SCAMeL Speedy Startup 2024

Name of the project: Impact from online information seeking, eHealth literacy, health

literacy, and self-efficacy on diabetes-related health behaviors

Applicant information:

Yue Ming, PhD, MPH, MLIS

Research Support Librarian

Rudolph Matas Library of the Health Sciences, Tulane University

What is the project?

The purpose of the project is to examine the relationship between online information seeking, eHealth literacy, health literacy, self-efficacy and diabetes-related health behaviors, including changing decisions and diabetes self-management, among diabetic patients in the U.S.

This project will take a quantitative approach and will collect data through online survey questionnaires. Participants of this project will be patients with diabetes who are 18 - 44 years old in the U.S. They will be recruited through a third-party survey company (YouGov). The project aims to collect 300 responses in total. After receiving Institutional Review Board (IRB) approval, the questionnaire will be distributed to participants through an online platform. The questionnaire will be available for participants to complete for one month. Participants will be presented with consent information prior to responding to survey items

and will be informed that they may stop participating at any time. There will be 63 items in the survey. Demographic information will be collected as well. An attention check question will also be included in the questionnaire to ensure the reliability of responses. Measures for each variable in this project will be adapted from previously published studies with scale reliabilities validated by the study authors.

All data analyses will be performed in R, and all models will be examined through a structural equation model (SEM) approach or a linear regression approach.

Why is it important (what is the benefit)?

Based on current literature, there is a gap in understanding how intentional online health information seeking and incidental health information seeking could affect various behaviors differently, especially in the online environment. Moreover, previous studies have illustrated pathways including health literacy predicting self-efficacy, information seeking predicting self-efficacy, and self-efficacy predicting health behaviors, the role of self-efficacy merits further investigation. It is also important to identify how self-efficacy may suggest ideas for practical messaging and prevention programs regarding diabetes. Additionally, eHealth literacy and health literacy have their own unique characteristics; it is necessary to measure these two elements at the same time in a study to contribute to further understanding of participants' literacy skills in different aspects and provide directions on how public health practitioners and librarians could communicate to offer better services.

Understanding the specific impact from two types of online health information seeking and other key factors including eHealth literacy, health literacy, and diabetes self-efficacy can

help information professionals and public health practitioners adjust communication strategies to more effectively share accurate health information to diabetic patients to encourage more positive health behaviors.

What institution(s) is involved?

Rudolph Matas Library of the Health Sciences, Tulane University

Who will carry out the project and what are their roles?

Yue Ming, Research Support Librarian: principal investigator

Bea Calvert, Research Support Librarian: co-investigator

Timeline

Planning

- 3/2024 grant approval
- 4/2024 IRB approval
- 4/2024 finalizing details with the survey company

Data Collection and Analysis

- 5/2024 distributing survey
- 6-7/2024 finishing data collection, starting data cleaning and analysis

Scholarly Activity

- 8-9/2024 starting writing manuscript
- 10-11/2024 revising manuscript and starting to submit to journal(s) or conference(s)

SCAMeL Reporting

• 12/2024-2/2025 writing report to SCAMeL and completing the project

Budget

The expense of this project is to pay YouGov for the survey panel. A total of 300 participants will be recruited to answer the survey questionnaire for the study. Based on previous consultation with a representative from YouGov, a quote for a 10-minutes survey with 300 respondents that fit the requirement is \$6,700. Therefore, for this project, the proposed budget is \$6,700.

Library Director Approval

This proposed project has the full approval and support of the Rudolph Matas Library of the Health Sciences at Tulane University.

Keith Pickett, MLIS

Library Director

Rudolph Matas Library of the Health Sciences

Tulane University