Evaluating the Face Validity of an Arabic-language Translation of a Food Security Questionnaire in Arabic-speaking Populations

THESIS

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By

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ABSTRACT

Background: Food insecurity is a public health issue affecting at least 1 billion people worldwide (1). Many of the food insecurity measures used worldwide with various target populations have been translated adaptations of food insecurity models developed in the United States. Research in the Middle East and North Africa (MENA) region continues to lag behind research in other regions due to limited availability and insufficient quality of data collected (2). Currently, there is a gap in validated tools available to assess food insecurity in the Arabic language.

Objective: The purpose of this study is to evaluate the face validity of an Arabic-language translation of the Escala Latinoamericana y Caribeña de Seguridad Alimentaria (ELCSA), an established food security questionnaire. The specific aims are (1) to successfully translate the ELCSA into the Arabic language and (2) to examine the face validity of the translated instrument.

Design, Setting and Participants: The tool was translated by native Arabic speakers and crosschecked via back translation into English. Face validity was assessed via a convenience sample of 27 native Arabic-speaking women divided into 4 groups following Kruger’s focus group protocol (3). The focus group method was selected to observe and gather participants’ perceptions of food
insecurity, language interpretations pertaining to ease of language and word choice used in the translation.

**Outcome Measures and Analysis:** Focus group interviews were recorded, transcribed and analyzed using textual analysis (3) and coded into major and minor themes to allow for identification of key concepts.

**Results:** Data indicated the following major themes: (1) question structure must be shifted allowing the subject of the question to precede the time period asked about; (2) question terminology must be simplified in most questions; and (3) all questions were considered relevant as they range in degree of food insecurity severity.

**Conclusions and Implications:** The knowledge gained from this study exemplifies the importance of an in-depth adaptation of a translated tool in order to guarantee its suitability its target population. The language and cultural appropriate measure validated allows for an adequate food security scale to be utilized in the MENA region and supports the further development of a global household food security scale.
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<td>CGIAR</td>
<td>Consultative Group on International Agricultural Research</td>
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<tr>
<td>CFS</td>
<td>Core Food Security</td>
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<td>ELCSA</td>
<td>Escala Latinoamericana y Caribeña de Seguridad Alimentaria</td>
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<td>FAO</td>
<td>Food and Agricultural Organization</td>
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<td>GIEWS</td>
<td>Global Information and Early Warning System</td>
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<td>Household Food Security Survey Module</td>
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<td>IFPRI</td>
<td>International Food Policy and Research Institute</td>
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CHAPTER 1
INTRODUCTION

1.1 FUNDAMENTALS OF FOOD SECURITY

The Food and Agricultural Organization (FAO) identifies food security as when "all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (1). Food security is achieved when three basic fundamentals are met: adequate food availability, adequate access to food, and appropriate food utilization and consumption by all people (1).

Food availability is based on the domestic agricultural outputs and net food imports on a national level (1). Food access and stability is based on the ability of a household to acquire sufficient quantities of food in socially acceptable ways at all times (1). Food utilization and consumption refers to the ability of a household to maintain adequate nutrition through diet, clean water, healthcare, and sanitation (1). These three basic fundamentals work hand-in-hand to ensure that people are able to meet their dietary needs to live an active and healthy lifestyle (1).
1.2 FOOD INSECURITY

When access to food is threatened, food insecurity exists. The Food and Agricultural Organization (FAO) defines food insecurity as when people lack "physical, social or economic access to sufficient, safe and nutritious foods to meet their dietary needs and food preferences for an active and healthy life" (1). Access to food has long been recognized as a basic human right necessary to achieve a standard of living adequate for health and well being by the United Nations (UN) in the 1948 Universal Declaration of Human Rights (4). Currently, food insecurity is considered a global public health issue affecting at least one billion people worldwide (1).

1.3 MALNUTRITION, UNDERNOURISHMENT, AND HUNGER

When addressing food insecurity, the literature commonly uses the terms malnutrition, undernourishment, and hunger. Malnutrition is defined as a range of conditions that may affect health status related to inadequate or unbalanced food intake (5). Undernourishment is defined as the status of persons whose intake does not meet their energy requirement, or when their caloric intake is below the minimum dietary energy requirement (MDER) (1). The MDER is the amount of energy required for light activity and the amount needed to maintain weight for height (1) and the average MDER is 1800 kilocalories per day (5). Hunger is defined as when people do not get the minimum energy requirement, or when they are undernourished and these two terms will be used interchangeably (5).
1.4 IMPLICATIONS OF HUNGER AND UNDERNOURISHMENT

The implications of hunger and undernourishment on physical and mental health are grand. When people do not get enough to eat, their productivity level diminishes and their ability to perform as a functioning part of society is reduced (5). Undernourishment affects physical health by contributing to underweight, nutritional deficiencies, growth stunting, high-risk pregnancies, and an increased risk for mortality (5). By not meeting minimum energy requirements necessary to sustain the basic acts of daily living, individuals become more susceptible to disease and infections due to weakened immune systems (5).

1.5 HUNGER TARGET GOALS

Because of the impacts of food insecurity, world leaders have set hunger target goals in an effort to support food security for all people (6). In 1996, leaders met in Rome at the World Food Summit and established a hunger target goal to reduce the number of undernourished people in the world from 850 million to 425 million by 2015 (6). In 2000, the leaders established a new hunger target at the United Nations (UN) Millennium Summit in New York with Millennium Development Goal 1 (MDG1) (6). MDG1 aimed to halve the number of hungry in the world, from 1 billion to 500 million by 2015 (7). Both hunger target goals have not yet been achieved; The Word Food Summit target has increased in number largely due to the growing population and the MDG1 has been slowly improving since 2009 (1).
1.6 UNDERNOURISHMENT BY REGION

Currently, there are a total 925 million people suffering from undernourishment in the world (See Figure 1.1) (1). Developing countries account for 98% of all undernourishment in the world; however, industrialized countries are affected as well (1). Asia and the Pacific continues to be home to the largest number of those suffering from undernourishment with 578 million people affected, while Sub-Saharan Africa has the highest prevalence of hunger, with one in every three people suffering from undernourishment (1).

![Figure 1.1 Undernourishment in 2010, by region (millions)](Source: FAO State of Food Insecurity 2010)
1.7 MEASURING FOOD SECURITY STATUS

When developing indicators to assess hunger, direct measures are not always readily available; therefore, indirect indicators must be investigated further. Indirect measures of assessing hunger include measuring “indicators of income, unemployment, food assistance program participation, dietary intake, and health and nutritional status” (8). Alongside these indicators, behaviors associated with hunger as well as self-reports and perceptions of hunger have been used (8).

To measure food security status, the Food and Agricultural Organization collects three types of data: (1) data on production, imports and exports used to calculate caloric availability for the country; (2) data on population structure such as age and sex which are used to calculate caloric needs for the population; and (3) household survey data used to estimate the distribution of calories in the country (5). This information is used to estimate the number of people who do not meet the minimum energy requirements, or the amount of people who are undernourished (5).

Specifically, food security scales have been utilized as appropriate tools to measure food security status at both household and national levels. The history of food security scales dates back to 1990 when the National Nutrition Monitoring and Research Related (NNMRR) Act called for the creation of a measure to estimate the prevalence of food insecurity in the United States as well as for monitoring food assistance programs (9)(10)(11)(12). From this, the 18-item U.S. Household Food Security Survey Module (HFSSM) (13) was created, modeled
after items from the Radimer/Cornell scale (14) and the Community Childhood Hunger Identification Project (CCHIP) (15). Since then, the U.S. HFSSM has been used as a model in translating and adapting household food security scales to be used in other countries.

1.8 VALIDATION OF FOOD SECURITY MEASURES

When developing any tool to be used as a measure, the most valuable characteristics that the instrument can have are validity and reliability. According to Trochim and Donnelly’s The Research Methods Knowledge Base, validity is defined as the “best available approximation of the truth of a given proposition, inference, or conclusion” (16). Reliability is defined as the “degree to which a measure is consistent or dependable…assuming the underlying phenomenon is not changing” (16).

Of the various sub-types of validity, most are categorized under two umbrellas: construct and inference validity (See Figure 1.2) (16). Inference validity houses both external and internal validity. Construct validity is defined as the degree to which inferences can be made from the measure related to the theoretical constructs on which the measure are based (16). Construct validity houses two types of validities: criterion-related validity and translation validity.

Inference validity includes both internal and external validities. Internal validity simply refers to the ability to make a causal relationships; for example, if the observed outcome of the study was a result of the intervention conducted (16).
External validity relates to the ability to generalize the findings to other individuals, groups, or settings (16).

Criterion-related validity assesses how well the measure behaves given the construct, by comparing it to a gold standard (16). The other type of validity within the construct umbrella is translation validity, which is defined as how well the idea of the measure is translated (16). Translation validity includes content and face validity (16). Content validity is defined as how well the content domains of a measure are represented (16). Face validity is how well the measure seems like a good translation of the construct “on its face” (16). Face validity is often looked to as one of the first steps in assessing measurement tools as it provides relevant insight on how well the measure may work by recruiting ‘experts’ in the
area the tool measures (16). Therefore, assessment of face validity is considered an essential step in ensuring or improving the quality of a measure (16).

1.9 PURPOSE AND SPECIFIC AIMS

Many of the food insecurity measures used worldwide with various target populations have been translated adaptations of food insecurity models developed in the United States. Great contributions have been made in validating household food security scale models in the Spanish language for use both internationally and among Spanish-speaking populations; however, there continues to be a large gap in terms of validated tools available in the Arabic language to be used among Arabic-speaking populations to assess food insecurity. Research and data from the MENA region in the area of food security is lagging behind research in other regions (2). This may be attributed to the limited data availability and insufficient quality of data collected (2). The lack in availability of validated tools to measure household and national food security status drives the purpose and aims of our study.

The purpose of this study is to evaluate the face validity of an Arabic-language translation of the *Escala Latinoamericana y Caribeña de Seguridad Alimentaria* (ELCSA) in Arabic-speaking populations.

The specific aims of this study are:

1. To successfully translate the questionnaire into the Arabic language.
2. To examine the face validity of the translated instrument in Arabic-speaking populations.
2.1 HISTORY OF FOOD SECURITY MEASURES

Because food insecurity is a universal issue that affects populations worldwide and many of these populations are not predominantly English speaking, the use of an English-version food security scale is not practical. Some of the earliest work on assessing household food insecurity began at Cornell University in the 1990s by Radimer and colleagues (8). Early studies focused on gathering perceptions of hunger and food insecurity among low-income women (8). As a result of the information gathered from the women, a 30-item survey was developed. This 30-item scale was further validated using quantitative criteria including factor and psychometric analyses and ultimately led to the validation of a 12-item scale for measuring food insecurity at the household level (8).

During the same time Radimer and colleagues were working on assessing food insecurity at the household level, Whelar and colleagues were working on the Community Childhood Hunger Identification Project (CCHIP). The CCHIP was conducted in an effort to assess food insecurity in low-income households with children (15). The 8-item survey examined the coping strategies that took
place in mild, moderate, and severe food insecure households with children over a twelve month period (15).

Out of the information gathered from the Radimer/Cornell scale and the CCHIP initiatives, the Core Food Security Module was created in 1992 (9). The Core Food Security Module was an 18-item scale used to evaluate household hunger at the various levels of severity during the previous twelve-month period. Items from this survey helped shape the current tool used to assess household hunger in the United States, the U.S. Household Food Security Survey Module (HFSSM) (9).

