CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
PP140210

Project Title:
Cancer genomics training program for a competent Texas health education workforce

Award Mechanism:
Competitive Continuation/Expansion - Health Behavior Change Through Professional Education

Principal Investigator:
Chen, Lei-Shih

Entity:
Texas A&M University

Lay Summary:

Need: Health educators (HEs) – healthcare professionals who are trained in educating patients, lay public, and promoting behavioral changes – play a significant role in cancer prevention and control. The recent trend in cancer prevention field – cancer family history (CFH)-based cancer genomics services – holds tremendous potential for reducing cancer morbidity and mortality. Yet, such services cannot be maximized given the shortage of genetic specialists, brief primary care appointments, and patients' limited genomic literacy. Given the large numbers (more than 75,000 in the U.S.), credentials, and vast expertise of HEs, governmental agencies (e.g., the NIH and CDC) strongly advocate the need for HEs to provide fundamental, CFH-based cancer genomics education/services to patients. Unfortunately, HEs lack adequate cancer genomic competencies to provide such education/services. To address this urgent issue, in the initial CPRIT award project, we developed, implemented, and evaluated the first theory- and evidence-based BASIC cancer genomics training program for Texas HEs. The program included a set of four BASIC modules focusing on the role of CFH in cancer genomics services. Our BASIC program had very successful implementation, sustainability, dissemination, and provider-related outcomes. The significant impact of the BASIC program, along with participants' interests in advanced training in cancer genomics, compelled us to seek this two-year continuation/expansion project support to improve and extend the BASIC cancer genomics training program. Specifically, we will develop the ADVANCED cancer genomics training program for addressing a pertinent and timely topic in cancer genomics services — cancer genetic testing — for HEs trained in the initial project. We will recruit and educate 120 additional Texas HEs for both BASIC and ADVANCED training. Compared to short-term examination (3 months) of behavioral changes among HEs of the initial project, in this continuation/expansion project, we will evaluate short-term (3 month), intermediate-term (6 month), and long-term (12 month) behavioral changes for both HEs and their patients.

Overall Project Strategy: A new set of four ADVANCED modules will be developed, pre-tested, and delivered to 584 Texas HEs who completed the BASIC training in the initial project. Additionally, 120 Texas HEs will be recruited and asked to complete BASIC and ADVANCED training modules. Both BASIC and ADVANCED modules will be offered online and as conference workshops held by the Texas Public Health Association and Texas

Society for Public Health Education. The anticipated impact of the training program upon participants' behaviors (i.e., conducting CFH-based assessments, providing education for cancer genetic testing, making subsequent lifestyle and screening recommendations, and genetic testing/evaluation referrals), and theoretical mediators shaping such behaviors (i.e., knowledge, attitudes, self-efficacy, and intention) will be evaluated by pre-test, immediate post-test, and follow-up surveys (at 3, 6, 12 months post-training). Additionally, patients receiving cancer genomics services/education from participating HEs will be asked to complete the pre-test, post-test, and three follow-up surveys (at 3, 6, and 12 months) to evaluate their access, usage, and satisfaction of preventive and genetic testing/evaluation services along with the improvement in lifestyle and cancer screening behavior.

Specific Goals: Goal 1: Develop and pre-test a set of new ADVANCED modules of the cancer genomics training program for Texas HEs. Goal 2: Implement the ADVANCED cancer genomics training curriculum with 584 Texas HEs completing the BASIC training in the initial project. Goal 3: Evaluate the short-, intermediate-, and long-term impact of the ADVANCED modules on the Goal 2 participants' behavior. Goal 4: Deliver (and evaluate) BASIC and ADVANCED modules to 120 additional Texas HEs. Both provider and patient outcome data will be collected in Goals 3 and 4. Through this training program, we anticipate that the proposed project will serve 704 Texas HEsand reach about 20,704 HEs through professional journals, conference presentations, and program advertisements from various health education groups.

Significance and Impact: Our project will lead to an increased number of Texas health educators with cancer genomics competencies for providing fundamental CFH-based cancer genomics education/services. By adequately training HEs, this project will significantly increase Texans' cancer genomic literacy, their collection and utilization of CFH, acceptance and adoption of personalized lifestyle and screening recommendations, and the ability to access and discuss their needs with genetic specialists for further cancer genetic evaluation and testing. Ultimately, this proposed project will minimize cancer-related morbidity and mortality in Texas.