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Attitudes toward Hepatitis B Virus among Vietnamese, Chinese and Korean Americans in the Houston Area, Texas

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Abstract

Objectives—We explored attitudes about prevention, screening and treatment of hepatitis B virus (HBV) infection in Chinese, Korean and Vietnamese communities.

Methods—We use qualitative methods in 12 focus groups (n=113) of adults who self-reported their ethnicity to be Chinese, Korean, or Vietnamese. We use grounded theory (i.e., consensusbuilding between co-coders about recurring, emerging themes) for analysis.

Results—Diet, nutrition, fatigue and stress were misidentified as HBV causes. Improving hygiene, diet, exercise, and holistic methods were misidentified as viable HBV prevention methods. Common screening problems included not affording test and not understanding test results. Participants shared reasons for using complementary and alternative medicine—when Western medicine fails or becomes unaffordable. Participants sought information from medical providers and fellow community members, but also from the internet.

Conclusions—Many of the attitudes and opinions that emerged may deter participation in HBV screening, prevention and treatment, insofar as community members may factor them into healthcare decision-making, choose alternative but ineffective methods of prevention and treatment, and undervalue the benefits of screening. More patient education in both traditional and new media is necessary for clarifying transmission, screening and treatment misunderstandings.

Keywords

Hepatitis B; Asian Americans; Attitude to Health; Outreach and Education

Introduction

Asian Americans disproportionately suffer from hepatitis B virus (HBV). Of the estimated 1.25 million people in the US diagnosed with chronic HBV infection, over half are Asian Americans [1]. Approximately one-tenth of foreign-born Asian Americans have chronic HBV, compared to rates for Caucasians (0.9 cases per 100,000 population), Hispanics (0.8

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cases per 100,000 population), and non-Hispanic blacks (2.2 cases per 100,000 population) in the US [1, 2, 3, 4, 5, 6]. Higher probability of contracting HBV puts Asian American populations at increased risk of liver scarring and failure, and other complications [7]. Moreover, HBV is now known to be a human carcinogen responsible for liver cancer, or hepatocellular carcinoma (HCC) [5]. Among all chronically infected carriers worldwide, approximately 75% are found in Asia [8]. In Texas, race and ethnicity was unknown for 35% of cases of HBV; non-Hispanic Whites, 30%, Hispanics, 22%, Blacks, 11%; and Asians, under 5% [9]. In that state's largest city, Houston, the prevalence of HBV infection has been estimated to be 10–14% among Asian Americans [10].

Previous work in the US has found that Asian American populations lack awareness and knowledge about HBV, which can potentially have deleterious effects [11, 12, 13, 14, 15, 16, 17]. Generally, compared with Whites, Asian Americans experience more barriers to care, including language disparity, financial limitations, and unawareness of prevalence. Studies have suggested that cost, lack of insurance, poor patient-doctor communication, inconvenience, and low levels of HBV knowledge, screening, and vaccination impact HBV attitudes and behavior in Chinese communities [14, 16, 18, 19, 20, 21, 22, 23, 24]. Previous experience with HBV, skepticism about the possibility of recovery, and information gaps impact Korean communities [25, 26]. Lack of knowledge about HBV prevalence in Asian American communities, availability and cost of screening and vaccination, and misperception of low risk impact Vietnamese communities [27, 28, 29]. Several existing public health campaigns and community outreach efforts for HBV have targeted these issues by emphasizing and coordinating access to screening and care, including the U.S. Department of Health and Human Services' Action Plan for the Prevention, Care & Treatment of Viral Hepatitis; the Office of Minority Health's National Task Force on Hepatitis B; and the Houston Asian American Health Collaborative HEP B in the Asian Community initiative [30, 31, 32].