2.2 ESCALA LATINOAMERICANA Y CARIBEÑA DE SEGURIDAD ALIMENTARIA

Great contributions have been made in the Latin America and Caribbean region in terms of research on food insecurity as well as collecting data. Most of the success in this region began with the development of a standard Spanish-language food security scale to be used in Spanish-speaking countries. The Escala Latinoamericana y Caribeña de Seguridad Alimentaria (ELCSA) was created by a group of experts and introduced in 2007 at the International Conference to Measure Food Security in Latin America and the Caribbean. This tool was derived as a compilation of the measures used in Brazil (17), Colombia (18), and U.S. HFSSM used in other countries (19). Since that meeting, ELCSA has been implemented for use at both household and national levels in Spanish-
speaking populations. This food security scale measure has also been validated for use in Brazil (20)(17), Haiti (21)(22), and Mexico (23), among other places.

The Escala Latinoamericana y Caribeña de Seguridad Alimentaria (ELCSA) was selected as the measurement tool to be translated for this study largely due in part to the fact that it has been developed and utilized globally, while the U.S. HFSSM has been developed for use specifically within the United States.

2.3 FOOD INSECURITY IN THE MIDDLE EAST AND NORTH AFRICA (MENA) REGION

The International Food Policy and Research Institute (IFPRI) identifies several countries as part of the Middle East & North Africa (MENA) region (24). These countries include: Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, West Bank and Gaza, and Yemen (24). This region is also referred to as the Arab-Turkey and Iran (Arab-TI) region in some reports, which includes several more countries but will be referred to as the MENA region in this paper.

The IFPRI uses a macro level ratio of total exports to food imports to measure food security among these countries (24). A macro level ratio reflects the capacity of a country to export and the demand of food imports (24) while taking into consideration food access and food availability (2). A higher ratio of food exports to imports indicates a higher level of food security. The world
average export to import ratio for 178 countries is 11.3 (24). MENA countries average 11.5 percent of exports for importing food—slightly higher than the world average. Interestingly, variations are seen between MENA countries with only 3 out of 16 out-preforming the world average in food trade security (Kuwait, United Arab Emirates, and Iran) (24). The remaining countries fall well below the world average suggesting they are vulnerable to shifts in global food prices and food availability (24).

2.4 FACTORS AFFECTING FOOD INSECURITY IN THE MENA REGION

Some of the main factors affecting food insecurity in the MENA region are poverty, high dependence on food imports, poor economic growth and government spending, and limited potential for agricultural production due to climate and water resource constraints (2). This region is unique in that it includes some of the wealthiest and poorest countries in the world in terms of gross domestic production (GDP) per capita (2). The average GDP for the five richest countries is about 25 times higher than the average for the five poorest countries (2).

The IFPRI uses five food security categories to define food security challenge countries in the MENA region as indicated by the risk of food insecurity map (See Figure 1.2) (24). Gulf countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and UAE) are classified as the low risk for food insecurity (2). Most oil-producing countries have low risks for food insecurity due to their ability in
adapting to high global commodity prices and food imports (2). The countries most at risk include: Yemen, Djibouti, and Somalia.

Research in the MENA region continue to lag behind research in other regions due to insufficient or unreported data (2). In areas of recent crisis, there is hardly any data reported such as in Iraq and West Bank and Gaza Strip (WBGS) (24).

Figure 2.1 The risk of food insecurity in MENA countries (Source: IFPRI Beyond The Arab Awakening)
2.5 HUNGER IN AREAS OF PROTRACTED CRISIS

Protracted crisis is defined as environments where significant proportions of populations are “acutely vulnerable to death, disease, and disruption of livelihoods over a prolonged period of time” (1). The significance of the focus on protracted crisis is that the proportion of undernourished people is about three times as high in countries in protracted crisis as in other developing countries (1).

According to the FAO, protracted crisis is identified by three measureable criteria: the longevity of the crisis, aid flows, and economic and food security status (1). Longevity of the crisis is based on the number of years that a country reports a crisis to the FAO Global Information and Early Warning System (GIEWS) and requires external assistance (1). A country is identified to be in protracted crisis if they appear on the GIEWS list for 12 years or more between the timespan of 1996-2010 (1). Aid flows are the amount of assistance received by a country as a share of total assistance and countries are considered in protracted crisis if they have received at least 10 percent of their official development assistance as humanitarian aid since 2000 (1). Economic and food security status are the factors that place a country on the FAO’s list of low-income food-deficit countries (LIFDCs) (1).

Being that there is no well-defined list of characteristics that classify a country as being in protracted crisis, the absence of one or more criterions mentioned above does not detract from the severity of a country in crisis (1).
2.6 PROTRACTED CRISIS IN THE MENA REGION

One area in the MENA region that continues to be in great turmoil is the West Bank and Gaza Strip. A *Report of Food Security Assessment, West Bank and Gaza Strip* compiled by the FAO and World Food Programme (WFP) indicates that food insecurity affects 40 percent of the population and is a constant worry for an addition 30 percent (25). In 2006, 6 out of 10 people had incomes below the $2.10 per day poverty line and 4 out of 5 families reported having to reduce food expenditures (25).

Yemen is another country that suffers from extremely alarming food security risk (26). The high rate of food insecurity is experienced due to declining oil exports and increasing food imports (26). This rate remains high and Yemen misses meeting its 2015 hunger target goals due to absence of policies and zero action taken as well as the limited availability of land and water necessary for agriculture (26). Despite being an oil-exporting country, the oil prices and fuel subsidies in Yemen are some of the lowest in the world and is outdriven by other oil-exporting countries in the MENA region (26). Yemen also spends significantly less on agriculture, health and infrastructure compared to other MENA countries which negatively impacts the country’s food security status (26).

2.7 RECOMMENDATIONS FOR REDUCING POVERTY AND FOOD INSECURITY

The IFPRI Food Policy Report on *Policies and Investments for Poverty Reduction and Food Security* aims to prioritize policies on reducing poverty and
food insecurity in the MENA region (2). The three key policy recommendations emerge from the IFPRI report are: (1) to improve data and capacity as basis for decision making; (2) to foster growth that enhances food security at national and household levels; and (3) to significantly enhance efficiency of public spending (2). One of the ways these targets can be achieved is to improve the availability of tools for gathering comparable data for this region.

### 2.8 CONTRIBUTIONS TO LANGUAGE APPROPRIATE FOOD SECURITY MEASURES

Researchers have found ways to accommodate for language-appropriate food security measures by either creating translated versions already existing food security scales or using free translations by means of an interpreter translating English questions into the desired language to conduct food security surveys. However, the use of these instruments in relation to language and cultural differences can create discrepancies in the results obtained (27). Findings showed that household interviews conducted using free translation may not provide as strong data as when households are interviewed in English (27).

Many countries have used translated or adapted version of the U.S. HFSSM to assess food security at a national level. Coates et al found that in the development of a food security scale for Bangladesh, both quantitative and qualitative measures should be considered (28). Quantitative methods applied the Rasch model to test item fit while qualitative methods relied on the respondents’ responses evaluation of the items (28). Common concepts such as
the experience of food security related to insufficient food quantity and inadequate food quality withstood cultural and language barriers suggesting that worry about food is a cross-cultural concept (28).

Other problems with language translations were observed in a cross-sectional survey conducted among low-income Latino women where no relationship was found between acculturation and food insecurity (29). Kaiser et al suggested that this lack of relationship could be due to the fact that around 84% of the participants in the sample were less acculturated based on birth country and language (29). This emphasizes the importance in considering the instrument of choice when conducting food security research among different cultures and languages. In a cross-sectional survey with low-income Mexican-American families with children of pre-school age, Kaiser et al found that low English proficiency, low income and low education were negatively correlated with food security and suggested further research is needed in validating a language-appropriate food security scale measure (30).

Rafiei et al translated the HFSSM into Farsi to be used in an Iranian population and found that the general phenomenon of food insecurity is experienced in the same way between the Isfahan Food Security Survey data and the US Current Population Survey Food Security Supplement data; however there may be room for improvement in the question-translation process (31). When testing the choice of instrument influences in detecting food insecurity, Kaiser et al found that the average item discrimination, which is a measure used to indicate consistency of responses, was high in Spanish-speaking women
indicating that the questions were understood compared to households interviewed in English (31). The use of different instruments to measure food insecurity can lead to discrepancies in the results obtained as differences may exist in the cultural and language interpretations of the questions asked (31).

Melgar-Quiñonez et al conducted a study with Latin Americans living in California to validate a translated version of the 18-item food security scale and concluded that most questions were easily understood although problems arose regarding the way in which certain questions were written (32) further supporting the importance of having a well-translated food security instrument. When assessing face validity of the 18-item HFSSM in low-income pregnant Latina populations, Hromi-Fiedler et al found that despite the clarity of items presented, some questions were found to be repetitive (33). Participants provided useful recommendations such as turning statements into questions, altering word choice, and including definitions, which led to beneficial adaptations made to the HFSSM, making it valid for use in this sub-population (33). In a smaller, community-based sample of Liberian refugee families living in the Northeast United States, Hadley et al examined a 10-item Radimer/Cornell-based food insecurity scale and found similar results associating food insecurity with lower incomes, lower education levels and more specifically, with language barriers (35).

Finally, in an approach towards developing a standard language survey presented by Harrison et al, eight Spanish-language instruments previously used in published research or national surveys were tested for validation among low-
income, Spanish-speaking adults (34). A focus groups was used to evaluate the validity of the existing surveys and the researchers found that all existing versions could be improved overall; with most issues surrounding clear word choice and verb tense used and eventually created a focus group-derived instrument (34).
CHAPTER 3
MANUSCRIPT

3.1 ABSTRACT

Background: Food insecurity is a public health issue affecting at least 1 billion people worldwide (1). Many of the food insecurity measures used worldwide with various target populations have been translated adaptations of food insecurity models developed in the United States. Research in the Middle East and North Africa (MENA) region continues to lag behind research in other regions due to limited availability and insufficient quality of data collected (2). Currently, there is a gap in validated tools available to assess food insecurity in the Arabic language.

Objective: The purpose of this study is to evaluate the face validity of an Arabic-language translation of the *Escala Latinoamericana y Caribeña de Seguridad Alimentaria* (ELCSA), an established food security questionnaire. The specific aims are (1) to successfully translate the ELCSA into the Arabic language and (2) to examine the face validity of the translated instrument.

Design, Setting and Participants: The tool was translated by native Arabic speakers and crosschecked via back translation into English. Face validity was assessed via a convenience sample of 27 native Arabic-speaking women divided into 4 groups following Kruger's focus group protocol (3). The focus group
method was selected to observe and gather participants’ perceptions of food insecurity, language interpretations pertaining to ease of language and word choice used in the translation.

**Outcome Measures and Analysis:** Focus group interviews were recorded, transcribed and analyzed using textual analysis (3) and coded into major and minor themes to allow for identification of key concepts.

**Results:** Data indicated the following major themes: (1) question structure must be shifted allowing the subject of the question to precede the time period asked about; (2) question terminology must be simplified in most questions; and (3) all questions were considered relevant as they range in degree of food insecurity severity.

