Researchers develop social media-based intervention to promote Hepatitis B screening among Korean Americans

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Hepatitis B virus (HBV) infection is the leading cause of cirrhosis and primary liver cancer, globally affecting nearly 300 million people. In the United States, Asian Americans account for 7% of the total population, but more than 50% of all HBV infections. Foreign-born Asian Americans face tremendous barriers to HBV screening, vaccination, and treatment because of lack of HBV-related knowledge, stigma, and limited access to health care due to language barriers and immigrant status.

There are limited culturally-tailored linguistically-appropriate interventions to promote HBV screening among Asian Americans. To address this public health need, George Mason University researchers Dr. Alicia Hong, professor of Health Administration and Policy; Dr. Sojung Claire Kim, assistant professor in the Department of Communication; Dr. Pramita Bagchi, assistant professor in the Department of Statistics; and the Korean American Outreach Group collaboratively developed "Let's talk about liver cancer," a mHealth (mobile health) program for Korean Americans.

"The high prevalence of HBV infection and liver cancer mortality rates in Asian Americans is one of the most neglected and understudied cancer disparities," said Hong. "We advocate for more research and practice to deliver culturally-tailored public health programs for underserved populations via social media apps used by the target groups."

Most HBV-infected individuals are not aware of their condition because of its asymptomatic nature. Due to high rates of chronic HBV infection, Asian Americans have the highest liver cancer incidence and mortality rates of all racial or ethnic groups. HBV prevalence in Asian Americans is 10 times that of non-Hispanic White Americans (NHW). Asian American liver cancer mortality rates are two-to-three times that of NHW counterparts. Ninety-one percent of Asian Americans living with HBV are foreign-born.

As the COVID-19 pandemic continues, researchers seek to increase digital intervention in campaigns that previously had been community-based and in-person. The "Let's talk about liver cancer" campaign was delivered via Kakao Talk, a social media app used by more than 95% of Koreans. The campaign was a four-week program that consisted of social video clips and pictorial messages tailored for Korean Americans with limited English proficiency and low level of health literacy. The program was adapted from a previous Centers for Disease Control HBV mass-media campaign.

"This is one of the first social media-based liver cancer prevention programs designed specifically for Korean Americans," Hong remarked. "It's amazing that we successfully piloted it during the pandemic, as it was delivered via a popular social
media app."

The paper, "Social media-based intervention to promote HBV screening and liver cancer prevention among Korean Americans: Results of a pilot study," was published in Digital Health.

Hong led a multidisciplinary team to pilot test the campaign among 100 Korean Americans with 84% having limited English proficiency. The intervention had a 95% retention rate and significantly improved participants’ HBV-related knowledge, liver cancer prevention knowledge, perceived benefits of HBV testing, perceived risks of HBV infection, social norms of HBV testing, and self-efficacy of HBV testing. The results were comparable to the existing in-person community-based HBV promotion interventions.


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