

Capstone for Impact Submission | GY2020

Project Title: Assessing the prevalence of food insecurity and barriers to food access in the Middle Eastern refugee population of Southeast Michigan

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Branch: Systems and Hospital Based Care

Path of Excellence: Global Health & Disparities

If this project can be continued by another UMMS student, please include your contact information or any other details you would like to share here:

N/A

Summary:

During fiscal year 2016, the United States admitted 84,995 refugees across its borders, a majority of these refugees hailed from Middle Eastern nations (Green, 2017). Of these newcomers, 5,039 refugees resettled in Michigan, the majority being from Syria or Iraq (Tanner, 2017). With the present influx of refugees into the United States, it has become necessary to explore the barriers facing these newcomers. Previous studies have demonstrated that refugee populations are at increased risk for food insecurity, which is defined as having a limited ability or uncertainty in accessing adequate, nutritious, or acceptable food (Vahabi and Damba, 2013). Refugees are more likely to face food insecurity for a variety of reasons which include: low household income (Hadley et al., 2010), shorter length of resettlement (Hadley et al., 2006), and language barriers (Vahabi and Damba, 2013). Acculturation, the outcome and process through which immigrants acquire and react to food-related habits of the dominant society, has also been linked to food insecurity (Hadley, et al., 2006). Importantly, food insecurity has been correlated with negative health outcomes such as cardiovascular disease and mental health conditions (McIntyre et al., 2009).

In the present study, we are interested in refugees that have resettled in Southeast Michigan, as Michigan accepts the second highest proportion of refugees in the U.S. (Tanner, 2017). There are many programs located in Michigan that function to aid refugees. One such program is the Arab Community Center for Economic and Social Services (ACCESS) whose goal is to enable and empower individuals, families, and communities to lead informed, productive, and culturally sensitive lives. Our aim is to improve the services and delivery of resources that are available through ACCESS by assessing the prevalence of food insecurity and factors that influence food insecurity among recent immigrants to Southeast Michigan. We hypothesize that among refugees there will be higher levels of food insecurity, that lower food literacy and shorter length of stay in the United States will be correlated with higher levels of food insecurity, and that greater levels of acculturation will be correlated with lower food insecurity.

To assess levels of food insecurity, a short survey will be given in a sequential manner to 100 members of the community who visit the health clinic at ACCESS. All survey data will be completely

anonymized at the point of data collection. Surveys will only be given to participants who are 18 years of age or older. We will obtain demographic information regarding country of origin, refugee status, length of stay in the US, proficiency in English, income level, education level, and number of persons in the household. Validated questions from the Six-Item U.S. Household Food Security Survey Modules will be used to assess individual/household food insecurity. Additional questions will ask about personal barriers to food access based on acculturation and food label literacy. To ensure that participation in the survey will be accessible to all members of the community, the survey will be translated into both English and Arabic. Data analysis of survey responses will then be performed at the University of Michigan Medical School.

Based on survey results, participants will be split into two categories: recent refugees from Middle Eastern countries of origin (recent is defined as arriving within the past 10 years) and non-refugees or refugees that have lived in the US for greater than 10 years. In each group, levels of food insecurity will be assessed. A difference in food insecurity level will be considered significant if there is a p -value < 0.05 . For each group, a qualitative analysis will then be performed to assess the factors that are contributing to food insecurity. Thus, based on the data we collect, we hope to identify areas of need related to food insecurity in the refugee population that visits ACCESS and use this information to help improve the services offered by ACCESS. Additionally, collected survey data could also be used for further research analysis in the future.

Methodology:

Two undergraduate students from the University of Michigan-Dearborn, distributed & collected 69 surveys in English and Arabic to participants, who were at least 18 years old and utilized the medical clinic at ACCESS. All data collected from the survey was completely anonymized from the point of collection and throughout the duration of the research project.

Demographic data was collected via questions about age, country of origin, years living in the United States, refugee status, education level, proficiency in English, and number of people in the household. The six-question U.S. Adult Food Security and Survey Module was used to assess food security in households. This survey has been previously validated. Additionally, questions regarding food label literacy and acculturation were used to assess potential barriers to food access. To ensure that participation in this survey is accessible to all members of the community the survey was translated into both English and Arabic via translation services available through ACCESS. Surveys will be assessed and our study population will be analyzed to determine the percentage of households that screen positive for food insecurity and to identify individuals who have low health literacy.

