Library Award for Research in STEM/Health Sciences
2016 Winning Entry by Madison Koch

1. Describe the purpose of your project/paper. If appropriate, describe the process used to formulate your research question or PICOT question.

In NUR 415, students are assigned to work with classmates to create a new nursing policy. The topic "childhood obesity" was provided by Dr. Schmidt, and my group undertook an initial search for evidence substantiating the problem and identifying associated issues. Then, a detailed systematic search of the literature was used to identify strategies demonstrating efficacy in reducing obesity within children. The evidence-based practice topic focused on the following PICOT question: In children grades K through 8 (P), how do weight reduction programs (I) as compared to current school activities (C), reduce children's BMI (O) within one school year (T)?

2. What skills did you develop and employ during your search for information or for your literature search?

The systematic search for evidence used strategies introduced in our sophomore year and reinforced earlier this semester. The "Individual Literature Search Worksheet" provided by Professor Kim Whalen was especially helpful as I began using various search engines (CINAHL, Joanna Briggs Institute, and Medline). Our initial online search helped to identify key words and Boolean phrases useful for obtaining articles that were relevant to the topic. But, an initial search, using these broad search terms, resulted in the inclusion of many pieces of irrelevant evidence. The search was quickly narrowed, using more specific keywords which included the truncation symbol and limiters.

3. Discuss your methods for selecting sources. Explain how you evaluated the authority, currency, or credibility of sources. If appropriate, explain how you evaluated the level of evidence.

Sources were selected based on inclusion criteria appropriate for developing an evidence-based practice (EBP) project. Resources were limited to publication within the past five years in English to establish currency. The limiters of scholarly (peer-reviewed) journals, research and/or EBP articles were used as a method to establish authority and credibility of the evidence obtained. A search for national guideline groups and the Joanna Briggs Institute was undertaken to obtain EBP and expert opinions. The evidence obtained was reviewed (abstracts initially, then entire articles downloaded or obtained via interlibrary loan) and leveled based on Melnyk and Fineout-Overholt's hierarchy of evidence.

4. Discuss your methods for making connections between sources and/or synthesizing the findings of published studies, research findings, etc.

After each member had focused on obtaining evidence from the sources assigned to them, everyone came together with copies of evidence supporting the best interventions to decrease childhood obesity. We were assigned to put together a summary grid which included the purpose of the study, the sample, the design used, how the intervention was measured, as well as results and findings. When reviewing the completed summary grid documenting various interventions to decrease childhood obesity, our

group found a readily apparent underlying commonality: the effectiveness of weight reduction programs that focused on family-based interventions.

5. What aspects of the information research process did you find most challenging? How did you overcome the challenges?

The most challenging aspect was finding quantity and quality articles relevant to our assigned topic. Initial searches were too broad and resulted in nearly 3000 hits, with much of evidence not related to our topic. But, using stringent search criteria resulted in a small number of hits, and some were still not pertinent to our assignment. Selecting appropriate key words, Boolean phrases, truncation symbols, and limiters was needed to overcome this challenge. The "Individual Literature Search Worksheet" helped tremendously. Although it was tedious to initially document details, the tool was very helpful when using different search engines.