information on other economic characteristics and resources of the household, eligibility status for cash and in-kind assistance programs, parental characteristics, and information on the quality, quantity, and regularity of food intake.

Second, practitioners in child care and school settings should be aware that educational attainments and behavioral problems may be linked to problems with food consumption, since interventions linked to food difficulties would necessarily differ from interventions linked to parenting issues or other correlates of problematic behaviors. More researches should be produced on the impacts of child food insecurity taking children's well-being as a case in poverty-stricken areas like Koshe. Additionally, with the unavailability of lunch programs at schools, practitioners may currently be inclined to either rule out food insecurity as a possible contributing factor to behavior problems, or simply refer families experiencing food insecurity to these services. Since the analysis found the vulnerability of children to food insecurity and the effects on their wellbeing and school performance, a more in-depth assessment of the food security problems a family is experiencing may be needed. Food insecurity among children could be linked to behavior problems vis-à-vis parental characteristics. Even after controlling for program participation and other key predictors of behavioral outcomes, practitioner training on these topics should not be limited to school personnel, but should be extended to health practitioners and child care workers as well.

Third, by expanding outreach efforts and increasing community resources for providing emergency food assistance services for low-income working families, some of the stigma

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associated with seeking help from such resources may be reduced. School feeding programs should be considered allowing children to parents to choose their own food items, rather than prescribing the items that should be purchased. Caregivers may feel less reluctant to seek and use these resources earlier, before crisis points emerge, if the services are provided in a non-stigmatizing manner, and participants are offered more flexible parameters for using them. Such efforts may ultimately benefit children's social and emotional development.

Child food insecurity is associated with lower school performance. Programs aiming to achieve universal access to primary education in food insecure environments should integrate interventions to ensure food security of children. Assessing the link between adolescent food insecurity and educational attainment is critical to design and integrate multi-sectoral strategies aiming to achieve the campaigns to achieve GTP and Universal Access to Primary Education, and quality education in Ethiopia.

The recommendations forwarded by Yisak & Tassew (2013:576-7), are found acceptable in which they commended in their empirical studies; PSNP could be improved in order to benefit children. They further suggested that it would be rewarding if children are registered as direct support beneficiaries, making direct support for parents conditional on their sending of their children to school, coordinating school feeding programs for the food insecure children, and increasing the value of the transfer so that it would ensure that households' food demands trickled down to children. Investments in children and their parents/guardians together, with direct services provided to the child are the types of interventions that are most successful.

The findings show that food insecurity negatively impacts on school performance of children in Koshe area of Addis Ababa. This implies that food security interventions should

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consider ways of enhancing school attendance and look to mechanisms for improving the diet of school children directly through school based programs.

Implications to Social Work Theory, Practice and Policy

The findings of this study have implications to social work theory research and practices. Hence problems that call for future intervention and action with the increased application of the profession were identified as follows:

This information could provide insights about the optimal timing of interventions to anticipate adverse consequences stemming from child food insecurity. To better estimate food security/insecurity scale, direct effects of food insecurity on children's well-being, information on well-being of children should be included. This is particularly needed with populations affected by welfare reforms, where food insecurity has likely fluctuated in relation to parental work and family welfare dynamics.

It is obvious that food is crucial for the physical, cognitive and academic development of children as they grow older and this has been supported by the findings from the study. It can be depicted that children from food insecure homes have significantly lower psychosocial, emotional and physical development compared to their peers from food secure homes. Food insecure children learn at a slower rate than their peers, and that fact coupled with their initial delay leaves them further and further behind as they progress through the educational system. The shame, alienation and low self-esteem could emanate from all the consequences and this in turn affects their social development.

According to NASW (1996), the primary mission of the social work profession is to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in

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poverty. Social work pursues social change, particularly among vulnerable and oppressed individuals and groups of people. Social work efforts are focused primarily on issues of poverty, unemployment, discrimination, and other forms of social injustice. From vantage of this point, such problems of children imply that there is a gap where social work could intervene to address problems pertaining to its mission and value.

Social work strives to ensure access to needed information, services, and resources; equality of opportunity; and meaningful participation in decision making for all people. The children's vulnerability could be either lack of information, resources and services. Children need more attention as they are vulnerable to neglect, disease, and food insecurity as this study found. Their vulnerability calls for attention of significant others who are in charge of rescuing these vulnerable groups-children in slums. School of social work should focus on addressing the most disadvantaged groups like children in Koshe area.