**Conclusions and Implications:** The knowledge gained from this study exemplifies the importance of an in-depth adaptation of a translated tool in order to guarantee its suitability its target population. The language and cultural appropriate measure validated allows for an adequate food security scale to be utilized in the MENA region and supports the further development of a global household food security scale.
3.2 INTRODUCTION

Access to food has long been recognized as a basic human right necessary to achieve a standard of living adequate for health and well being by the United Nations (UN) in the 1948 Universal Declaration of Human Rights (4). The Food and Agricultural Organization (FAO) defines food insecurity as when people lack “physical, social or economic access to sufficient, safe and nutritious foods to meet their dietary needs and food preferences for an active and healthy life” (1). Currently, food insecurity is considered a global public health issue affecting at least one billion people worldwide (1).

When addressing food insecurity, the literature commonly uses the terms malnutrition, undernourishment, and hunger. Malnutrition is defined as a range of conditions that may affect health status related to inadequate or unbalanced food intake (5). Undernourishment is defined as the status of persons whose intake does not meet their energy requirement, or when their caloric intake is below the minimum dietary energy requirement (MDER) (1). The MDER is the amount of energy required for light activity and the amount needed to maintain weight for height (1) and the average MDER is 1800 kilocalories per day (5). Hunger is defined as when people do not get the minimum energy requirement, or when they are undernourished and these two terms will be used interchangeably (5).

The implications of hunger and undernourishment on physical and mental health are grand. When people do not get enough to eat, their productivity level diminishes and their ability to perform as a functioning part of society is reduced (5). Undernourishment affects physical health by contributing to underweight,
nutritional deficiencies, growth stunting, high-risk pregnancies, and an increased risk for mortality (5). By not meeting minimum energy requirements necessary to sustain the basic acts of daily living, individuals become more susceptible to disease and infections due to weakened immune systems (5).

The impacts of food insecurity have led world leaders to set hunger target goals in an effort to support food security for all people (6). In 1996, leaders met in Rome at the World Food Summit and established a hunger target goal to reduce the number of undernourished people in the world from 850 million to 425 million by 2015 (6). In 2000, the leaders established a new hunger target at the United Nations (UN) Millennium Summit in New York with Millennium Development Goal 1 (MDG1) (6). MDG1 aimed to halve the number of hungry in the world, from 1 billion to 500 million by 2015 (7). Both hunger target goals have not yet been achieved; The World Food Summit target has increased in number largely due to the growing population and the MDG1 has been slowly improving since 2009 (1).

To measure food security status, the Food and Agricultural Organization collects three types of data: (1) data on production, imports and exports used to calculate caloric availability for the country; (2) data on population structure such as age and sex which are used to calculate caloric needs for the population; and (3) household survey data used to estimate the distribution of calories in the country (5). This information is used to estimate the number of people who do not meet the minimum energy requirements, or the amount of people who are undernourished (5).
Specifically, food security scales have been utilized as appropriate tools to measure food security status at both household and national levels. The history of food security scales dates back to 1990 when the National Nutrition Monitoring and Research Related (NNMRR) Act called for the creation of a measure to estimate the prevalence of food insecurity in the United States as well as for monitoring food assistance programs (9)(10)(11)(12). From this, the 18-item U.S. Household Food Security Survey Module (HFSSM) (13) was created, modeled after items from the Radimer/Cornell scale (14) and the Community Childhood Hunger Identification Project (CCHIP) (15). Since then, the U.S. HFSSM has been used as a model in translating and adapting household food security scales to be used in other countries.

When developing any tool to be used as a measure, the most valuable characteristics that the instrument can have are validity and reliability. According to Trochim and Donnelly’s *The Research Methods Knowledge Base*, validity is defined as the “best available approximation of the truth of a given proposition, inference, or conclusion” (16). Reliability is defined as the “degree to which a measure is consistent or dependable…assuming the underlying phenomenon is not changing” (16). Face validity is how well the measure seems like a good translation of the construct “on its face” (16). Face validity is often looked to as one of the first steps in assessing measurement tools as it provides relevant insight on how well the measure may work by recruiting ‘experts’ in the area the tool measures (16). Therefore, assessment of face validity is considered an essential step in ensuring or improving the quality of a measure (16).
Great contributions have been made in the Latin America and Caribbean region in terms of research on food insecurity as well as collecting data. Most of the success in this region began with the development of a standard Spanish-language food security scale to be used in Spanish-speaking countries. The *Escala Latinoamericana y Caribeña de Seguridad Alimentaria* (ELCSA) was created by a group of experts and introduced in 2007 at the International Conference to Measure Food Security in Latin America and the Caribbean. This tool was derived as a compilation of the measures used in Brazil (17), Colombia (18), and U.S. HFSSM used in other countries (19). Since that meeting, ELCSA has been implemented for use at both household and national levels in Spanish-speaking populations. This food security scale measure has also been validated for use in Brazil (20)(17), Haiti (21)(22), and Mexico (23), among other places.

The *Escala Latinoamericana y Caribeña de Seguridad Alimentaria* (ELCSA) was selected as the measurement tool to be translated for this study largely due in part to the fact that it has been developed and utilized globally, while the U.S. HFSSM has been developed for use specifically within the United States.

The International Food Policy and Research Institute (IFPRI) identifies several countries as part of the Middle East & North Africa (MENA) region (24). These countries include: Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, West Bank and Gaza, and Yemen (24).
The IFPRI uses a macro level ratio of total exports to food imports to measure food security among these countries (See Figure 1.2) (24). A macro level ratio reflects the capacity of a country to export and the demand of food imports (24) while taking into consideration food access and food availability (2). A higher ratio of food exports to imports indicates a higher level of food security. The world average export : import ratio for 178 countries is 11.3 (24). MENA countries average 11.5 percent of exports for importing food—slightly higher than the world average. Interestingly, variations are seen between MENA countries with only 3 out of 16 out-preforming the world average in food trade security (Kuwait, United Arab Emirates, and Iran) (24). The remaining countries fall well below the world average suggesting they are vulnerable to shifts in global food prices and food availability (24).

Some of the main factors affecting food insecurity in the MENA region are poverty, high dependence on food imports, poor economic growth and government spending, and limited potential for agricultural production due to climate and water resource constraints (2). This region is unique in that it includes some of the wealthiest and poorest countries in the world in terms of gross domestic production (GDP) per capita (2). The average GDP for the five richest countries is about 25 times higher than the average for the five poorest countries (2).

The IFPRI uses five food security categories to define food security challenge countries in the MENA region as indicated by the risk of food insecurity map (See Figure 1.2) (24). Gulf countries (Bahrain, Kuwait, Oman, Qatar, Saudi
Arabia, and UAE) are classified as the low risk for food insecurity (2). Most oil-producing countries have low risks for food insecurity due to their ability in adapting to high global commodity prices and food imports (2). The countries most at risk include: Yemen, Djibouti, and Somalia.

Research in the MENA region continue to lag behind research in other regions due to insufficient or unreported data (2). In areas of recent crisis, there is hardly any data reported such as in Iraq and West Bank and Gaza Strip (WBGS) (24). Protracted crisis is defined as environments where significant proportions of populations are “acutely vulnerable to death, disease, and disruption of livelihoods over a prolonged period of time” (1). The significance of the focus on protracted crisis is that the proportion of undernourished people is about three times as high in countries in protracted crisis as in other developing countries (1).

According to the FAO, protracted crisis is identified by three measurable criteria: the longevity of the crisis, aid flows, and economic and food security status (1). Longevity of the crisis is based on the number of years that a country reports a crisis to the FAO Global Information and Early Warning System (GIEWS) and requires external assistance (1). A country is identified to be in protracted crisis if they appear on the GIEWS list for 12 years or more between the timespan of 1996-2010 (1). Aid flows are the amount of assistance received by a country as a share of total assistance and countries are considered in protracted crisis if they have received at least 10 percent of their official development assistance as humanitarian aid since 2000 (1). Economic and food
security status are the factors that place a country on the FAO’s list of low-income food-deficit countries (LIFDCs) (1).

Being that there is no well-defined list of characteristics that classify a country as being in protracted crisis, the absence of one or more criterions mentioned above does not detract from the severity of a country in crisis (1). The IFPRI Food Policy Report on *Policies and Investments for Poverty Reduction and Food Security* aims to prioritize policies on reducing poverty and food insecurity in the MENA region (2). The three key policy recommendations emerge from the IFPRI report are: (1) to improve data and capacity as basis for decision making; (2) to foster growth that enhances food security at national and household levels; and (3) to significantly enhance efficiency of public spending (2). One of the ways these targets can be achieved is to improve the availability of tools for gathering comparable data for this region.

Many of the food insecurity measures used worldwide with various target populations have been translated adaptations of food insecurity models developed in the United States. Great contributions have been made in validating household food security scale models in the Spanish language for use both internationally and among Spanish-speaking populations; however, there continues to be a large gap in terms of validated tools available in the Arabic language to be used among Arabic-speaking populations to assess food insecurity. Research and data from the MENA region in the area of food security is lagging behind research in other regions (2). This may be attributed to the limited data availability and insufficient quality of data collected (2). The lack in
availability of validated tools to measure household and national food security status drives the purpose and aims of our study.

The purpose of this study is to evaluate the face validity of an Arabic-language translation of the Escala Latinoamericana y Caribeña de Seguridad Alimentaria (ELCSA) in Arabic-speaking populations.

The specific aims of this study are:

(1) To successfully translate the questionnaire into the Arabic language.

(2) To examine the face validity of the translated instrument in Arabic-speaking populations.
3.3 METHODS

3.3.1 STUDY DESIGN

This study was designed to assess the face validity of the translated instrument using a focus group method (See Figure 3.1). This method was selected to ensure access to the experts in the target population regarding their views and opinions of the translation and their perceptions and experiences with food insecurity. Approval from the Behavioral and Social Sciences Institutional Review Board from The Ohio State University was obtained for this study.

3.3.2 DEVELOPING THE TRANSLATED TOOL

The first step of the translation process was to have a native Arabic speaker translate the English version of the ELCSA into the Arabic language. The translator selected to perform the initial translation was a female, native Arabic speaker (from Palestine) and a Nutrition Specialist employed by the UNICEF in the Gaza Office. The co-investigator of this study, a female, native Arabic speaker (from Kuwait), checked the translated tool and made some minor adjustments. The co-investigator is a current graduate student in the Human Nutrition department at The Ohio State University with previous Bachelor’s education background in nutrition and dietetics from University of Missouri. The adjustments were sent back to the initial translator and confirmed for agreement before the translated version of the questionnaire was created. Both individuals who took part in the initial translation process of the questionnaire are native
Arabic speakers who are proficient in both speaking and writing in both Arabic and English.

The second step was to have the translated version of the instrument back translated from Arabic back into English to ensure successful translation prior to the adoption of the tool in assessing its face validity. The person selected to perform the back translation was a male, native Arabic speaker (from Kuwait) who also speaks and writes in both languages. This person is employed in the biomedical engineering field and has no previous background related to food security or any previous knowledge of food security questionnaires.

The back translator was provided with the Arabic version of the questionnaire and asked to translate each question into English. The back translation was then crosschecked with the original English version of the questionnaire to confirm a greater than 90 percent success of the Arabic translation.

### 3.3.3 PARTICIPANT RECRUITMENT

Participants were recruited through flyers posted at various locations in the community, such as local food stores and mosques (See Appendix A). Bilingual flyers were designed to capture potential participants’ interest and invite them to participate in a study regarding an Arabic-language food security questionnaire. Potential participants were then able to contact the Arabic-speaking co-investigator via telephone or email provided on the flyer to enroll in the study. The co-investigator was then able to set up and arrange potential
dates for focus group sessions with the participants and conduct the focus
groups at local community locations, or at volunteering participants’ homes.

