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Hepatitis B and Liver Cancer Beliefs among Korean Immigrants in Western Washington:

Report of a Qualitative Study

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Abstract

Hepatocellular cancer occurs more frequently among Koreans, Vietnamese, and Chinese than other racial/ethnic groups in the U.S. This excess risk can be attributed to high rates of chronic hepatitis B viral (HBV) infection and low rates of HBV vaccination among Asian immigrants. However, there is little available information regarding the hepatitis B knowledge, beliefs, and practices among Koreans, the fifth-largest Asian population in the U.S. This brief report summarizes results from 30 qualitative interviews and two focus groups investigating hepatitis and liver cancer prevention, behavior, and beliefs among first-generation Korean immigrant adults ages 18–64 years residing in the Seattle–Tacoma metropolitan area of Washington State. The report concludes with suggestions for future investigations to address the high rates of chronic HBV infection and hepatocellular cancer in this vulnerable population.

Keywords

AANCART; cancer; Korean Americans; hepatitis B; vaccination; hepatocellular CA; qualitative research; serologic tests

Numbering 1.1 million in the 2000 U.S. Census, Koreans are the fifth-largest Asian American population, who vary greatly in customs, acculturation, and beliefs. The first Korean immigrants came to Hawaii in 1903 as plantation laborers, but the number of Korean Americans

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Our project works closely with a coalition from Western Washington's Korean community, including the Korean Aging Service Coalition, Korean Women's Association, Korean Community Counseling Center, Washington State Korean Dry Cleaners' Association, Korean American Professional Society, and the Washington State Asian and Pacific Islander Task Force on Hepatitis B Immunization; we thank coalition members and the organizations they represent. The authors also thank Ms. Inhee Treadwell, Ms. Kyoungmi Gutierrez, and Mr. Chang Hoon Lee for outstanding interview work and Ms. Mary Ryan for transcription assistance.

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remained small until the wives and orphans of U.S. military forces arrived after the Korean War in 1953, and until changes in immigration policy in 1965 allowed the migration of close relatives of previous immigrants.² The largest groups of Korean Americans today resides in large metropolitan areas of the mid-Atlantic and Western states of the U.S.; recent years have seen a rapid population growth in other regions of the U.S., such as the South and the Midwest.² The majority of Koreans in the U.S. are foreign-born (73%), have lower per capita income than non-Latino whites, and are less likely than most other ethnic groups to hold medical insurance.^{3,4}

Korean culture historically has been dominated by Chinese influences, with adaptation of many philosophies and beliefs such as Confucianism and Buddhism that continue to influence social structure in Korean families.⁵ Korean traditional medicine emphasizes the balance of environmental, physical, and social harmony, as well as vital energy forces; traditional healing practices include the use of herbal medicines and acupuncture.^{6,7} Both traditional and “Western” biomedical care coexists for many Koreans and Korean Americans, with patients often taking both prescription medicines and herbal medicines.⁷

While hepatocellular cancer (HCC) is fairly uncommon among individuals born in the U.S., it is the most common malignancy in many Asian countries.^{8,9} Surveillance, Epidemiology, and End Results (SEER) data indicate that the incidence rate for Korean American men is 24.8 per 100,000 (age-adjusted to 1970 U.S. standard population), compared to 3.7 per 100,000 for non-Latino white males; the HCC incidence among Korean women is nearly double the rate for women of most other ethnic groups in the U.S.¹⁰

Chronic hepatitis B viral (HBV) infection is the most important cause of primary liver cancer in Asian Americans.⁸ Preventable through an effective three-dose vaccination series, HBV infection can result in a self-limited asymptomatic or acute hepatitis; however, a significant proportion become chronic carriers who remain potentially infectious to others and are at elevated risk for chronic active hepatitis, cirrhosis, and HCC.⁸ Although published data regarding serologic status of Asian subgroups are limited, in a nonrandom case series of 6862 Korean Americans tested in the Mid-Atlantic region, 7.5% of males and 5.2% of females had serologic evidence of chronic HBV (vs. <1% for the general U.S. population).⁹

Because survey instruments and educational materials sometimes contain ethnocentric biases that render them culturally inappropriate, qualitative methods often offer an important complementary step in the development and evaluation of intervention programs targeting racial/ethnic minority populations.^{11,12} Qualitative methods allow participants to discuss a range of topics without a rigid framework, allowing identification of new and unanticipated information in greater detail than traditional, more structured methods.¹³ In preparation for development of a future survey to address HBV serologic testing and vaccination in Korean Americans, we began with a qualitative study to elicit information about hepatitis B and liver cancer beliefs and behavior according to the linguistic and cultural framework of our target population.