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Annexure

Annex I: Questionnaire

Addis Ababa University

College of Social Sciences: School of Social Work

A Questionnaire filled by students

Self-Introduction

Dear respondent,

You are being requested to take part in this research study that examines child food insecurity in Koshe area. The study is being conducted by Nega Wedajo, a graduate student at Addis Ababa University, School of Social Work. I am asking you to complete this survey that should take 30-35 minutes to respond to the questions. Before proceeding to fill out the questionnaires let me explain what the study is about.

The focus of this study is to collect data on the views, perceptions and attitudes you have about food security at your household level. I assure you that all your responses will be kept confidential and used only for academic purposes. I am grateful for your participation in this survey and taking time to complete the questions. The success of this study depends up on your genuine responses. Participation in this survey is voluntary and I hope that you will participate in this survey since your views are important.

There is neither right nor wrong answer; read each statement and select the answer, which best describes you; and respond by putting a —√ mark/sign in the boxes for questions with options. Write brief and relevant answers to the questions on the spaces provided. You do not have to participate or answer any question that you do not wish to answer and you may withdraw from the survey at any point without consequence. If you have any questions or need additional information, please feel free to ask me. Thank you in advance for your kind cooperation.

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1. Demographic Information:

1.1. Sex of respondent

Male Female

1.2. How old are you?

10-12 13 – 15 16-18

1.3. What grade are you in?

Grade 5 Grade 6 Grade 7 Grade 8 **2. Family Status**

2.1. How many people are there in your family (including you)?

Less than 3 4 – 6 7 – 9 more than 10

2.2. Do your parents/guardians have job?

Yes No

2.3. Is your family Income adequate to cover cost of food in your home?

Yes No

2.4. Have you heard your parents worried about shortage of money to cover cost of food?

Yes No

2.5. If your parents/guardians do not have permanent job, how do they support the family?

Yes No

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3. Now I am asking you about the food situation at your home. Please choose the items that best describe you and tick in the box available.

3.1. Which of these statements best describes the food eaten in your household in the last 12 months:

We always have enough to eat and the kinds of food we want

We have enough to eat but not always the kinds of food we want

Sometimes we don't have enough to eat

Often we don't have enough to eat

We always don't have enough to eat

3.2. If you have never had enough to eat (Sometimes, Often always), what are the reasons you don't always have enough to eat?

Did not have enough money for food

Afraid that the food we have at home would last

The amount of food we have does not fit our family size

3.3. If your answer for enough food, but not the kinds you want) what are the reasons you don't always have the kinds of food you want or need?

My parents/guardians do not have enough money to buy the food we want

Kinds of food we want not available in our area

4. Now I am asking you about what your parents/guardians have made about the food situation at your home during the last 12 months. Please choose the items that best describe you and tick in the box available.

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4.1. I heard my parents/guardians worried about whether our food would run out before they got money to buy more food

Always Usually Often Sometimes Never

4.2. The food that we bought just did not last and my parents/guardians did not have money to get more.

Always Usually Often Sometimes Never

4.3. Have you ever been worried about your next meal?

Always Usually Often Sometimes Never

4.4. We have been eating similar kind of food.

Always Usually Often Sometimes Never

4.5. We ate low quality and cheaper food

Always Usually Often Sometimes Never

4.6. I have never eaten until I get full

Always Usually Often Sometimes Never

4.7. My parents/guardians cut the size of meals they gave me

Always Usually Often Sometimes Never

4.8. If your parents/guardians have ever cut size of meals they gave you, what was the reason?

Because there wasn't enough money for food

Afraid the food would last

To share the food at hand to all of the family members

4.9. We were forced to skip meal

Always Usually Often Sometimes Never

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4.10. If you were ever forced to skip meal, what was the reason for that?

Because there was not enough money for food

Afraid the food would last

To share the food at hand to all of the family members

4.11. How often do you eat in a day?

Only once Twice Three times Four times Whenever I want

4.12. Were there times when you and other family members in your household have not eaten for a whole day because my family did not have enough money for food?