Face validity was assessed via a convenience sample from the greater
Columbus, Ohio area. Participants were considered eligible to participate in the
research study if they were head-of-household men or women and from an
Arabic-speaking country. Subjects were selected to participate in the focus
group based on volunteering and first-come, first-served basis. A total of 27
eligible subjects participated. All 27 participants were head-of-household
women and from a variety of Arabic-speaking countries, including: Egypt, Iraq,
Jordan, Lebanon, Morocco, Palestine, and Syria. No actual demographic
information was collected from the participants largely due to the short time in
which the focus groups were conducted. Participants who completed the focus
group participation were given a monetary incentive in the form of a $30 grocery
store gift certificate to compensate them for their time.
3.3.4 FOCUS GROUP PROTOCOL

The focus group method was selected to observe and gather participants' perceptions of food insecurity, language interpretations pertaining to ease of language and word choice used in the translation in a group setting.

Eligible participants were divided into 4 groups following Kruger's focus group protocol (3). Kruger's protocol involves a trained moderator leading several homogenous focus groups ranging in size from 6 to 8 participants in a naturalistic
manner (3). A naturalistic manner means that although the discussions are structured or semi-structured (following a script), they maintain room for natural conversation to occur surrounding the topic of discussion (3). It is necessary to conduct multiple focus groups to gather and a variety of views on the topic of discussion or until the groups saturated in terms of the insight they are able to provide. The focus groups are usually held in the same manner, following a focus group script that acts as an interview guide and tape-recorded to ensure data is documented. Data collected is reported qualitatively by revealing common themes generated from all focus group data.

For this study, focus group sessions were led by the native Arabic-speaking co-investigator, who trained on focus group moderating using Kruger’s books on focus group research in advance of conducting the groups. Training was conducted by familiarizing with Kruger’s focus group methods (3) and data analysis and reporting results (36) well in advance of conducting the focus group interviews.

The focus group sessions lasted approximately 2 hours and were recorded using two tape recorders and hand-written notes. The tape-recording was to ensure ease of gathering all of the pertinent information obtained during the session without having to write everything down. Light snacks and refreshments were also provided during the group sessions and a 10-minute break was offered to the groups during the middle of the focus group session.

The session began with collecting signed consent from all participants using an Arabic-translated consent form (See Appendix B, C). The moderator
passed out two copies of the consent form (one to be signed and returned and one for the participants) and highlighted some of the important information such as the contact information for the principal investigator and the Office for Responsible Research Practices. Participants were made aware that confidentiality would be maintained by not linking their responses with any of their identifying information and that providing their signatures would indicate their consent to participate in the focus groups.

After participant consent was obtained, the focus group sessions began with a brief icebreaker, which included the exchange of introductions, which included asking some of the questions below:

![Figure 3.2 Icebreaker sample questions](image)

Then, the co-investigator, who was also the focus group moderator, shared some of the same personal information with the focus group participants to establish rapport and set the stage for the following discussion.
The majority of the discussion focused on gathering the participant’s perceptions of the language interpretation of the tool, specifically pertaining to the question translations of the food security questionnaire. Participants were provided paper copies of the translated questionnaire and were encouraged to write on them during the discussion. The discussion followed the focus group script (See Appendix D), which entailed asking each of the 19-items from the translated questionnaire out loud, and allowing participants to discuss the translations. The dialogue between participants was unstructured, however the moderator used some used discussion-prompting questions, such as those listed below:

![Diagram of discussion questions]

Figure 3.3 Focus group discussion questions

After each question was read out loud and either question clarity agreement was reached or disagreement and recommendations were made, the moderator read the recommended version of the question and examined
group agreement/disagreement before moving onto the next question. This format was followed through in each of the 19 questions.

### 3.3.5 DATA ANALYSIS

Data collected from focus groups via tape recording and hand-written notes were transcribed. The co-investigator along with an undergraduate research assistant with proficiency in both speaking and writing in Arabic transcribed the focus group data. Transcribing the focus groups was completed by:

![Diagram](image)

**Figure 3.4** Data transcription process

After completing the transcriptions, focus group data were analyzed. Transcribed data was coded into major and minor themes, allowing for the identification of key concepts. The co-investigator was primarily involved in the coding of the data *(See Figure 3.2)*. The coding process was completed by:
Figure 3.4 Data analysis process
3.3.6 RE-TESTING THE MODIFICATIONS

After coding the data and identifying the major and minor themes across all groups, modifications were put into place based on the recommendations given. The co-investigator modified the existing version of the translation and had
it reviewed by an expert. The expert was a person who was a native Arabic speaker who proficient in speaking and writing Arabic at a higher level. The modifications were also reviewed by the undergraduate research assistant who provided relevant feedback.

Finally, a post-focus group session was organized with participants from one of the initial focus group sessions. This session was significantly shorter than the original session and was conducted in the same manner, following the focus group protocol. The only differences were that the paper copy of the questionnaire that the participants received included a side-by-side comparison of the original questionnaire and the new recommendations. Participants were able to visually compare each question side-by-side and agree or disagree with the modifications made to the questionnaire after the initial focus group data was analyzed. In this case, the moderator read the original questions out loud first followed by the modified question and opened up the conversation for feedback and recommendations.

Data from the post-focus group was used to confirm and verify the modifications. Data gathered also presented thoughtful new recommendations, all of which were used to create the final version of the translated questionnaire.
3.4 RESULTS

Focus groups were held during the fall of 2011 and groups ranged in size from 3 to 11 participants per group for a total sample of 27 subjects. All focus group participants were head-of-household, Arabic-speaking women. Most participants were recruited through several key individuals who were prominently active in the community through the local mosques. The active community leader was able to enroll members of the community to participate in the focus groups. Focus group sessions were held either in a common room at a local mosque or at the home of the community leader who helped gather the women for the focus groups. A post-focus group was conducted with several participants from one of the initial focus groups conducted. Individuals who participated in the post-focus group provided feedback and recommendations on the modifications made to the original translation.

(a) Questionnaire Response Choices

All questions on the questionnaire were written using a filter or contingency question format in which respondents were better able to determine whether or not they were qualified to answer the subsequent question (16). This was illustrated through (a) yes and (b) no (go to the next question) response choices for the first part of the question. This type of question filters out the respondents who are able to answer the following part of the question, which asks about the frequency of the experience.
In the translation, the letters (أ), (ب), and (ج) correspond to (a), (b), and (c) values. In both language versions of the questionnaire, the letters hold no meaning value except to act as a placeholder for the answer choice. Answer choices for the second part of the question translate to the same meaning in both languages. *(See Table 3.1)* Participants in all groups agreed that the response choices and the definitions provided were appropriate. Participants suggestions the addition of “during the last three months” to be added to the end of the “How many times did this happen” question.

<table>
<thead>
<tr>
<th>Questionnaire Response Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Version</strong></td>
</tr>
<tr>
<td>How many times did this happen?</td>
</tr>
<tr>
<td>(a) Frequently (almost every day)</td>
</tr>
<tr>
<td>(b) Sometimes (some days but not every day)</td>
</tr>
<tr>
<td>(c) Rarely (on only 1 or 2 days)</td>
</tr>
<tr>
<td><strong>Arabic Version</strong></td>
</tr>
<tr>
<td>كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟</td>
</tr>
<tr>
<td>(أ) بتكرار (كل يوم تقريباً)</td>
</tr>
<tr>
<td>(ب) أحياناً (بعض الأيام ولكن ليس كل يوم)</td>
</tr>
<tr>
<td>(ج) نادراً (ليوم أو يومين فقط)</td>
</tr>
</tbody>
</table>

*Table 3.1 Questionnaire response choices*

(b) **Focus Group Common Themes**

Focus group data identified the following major themes: (1) question structure must be shifted allowing the subject of the question to precede the time period asked about; (2) question terminology must be simplified in all questions; and that (3) all questions were considered relevant and applicable as they range in degree of food insecurity severity. Minor themes revealed: (4) general
directions should be included for the first 12 questions directed to adults (over age 18) living in the household, and that (5) questions should be written in plural form rather than singular form. (See Table 3.2)

<table>
<thead>
<tr>
<th>Focus Group Major and Minor Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Allow the subject of each question to precede the time period asked about in all questions.</td>
</tr>
<tr>
<td>2) Question terminology and word choice must be simplified in all questions.</td>
</tr>
<tr>
<td>3) All questions were considered relevant and applicable as they range in degree of severity.</td>
</tr>
<tr>
<td>4) Include general directions for first 12 questions to be directed towards all adults (over age 18) living in the household.</td>
</tr>
<tr>
<td>5) Address all questions in plural format rather than singular form.</td>
</tr>
</tbody>
</table>

Table 3.2. Focus group major and minor themes; (1)(2)(3) = Major Themes, (4)(5) = Minor Themes
3.5 DISCUSSION

3.5.1 FOCUS GROUP PARTICIPANTS AND SETTING

Conducting focus groups to assess face validity of the translated tool may be considered a subjective judgment call; however, in order to improve the quality of a face validity assessment, it becomes critical to select persons who may be considered “experts” in the area the tool measures. Therefore, a focus group method with convenience sampling was selected to perform this study. Focus groups provided the desired atmosphere to stimulate participant interaction when discussing food insecurity and hunger in general as well as their own personal experiences.

Upon conducting the actual focus groups, only 1 out of the 4 focus groups took place in a public community setting. The remaining 3 out of 4 of the groups were conducted at the home of the community leader that helped gather the participants for the group. This created a safe, and comfortable environment as most of the women were already familiar with the other women in the focus group or at least attended the same local mosque. Providing a safe and comfortable environment was key in having a successful focus group.

Participants were very welcoming and eager to help by offering their recommendations during the focus group sessions. Most sessions started out with a lengthy ‘meet and greet’ session as is commonly expected in Arab culture. Participants were eager to share their own personal experiences with food insecurity and their coping strategies.
3.5.2 QUESTIONNAIRE RESPONSE CHOICES

Participants agreed that the definitions provided in parenthesis behind each response choice were beneficial. Most revealed a sense of uncertainty regarding the time period asked about, stating that they would often select a response choice based on the past month instead of the last three months as indicated in each question. This led to the inclusion of the phrase *(during the last three months)* to the second part of the question, which asks *(How often did this happen?)*. Post-focus group participants confirmed this change was a useful reminder, as it would ensure more accurate responses.

3.5.3 MAJOR THEME (1)

The first major theme was to (1) allow the subject of each question to precede the time period asked about. Participants identified that they thought the questionnaire was too literal in translation and that starting questions with “During the last three months" is not practical in the Arabic language. Rather, it is more structurally appropriate and meaningful to shift this phrase to the end of each question and start each question with the subject being asked about.
3.5.4 MAJOR THEME (2)

The second theme was that (2) question terminology and word choice must be simplified. Participants in every focus group agreed that the questionnaire translation was understandable and appropriate; however, several individuals pointed out that the translation was too literal and did not flow as well in Arabic as it did in English.

