Digital Touchscreen Kiosks for Patient-Centered Cancer Education

Armando Valdez, PhD
HealthPoint Communications Institute
201 San Antonio Circle, Suite 152
Mountain View, CA 94040
avaldez@healthpointcommunications.com

Breast, cervical and colorectal cancer screening have been shown to significantly increase early detection rates and reduce preventable cancer mortality. Yet Latinos in the U.S. have disproportionately lower cancer screening rates and significantly higher late-stage cancer detection, and correspondingly higher cancer mortality rates. HealthPoint Communications developed digital touchscreen kiosks to deliver cancer education and screening promotion interventions to medically underserved Latinos.

These kiosk interventions leverage digital video and touchscreen technologies to create an interactive, multimedia patient-education platform to overcome cognitive, cultural and linguistic barriers that impede cancer screening among Latinos. These cancer education kiosks provide a vivid and compelling interactive, multimedia experience that engages learners in a self-paced exploration of cancer risk factors, risk reduction strategies, screening options and recommendations, and related topics presented in readily accessible learning modules. Patients literally have cancer education information at their fingertips though an intuitive, user-friendly navigation interface. They do not need to be computer literate nor have keyboard or mouse skills.

The kiosks provide cancer education modules for breast, cervical and colorectal cancer that address major obstacles to screening and deliver culturally and linguistically appropriate education messages to low-income, low literacy Latino patients. The cancer education modules depict realistic, culturally familiar settings and use social models with whom low-income Latinos can identify. The education interventions were designed to increase self-efficacy and empower patients to make informed decisions about cancer risk reduction and screening behaviors.

The efficacy of these cancer education interventions was examined through randomized clinical trials for breast cancer (N=1200), cervical cancer (N=900) and colorectal cancer (N=700). These studies found that the breast and cervical cancer kiosk-based patient education interventions significantly increased knowledge, improved attitudes, increased self-efficacy and promoted screening behavior. The colorectal cancer intervention significantly increased screening behavior. Notably, these studies found intervention effect sizes of 51%, 50% and 53%, respectively.