Yes No

4.13. If your answer to the above question is “yes”, then how often did this happen?

Always Usually Often Sometimes Never

5. What did you do to cope up with the problem?

5.1. My siblings and I relied on only a few kinds of low-cost food because my parents/guardians were running out of money to buy food.

Always Usually Often Sometimes Never

5.2. There were times when my siblings and I were cutting size of meal because our parents/guardians did not have money to buy enough food

Always Usually Often Sometimes Never

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5.3. There were times when we did not eat until we get full since we had small amount of food.

Always Usually Often Sometimes Never

5.4. My parents/guardians cut the size of meal they give to my siblings and me because they did not have enough money for food

Always Usually Often Sometimes Never

5.5. We did not eat three times in a day since we had no enough food at your home

Always Usually Often Sometimes Never

5.6. What do you do when you were not able to get enough to eat?

Ask other people for food or money

I will beg leftovers from restaurants

Scratch in the waste dump

Share with my friends

Other

5.7. I skipped meals because my family did not have enough money for food

Always Usually Often Sometimes Never

5.8. I ate leftovers from restaurants and scavenged food from the waste dump since there was no enough food at home

Always Usually Often Sometimes Never

6. Health Conditions and Behavior of the Children

6.1. Have you ever been admitted to health institutions (health center/clinic/hospital)?

Yes No

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6.2. If your answer for the above question is “yes”, what were the health problems you diagnosed?

Diarrhea Frequent head ache Common cold Nausea Other

6.3. Was that often happening to you?

Yes No

7. Educational Performance

7.1. I come to school without food

Always Usually Often Sometimes Never

7.2. I am less motivated to learn when I come to school without having enough food since of food instead of my lesson.

Yes No

7.3. Whenever I come to school without food, I fail to attend my teachers since I get hungry.

Yes No

7.4. This year I did not bring lunch when I come to school

Always Usually Often Sometimes Never

7.5. My results are not fascinating due to food hardship I encounter

Yes No

7.6. If your answer for the above question is “yes”, in how many of the subjects were you not performing well?

In most subjects In some subjects only in few subjects

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7.7. In which of the subjects do you perform the lowest?

Math

Science (Physics, Biology and Chemistry)

Languages (Amharic and English)

Social studies (Civics, Geography and History)

7.8. Do you think your results were lower because you could not get enough to eat?

Yes No

7.9. Have you been absent from school because you did not eat food?

Yes No

7.10. Have you thought of quitting school because of often not getting enough food?

Yes No

Annex II: Amharic Version questionnaire

አዲስ አበባ ዩኒቨርሲቲ

ማህበራዊ ሳይንስ ኮሌጅ የሶሻል ሳይንስ ትምህርት ቤት

በተማሪዎች የሚሞላ መጠይቅ

መግቢያ

ውድ መላሽ፣

እኔ ነጋ ወዳጆ እባላለሁ። በአዲስ አበባ ዩኒቨርሲቲ የሶሻል ሳይንስ ትምህርት ቤት የድህረ ምረቃ ተማሪ ስሆን በልጆች የምግብ ዋስትና ችግሮችና ተፅዕኖዎቹ ላይ ጥናት እያካሄድኩ እገኛለሁ። ጥናቱን የማካሄደው ለዚህ ጥናት በተመረጠው በዚህ ትምህርት ቤት ሲሆን ተሳታፊዎቼም

ከ 5ኛ እስከ 8ኛ ክፍል ድረስ ያሉ ተማሪዎች ይሆናሉ።

በዚህ ጥናት ላይም መጠይቁን በመሙላት እንድትሳተፍ/ፊ በትህትና እጠይቃለሁ፤ ይህን መጠይቅ ለመሙላት ከ 30-35 ደቂቃ ይወስድብሃል(ሻ)ል። መጠይቁን መሙላት ከመጀመርህ(ሽ) በፊት ስለጥናቱ ላብራራልህ(ሽ)።