"So in Arabic you want to begin with [Were you...Did you...] so it can flow as a question...but the wording of the question conveys the information...but it's not as strong in Arabic...I mean if someone knows Arabic it won't be original Arabic"

"But the translations is still very clear"

"I mean it's clear that it was in English and translated literally into Arabic"

-Focus Group 4

"Were you prevented...’ I mean let's say...I mean it comes first in that order in Arabic that [were you] 'prevented by lack of money or other resources from obtaining nutritious foods’"

-Focus Group 4

"Were you...’ not ‘did it happen that...”

-Focus Group 4

"هل منعك... يعني نقول... يعني بتجيبين أول شي ترتبين بالعربي انو منعك نقص المال او الموارد الأخرى من الحصول على الاطعمة المغذية”

-Focus Group 4

"هل اضطررت... مش حدث وان...”
Most participants agreed that simplifying question terminology by removing filler words would strengthen the translation. A majority of the changes to omit filler words did not impact or change the meaning of the questions. These were changes such as removing prepositions in certain parts of each question.

Only a few questions sparked word choice debates, such as question 7 and 8, which ask about eating less and eating a meal less. Participants agreed that more clarification was needed and suggested including the word “quantity” as a phrase that read, “eat less quantity.”
Another word choice change that was agreed upon was to change the word “ate” to “consumed” because participants felt that it was more appropriate and linguistically appealing.

"I mean here it tells you that you ‘ate a meal less’...I mean for example if I told you: you had to eat a meal less...which meal less? It mean you removed a meal from your diet...that means one meal less...it doesn't mean less quantity"

"If it means that you ate less quantity in the meal then it would say quantity less...but here it says one meal less meaning that's why you are a meal less"

"The quantity and number [of meals]...the quantity is in number 7 and the meal is in number 8..."

-Focus Group 4
3.5.5 MAJOR THEME (3)

The third major theme was that (3) all questions were considered relevant as they range in degree of severity. Overall, all groups recognized that all questions were considered relevant. This was, however, difficult to get to due to the fact that almost all questions on the questionnaire start and end the same way with the phrase “During the last three months” in the beginning and “because of lack of money or other resources necessary to obtain food” in the end. After lengthy discussion, it was agreed that each question was considered unique and relevant due to several key words underlined in each question.

"I realized that in these questions you have to think…really understand [the meaning] of the questions"

“The meaning is different…because the structure of the questions is similar the questions look similar…but if someone looks specifically at the words…the words have more meaning”

-Focus Group 2

"لو انتي بتعتني فيه بتتكرري فيه بتحسي أنه في...معنى ثاني"?

“If you really think about the meaning you’ll feel that there is [a difference]…another meaning”

-Focus Group 1
3.5.6 MINOR THEME (4)

A minor theme was to (4) include of general directions for the first 12 questions since there were directions targeting questions 13 to 19 towards children and adolescents in the household, participants felt it would be better to provide directions for the first 12 questions targeted towards adults over the age of 18.

3.5.7 MINOR THEME (5)

Along the same lines was minor theme (5), which was to address all questions in plural form rather than in singular form. Most participants agreed that the plural form was sufficient enough in implying that the question was directed towards the person answering the questionnaire and any other people living in their household. The two minor themes resulted in changes that helped to shorten all questions by removing the phrase “you or anyone else living in your household”, making it easier to read.

"It's not specific...I'll tell you...all of the questions are detailed meaning it asks you about the type [of food] that you like...then the type you don't like...after it asks about the number of times...and then it asks about one meal...then during the meal you ate less and like that so it's diving the details...I mean it 'broke down’ the questions like we say in Arabic...meaning every meal and how you eat it right...like this was three meals all gone and that's it and this one just one meal and this [questionnaire] divides the questions by the details"

-Focus Group 4
3.5.8 IMPORTANT OTHER FINDINGS

One of the coding categories used during data analysis grouped certain responses in an “Important Other” category that was relevant information surrounding the questionnaire but was not directly pertaining to the translation of the actual tool itself. Of the issues raised in this category was participants’ concern with geographical location differences. All groups raised this concern at some point during the focus group session, often linking and relating the use of this questionnaire in the United States versus the use of the questionnaire at “home” with home being their respective native country. Many participants felt that this questionnaire would be more applicable outside of the United States, sharing that either they or somebody they knew had experienced some of the more severe items on the tool.

“When [we] talk to someone with respect we talk in plural...so like we talk to God”

“But there are some languages that for the guardian of the household is always addressed in plural form”

“No ’did it happen that any adult in the household’ because mainly if you say the word ’were any of you’ it means any adult in the household”

-Focus Group 3
"I mean I don't know is this questionnaire to be administered with the goal I mean for like the Middle East region? or is it for here?"

"Yeah here there are a lot of different issues than in our country...our country has different issues"

-Focus Group 4

"أنتي مثلاً استنلني سؤال كونا احنا هون عن وضعنا الحالي لو تسنلي مثلا عن بلاد عربنا خلنا أننول مثلا فلسطين؟"

"Are you asking, for example, the questions as though we are [living] here in our current state or are you asking, for example, about our Arab countries let's say like Palestine?"

-Focus Group 1
3.6 IMPLICATIONS

The knowledge gained from this study indicates the importance of an in-depth adaptation of a language and cultural appropriate tool in order to guarantee its suitability for use in its target population. The availability of such tool may enhance the collection of data as well as data quality in the MENA region, thus accelerating research on food security in this region.

In 1994, the FAO launched the Special Program for Food Security (SPFS) whose goals are to adopt a more worldwide effort to decrease the growing rates of hunger and malnutrition by implementing National Programs for Food Security (NPFS) and Regional Programs for Food Security (RPFS) (37). The SPFS seeks to achieve this goal by developing and implementing programs on both a national and regional level. The programs that emerge are all developed and implemented by the governments of the participating countries (37). Currently, there are 106 countries participating worldwide; once a country enters the program, a technical support team is established along with appropriate FAO representatives in that region, creating a team that is able to target the food security issue from the identification to the implementation of support programs (37). By having a validated, Arabic-language instrument available to gather data in the MENA region, this may help catalyze governmental initiatives to address and develop programs to target decreasing hunger and malnutrition in the region.
On a more global level, the implications of this research is highly relevant as the Committee on World Food Security asked the FAO to revise the methodology used for estimating hunger in order to provide more timely updates in the *State of Food Insecurity 2011* report (38). This has led to the collaboration of experts in the field that have taken place such as the workshop held in February 2011 by the National Academy of Sciences and the round table sponsored by The Committee on World Food Security held in Rome late last year (38).
CHAPTER 4

EPILOGUE

4.1 CONCLUSIONS

Developing validated food security measures equip relevant stakeholders with better sense of how to develop and implement programs for interventions on a larger scale. The knowledge gained from this study on hunger and food insecurity perceptions specifically pertaining to the translated model of the instrument indicate the importance of an in-depth adaptation of a translated tool in order to guarantee its suitability in the target population. This study allows a better adaptation of the tool into the Arabic language and supports the further development of a global household food security scale.

On a larger scale, the validation of language-appropriate measures is critical for implementation in the target population. In the State of Food Insecurity 2011 report, we see the call to revise FAO methodology for measuring hunger. Therefore, the knowledge gained from this study further support the development of a global household food security scale.

4.2 LIMITATIONS

There may be several limitations in this study. One limitation may be the extent of generalizability and the external validity of our findings as focus group
research is not intended to generalize (37). Another limitation is that despite being native Arabic-speakers from Arabic-speaking countries, our participants were permanent residents of the United States. On the other hand, this limitation plays into one of the key strengths of this study, which was that there was adequate representation from a variety of Arabic-speaking countries that we would not have otherwise had had we chosen to implement the questionnaire a specific country.

4.3 RECOMMENDATIONS

Future studies may look to assess other validities of this questionnaire. Methods for improving external validity include replicating the study in various locations at various times. Future work may also look to implement the face-validated version of the translated questionnaire among Arabic-speaking populations, especially those in differing geographical locations from that of our study. This may be especially beneficial to implement the questionnaire in some countries from the MENA regions as opposed to Arabic-speaking populations elsewhere.
REFERENCES


APPENDIX A

Recruitment Flyer

Arabic/English
Arabic-speaking Participants Needed...

إذا كنت رب الأسرة فشارك معنا...

Arabic-speaking head of households are invited to participate in a study on an Arabic-language Food Security Questionnaire.

انتم مدعوون للمشاركة في استبيان عن الأمن الغذائي.

Participants will be compensated up to $30

 سيتم دفع مبلغ $30 مقابل المشاركة في هذه الدراسة.

للمزيد من المعلومات يرجى الاتصال ب: 
د. هوجو كينونيز | فاطمة الغضبان
تелефون: (614) 292-0042
Email: al-ghadban.1@osu.edu

For more information, contact:
Dr. Hugo Melgar-Quinonez | Fatima Al-Ghadban
The Ohio State University
Tel (614) 292-0042
Email al-ghadban.1@osu.edu
APPENDIX B

Consent Form

English Version
The Ohio State University Consent to Participate in Research

Study Title: Assessing the face validity of an Arabic-language version of the Escala Latinoamericana y Caribena de Seguridad Alimentaria (ELCSA) in Arabic-speaking populations

Researcher: Dr. Hugo Melgar-Quinonez

Sponsor: N/A

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to sign this form and will receive a copy of the form.

Purpose:
The purpose of this study is to gain insight on an Arabic-translation of a food security questionnaire. We hope to learn about your perceptions on hunger and food insecurity as well as your thoughts and feelings on how well the translation of the questionnaire relates. We are interested in all opinions on this matter and every person’s viewpoint is equally important to us.

Procedures/Tasks:
We will audio record the focus group session to ensure that we do not miss any comments from the discussion. In order to distinguish between members of the group, we ask that you speak in a loud, clear voice and that only one person speaks at a time. Although we cannot guarantee complete confidentiality, we can only request that we all agree to protect our focus group participant confidentiality by protecting the discussion that will take place.
Also, we will not take a formal break but feel free to step out if you feel the need to get food, drink, or use the restroom.

**Duration:**

This session will last approximately 2 hours. You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with The Ohio State University.

**Risks and Benefits:**

The information gained from the study will help researchers understand the viewpoints of Arabic-speaking individuals on the translated version of the food security questionnaire and help to find out more about this populations’ perceptions of hunger and food insecurity. The information gathered from the focus groups may provide the basic framework for future studies to be conducted using the questionnaire. There is no other direct benefit to you personally.

It is not possible to identify all potential risks; however, the researchers have taken the necessary measures to minimize any potential known or unknown risks that may result. It is not anticipated that any questions lead to emotional distress; however, if at any time you feel uncomfortable, you may choose to leave the discussion at any time.

**Confidentiality:**

Efforts will be made to keep your study-related information confidential. However, there may be circumstances where this information must be released. For example, personal information regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research):

- Office for Human Research Protections or other federal, state, or international regulatory agencies;
- The Ohio State University Institutional Review Board or Office of Responsible Research Practices;
- The sponsor, if any, or agency (including the Food and Drug Administration for FDA-regulated research) supporting the study.

**Incentives:**

To compensate for your time and participation, you will be paid in a $30 grocery store gift card at the end of the focus group session. If you choose to leave the focus group prior to the end of the session, your compensation will be pro-rated to the nearest half-hour of your participation.
Participant Rights:

You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By signing this form, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The Ohio State University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Contacts and Questions:

For questions, concerns, or complaints about the study you may contact Dr. Hugo Melgar-Quinonez at (614) 292-0042 or melgar-quinonez.1@osu.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

If you are injured as a result of participating in this study or for questions about a study-related injury, you may contact Dr. Hugo Melgar-Quinonez at (614) 292-0042 or melgar-quinonez.1@osu.edu.
Signing the consent form

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by signing this form. I will be given a copy of this form.

