Lung Cancer Screening: Model Testing and Understanding Shared Decision-Making

Principal Investigator/Cancer Research Network Scholar: Lisa Carter-Harris, PhD, RN, ANP-C

Mentor: Susan M. Rawl, PhD, RN, FANN

Dates of Support: 03/01/2015 - 02/28/2016    Total Award Amount: $20,000

Funding Agency: Oncology Nursing Society Foundation

Abstract:

Purpose/Specific Aims: To increase the applicant’s understanding of a complex statistical technique, structural equation modeling (SEM), to test a newly developed conceptual model focused on understanding lung cancer screening (LCS) participation and expand her understanding of a key variable in the model, shared decision-making (SDM). **Specific Aims include:**

Aim 1. Increase knowledge and skills in SEM to support conceptual model testing; and,

Aim 2. Expand knowledge of the SDM process as it applies to cancer screening as well as measurement of outcomes of the SDM process.

Specific Activities:

- Attend two (2) summer statistical workshops on SEM.
- Complete SEM secondary data analysis of mentor’s dataset.
- Complete mentor-guided independent study in SDM in cancer screening participation.
- Complete concept analysis on SDM.
- Attend Society for Medical Decision-Making Annual Conference.
- Write and submit research grant application.

Expected Outcomes: (1) Successful completion of two summer SEM workshops documented via transcript; (2) Completion of SDM concept analysis submitted to peer-reviewed journal; (3) Completion of SEM manuscript from secondary data analysis submitted to peer-reviewed journal; (3) Preparation of a research grant application documented by mentor verification letter.

Significance: LCS guidelines are new and programs to increase LCS participation are currently being implemented. However, we do not yet know what individual, provider, and healthcare system factors facilitate or hinder LCS participation. For LCS programs to be effective, high-risk individuals must be identified, informed, and invited by providers who recommend screening through a SDM process. In order to enhance understanding of screening eligible individuals’ beliefs about screening and the SDM process, the applicant developed a conceptual model to guide LCS research. Future research will focus on testing the relationships depicted in this new model. As the applicant transitions into a faculty position, increased understanding of SDM will help the applicant test the model. She will also need to expand her understanding SDM to inform future studies.

Role of Mentor: Dr. Rawl will serve as an expert in cancer screening behaviors. Dr. Rawl is highly qualified to guide the mentee in the theoretical understanding of shared decision-making specific to cancer screening behavior and provide guidance on the development of a research proposal to test the conceptual model for understanding lung cancer screening participation.

Future Directions: This award will position the applicant to continue to build her research program focused on LCS participation. The applicant's short-term goal is to develop an R21 or R01 application to test relationships in the model. Her long-term goal is to obtain funding to develop and test an intervention to enhance SDM about LCS between primary care providers and their high-risk patients.