የዚህ ጥናት ዓላማ በአንተ/አንቺና በቤተሰብህ(ሽ) አመጋገብ ጉዳዮች ዙሪያ ያለህ(ሽ)ን ሃሳብ አመለካከትና አተያይ አስመልክቶ ትክክለኛ መረጃዎችን ለመሰብሰብና ጥናታዊ ፅሁፍ ለማዘጋጀት ሲሆን ከዚህም በመነሳት በሌሎች ተማሪዎች ላይ ያለውን ሁኔታ ምን እንደሚመስል ድምዳሜ ላይ ለመድረስ እንዲያስችል ነው። የምትሰጠ(ጩ)ኝ ምላሽ ምስጢራዊነቱ የተጠበቀና ከትምህርታዊ ዓላማ በቀር ለምንም ዓይነት ጥቅም እንደማይውል ቃል እገባልሃል(ሻ)ለሁ። በዚህ ጥናት ላይ መሳተፍ ያንተ(ቺ)ን ሙሉ ፈቃድ የሚጠይቅ ሲሆን በጥናቱ ውስጥ ለመሳተፍ ላሳዩኸ(ሽ)ው ፍላጎትና መጠይቁን ለመሙላት ለሰጠኸ(ሽ)ኝ ጊዜ በቅድሚያ አመሰግናለሁ። ለዚህ ጥናት መሳካት ያንተ(ቺ) ተዓማኒነት ያለው ምላሽ በእጅጉ ያስፈልጋል።

እያንዳንዱን ጥያቄ በማንበብ ይገልፁኛል ብለህ(ሽ) የምታስበ(ቢ)ው አማራጭ ፊት ለፊት ባለው ሳጥን ውስጥ የ √ ምልክት በማድረግ ወደ ቀጣዩ ጥያቄ እለፍ(ፊ)። የአንተን/አንቺን ሁኔታ የሚገልፅ ማንኛውም አማራጭ ምላሽ ብትመርጥ/ብትመርጩ ትክክለኛውን ። ለመመለስ ያልፈለግኸ(ሽ)ው ጥያቄ ካለ አለመመለስ ወይም መጠይቁን መሙላት አቁመህ(ሽ) መውጣት ትችላለህ/ትችያለሽ። እባክህ(ሽ) መጠይቁን በምትሞላበት/በምትሞይበት ጊዜ ያልገባህ(ሽ) ጥያቄ ካለ ከመመለስህ(ሽ) በፊት ይህን መጠይቅ የሚያስሞላውን ሰው እንዲያስረዳህ(ሽ) ማብራሪያ መጠየቅ ትችላለህ/ትችያለሽ። ስለ ቀና ትብብር(ሽ) በቅድሚያ አመሰግናለሁ!!

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አጠቃላይ መረጃ

1.1. ያታ

- 1. ወንድ
- 2. ሴት

1.2. ዕድሜህ (ሽ) ስንት ነው?

- 1. 10-12
- 2. 13 – 15
- 3. 16-18

1.3. ስንተኛ ክፍል ነህ(ሽ)?

- 1. 5ኛ
- 2. 6ኛ
- 3. 7ኛ
- 4. 8ኛ

1. የቤተሰብ ሁኔታ

2.1. የቤተሰብ ብዛት (አንተ(ቺ)ን ጨምሮ)?

- 1. ከ 3 በታች
- 2. ከ 4 – 6
- 3. ከ 3. 7 – 9
- 4. ከ 10 በላይ

2.2. ወላጆችህ(ሽ)/አሳዳጊዎችህ(ሽ) ስራ አላቸው?

- 1. አዎ
- 2. አይ

2.3. ወላጆችህ(ሽ)/አሳዳጊዎችህ(ሽ) ስራ ካላቸው የሚያገኙት ገቢ የቤት ውስጥ የምግብ ወጪ መሸፈን ችሎላቸዋል?

- 1. አዎ
- 2. አይ

2.4. ወላጆችህ(ሽ)/አሳዳጊዎችህ(ሽ) ስራ ካላቸው በሚያገኙት ገቢ የቤት ውስጥ የምግብ ወጪ መሸፈን አቅቷቸው ሲጨነቁ

አይተህ(ሽ)/ ሰምተህ(ሽ) ታውቃለህ/ታውቁያለሽ?

- 1. አዎ
- 2. አይ

2.5. ወላጆችህ(ሽ)/አሳዳጊዎችህ(ሽ) ስራ ከሌላቸው ቤተሰቡን በምን ዓይነት ስራ ያስተዳድራሉ?