Printed name of subject ___________________________ Signature of subject ___________________________ AM/PM

Date and time ___________________________

Printed name of person authorized to consent for subject (when applicable) ___________________________ Signature of person authorized to consent for subject (when applicable) ___________________________ AM/PM

Date and time ___________________________

Investigator/Research Staff

I have explained the research to the participant or his/her representative before requesting the signature(s) above. There are no blanks in this document. A copy of this form has been given to the participant or his/her representative.

Printed name of person obtaining consent ___________________________ Signature of person obtaining consent ___________________________ AM/PM

Date and time ___________________________
APPENDIX C

Consent Form

Arabic Version
موافقة جامعة ولاية أوهايو للمشاركة في الأبحاث

عنوان الدراسة: تقييم النسخة العربية المترجمة من المقياس الأمن الغذائي في أمريكا اللاتينية وحوض الكاريبي للناطقين باللغة العربية.

الباحث: دكتور/ة هوج ميلغر كينتنيز.

هذه استمارة الموافقة للمشاركة في دراسة بحثية تحتوي على معلومات هامة ويجب عليك أن تعلم بأن المشاركة طوعية ولا تتزامن في طرح أي سؤال عن الدراسة قبل اتخاذ القرار للمشاركة أو عدم المشاركة.

إذا قررت المشاركة في هذه الدراسة سوف يطلب منك التوقع على هذه الاستمارة وسيتم تحكّم نسبتك من الاستمارة.

الغرض من البحث

الغرض من هذه الدراسة هو تجربة النسخة المترجمة من استبان الأمن الغذائي ومعرفة مفهوم حول موضوع الوضع وانعدام الأمن الغذائي وأيضاً معرفة مدى نجاح ترجمة الاستبان ونوع معرفة رأيك الشخصي في جميع الأنواع التي تتعلق بهذا الموضوع.

طريقة الدراسة

سوف يتم تسجيل المقابلة عند مناقشة المجموعة وذلك لضمان توثيق جميع التفاعلات في المناقشة، ومن أجل التمييز بين أعضاء المناقشة سنطلب منك أن تتكلم بصوت عال واضح، وأن كل شخص يتحدث بمفرده، وتتأكد من السرية الفورية عند جمع معلومات مضحكة وذلك لتلك الذين يتحدثون المناظر، ونحن لن نأخذ استراحة رسمية. لكن لا تتردد في الخروج إذا كنت تشعر بالحاجة للحصول على الطعام والشراب، أو استخدام دورة المياه.

مدة الدراسة

مناقشتك في مجموعة المناقشة سوف تتطلب ما يقارب 2 ساعة من وقتك ويمكنك إيقاف مشاركتك في مجموعة المناقشة في أي وقت من دون أن تواجه أي مشاكل، وقررلك لن يؤثر على علاقتك المستقبلية مع جامعة أوهايو.

مخاطر وفوائد الدراسة

النتائج الناجحة من الدراسة ستشجع البحاثيين على فهم وجهات نظر الأفراد عن مدى نجاح استبان ومعرفة المزيد من المعلومات عن تصورات المجتمع حول موضوع الوضع والأمن الغذائي، وقد تكون المعلومات التي جمعت من مجموعات المناقشة أن تفرض الإطار الأساسي لإجراء دراسات في المستقبل باستخدام هذا الاستبان، وليس هناك فائدة أخرى مباشرة لكم شخصيا.

ليس من الممكن تحديد المخاطر المحتملة قبل أن البحاثيين قاموا بالحند من أي مخاطر محتملة معرفة أو غير معرفة وليس من المتوقع أن مشاركتك قد تؤدي إلى أي أسلحة من الممكن أن تسبب اضطراب عاطفي، ولكن عند عودتك بعد الارتياب، يمكنك أن تختبر مغادرة المناقشة في أي وقت تريد.
الحوار:

للتعويض عن وقتكم ومشاركتكم في هذه الدراسة سيتم دفع مبلغ ما يقارب 30% بشكل بطاقة مشتركة عند نهاية المشاركة في هذه الدراسة وإذا اخترت تترك المجموعة قبل نهاية الوقت سوف يكون تعويضكم يتناسب إلى أقرب نصف ساعة من المشاركة.

السرية:

الباحثون سيستمرون أقصى جهودهم لإبقاء جميع معلوماتكم سرية، ومع ذلك قد تكون هناك ظروف حيث يجب الإفراج عن هذه المعلومات إذا كان ذلك مطلوباً من قبل دولة القانون. أيضاً قد يتم استعراض السجلات حسب القواعد القانونية. يشمل ذلك:

- مكتب حماية الأبحاث الإنسانية أو غيرها من الدولة الاتحادية، أو الوكالات التنظيمية الدولية.
- مجلس مراجعة الأبحاث لجامعة ولاية أوهيو أو مكتب ممارسات الأبحاث المسنونة
- الراعي أو وكالة دعم الدراسة.

حقوق المشاركة:

من الممكن أن تختار إذا كنت تريد المشاركة أو عدم المشاركة في هذه الدراسة. وإذا قررت المشاركة يمكنك أن تترك الدراسة في أي وقت وأي قرارك الذي ستتخذه لن يكون هناك أي عقوبة عليك ولن تخسر أي من امتيازاتك المعتادة.

المزيد من المعلومات:

للإجابة على أي أسئلة أو إشكال حول الدراسة يمكنكم الاتصال بالدكتور/ هوغو ميلغار كينونيز على:
melgar-quinonez.1@osu.edu
رقم التلفون: 614 292 0042 (614) أو الأيميل:
رقم التلفون: 614 800 678 6251
إذا واجهتم أي مشكلة أثناء المشاركة في هذه الدراسة يمكنكم الاتصال بالدكتور/ هوغو ميلغار كينونيز على:
melgar-quinonez.1@osu.edu
رقم التلفون: 614 292 0042 (614) أو الأيميل:
لاستفسار عن حقوقكم كشخص مشارك في هذه الدراسة أو طرح الأسئلة أو الشكاوى لشخص ليس من ضمن فريق البحث يمكنكم الاتصال بمسؤول مشارك ممارسات الأبحاث على رخصة الباحث:
رقم التلفون: 614 800 678 6251

لاستفسار عن هذه الدراسة يمكنكم الاتصال بالدكتور/ هوغو ميلغار كينونيز على:
melgar-quinonez.1@osu.edu
رقم التلفون: 614 292 0042 (614) أو الأيميل:
إذا واجهتم أي مشكلة أثناء المشاركة في هذه الدراسة يمكنكم الاتصال بمسؤول مشارك ممارسات الأبحاث على رخصة الباحث:
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melgar-quinonez.1@osu.edu
رقم التلفон: 614 292 0042 (614) أو الأيميل:
TO SIGNATURE ON THIS DOCUMENT DOES NOT BIND YOU IN ANY WAY Tổng hợp các quyền của bạn và bạn sẽ không bị buộc phải ký giấy tờ này. 

__________________________

Signature

__________________________

Signature of Witness (if applicable)

__________________________

Signature of Investigator (if applicable)

__________________________

Date and Time

__________________________

Date and Time
APPENDIX D

Focus Group Script

English Version
Focus Group Script

“Greetings everybody. I would like to both welcome you and thank you for your participation in today’s focus group. The purpose of our focus group is to discuss the translation of an Arabic-version of a food security questionnaire, but before we get into our discussion, I would first like to introduce myself.”

“My name is Fatima Al-Ghadban and I am an international graduate student at The Ohio State University. I am originally from Kuwait and been in the United States for the last five years to pursue my educational degrees. I’ve spent some time going to school in Missouri for Nutritional Sciences and then decided to continue in the same field right here in Columbus, Ohio at The Ohio State University. I have had so many great opportunities getting involved in the nutrition field, but I can definitely say that this project is the one I am most excited about because it allows me to use both my interest in nutrition and my ethnic background, being an Arabic-speaking graduate student.”

“Before we get started discussing the questionnaire, it’s important to me that you all know that your participation in this discussion is completely voluntary. I will be handing out a consent form for you to sign after reading. It contains important information for you as a participant should you chose to participate in our study.”

[pass out consent forms, get participant signatures…]

“Please consider the information carefully and feel free to ask any questions before you make the decision to participate. If you decide to participate, you will be given a copy of this consent form for your personal records. If you have any questions that I am not able to directly answer for you, you may contact the principal investigator of this project, Dr. Hugo Melgar-Quinonez at telephone number (614) 292-0042 or email melgar-quinonez.1@osu.edu or you may contact Ms. Sandra Meadows of the Office for Responsible Research Practices at The Ohio State University at telephone number 1-800-678-6251.”

“Before we dive into the content of the questionnaire, I also want to stress that we are not collecting any identifying information from you. We will, however, introduce ourselves on first-name name basis so we can all participate comfortably in the conversation. Please note that your responses and contributions to this focus group will not be linked to you personally and that although we cannot guarantee complete confidentiality, we can only request that we all agree to protect our focus group participant confidentiality by protecting the discussion that will take place.”

“The focus group will last approximately 2 hours and I would like to thank you in advance for dedicating your time to participate. The session will be recorded so that we won’t miss any important information from the session. Because of this, we will ask you to speak in a loud and clear voice and to try and let one person

1 of 7
speak at a time so that we do not speak over each other. We will not take a
formal break during the session but should you feel the need to step out to the
restroom or for a food or drink break, please feel free to do so and then you may
rejoin us.”

“As our flyer stated, you will be compensated for your time, but should you chose
to leave before the end of our focus group session, your compensation will be
pro-rated to the nearest half-hour of your participation.”
[collect consent forms]

“So let’s begin. Like I said, the purpose of this study is to gain insight on the
Arabic-translated version of this food security questionnaire. We hope to learn
about your thoughts and feelings on how well the translation of the questionnaire.
We are interested in all opinions on this matter and every person’s viewpoint is
equally important to us.”

“We will start off by discussing each question separately. I will start off by reading
the question out loud to you and we will open up the discussion on what your
thoughts, feelings, and experiences are pertaining to the language and wording
of the following questions. Then, I will provide you with writing utensils and give
you enough time to fill out the survey after we have completed our discussion.”
[ask in order; read question, discuss translation with group, move on to the next
question—repeat for each question]…

1. During the last three months, were you worried that your household
would run out of food because of lack of money or other resources to
obtain food?
   a. Yes
   b. No (go to question 2)

   1a. How often did this happen?
      a. Frequently (almost every day)
      b. Sometimes (some days but not every day)
      c. Rarely (on only 1 or 2 days)

2. During the last three months, did your household run out of food
because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 3)

   2a. How often did this happen?
      a. Frequently (almost every day)
      b. Sometimes (some days but not every day)
      c. Rarely (on only 1 or 2 days)
3. During the last three months, did your household lack of enough money or other resources to obtain a nutritious and varied diet?
   a. Yes
   b. No (go to question 4)

3a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

4. During the last three months, did you or any adult in your household have to consume just one or two kinds of food because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 5)

4a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

5. During the last three months, were you or any adult in your household not able to eat the kinds of foods you preferred because of a lack of resources?
   a. Yes
   b. No (go to question 6)

5a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

6. During the last three months, did you or any adult in your household have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?
   a. Yes
   b. No (go to question 7)

6a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
7. During the last three months, did you or any adult in your household have to eat a smaller meal than you felt you needed because there was not enough food?
   a. Yes
   b. No (go to question 8)

7a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

8. During the last three months, did you or any adult in your household not eat breakfast, lunch or dinner because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 9)

8a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

9. During the last three months, did you or any adult in your household eat less than you thought you should because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 10)

9a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

10. During the last three months, was there ever no food to eat of any kind in your household because of lack of resources to get food?
    a. Yes
    b. No (go to question 11)

10a. How often did this happen?
    a. Frequently (almost every day)
    b. Sometimes (some days but not every day)
    c. Rarely (on only 1 or 2 days)
11. During the last three months, did you or any adult in your household feel hungry but couldn’t eat because there was no food nor any way to obtain it?
   a. Yes
   b. No (go to question 12)

   11a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

12. During the last three months, did you or any adult in your household go without eating for a whole day there was no food nor any way to obtain it?
   a. Yes
   b. No (go to question 13)

   12a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

The following questions are about children up to age 18 living in your household.

