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Undergraduate Research Abstract

Malnutrition of Women and Children in Conflict Zones

This study focuses on the effects of malnutrition on women and children in conflict zones in developing countries and the efforts taken by governmental and nongovernmental organizations to improve the health of these vulnerable community members. Using a meta-analysis of case studies completed on malnutrition in conflict zones including Chiapas, Iraq, Somalia etc., I look for common causes and complications that could provide insight into how to better fight malnutrition in these areas. I also explore successful and unsuccessful attempts to assuage malnutrition in conflict zones and the reasons behind their relative impacts. By analyzing programs implemented by both governments and nongovernmental organizations, this research can help to identify recurring problems with planning and implementation of nutrition promotion within regions plagued by conflict. Based on an extensive literature review, this research found that conflict exacerbates the issue of malnutrition due to disruptions in the food supply, economic instability, poor sanitation, safety concerns, and inadequate government services. On an individual level, exposure to trauma can interfere with breastfeeding among mothers and proper caloric intake among children. This study demonstrates that malnutrition in conflict zones is not simply caused by lack of food availability, or improper utilization, and highlights the key challenges development organizations experience when working to ensure food security.

Malnutrition of Women and Children in Conflict Zones

Although I had done lab research in high school, the literature review and social sciences research I signed up for this semester took me into uncharted territory. I found my first source while attending a lecture given by Roger Thurow on his book, *The First 1000 Days*, that gave an overview of maternal and child malnutrition around the world through storytelling. After reading his book, I had a broader understanding of the issues at play and had identified a topic that peaked my interest. I opened up a new tab on my laptop, went to Galileo, typed in women's malnutrition, and was immediately inundated with pages upon pages of results. With only a semester to complete this research, I clearly needed a different tactic and a narrower focus. As a geography major, I visualize concepts best from the big picture perspective. So when my research mentor, Dr. Maria Navarro, suggested using a mind map to organize my ideas and thoughts, I immediately jumped on board. I downloaded iMindMap onto my Macbook Air and through some trial and error as well as some desperate Google searches, figured out how to format my map. I started in the middle with a big circle labeled "Malnutrition of Women and Children". Leafing back through my notes on the books, peer-reviewed articles, and reports I had read as a foundation, I began to highlight key words and concepts that I wanted to explore more deeply. Once my reevaluation was complete, I had a new circle in my mind map labeled "Conflict" and I set to my task of better understanding the effects of malnutrition on women and children in conflict zones.

With the help of my professor, I reached out to a few professors in relevant fields to ask for reading recommendations. They recommended I bypass catalog databases and go straight to the source, scouring websites run by organizations such as the International Food Policy Research Institute (IFPRI) or the World Health Organization for research they had released

concerning my area of interest. From these studies, I used citation mining techniques to sort through references and find new perspectives on the issue. Since malnutrition is such an interdisciplinary issue, there were often many sources that turned out to be fairly irrelevant to my research but with practice, it became easier to discover what I needed. As my research went on, I continued adding to the annotated bibliography I kept of each new source that I believed contributed to my understanding of the topic. In the bibliography, I recorded notes and summaries of the important information as well as a collection of useful charts, graphs, and data tables. The circles on my mind map began to grow branches with subtopics and new information connected by a network of arrows. Using this visualization technique, it became clear where the gaps in my research lay.

After taking a brief research detour to read up on Boolean operators, I returned to Galileo to focus on peer-reviewed articles, armed and ready to find what I was missing. This time my search results were much shorter and more focused. Sometimes my search requests were too specific and yielded little to no results, so I circled back and broadened my keyword entries. I found articles that included graphics and charts to be extremely helpful. One recurring difficulty I encountered was finding resources that specifically addressed the needs of women instead of mentioning them in a few paragraphs or a chapter of a larger work. When I brought this issue up to my research mentor, she suggested I look at the resources available on the websites of humanitarian organizations that work specifically with women's issues in international development and are large enough to devote considerable money and resources in data collection, needs assessment, evaluation, and reporting.

Satisfied with my background understanding of the relationships between conflict and malnutrition and the specific complications encountered by women and children in these areas, I

wanted to get more specific. A new bubble was inserted into my mind map called "Examples". Using examples mentioned in previous articles, I chose several areas to explore more deeply via case studies. My first step after this transition in the focus of my research was to pull up a favorite website called Gapminder.org. This useful tool allows a user to view data from around the world over time by entering parameters into the X and Y axes of an interactive graph. The user can then set the time scale and focus on a specific region or country to explore how that factor, whether it be life expectancy or food supply over time. This additional visualization tool allowed me to compare the change over time in both malnutrition and conflict in my chosen regions. When looking at the trends, I could pinpoint times when both conflict and malnutrition rose in unison. Although this gave me an overview, several of my areas including Iraq and Somalia were not included in the interactive map due to a lack of available data. I realized this part of my research was going to be more difficult than simply obtaining a foundation of knowledge on the topic. I met with librarian Elizabeth White who directed me towards some new sites such as IssueLab and to specific databases like HAPI and the Africa Bibliography. Continuing to use Boolean operators, I dug deeper into case studies and historical accounts and figures that I could use to paint a more detailed picture of each unique situation. I found an excellent case study on childhood malnutrition in Chiapas with specific information I needed. The other areas I had selected had less available studies specifically on the malnutrition of women and children so I attempted to dig it out of articles written more broadly about the conflicts.

At this point, I realized that the answers I needed might be found in the library resource I had neglected to make use of this far: the print resources. I pulled up the UGA section of Worldcat and began to explore. I focused on Iraq and pulled up some articles that looked useful

and headed over to the Science Library to check them out. Utilizing print resources definitely required more patience: speed-walking through the cold, asking a librarian for help, and not having access to a search tool to sort through the document all took up more of my time than an online resource would have. But the information I gleaned from the articles on Iraq yielded new information that I had not been able to pinpoint so far in my research so the extra effort became all the more valuable.

Although my mind map is not quite yet complete, a comprehensive pattern is emerging from my original circles and my thought process can be traced. Most importantly, the relationships between topics are becoming abundantly clear. Understanding how to visualize this network of connections will help me to navigate the interdisciplinary nature of my future research and career. While I prepare for my upcoming presentation at the CURO symposium, narrowing down my findings to the key points is simply a matter of backtracking through my map. As my first experience into in-depth literature review, this project has taught me a great deal about how I look for and organize information as well as how to be a better researcher in the future. The opportunity to do undergraduate research at such a high level is one of the reasons I came to UGA and I have been continually amazed by the support and resources available for students here.

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