Researching Influenza Vaccine Hesitancy in College Students: A Reflective Essay

Isabella Hofman
Library Award for Undergraduate Research
March 15, 2024

In Spring 2024, I completed ENGL365: Writing for Health Professions. For my second assignment, I had to research a prominent health issue on campus. My public health background and interest in infectious diseases inspired me to focus on vaccine hesitancy. My first choice was to conduct a literature review on meningitis, a lethal disease common to U.S. college campuses. I switched my research topic to influenza when I learned that UMD had a mandatory meningitis vaccine. My decision came about when I received an email from the UMD Health Center, warning students to get a flu vaccine amid an Influenza A spike. UMD does not require students to vaccinate against influenza, which leads to flu prevalence on our campus. This discovery inspired me to research influenza vaccine hesitancy among undergraduate students.

Two years ago, a UMD librarian introduced me to the UMD library database system. She taught me how to use online search tools to maximize relevant results. I also discovered the Public Health Libguide—a university resource created by Nedelina Tchangalova to help public health students. I used Tchangalova's *article & database collection* to identify helpful databases: Academic Search Ultimate, PubMed, and Google Scholar. I relied on three research strategies to improve my search results. I used Boolean operators **AND** and **NOT** to include/exclude search terms. For example, I searched "influenza vaccine hesitancy" **AND** "undergraduate students" to narrow the search. The Boolean operator **NOT** helped me exclude populations like "faculty/staff" and "graduate students." Second, I used the custom range option to rule out irrelevant research. I set the publication date from 2018 to 2024 to ensure timely research. Third, I used the advanced search option to locate specific terms within research articles.

My ENGL365 mentor, Professor Justin Lohr, was kind enough to guide me through the research process. During this process, I checked in with Professor Lohr to clarify questions/concerns. At one point, I was worried that my topic was too broad. Should I include research on graduate students and college faculty/staff? Professor Lohr encouraged me to narrow my topic to undergraduate students. Once I identified my population of focus, I could begin the research process. In addition, Professor Lohr provided me with a helpful list of search terms to simplify the research process. Terms included "public opinion," "attitudes, beliefs, and perceptions," "habits and behaviors," and "language/rhetoric." During the research process, I used these search terms to identify relevant articles. Professor Lohr also recommended I check out literature reviews for more sources. I traced citations from literature reviews to databases which I accessed via interlibrary loans.

I used the C.R.A.P. detection test to assess the credibility and validity of my academic sources. C.R.A.P. stands for Creator (Author), Range (Perspective), Age (Publication date), and Publication (Database). All my research articles come from peer-reviewed databases like Science Direct and PubMed. Peer-reviewed journals screen evidence-based information and ensure academic integrity. I also paid close attention to publication dates, eliminating articles (>5 years old) to guarantee timely, relevant research. Finally, I confirmed an article's validity and credibility through its citation record. I checked the number of times the article was cited in 'influenza vaccine hesitancy' research. Several of the articles are featured and cited in prominent research bibliographies.

The research process for my literature review was a valuable learning experience. After college graduation, I want to pursue a career in infectious disease epidemiology, a branch of public health research. My future career requires comprehensive research experience and a command of research skills. Often, public health officials must analyze written and numerical data in research studies. This research process strengthened my ability to analyze and evaluate health data (i.e., p-values, charts/graphs, and tables). In public health, literature reviews help identify gaps in research, common trends, and relevant information. During this process, I learned *how* to use academic databases and online search tools to locate research. This opportunity helped me practice collecting, organizing, and identifying research themes—three important research skills in public health. I am excited to apply my knowledge of research (i.e. databases, search tools, and research methodologies) during my Summer 2024 health research internship.

Reflecting on my research experience, I would have used other research databases. Nedelina Tchangalova's guide included additional databases—CINAHL Plus with Full Text, MEDLINE, and Scopus—which I did not have time to explore. Instead, I chose academic databases that I was familiar with. The UMD database system helped me access articles available through paid subscriptions. I am most grateful to Nedelina Tchangalova for the Public Health Library Guide. This guide helped me locate relevant research databases among UMD's 853 databases.