A few studies addressing other issues such as mental health and cancer screening have shown that the level of acculturation to US culture—defined in these studies as low levels of literacy and high levels of cultural affiliation and identity—impacts Asian community health practices. More acculturation helps moderate stigmas about depression and mental health and increases the likelihood of seeking professional psychological help [33, 34, 35]. Cultural affiliation and beliefs impact the likelihood of seeking mammography, pap testing and other cancer screening [36, 37, 38]. In terms of HBV care, one study found that acculturation may impact likelihood to receive HBV vaccination [27]. However, more research is needed to understand how acculturation impacts HBV prevention, screening and treatment [39, 40, 41].

We conducted a qualitative study to explore in-depth HBV-related healthcare attitudes of Chinese, Korean, and Vietnamese communities with different levels of acculturation in the Houston area, in order to help identify themes for improving HBV education and outreach specific to their communities. In particular, this article focuses on the reoccurring attitudes about HBV care and potential venues for outreach that emerged.

Methods

After approval by the institutional review board at The University of Texas MD Anderson Cancer Center, participants were recruited in Houston, TX, between November 2005 and January 2006. We recruited Asian American community leaders by sending emails and direct invitations to a list of businesses, organizations, and religious leaders and board members. We recruited community members by word of mouth, advertisements placed in Asian-language newspapers, public service announcements on Vietnamese and Chinese community radio, and bilingual flyers left at community businesses and organizations. Community member groups were comprised of participants with varying degrees of acculturation. Therefore, to recruit participants for a homogeneous focus group of less acculturated participants, we conducted face-to-face solicitations outside of community grocery stores wherein we asked participants' language preference and length of residency in the US. We defined less-acculturated as those participants who preferred their language of origin and who had lived in this country for five years or less. Inclusion criteria for all participants were (1) age 18 or over and (2) self-reported ethnicity as Vietnamese, Korean or Chinese.

We conducted 12 focus groups of 113 participants stratified by ethnicity and by community member type (leaders, members, less-acculturated members) as shown in Figure 1. This approach is recommended for encouraging willingness to share among those with similar experiences to discuss complex or sensitive motivations and issues [42]. We conducted four focus groups per ethnicity: one community leader group, two general community member groups, and one less-acculturated group. The majority (n=108) of participants completed a demographic questionnaire. We used questions organized by discussion themes including general knowledge about HBV, prevention, screening and treatment (Table 1).

Each group was conducted in the native language of the participants, so as to ensure that they were fluent and comfortable articulating their ideas. The moderator followed an interview training manual created for use in qualitative research in hepatitis among Korean Americans, which she adapted for other ethnic groups [25, 43]. Recordings were transcribed by native speakers who were fluent in English. Each focus group included 6 to 12 participants, because such relatively large groups facilitate soliciting a wide, significance, varied, and representative range of the ideas shared. Furthermore, 30 to 40 total participants have been recommended for sufficient breadth of input to explore a theme or concept [44].

To code transcripts, we used grounded theory methods, an approach that allows for deriving a theory from the data and discovering new insights by coding quotations for emerging themes and building consensus between coders about the relationships between themes [45, 46]. Two investigators coded each transcript independently, and then met to compare codes and resolve discrepancies through discussion. We conjoined similar codes, eliminated duplicates, categorized codes into major themes, and identified relationships between themes. Transcripts were imported into NVivo® software (Melbourne, Australia) which was used to record our consensus themes, tally code frequencies, and trace code relationships. We used a constant comparison method, by which we tested and applied our coding categories to each new transcript.

Results

Overall, participants shared information gaps about their increased risk of HBV and HBV prevention, screening, and treatment. They also offered recommendations about preferred media outlets, information that, in turn, practitioners could use to help address misconceptions and reduce HBV risk in these communities.

Participants

In Table 2, we report participant demographics per ethnic group and per participant type, including less-acculturated, community members, and community leaders. Most of our study participants were between ages 51 and 64 (41.7%). Most were male (50.9%), college-educated (44.4%), and had lived in the U.S. for more than 10 years (59.3%) though preferred using their native language (76.9%). Most participants also made either more than \$75,000 annually (35.2%) or between \$20,000 and \$40,000 annually (18.5%). Most reported going to physicians who speak their native tongue for medical information (73.1%). There were small numbers of missing responses on the demographic survey, ranging from 1–6% and mostly affecting age and income.