- 1. በቀን ስራ
- 2. ቆሽ በመጫር
- 3. ከእርዳታ ድርጅት በሚገኝ ድጋፍ
- 4. ከተለያዩ ሰዎች በሚገኝ ዕርዳታ/ ምፅዋት(ልመና)

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3. አሁን በቤታችሁ ስላለው አመጋገብ ሁኔታ ልጣይቅህ(ሽ) ነው። እባክህ(ሽ) ቀጥሎ ለቀረቡት ጥያቄዎች ለእያንዳንዳቸው አማራጮች ተስጥተዋል። ከነዚህም መካከል የአንተ(ቺ)ን ወላጆች አሳዳጊዎች ሁኔታ በትክክል የሚገልፀው አማራጭ ትይዩ በሚገኘው ሳጥን ውስጥ \surd ምልክት በማድረግ ወደ ቀጣዩ ጥያቄ እለፍ(ፊ)።

3.1. ከሚከተሉት ውስጥ የአንተን/አንቺን ያለፉት 12 ወራት አመጋገብ ሁኔታ በሚገባ የሚገልፀው የትኛው ነው?

- 1. ሁልጊዜ የምንፈልገውን ዓይነት ምግብ በበቂ ሁኔታ እበላ ነበር
- 2. ሁልጊዜ በቂ ምግብ ብብላም የምንፈልገውን ዓይነት ግን አልበላም ነበር
- 3. አንዳንድ ጊዜ በቂ ምግብ አልበላም ነበር
- 4. በተደጋጋሚ በቂ ምግብ አልበላም ነበር
- 5. ሁልጊዜ በቂ ምግብ አልበላም ነበር

3.2. ከላይ ለተነሳው ጥያቄ መልስህ(ሽ) አንዳንድ ጊዜ/በተደጋጋሚ/ሁልጊዜ በቂ ምግብ አልበላም ነበር; ከሆነ አንዳንድ

ጊዜ/በተደጋጋሚ/ሁልጊዜ በቂ ምግብ መብላት ያልቻልክ(ሽ)በት ምክንያት ምንድን ነው?

- 1. ምግብ ለመግዛት በቂ ገንዘብ ስላልነበረን
- 2. ቤት ውስጥ ያለው ምግብ ቶሎ እንዳያልቅ ተብሎ
- 3. ያለው ምግብና የቤተሰባችን ብዛት ስለማይመጣጠን

3.3. ከላይ ለተጠቀሰው ጥያቄ የሰጠሽ(ሽ)ው መልስ #ሁልጊዜ በቂ ምግብ ብንበላም የምንፈልገውን ዓይነት ግን አልበላም

ነበር; ከሆነ የምትፈልጉትን ዓይነት ምግብ መብላት ያልቻልክ(ሽ)በት ምክንያት ምንድን ነው?

- 1. ቤተሰቦቼ የምንፈልገው ዓይነት ምግብ ለመግዛት የገንዘብ አቅም ስላልነበራቸው
- 2. የምንፈልገውን ዓይነት ምግብ በአቅራቢያችን በቀላሉ ማግኘት አልቻልንም ነበር

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4. አሁን ባለፉት 12 ወራት በቤታችሁ በተፈጠረው የምግብ ሁኔታ ምን እንዳጋጠመህ (ሽ) ልጠይቅህ(ሽ) ነው።

እባክህ(ሽ) ቀጥሎ ለቀረቡት ጥያቄዎች ለእያንዳንዳቸው አማራጮች ተሰጥተዋል። ከነዚህም መካከል የአንተ(ቺ)ን

ወላጆች አሳዳጊዎች ሁኔታ በትክክል የሚገልፀው አማራጭ ትይዩ በሚገኘው ሳጥን ውስጥ የ ምልክት በማድረግ ወደ

ቀጣዩ ጥያቄ እለፍ(ፊ)።

4.1. ባለፉት 12 ወራት ወላጆቼ/አሳዳጊዎቼ ምግብ የሚገዙበት ገንዘብ ከማግኘታቸው በፊት ቤት ውስጥ ያለው ምግብ

ያልቅብናል ብለው ሲጨነቁ አይቼ/ሰምቼ አውቃለሁ።

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

4.2. ባለፉት 12 ወራት ቤታችን የሚገዛው ምግብ ከቤታችን ቶሎ ያልቅብናል፤ ወላጆቼ/አሳዳጊዎቼም ቀለብ መግዣ አጥተው

ሲጨነቁ አይቼ/ሰምቼ አውቃለሁ።

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

4.3. ከላይ የተጠቀሱት ሁለቱ ችግሮች በመከሰታቸው ምክንያት ነገን ምን እባላ ይሆን ብለህ(ሽ) ስጋት ገብቶህ(ሽ) ያውቃል?

