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Reflection Essay

“Impact of Maternal Obesity on Maternal and Offspring Health” was written as a literature review term paper for HDE 117, Longevity. Throughout this term paper, I highlighted important findings and examined the conclusions of a total of 25 research articles. In my paper, I used previous studies to highlight the impact of maternal obesity on fetal health and broadened the scope of the maternal obesity epidemic to its effects on population longevity. I came to the conclusion that maternal obesity is a catalyst in perpetuating the obesity epidemic, and propose that lifestyle changes are necessary for our society to stop the cycle.

I took advantage of the databases from the UC Davis Library website, including Web of Science, PubMed-NCBI, and Google Scholar. I identified key terms in my research, including ‘pattern-recognition receptors’, ‘nutrient excess’, and ‘fetal programming’ to find articles more specific to my research topic. On the Library Website, I watched a video called How to Locate Full-text Articles in Google Scholar through UC-eLinks. This video helped me navigate the GoogleScholar database and access full-length articles, instead of just viewing a preview of the abstract while connected to the Library’s VPN Pulse Secure.

I started my research with a general search about the adverse effects of maternal obesity on mothers. Through this search, I learned about the immediate health effects of maternal obesity in pregnancy, including the development of gestational diabetes, chronic inflammation, and venous thromboembolism. Then, I wanted to learn more about how a mother’s health affects fetal health outcomes, both immediately and in later life. I expanded my search to include ‘fetal health’. I was able to find an article that discussed the In Utero Fetal Programming Hypothesis, which focused on how the mother’s malnutrition affects fetal metabolism. I was able to connect

the In Utero Fetal Programming Hypothesis to my topic by discussing how nutrient excess may also impact fetal metabolism. This article that discussed the fetal programming hypothesis catapulted the rest of my research. I was able to find many articles through this article that discussed how maternal health during pregnancy impacts fetal health. I learned that fetal development during pregnancy largely determines their health, with specific influences on respiratory health and obesity in later life.

In my research process, I found the most relevant articles through the references of previous articles. For example, I would read one article and find a reference to another source that was relevant to my topic. By finding references within other relevant references, I was able to take a deeper dive into past research to find alternative viewpoints of my topic. I used this strategy to find one of the most important references in my article, the Helsinki Birth Cohort. An article that I had read mentioned this Cohort study, and I decided to dive further into this study. To keep my sources in order, I would paste my citations in a separate document. I included a short description of each source on this document so I was able to find articles that I needed to refer back to quickly.

I encountered challenges with finding detailed information on why maternal obesity may impact offspring respiratory health. Many articles discussed a correlation between these two topics, but this does not determine causation. When this occurred, I input more specific words beyond the general term 'respiratory health'. Instead, I used words such as 'asthma', 'airway inflammation', and 'lung disease' to identify articles that were more focused.

I also encountered challenges finding relevant figures that were efficient and clear. Many figures I wanted to include were too cluttered and contained too much information. With the feedback from my instructor, I reconstructed a figure in Powerpoint to convey the information

more efficiently and aesthetically. I made sure that my figures added to the information in my essay, rather than just being token images.

To evaluate the relevancy of a source, I started by reading the abstract and conclusion of a potential source. If it seemed like the topic fit with my research, I read the methods and the results of the study. This strategy helped me not to feel overwhelmed by the amount of reading that I was doing. To evaluate the credibility of a source, I made sure my sources were peer-reviewed articles that presented research, rather than biased opinions. The majority of my articles were current, which means they were published within the past 10 years. To maintain the currency of my research, I tried to limit my use of articles from over 10 years ago. If they were dated longer, I made sure they were still relevant to my topic and furthered my discussion. My articles were specific to the fields they were in, which means they were deep in coverage. Many articles were detailed analyses about one aspect of a topic, such as gestational diabetes, which provided a deep understanding of this subtopic. Sources that were wide in scope helped me find sources deep in coverage about one topic. Utilizing the references section of the research articles helped me find other articles with alternative viewpoints on my topic.

Overall, the goals of my term paper were to create an overview of the literature concerning the adverse health effects of obesity on mothers and fetuses during pregnancy and later life. I connected this topic to the larger scope of the population to provide a call to action to prevent obesity and improve public health. With the use of the UC Davis Library databases and resources, I developed a comprehensive discussion of the maternal obesity epidemic and its relevance to the discipline of longevity. Many people know that obesity is a health epidemic, but are unaware of how it affects individual health in the long term, which is subsequently linked to poor public health and decreased population longevity.