SUBJECTS AND METHODS

Participants

Thirty interview and 18 focus group participants were recruited from individuals identified by churches and community-based organizations that provide social services to Korean immigrants in western Washington. Selected participants were first-generation Korean immigrants 18–64 years of age. Written informed consent was obtained and participants were given a small stipend for their time. Study protocols were approved by the Institutional Review Office of the Fred Hutchinson Cancer Research Center.

Qualitative Interviews and Focus Groups

Trained bilingual, bicultural staff (two female, one male) led 30 in-person, semistructured qualitative interviews. Interviews began with open-ended questions, which were followed by directed probes to elicit further details about particular responses.¹³ Interviews started with a discussion on general beliefs about health and cancer prevention (e.g., “What are things you do to stay healthy?”) before proceeding to more specific issues about hepatitis B and liver cancer (e.g. “What experiences with hepatitis B have your friends had?”). Interviews lasted approximately 1 hour and were audiotaped with the consent of participants. Each interview conducted in Korean (28 of 30) was translated into English onto a second audiotape by the original interviewer. English audiotapes were then transcribed. Transcripts were then entered into N5/NUD*IST (QSR International, Australia) ethnographic software. After completion of these interviews, we also conducted two 90-minute Korean-language focus groups to clarify several themes and concepts that emerged in preliminary interview analysis; each focus group included male and female participants from the Seattle and Tacoma metropolitan area.

Data Analysis

Five members of the research team reviewed and coded transcripts in rotating pairs. Among the five transcript coders, two were themselves Korean American immigrants; three had experience helping provide patient care or medical interpretation for immigrants; and four had previous experience coding in other qualitative research studies. Content codes were used to thematically group together similar interview text and to aid development of conceptual models.¹⁴ Disagreements about code choices were discussed until consensus was reached. Team members met frequently during the interview and analysis phase of the project to discuss themes, new information, and relationships among concepts emerging from the interviews and focus groups.

RESULTS

Social and demographic characteristics of our interview and focus group participants are summarized in Table 1. We present brief highlights and illustrative quotations from the qualitative interview and focus group data.

Previous Experience with Hepatitis B and Liver Cancer

Interview and focus group participants were generally aware that Korean Americans have high rates of hepatitis B infection (“*B gan yum*”) and liver cancer. Many were familiar with the adverse effects and outcomes associated with hepatitis B infection, and several explicitly connected HBV infection with liver cancer. Most (25 of 30 interview participants) offered examples of close friends or family members with personal hepatitis B or liver cancer experiences.

I know most Koreans have hepatitis B.... My brother-in-law had four brothers and sisters, but only one sister died of the liver cancer and their mother died of the cirrhosis [56-year-old female].

Hepatitis B Transmission and Liver Cancer Causes

Participants repeatedly expressed the belief that the contamination of food sources and the sharing of used utensils were the most significant sources of hepatitis B transmission; although common for other forms of infectious hepatitis, such as hepatitis A virus, these routes are not thought to be a significant source of HBV transmission. In contrast, few participants discussed routes of HBV transmission recognized by clinicians, such as parenteral blood exposure (three interviews), sexual contact (four interviews), or maternal–child vertical transmission (no interviews).

Lots of Korean families sit together sharing food in the same bowl. ... We all share a part of a stew by dipping everybody's spoon, not like in the U.S.—the lack of sanitation causes more hepatitis ... through sharing the same utensils [46-year-old female].