Core Themes

Three core themes emerged—opinions about HBV, attitudes about treatment including complementary alternative medicine (CAM), and suggestions for outreach delivery. We present the findings below, organized in sections that correspond to these themes. Each subsection presents common attitudes shared by the different ethnic groups; then, pertinent subgroup differences are reported.

Common Opinions about HBV

We identified several common opinions—many of which were misconceptions—that participants held about the etiology and prevention, screening, and treatment of HBV.

Etiology—Although HBV is transmissible from mother to child as well as through intravenous and sexual routes, participants seldom mentioned these routes. They often mentioned diet and nutrition as causes of HBV.

Female Vietnamese Community Member: Hepatitis could be passed through eating or digestion.

Less Acculturated Female Chinese Community Member: Shang-Hai once had this year [when] a lot of people ate [a certain food]. Many people got liver disease. [This certain food]...is brought over using the cows that also carry feces.

Participants also said that suffering from fatigue or leading a stressful lifestyle could cause HBV.

Female Chinese Community Leader: Being tired is the source of all diseases.

Female Vietnamese Community Member: If we don't worry much or don't have stress, the virus will sleep; but if we worry a lot, the virus will wake up quicker.

Poor hygiene, another misconception, was mentioned often in Chinese groups than others.

Male Chinese Community Member: [My friend] had chronic hepatitis and it is contagious. My family told me not to drink water at his place, to be careful.

Finally, drinking alcohol, another misconception, was often mentioned in Vietnamese groups, but not other groups.

Male Vietnamese Community Member: I believe alcohol is a reason for the virus to develop.

Prevention—Although HBV is best prevented by being vaccinated, taking sexual precautions, and avoiding needle use, participants mentioned improving *hygiene, diet*, and *exercise* as preventatives.

Less-Acculturated Female Korean Community Member: I'll make sure not to transfer the disease to others by maintaining my personal hygiene.

Female Chinese Community Member: I watch my nutrition and do exercises because I know hepatitis starts from a lack of nutrition and then your body goes into a weak stage and then you get hepatitis.

Participants also shared *holistic methods* of prevention, such as resting, using CAM, and living healthily.

Less Acculturated Female Chinese Community Member: Eastern medicine is for prevention.

Male Korean Community Member: I'll have good rest [to prevent spreading hepatitis].

Finally, participants expressed confusion about the *efficacy of vaccines*, illustrating the complicated situations caused by lack of HBV screening prior to immunization.

Female Vietnamese Community Member: If they already had the vaccine, why do my two children still have the disease? I don't understand.

Male Korean Community Member: Since I got married to my wife, I have been inoculated against hepatitis three times and have not been a carrier until now.

Asian Americans should be screened prior to immunizations in order to fully assess their HBV status [2]. Some in the Korean group misunderstood the timing and purpose of screening before vaccination.

Less Acculturated Female Korean Community Member: We have to go through screening prior to being inoculated against hepatitis to check whether I gained immunity or not, right?

Screening—Screening was among the most frequent healthcare issue discussed by all except Vietnamese groups. Participants shared misunderstandings about *understanding test results* and concern about *financially affording* it.

Less-Acculturated Female Chinese Community Member: What antibodies, core antigen? We have no idea what are those. If the antigen is negative, then that means not a carrier, but what is [a] core antigen?...We are not clear.

Female Vietnamese Community Member: I don't have insurance. I have to pay cash for the doctor visit. It is very expensive.

Treatment—While a complete cure for chronic HBV is rare, treatment options—including antiviral medications—do exist, particularly for patients with active liver disease; however, misconceptions emerged regarding HBV treatment including the idea that chronic HBV is curable.

Less Acculturated Male Vietnamese Community Member: If you are young, and it is early detection, then you have a chance to get cured.

Female Korean Community Member: We have to be cured of the disease by medical doctors in the hospital.