- 1. አዎ
- 2. አይ

4.4. ባለፉት 12 ወራት አንድ ዓይነት ምግብ ብቻ ነበር የምንበላው

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

4.5. ባለፉት 12 ወራት ዋጋቸው ርካሽ የሆኑ ብዙም ጥራት የሌላቸው ምግቦችን እንበላ ነበር

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

4.6. ባለፉት 12 ወራት ምግብ በምበላባቸው ጊዜዎች ሁሉ እስከጠግብ በልቼ አላውቅም

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

4.7. ባለፉት 12 ወራት ወላጆቼ/አሳዳጊዎቼ የሚሰጡኝን የምግብ መጠን ቀንሰውብኛል

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

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4.8. ባለፉት 12 ወራት ወላጆችህ(ሽ)/አሳዳጊዎችህ(ሽ) የሚሰጡህ(ሽ)ን የምግብ መጠን ቀንሰውብህ(ሽ) የሚያውቁ ከሆነ ምክንያቱ ምንድን ነው?

- 1. በቂ ቀለብ መግዣ ገንዘብ ስላልነበራቸው
- 2. ያለው ምግብ ቶሎ እንዳያልቅ ፈርተው
- 3. ያለው ምግብ ለሁላችንም ለማዳረስ ተብሎ

4.9. ባለፉት 12 ወራት ከቁርስ ከምሳና ከእራት ቢያንስ አንዱን ለመዝለል ተገድደን እናውቅ ነበር

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

4.10. ባለፉት 12 ወራት አንተ/አንቺ ወይም ሌሎች የቤተሰቡ አባላት ከቁርስ ከምሳና ከእራት ቢያንስ አንዱን ለመዝለል ተገድዳችሁ የምታውቁ ከሆነ ምክንያቱ ምንድን ነው?

- 1. በቂ ቀለብ መግዣ ገንዘብ ስላልነበራቸው
- 2. ያለው ምግብ ቶሎ እንዳያልቅ ፈርተው
- 3. ያላቸውን ምግብ ለሁላችንም ለማዳረስ ተብሎ

4.11. ባለፉት 12 ወራት በቂ ቀለብ መግዣ ገንዘብ ባለመኖሩ ምክንያት አንተ/አንቺና ሌሎች የቤተሰቡ አባላት ቀኑን ሙሉ ሳትበሉ የዋላችሁባቸው ጊዜያት ነበሩ?

- 1. አዎ
- 2. አይ

4.12. ከላይ ለተጠየቀው ጥያቄ መልስህ(ሽ) “አዎ ” ከሆነ ይህ ነገር ምን ያህል ጊዜ ተከስተ?

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

5. እስኪ አሁን ደግሞ ባለፉት 12 ወራት የሚያጋጥምህ(ሽ)ን የምግብ ችግር ለመቅረፍ ያደረግኸ(ሽ)ውን ልጠይቅህ(ሽ)

5.1. የምግብ መግዣ ገንዘብ እንዳያልቅብንበታችን የሚገዙት የምግብ ዓይነቶች አነስተኛ ዋጋ ያላቸው ነበሩ::

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

5.2. ባለፉት 12 ወራት የምግብ መግዣ ገንዘብ ባለመኖሩ ምክንያት ወላጆቼ/አሳዳጊዎቼ እኔን፣ ወንድሞቼንና እህቶቼን

አነስተኛ ዋጋ ያላቸውን ምግቦች ይመግቡን ነበር::

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

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5.3. ባለፉት 12 ወራት ወላጆቹ/አሳዳጊዎቹ የቀለብ መግዣ ገንዘብ በማጣታቸው ምክንያት እኔ፣ ወንድሞቼና እህቶቼ በቂ

ምግብ ለመመገብ ያልቻልንባቸው ጊዜያት ነበሩ።

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

5.4. ባለፉት 12 ወራት ወላጆቹ/አሳዳጊዎቹ የቀለብ መግዣ ገንዘብ በማጣታቸው ምክንያት እኔ፣ ወንድሞቼና እህቶቼ

የምንመገባውን ምግብ መጠን ቀንሰውብናል።

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

5.5. በቤታችን በቂ ምግብ ባለመኖሩ በቀን ሦስት ጊዜ መመገብ አልቻልንም ነበር።

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

5.6. አንተ/አንቺ በቀን ምን ያህል ጊዜ ትመገባለህ/ትመገቢያለሽ?