13. During the last three months, did any child in your household not receive a nutritious and varied diet because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 14)

   13a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

14. During the last three months, did any child in your household have to consume just a few types of food because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 15)

   14a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
15. During the last three months, did any child in your household eat less than you thought he/she should because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 16)

15a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

16. During the last three months, did you have to serve less food to any child in your household because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 17)

16a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

17. During the last three months, did any child in your household feel hungry but you could not get more food because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 18)

17a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

18. During the last three months, did any child in your household go to bed hungry because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 19)

18a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
19. During the last three months, did any child in your household go without eating for a whole day there was no food nor you had the possibility of obtain it?
   a. Yes
   b. No

19a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

“This concludes all of the questions on the questionnaire. I would like to thank you for providing your input on the translation of the questionnaire; your participation is greatly appreciated. Before we conclude our session, I am going to pass out some pens and ask you to complete the copy of the questionnaire you have before you before you leave. Feel free to take all the time you need and once you are done, you may hand in the questionnaire to me and I will give you your gift cards.”

[pass out pens, allow time for participants to complete surveys & collect…present participants with gift cards to compensate for their participation]

“Once again, I would like to personally thank you as well as on the behalf of Dr. Hugo Melgar-Quinonez who is the principal investigator of this project. We greatly appreciate your time and participation in our study.”
APPENDIX E

ELCSA Questionnaire

English Version
Escala Latinoamericana y Caribeña de Seguridad Alimentaria (ELCSA)

1. During the last three months, were you worried that your household would run out of food because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 2)

   1a. How often did this happen?
      a. Frequently (almost every day)
      b. Sometimes (some days but not every day)
      c. Rarely (on only 1 or 2 days)

2. During the last three months, did your household run out of food because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 3)

   2a. How often did this happen?
      a. Frequently (almost every day)
      b. Sometimes (some days but not every day)
      c. Rarely (on only 1 or 2 days)

3. During the last three months, did your household lack of enough money or other resources to obtain a nutritious and varied diet?
   a. Yes
   b. No (go to question 4)

   3a. How often did this happen?
      a. Frequently (almost every day)
      b. Sometimes (some days but not every day)
      c. Rarely (on only 1 or 2 days)

4. During the last three months, did you or any adult in your household have to consume just one or two kinds of food because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 5)

   4a. How often did this happen?
      a. Frequently (almost every day)
      b. Sometimes (some days but not every day)
      c. Rarely (on only 1 or 2 days)
5. During the last three months, were you or any adult in your household not able to eat the kinds of foods you preferred because of a lack of resources?
   a. Yes
   b. No (go to question 6)

5a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

6. During the last three months, did you or any adult in your household have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?
   a. Yes
   b. No (go to question 7)

6a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

7. During the last three months, did you or any adult in your household have to eat a smaller meal than you felt you needed because there was not enough food?
   a. Yes
   b. No (go to question 8)

7a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

8. During the last three months, did you or any adult in your household not eat breakfast, lunch or dinner because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 9)

8a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
9. During the last three months, did you or any adult in your household eat less than you thought you should because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 10)

9a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

10. During the last three months, was there ever no food to eat of any kind in your household because of lack of resources to get food?
   a. Yes
   b. No (go to question 11)

10a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

11. During the last three months, did you or any adult in your household feel hungry but couldn’t eat because there was no food nor any way to obtain it?
   a. Yes
   b. No (go to question 12)

11a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

12. During the last three months, did you or any adult in your household go without eating for a whole day there was no food nor any way to obtain it?
   a. Yes
   b. No (go to question 13)

12a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
The following questions are about children up to age 18 living in your household.

13. During the last three months, did any child in your household not receive a nutritious and varied diet because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 14)

   **13a. How often did this happen?**
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

14. During the last three months, did any child in your household have to consume just a few types of food because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 15)

   **14a. How often did this happen?**
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

15. During the last three months, did any child in your household eat less than you thought he/she should because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 16)

   **15a. How often did this happen?**
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

16. During the last three months, did you have to serve less food to any child in your household because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 17)

   **16a. How often did this happen?**
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
17. During the last three months, did any child in your household feel hungry but you could not get more food because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 18)

17a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

18. During the last three months, did any child in your household go to bed hungry because of lack of money or other resources to obtain food?
   a. Yes
   b. No (go to question 19)

18a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

19. During the last three months, did any child in your household go without eating for a whole day there was no food nor you had the possibility of obtain it?
   a. Yes
   b. No

19a. How often did this happen?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
APPENDIX F

ECLSA Questionnaire

Arabic Translation / Version 1
مقاييس الأمن الغذائي للأسر في أمريكا اللاتينية وحوض الكاريبي:
Escala Latinoamericana y Caribeña de Seguridad Alimentaria (ELCSA)
Free Translation by Dr. Najwa Rizkallah and Amer Khader
Reviewed by Fatima A. Al-Ghadban

1. خلال الأشهر الثلاثة الماضية، هل حدث أن كنت قلقين أن نفد الغذاء في منزلكم بسبب نقص
   المال أو المواد الأخرى اللازمة للحصول على الغذاء؟
   أ. نعم
   ب. لا (انتقل إلى السؤال 2)

(1). كم مرة حدث ذلك؟
   أ. بكرار (كل يوم تقريباً)
   ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
   ج. نادرًا (ليوم أو يومين فقط)

2. خلال الأشهر الثلاثة الماضية، هل حدث وأن نفد الغذاء في منزلكم بسبب نقص المال أو
   المواد الأخرى اللازمة للحصول على الغذاء؟
   أ. نعم
   ب. لا (انتقل إلى السؤال 3)

(2). كم مرة حدث ذلك؟
   أ. بكرار (كل يوم تقريباً)
   ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
   ج. نادرًا (ليوم أو يومين فقط)

1 Rafael Pérez-Escamilla, PhD (1), Hugo Melgar-Quiñonez, MD, PhD (2), Mark Nord, PhD (3), Martha Cecilia Álvarez Uribe, Mr (4), Ana Maria segall-Correa, MD, PhD. (1) University of Connecticut, (2) The Ohio State University, (3) US Department of Agriculture, Economic Research Service, (4) Universidad de Antioquia, Medellín, Colombia, (5) Universidad de Campinas, Sao Paulo, Brasil


1 of 7
3. خلال الأشهر الثلاثة الماضية، هل حدث وأن لم تتمكن من الحصول على أطعمة غذائية وتنوعة بسبب نقص المال أو الموارد الأخرى؟
   
   أ. نعم
   
   ب. لا (انتقال إلى السؤال 4)

4.3) كم مرة حدث ذلك؟
   
   أ. بكرار (كل يوم تقريباً)
   
   ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
   
   ج. نادراً (ليوم أو يومين فقط)

4. خلال الأشهر الثلاثة الماضية، هل حدث وأن اضطررت أو اضطر أي شخص بالغ في منزلكم لاستهلاك نوع أو نوعين من الغذاء فقط بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء؟
   
   أ. نعم
   
   ب. لا (انتقال إلى السؤال 5)

4.4) كم مرة حدث ذلك؟
   
   أ. بكرار (كل يوم تقريباً)
   
   ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
   
   ج. نادراً (ليوم أو يومين فقط)

5. خلال الأشهر الثلاثة الماضية، هل حدث وأن لم تتمكن انت أو أي شخص بالغ في منزلكم من تناول أنواع الأغذية التي تفضلونها بسبب نقص الموارد؟
   
   أ. نعم
   
   ب. لا (انتقال إلى السؤال 6)

5.5) كم مرة حدث ذلك؟
   
   أ. بكرار (كل يوم تقريباً)
   
   ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
   
   ج. نادراً (ليوم أو يومين فقط)

2 of 7
6. خلال الأشهر الثلاثة الماضية، هل حددت أن اضطررت أو اضطررت أي شخص بالغ في منزلكم لتناول بعض الأغذية التي لم تكونوا تحدين تناولها بسبب نقص الموارد المالية؟

أ. نعم
ب. لا (انطلق إلى السؤال 7)

7(ا). كم مرة حدث ذلك؟

أ. بكركرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

ب. لا (انطلق إلى السؤال 8)

7(ب). كم مرة حدث ذلك؟

أ. بكركرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

8. خلال الأشهر الثلاثة الماضية، هل حددت أنكم أو أي شخص بالغ في منزلكم لم تتناولوا وجبة الإفطار أو الغداء أو العشاء بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء؟

أ. نعم
ب. لا (انطلق إلى السؤال 9)

8(ا). كم مرة حدث ذلك؟

أ. بكركرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)
9. خلال الأشهر الثلاثة الماضية، هل حدث وأنك أو أي شخص بالغ في منزلكم أكلتم أقل مما ينبغي أن تأكلوا بسبب نقص المال أو الموارد الأخرى؟

أ. نعم
ب. لا (انقل إلى السؤال 10)

9(أ). كم مرة حدث ذلك؟

أ. بتكرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم).
ج. نادرًا (ليوم أو يومين فقط).

10. خلال الأشهر الثلاثة الماضية، هل حدث وأن لم يتوقف أي نوع من الأغذية لتتناوله في منزلكم بسبب نقص الموارد للحصول على الغذاء؟

أ. نعم
ب. لا (انقل إلى السؤال 11)

10(أ). كم مرة حدث ذلك؟

أ. بتكرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم).
ج. نادرًا (ليوم أو يومين فقط).

11. خلال الأشهر الثلاثة الماضية، هل حدث وأنك أو أي شخص بالغ في منزلكم شرعتم بالجوع ولكن لم تستطيعوا أن تأكلوا لأنه لم تتتوفر أية أغذية ولم تتتوفر أية طريقة للحصول على الغذاء؟

أ. نعم
ب. لا (انقل إلى السؤال 12)
12. خلال الأشهر الثلاثة الماضية، هل حدث وأنك أو أي شخص بالغ في منزلك لم تأكلوا لمدة يوم كامل لأنه لم تتوفر أي طريقة للحصول على الغذاء؟

أ. نعم
ب. لا (انقل إلى السؤال 13)

12 (أ). كم مرة حدث ذلك؟

أ. بانتظام (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (في يوم أو يومين فقط)

الأسئلة التالية بخصوص الأطفال حتى سن 18 عاماً الذين يعيشون في منزلكم.