Korean and Chinese groups often discussed *rest* and *other lifestyle changes* as important in treating HBV.

Female Chinese Community Member: My impression was that hepatitis patients needed rest, sugar and nutrition.

Male Korean Community Member: What's good to our liver will be none other than vacation, vegetables, and living on a regular basis, such as eating regularly and working out regularly, etc.

Differences between Ethnicities—There were some differences between ethnic groups regarding emphases placed on different themes. Regarding *prevention*, Chinese and Korean groups discussed *immunization* as a preventative moreso than Vietnamese groups.

Female Chinese Community Member: If one gets hepatitis B, those around you should go get the vaccine for it.

Male Korean Community Member: Since I got married to my wife, I have been inoculated against hepatitis three times and have not been a carrier until now.

Regarding *screening*, Korean groups often framed their own attitudes in terms of the eagerness of family and friends to be screened.

Male Korean Community Leader: All family members are ready to run to the hospital to take blood tests worrying about the disease whenever they don't feel very well anytime. I can say all they have a nervous breakdown now.

Chinese groups often shared *cultural influences on blood work* as a *screening* method, including concerns about how much blood is drawn and how blood tests are handled in the U.S. versus in China.

Female Chinese Community Member: For blood tests in China, he pokes a hole quickly and views it under the microscope. Americans...I don't know what are those big needles for. Why does he take that much blood?

Regarding *treatment*, Vietnamese discussed *physicians' directives*, or advice given by their doctors and their trust in physicians' diagnoses and prognoses, moreso than the other groups.

Female Vietnamese Community Member: The doctor kept saying the virus was inactive. We don't need treatment.

Male Vietnamese Community Leader: The doctor told me that I do not have to take medicine; I should avoid beer, eat well, and come back in six months.

Attitudes about Western and Complementary Alternative Medicine

Study participants described using CAM from their cultures along with Western medicine for the treatment of HBV infection. CAM is a group of diverse medical and health care systems, manipulative and body-based practices, and natural products that are not generally considered part of Western or allopathic medicine as practiced by holders of M.D. or D.O. degrees and by allied health professionals [47].

Hierarchy of Resort—Despite the fact that research has yet to confirm that CAM successfully treats HBV symptoms, all ethnic groups mentioned turning to CAM when *Western medicine failed* to cure or effectively treat illness or pain.

Less-Acculturated Vietnamese Community Member: When the doctor found that I had hepatitis B, he told me the medicine could not help for my disease, so I had to use herbal.

Female Chinese Community Member: Even if the hospital tells me this disease cannot be treated anymore, I will still go find an Eastern doctor.

Less-Acculturated Male Korean Community Member: Most of people tend to try modern medical hospital first and, if not cured well, then they try Oriental Medicine.

Reasons for Using CAM—Chinese and Vietnamese groups were most likely to mention the lower *financial cost of CAM* as a factor in its use, which may be important in persons lacking medical insurance. Vietnamese groups cited CAM's relatively inexpensive cost while Chinese groups cited the ability to afford both CAM and Western medicine.

Male Vietnamese Community Leader: People go to Eastern medicine for its cheap cost.

Female Chinese Community Leaders: Now, most people now, I think, are financially stable in the United States, and those people are willing to spend money on those health supplements.

Chinese groups, in particular, also mentioned that CAM had the ability to cure disease, as opposed to Western medicine simply treating symptoms.

Female Chinese Community Member: I think that Chinese medicines treat the root cause, so I have more trust in Chinese medicines.

Differences between Ethnicities—Different cultural factors influenced each ethnic group's attitudes about Western and Eastern medicine. Chinese groups often explained their attitudes about Western medicines in context of the practices in their *country of origin*.

Male Chinese Community Member: "This is how they do it in the United States... They will try one medicine first and then if it doesn't work, they will add another one, then another. But in China they will use many different medicines from the start, resulting in damage to liver function."

Vietnamese and Korean groups often explained their opinions in terms of the *experiences of family and friends* with different medicine types.