Participants generally were aware that alcohol could lead to long-term liver sequelae including cirrhosis or liver cancer; many understood that alcohol consumption, when combined with hepatitis B infection, could increase the risk for liver cancer.⁸ Participants also viewed the social habits surrounding the consumption of alcohol (e.g., sharing drinking glasses) as a central route for HBV transmission, particularly for men.

I don't know much [about hepatitis B], just that it spreads by sharing a shot-glass and if you drink too much, then you get it. ... In Korea, they get it because they share shot glasses. Viruses spread when they share them. That is the way cirrhosis makes your stomach bloated [36-year-old female].

Hepatitis B and Liver Cancer Prevention

When asked about ways to prevent HBV infection, interview and focus group participants suggested altering eating habits (e.g., using separate utensils for serving food), preparing meals carefully to avoid contaminated meats, and reducing alcohol consumption or changing drinking habits. Others suggested moderation of dietary excesses, regular walking and other exercise, and stress reduction as methods to lower the risk for hepatitis. Despite these suggestions, however, the participants themselves often did not practice these behaviors.

[To prevent hepatitis B] we need to wash our hands, not eat other people's food. I need to pay closer attention to this. ... I tend to share foods with other people and pass around the drinking glass [39-year-old man].

Study participants generally had heard of hepatitis B vaccinations, and several expressed confidence that HBV immunizations were effective in preventing liver sequelae.

For example we can get injections or shots to prevent hepatitis B since it is contagious. I heard that if we have immunization shot for it, we won't be infected by it. ... I haven't had the shots so I don't know. ... I was thinking that an antibody develops, and from this we can avoid liver cancer because we now are immune to it [41-year-old man].

However, interview and focus group participants were often uncertain regarding specific HBV immunization details, such as the number or frequency of required vaccinations.

Here [points to her right arm], the hepatitis B shot made it swell up. ... Isn't that a hepatitis shot? When you get the shot, it swells up a few millimeters [36-year-old female, likely describing purified protein derivative skin testing for tuberculosis].

DISCUSSION

Although they were generally aware of hepatitis B, interview and focus group participants often expressed beliefs about transmission and prevention more applicable to other forms of hepatitis (e.g., hepatitis A, alcoholic hepatitis). There were very limited references about perinatal or sexual transmission; rather, the participants in our study repeatedly focused on the oral route, which is not considered by clinicians to be a source of HBV transmission. Although study participants were aware that a vaccination against HBV existed, few were able to accurately state whether they had received the complete three-dose series.

This study provides valuable preliminary qualitative information about the hepatitis B and liver cancer knowledge, beliefs, and behaviors of Koreans living in the U.S. These qualitative data will be used to inform the development of a questionnaire.¹² A future population-based survey

will quantify the knowledge, beliefs, and behaviors among Korean Americans. These qualitative data, together with future quantitative survey results, will be used to develop a culturally appropriate, community-based intervention aimed at increasing the number of Korean immigrants serologically tested for and vaccinated against hepatitis B infection. Future surveys will help measure the knowledge and behavior about hepatitis B held by Korean Americans. Identification of associated social and demographic factors will also allow us to more effectively target educational messages to the most vulnerable subgroups of Korean immigrants.

These qualitative data point to potential challenges and opportunities for future surveys and educational interventions in this population. Because qualitative interview and focus group participants often conflated several different types of hepatitis, we anticipate that the wording and order of questionnaire items specifically about HBV will require extensive pretesting before survey administration. If quantitative surveys confirm these qualitative results, we anticipate that educational interventions aimed at increasing rates of HBV serologic testing and vaccination will likely require careful attention to the misconceptions about transmission (e.g., contaminated food as a source) and prevention (e.g., focus on dirty utensils rather than vaccinations) in our target Korean American population.

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TABLE 1
 Characteristics of Interview and Focus Group Participants

Characteristics	Interviews (N= 30)		Focus groups (N= 18)	
	n(%)	range	n(%)	range
Male	15 (50)	—	5 (28)	—
Median age (yrs)	47	28–62	52	26–61
Median yrs in U.S.	17	5–33	19	4–36
“Poor” or “Fair” English	17 (57)	—	11 (61)	—
No medical insurance	11 (37)	—	2 (11)	—