13. خلال الأشهر الثلاثة الماضية، هل حدث وأن لم تحصل أي طفل في منزلكم على أطعمة مغذية ومتنوعة بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء؟

أ. نعم
ب. لا (انقل إلى السؤال 14)

13 (أ). كم مرة حدث ذلك؟

أ. بانتظام (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (في يوم أو يومين فقط)

14. خلال الأشهر الثلاثة الماضية، هل حدث وأن اضطر أي طفل في منزلكم لاستهلاك أنواع قليلة من الأغذية بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء؟

أ. نعم
ب. لا (انقل إلى السؤال 15)

14 (أ). كم مرة حدث ذلك؟

أ. بانتظام (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (في يوم أو يومين فقط)
15. خلال الأشهر الثلاثة الماضية، هل حدث لأي طفل في منزلكم أن أقل أقل مما يعتقدون أنه يجب أن يأكل بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء؟
أ. نعم
ب. لا (انتقل إلى السؤال 16)

15(أ). كم مرة حدث ذلك؟
أ. بتكرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

16. خلال الأشهر الثلاثة الماضية، هل حدث وأن اضطررت أن تقدموا قدرًا أقل من الغذاء لأي طفل في منزلكم بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء؟
أ. نعم
ب. لا (انتقل إلى السؤال 17)

16(أ). كم مرة حدث ذلك؟
أ. بتكرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

17. خلال الأشهر الثلاثة الماضية، هل حدث لأي طفل في منزلكم أن شعر بالجوع ولكن لم تستطيعوا أن توفروا المزيد من الغذاء بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء؟
أ. نعم
ب. لا (انتقل إلى السؤال 18)
18. خلال الأشهر الثلاثة الماضية، هل حدث لأي طفل في منزلكم أن ذهب للنوم جانباً بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء؟

ا. نعم
ب. لا (انتقل إلى السؤال 19)

18(أ). كم مرة حدث ذلك؟

ا. ينكّر (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

19. خلال الأشهر الثلاثة الماضية، هل حدث لأي طفل في منزلكم أن لم يأكل لمدة يوم كامل لأنه لم يتوفّر أية أغذية ولم تتوفّر لكم أية إمكانية للحصول على الغذاء؟

ا. نعم
ب. لا

19(أ). كم مرة حدث ذلك؟

ا. ينكّر (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)
APPENDIX G

ELCSA Questionnaire

Arabic Translation / Version 2
استبيان الأمن الغذائي

الترجمة

الأسئلة التالية بخصوص أي شخص بالغ (فوق سن 18 عاما) الذين يعيشون في منزلكم.

1. هل كنتم قلقين أن ينفد الغذاء في منزلكم بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
   ٍع. نعم
   ٍب. لا (انتقال الى السؤال ٢)

١٠(١). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
   أ. بنكرار (كل يوم تقريبا)
   ب. أحيانا (بعض الأيام ولكن ليس كل يوم)
   ج. نادراً (ليوم أو يومين فقط)

2. هل نفد الغذاء في منزلكم بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
   ٍع. نعم
   ٍب. لا (انتقال الى السؤال ٣)

٢٠(٢). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
   أ. بنكرار (كل يوم تقريبا)
   ب. أحيانا (بعض الأيام ولكن ليس كل يوم)
   ج. نادراً (ليوم أو يومين فقط)
هل أعاكم نقص الود أو الموارد الأخرى من الحصول على أطعمة مغذية ومتنوعة خلال الأشهر الثلاثة الماضية؟

أ. نعم
ب. لا (انقل إلى السؤال 4)

كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟

أ. بكرار (كل يوم تقريبا)
ب. أحيانا (بعض الأحيان ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

هل اضطررت لاستهلاك نوع أو نوعين من الوجبات فقط بسبب نقص الود أو الموارد الأخرى اللازمة للحصول على الوجبات خلال الأشهر الثلاثة الماضية؟

أ. نعم
ب. لا (انقل إلى السؤال 5)

كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟

أ. بكرار (كل يوم تقريبا)
ب. أحيانا (بعض الأحيان ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

هل أعاكم نقص المواد من تناول أنواع الأغذية التي تفضلونها خلال الأشهر الثلاثة الماضية؟

أ. نعم
ب. لا (انقل إلى السؤال 6)

كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟

أ. بكرار (كل يوم تقريبا)
ب. أحيانا (بعض الأحيان ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)
6. هل اضطررت لتناول بعض الأغذية التي لم تكونوا تجربون تناولها بسبب نقص المواد الأخرى
للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
أ. نعم
ب. لا (إنتقل إلى السؤال 7)

7. كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
أ. بكرار (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادرًا (ليوم أو يومين فقط)

8. هل اضطررت لتناول كمية أقل مما شعرون أنكم تحتاجون إليه بسبب عدم توفر ما يكفي من الغذاء خلال الأشهر الثلاثة الماضية؟
أ. نعم
ب. لا (إنتقل إلى السؤال 9)

8(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
أ. بكرار (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادرًا (ليوم أو يومين فقط)
هل اضطررت لتناول أقل مما شعرت أنكم تحتاجون إليه بسبب نقص المال أو الموارد الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟

أ. نعم
ب. لا (إنتقل إلى السؤال 10)

9(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟

أ. بكرار (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

هل نفد جميع أنواع الأغذية في منزلك بسبب عدم توفر الموارد للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟

أ. نعم
ب. لا (إنتقل إلى السؤال 11)

10(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟

أ. بكرار (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

هل شعرت بالجوع ولم تجدوا ما تأكلونه بسبب نفاد جميع الأغذية وعدم توفر أية طريقة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟

أ. نعم
ب. لا (إنتقل إلى السؤال 12)

11(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟

أ. بكرار (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)
12. هل حدث أنك لم تأكلوا لمدة يوم كامل بسبب عدم توفر أية طريقة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
أ. نعم
ب. لا (انتقال إلى السؤال 13)

12(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
أ. بتكرار (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

الأسئلة التالية بخصوص الأطفال (حتى سن 18 عاماً) الذين يعيشون في منزلك.

13. هل حدث لأي طفل في منزلك أنه لم يحصل على أطعمة مغذية ومتنوعة بسبب نقص المال أو المواد الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
أ. نعم
ب. لا (انتقال إلى السؤال 14)

13(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
أ. بتكرار (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)

14. هل اضطر أي طفل في منزلك لاستهلاك أنواع قليلة من الأغذية بسبب نقص المال أو الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
أ. نعم
ب. لا (انتقال إلى السؤال 15)

14(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
أ. بتكرار (كل يوم تقريبا)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (ليوم أو يومين فقط)
15. هل تناول أي طفل في منزلكم أقل مما تعتقدون أنه يجب أن يتناول بسبب نقص المال أو المواد
الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
أ. نعم
ب. لا (انتقال إلى السؤال 16)

15(أ). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
أ. بنكرار (كل يوم تقريبا)
ب. أحيانا (بعض الأيام ولكن ليس كل يوم)
ج. نادرا (ليوم أو يومين فقط)

16. هل تضطرتم أن تقدموا قدرًا أقل من الغذاء لأي طفل في منزلكم بسبب نقص المال أو المواد
الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
أ. نعم
ب. لا (انتقال إلى السؤال 17)

16(أ). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
أ. بنكرار (كل يوم تقريبا)
ب. أحيانا (بعض الأيام ولكن ليس كل يوم)
ج. نادرا (ليوم أو يومين فقط)

17. هل شعر أي طفل في منزلكم بالجوع ولكن لم تستطيعوا أن توفروا له المزيد من الغذاء بسبب
نقص المال أو المواد الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟
أ. نعم
ب. لا (انتقال إلى السؤال 18)

17(أ). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟
أ. بنكرار (كل يوم تقريبا)
ب. أحيانا (بعض الأيام ولكن ليس كل يوم)
ج. نادرا (ليوم أو يومين فقط)
هل اضطر أي طفل في منزلكم للذهاب للنوم جنباً بجنب بسبب نقص العظام أو الموارد الأخرى اللازمة للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟

أ. نعم
ب. لا (إنتقل إلى السؤال 19)

18(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟

أ. بكرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (أي يوم أو يومين فقط)

هل حدث أي طفل في منزلكم أن لم يأكل لمدة يوم كامل بسبب عدم توفر أية أغذية أو أغذية إمكانية للحصول على الغذاء خلال الأشهر الثلاثة الماضية؟

أ. نعم
ب. لا

19(1). كم مرة حدث ذلك خلال الأشهر الثلاثة الماضية؟

أ. بكرار (كل يوم تقريباً)
ب. أحياناً (بعض الأيام ولكن ليس كل يوم)
ج. نادراً (أي يوم أو يومين فقط)
APPENDIX H

Questionnaire

English Version of Arabic Translation
Arabic Food Security Questionnaire

English Translation of Arabic Version

The following questions are about adults over age 18 living in your household.

1. Were you worried that your household would run out of food because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

1.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

2. Did your household run out of food because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

2.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

3. Did your household lack enough money or other resources necessary to obtain a nutritious and varied diet during the last three months?
   a. Yes
   b. No

3.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
4. Did your household have to consume just one or two kinds of food because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

4.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

5. Was your household unable to eat the kinds of food you preferred because of a lack of resources necessary to obtain food during the last three months?
   a. Yes
   b. No

5.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

6. Did your household have to consume food that you really did not want to consume because of a lack of resources necessary to obtain other types of food during the last three months?
   a. Yes
   b. No

6.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

7. Did your household have to eat less quantity of a meal than you felt you needed because there was not enough food during the last three months?
   a. Yes
   b. No

7.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
8. Did your household not eat a meal (breakfast, lunch, or dinner) because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

8a. How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

9. Did your household eat less than you thought you should because of lack of money or other resources necessary to obtain food during the past three months?
   a. Yes
   b. No

9a. How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

10. Was there ever no food of any kind to eat in your household because of lack of resources necessary to obtain food during the last three months?
    a. Yes
    b. No

10a. How often did this happen during the last three months?
    a. Frequently (almost every day)
    b. Sometimes (some days but not every day)
    c. Rarely (on only 1 or 2 days)

11. Did anyone in your household feel hungry but couldn’t eat because there was no food nor any way to obtain it during the last three months?
    a. Yes
    b. No

11a. How often did this happen during the last three months?
    a. Frequently (almost every day)
    b. Sometimes (some days but not every day)
    c. Rarely (on only 1 or 2 days)
12. Did anyone in your household go without eating for a whole day because there was no food nor any way to obtain it during the last three months?
   a. Yes
   b. No

12.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

The following questions are about children up to age 18 living in your household.

13. Did any child in your household not receive a nutritious and varied diet because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

13.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

14. Did any child in your household have to consume just a few types of food because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

14.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
15. Did any child in your household eat less than you thought they should because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

15.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

16. Did you have to serve less food to any child in your household because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

16.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

17. Did any child in your household feel hungry but you could not get more food because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

17.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)

18. Did any child in your household go to bed hungry because of lack of money or other resources necessary to obtain food during the last three months?
   a. Yes
   b. No

18.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)
19. Did any child in your household go without eating for a whole day because there was no food nor did you have the possibility of obtaining it?
   a. Yes
   b. No

19.a How often did this happen during the last three months?
   a. Frequently (almost every day)
   b. Sometimes (some days but not every day)
   c. Rarely (on only 1 or 2 days)