- 1. በቀን አንዴ ብቻ
- 2. በቀን ሁለቴ ብቻ
- 3. በቀን ሶስቴ ብቻ
- 4. መብላት በፈለግኩበት በማንኛውም ጊዜ

5.7. ባለፉት 12 ወራት በጣም ሲርብህ(ሽ)ም ሆነ በቂ ምግብ ሳታገኝ/ኚ ስትቀር(ሪ) ምን ታደርግ(ጊ) ነበር?

- 1. ሌሎች ሰዎችን ገንዘብ እንዲሰጡኝ እጠይቃለሁ
- 2. ምግብ ቤቶችና ሆቴሎች ምግብ እንዲሰጡኝ እጠይቃለሁ
- 3. ወደ ቆሽ እሄዳለሁ
- 4. ከጓደኞቼ ጋር ያለንን ተካፍለን እንበላለን
- 5. ሌላ

5.8. ባለፉት 12 ወራት ቤተሰቦቼ ምግብ መግዣ በቂ ገንዘብ ስላልነበራቸው ከቁርስ ከምሳና ከእራት ቢያንስ አንዱን እዘልል

ነበር።

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

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5.9.ባለፉት 12 ወራት በቂ ምግብ ባለመኖሩ ከቆሼ ወይም ከሆቴሎችና ምግብ ቤቶች እንዲሁም ከሰው ቤት የሚገኝ ቡሌ

እበላ ነበር።

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

6. እስኪ አሁን ደግሞ ያለፈውን ወር አሰብ(ቢ)። ከሚከተሉት ውስጥ የእናንተን ቤተሰብ የባለፈው ወር የጤና ሁኔታ በሚገባ የሚገልፀው የትኛው ነው?

6.1.ባለፉት 30 ቀናት ውስጥ በህመም ምክንያት ወደ ህክምና ተቋም ሄደህ(ሽ) ነበር?

- 1. አዎ
- 2. አይ

6.2.ከላይ ለተጠየቀው ጥያቄ መልስህ(ሽ) “አዎ ” ከሆነ ያጋጠመህ(ሽ) የጤና ችግር ምን ነበር?

- 1. የሆድ ህመም
- 2. ተደጋጋሚ ራስ ምታት
- 3. ጉንፋን
- 4. ማዘርና ማቅለሽለሽ
- 5. ሌላ ካለ ይጠቀስ _____

6.3.በተደጋጋሚ ያምህ(ሽ) ነበር?

- 1. አዎ
- 2. አይ

7. ትምህርትን በተመለከተ

7.1.ወደ ትምህርት ቤት የምመጣው ምግብ ሳልበላ ነው።

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

7.2.ምግብ ሳልበላ ወደ ትምህርት ቤት ስመጣ ስለሚርበኝ ከሚሰጠው ትምህርት ይልቅ ርሃቤን ስለማስብ የመማር ፍላጎትና ተነሳሽነቴ ዝቅ ያለ ነው።

- 1. አዎ
- 2. አይ

7.3.ምግብ ሳልበላ ወደ ትምህርት ቤት የመጣሁ ጊዜ በጣም ስለሚርበኝ መምህራኖቼ የሚያስተምሩኝን ትምህርት በአግባቡ መከታተል ያቅተኛል።

- 1. አዎ
- 2. አይ

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7.4. በዚህ ዓመት ትምህርት ቤት በምመጣባቸው ቀኖች ምሳ ሳልይዝ እመጣ ነበር

- 1. ሁል ጊዜ
- 2. ብዙ ጊዜ
- 3. በተደጋጋሚ
- 4. አንዳንዴ
- 5. በጭራሽ

7.5. ባጋጠመኝ የምግብ ችግር ምክንያት የትምህርት ውጤት ዝቅተኛ ነበር ትላለህ/ትያለሽ?