Collected data was analyzed by University of Michigan Medical students using SPSS software. Based on survey results, participants were placed into one of two categories: recent refugees (recent defined as arriving in the US less than 10 years ago or those that self-identify as a refugee) and non-refugees. Level of food insecurity between the two groups will be assessed, p -value < 0.05 will be considered significant. A qualitative analysis of barriers to food access, primarily focused on assessing health literacy, will also be performed to assess if this trait is more common in refugees and could contribute to levels of food insecurity. We hope our results can be used by ACCESS to direct future interventions regarding food and refugees.

This study was reviewed and approved by the University of Michigan Institutional Review Board, (Study ID: HUM00134675).

Results:

Of the 69 surveys that were distributed, 65 (94.2%) had complete socio-demographic data and responses to the food security questions. Upon analysis, 27 (41.5%) participants identified as refugees. Refugees were found to be at greater risk for food insecurity as compared to their non-refugee peers (51.8 v. 21.1%, $p=0.01$). When compared to participants with relative food security, those at risk for food insecurity

were did not differ significantly in terms of gender ($p=0.694$), age ($p=0.051$), level of education ($p=0.530$), English proficiency ($p=0.510$), or household size ($p=0.751$).

Additionally, of the 69 distributed surveys, 39 (56.5%) participants completed the health literacy portion of the survey. Upon analysis, 10 (25.6%) were identified as refugees. Compared to their non-refugee peers, refugees were notably not at increased risk for low health literacy (80 v. 58.6%, $p=0.224$). When compared to participants with high health literacy, there were no significant differences based on socio-demographic factors including gender ($p=0.471$), age ($p=0.152$), level of education ($p=0.205$), household size ($p=0.674$), or self-reported English proficiency level ($p=0.082$).

Conclusion:

This study revealed that persons who identify as refugees living in Southeast Michigan and those utilizing the resources at ACCESS are more likely to be at risk for food insecurity. However, there were no socio-demographic factors such as age, gender, education level, or level of English proficiency that were associated with food insecurity. Additionally, previous studies have suggested that one contributing factor to increased food insecurity in refugee populations is reduced health literacy, i.e. ability to read food labels and interpret their information. However, this study did not demonstrate that the refugee population we studied has lower health literacy as compared to their non-refugee peers. A possible explanation for this finding is that in Dearborn, MI specifically there are many stores that cater to primarily Arabic speaking populations, thus ensuring that signage and food labels exist in English and Arabic.

Limitations to this study include small sample size, as we only sampled those participants who utilized the health clinic at ACCESS. Additionally, response bias and language barriers were present specifically when distributing and explaining the surveys as we worked with a primarily Arabic speaking population. Additionally, likely related the recent political climate surrounding refugees in our country, many participants were hesitant to participate or disclose their refugee status. However, the results that our study was able to obtain demonstrated an area of need for those utilizing services at ACCESS. Specifically, there is a need for future interventions directed at improving food security, such as access to healthy foods in their food pantry and educational sessions regarding aid programs or healthy eating, could be useful to all those that attend the ACCESS health clinic.

Reflection/Impact Statement:

This idea for this project was inspired by an M1 summer exercise through the Global Health & Disparities Pathway. We were asked to identify a problem in our community and to create a possible solution for this issue via forming relationships with community organizations. Fortunately, found wonderful medical student partners who already had excellent established relationships within the Arab-American community through their undergraduate work at ACCESS. Combining that relationship with an interest in the struggles facing recent refugees, specifically this project started when the Syrian Crisis was at its height, we were able to create a project that could benefit those who utilize ACCESS & its resources. As a medical student, we are told that our ideas and projects can make a difference, however I struggled to believe that my ideas or interests could actually lead to change.

This project taught me about study design, including how to submit a proposal to the IRB & how to power a study. Additionally, outside of completing research, we learned how difficult it can be to sustain momentum for a project. Specifically, due to schedules and time constraints, one of our project partners was not able to continue working on this specific project. Unfortunately, this partner was our primary point person for communication with ACCESS. Thus, myself and Christina, had to establish ourselves as the leads for this project and form our own relationships with the leadership at ACCESS. This setback was a learning opportunity for us, and I would advise another student working on their CFI that if a project is important to them that persistence is key and often pays off. Overall, I was incredibly proud that this was the first research

project I was part of from inception to conclusion. Additionally, it was incredible to learn that even as a medical student I could have an impact in my own community. We were also able to receive feedback from our contacts at ACCESS who were very appreciative of the work that we performed and that they are going to present our data to their board in order to get funding approval for additional resources at their food pantry (specifically for healthier foods and educational sessions). Ultimately, this was an excellent research opportunity and I am thankful for all of the support via the Pathways of Excellence program and the Branches CFI program provided, without it we would not have had the funding or resources to complete this project.