- 1. አዎ
- 2. አይ

7.6. ከላይ ለተጠየቀው ጥያቄ መልስህ(ሽ) “አዎ” ከሆነ የትምህርት ውጤትህ(ሽ) ዝቅተኛ የሆነው በምን ያህሉ የትምህርት ዓይነቶች ነው?

- 1. በአብዛኛዎቹ
- 2. በተወሰኑት
- 3. በጥቂተኞቹ ብቻ

7.7. በጣም ዝቅተኛ ውጤት የምታገኘው/የምታገኘው በየትኞቹ የትምህርት ዓይነቶች ነው?

- 1. ሒሳብ
- 2. ሳይንስ (ፊዚክስ, ባዮሎጂ እና ኬሚስትሪ)
- 3. ቋንቋ(አማርኛ እና እንግሊዝኛ)
- 4. ማህበራዊ ሳይንስ (ስነ ዜጋ እና ህብረተሰብ)

7.8. በቤታችሁ ምግብ ባለመኖሩ ምክንያት ትምህርት ቤት የቀረህ(ሽ)ባቸው ጊዜዎች ነበሩ?

- 1. አዎ
- 2. አይ

7.9. በቤታችሁ በሚያጋጥማችሁ የምግብ ችግር ምክንያት ትምህርት ለማቋረጥ ያሰብክባቸው/ያሰብሽባቸው ጊዜዎች ነበሩ?

- 1. አዎ
- 2. አይ

7.10. በቤታችሁ በሚያጋጥማችሁ የምግብ ችግር ምክንያት ትምህርት ያቋረጥክባቸው/ሽባቸው ጊዜዎች ነበሩ?

- 2. አዎ
- 2. አይ

Annex III: Key Informant Interview Guide for Teachers and Social Workers

Introduction

Good morning/afternoon. My name is Nega Wedajo. I came from Addis Ababa University School of Social Work. I am a prospective graduate in Social Work and I am carrying out this survey to examine childhood food insecurity and their coping mechanisms.

This interview is for research purposes only, to provide with an organized information with a purpose to exploring the vulnerability and impacts of food insecurity among poor children in Koshe area of Addis Ababa and the major coping strategies to the vulnerability to it. Your participation in this survey requires your full consent and your responses are kept confidential.

While the information you give me will be kept confidential, and not be shared with any other organizations, the report produced will include aggregated data from all the individuals in the survey, not specific information about you. Please do your best to be as open and honest as possible. If you have any doubt, you can pause the interview at any point and ask me explanations or withdraw.

Thank you!

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For teachers

1. What does the vulnerability to food insecurity of the students' behaviors look like?
 - Do they come to school having eaten food?
 - Do they bring lunch?
 - What kinds of food do the children eat?
2. How do you see their well-being?
 - How does their behavior look like?
 - How does their physical functioning look like?
 - Are they exposed to chronic health conditions at school? If yes, why do you think and to what extent?
 - What kinds of ailments are common to them?
 - How do you see their level of anxiety and depression?
 - How do the students view themselves?
3. How does their educational performance look like?
 - How do you see their problem solving and analytical skills?
 - What does their class promotion look like? Do they repeat classes?
 - How is their math achievement and other achievement gains?
 - What does their comprehending skill look like?
 - What does their attendance look like?
 - How about their class repetition?
 - How is the dropout rate?
4. How do the children cope up with to food insecurity?
 - Probe?

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For Social workers

1. How do you describe the vulnerability context of the children?
 - What is the economic status of the families?
 - Can you tell me about their parents/guardians?
 - How do parents/ guardians feed their children?
 - What kinds of food do the children eat?
2. How do you see their well-being?
 - Are they exposed to chronic health conditions at school? If yes, why?
 - What kinds of ailments are common to them?
 - How do the students view themselves?
3. How do the children cope up with food insecurity?
 - Probe

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Annex IV: List of Key Informant Interview Participants

No.	Code	Sex	Age	Position
1	KII1	Male	32	School principal
2	KII2	Male	26	Teacher
3	KII3	Male	48	Teacher
4	KII4	Male	34	Teacher
5	KII5	Male	27	Teacher
6	KII6	Male	28	Social Worker
7	KII7	Male	46	Social Worker
8	KII8	Male	39	Social Worker