Female Vietnamese Community Member: "My husband took medicines and herbals which helped him to live for few years."

Male Korean Community Leader: "I contact many people in the older generations, so I have been the chairman of the Senior Citizens Association as a medical doctor... Sometime we work overnight to help them, and those who are in need come over to me to discuss. Always I am on the side of listening to them and thinking, and paying attention to our health issues a lot."

Ideal Community Outreach Delivery

The participants identified their preferred sources and methods of HBV information for use in future community-based programs, which will be important initiatives to address misconceptions of HBV prevention, screening, and treatment. All groups identified their primary sources of health information and shared different ways the community influences their health attitudes.

Sources of Information—All groups mentioned people—either medical providers or fellow community members—as their *primary sources* of medical information.

Male Vietnamese Community Member: I did ask my doctor some information about the disease. He told me I have to take the medicine, take more rest, and don't have heavy activity.

Male Korean Community Member: Many friends usually gather and discuss.

Female Chinese Community Member: I think it is better for me to consult my friends and do on-line research to see what type of doctors that I need to see.

However, they also mentioned secondary sources, including print media and the Internet.

Female Less-Acculturated Korean Community Member: It'll be the best if articles containing what a doctor said are published on a newspaper.

Male Less-Acculturated Korean Community Member: We read all the weekly magazines.

Male Korean Community Member: We are the biggest users of the Internet in the world, aren't we? Thanks to the highest level of enthusiasm to have kids educated.

Female Chinese Community Member: I will go to [the] medical library to check what type of library books and check the Internet, then decide what to do.

Advertisements and radio were also mentioned often by Korean and Vietnamese groups.

Female Vietnamese Community Member: The young can get information from schools or the Internet, and the old who speak Vietnamese can get information from the Vietnamese newspaper or the Vietnamese radio station.

Male Korean Community Member: Always advertisements say this is bad for the liver. That's why you take this medicine.

Discussion

Our study revealed misunderstandings that participants had about etiology and prevention, screening, and treatment of HBV infection. We found that all groups mistook nutrition and lifestyle factors as causes of HBV. More often than other groups, Chinese participants mentioned poor hygiene, and Vietnamese groups mentioned drinking alcohol. Regarding prevention, all groups mentioned hygiene, diet, exercise, and holistic methods as preventatives. Korean groups did not understand the significance of screening prior to vaccination. Screening problems common to Chinese and Korean included not affording test and not understanding test results. In terms of treatment, participants in all ethnicities expressed their belief that HBV was curable. Korean and Chinese groups discussed reducing stress and making lifestyle changes as treatment. Overall, participants tried Western medicine first, but turned to CAM in selective situations. These misconceptions may deter participation in screening, prevention and treatment, insofar as community members may factor them into healthcare decision-making, choose alternative but ineffective methods of prevention and treatment, and undervalue the benefits of screening. In turn, reluctance to participate may also affect the quality of care that providers offer these communities. Our prior study suggests that medical providers may elect not to perform HBV screening due to concerns about likelihood of medical follow-up and lack of linkage to further medical care [48].

We also uncovered unique trends that were particular to specific ethnic focus groups. Regarding Korean populations, prior studies found that Korean HBV healthcare utilization is influence by others' experiences with HBV and liver cancer and suspicions about transmission of HBV through contaminated food sources [25]. Our study extends this work, insofar as we found additional domains of misinformation, including diet and fatigue as causes of HBV and uncertainty about the timing of screening and vaccination. We also found that the impact of family and friends might play a significant role in influencing health attitudes and behaviors.

Among Chinese populations, prior studies found that Chinese community barriers to HBV care included time, inconvenience and language difficulties [49]. Peace of mind, prevention of transmission and contraction, financial cost, potential side effects, worries about reliability or efficacy, and perceived good health have been found to influence Chinese community attitudes toward vaccination and screening [23, 24]. Although previous work demonstrated that Chinese participants were aware of the HBV transmission routes of

childbirth, sexual intercourse, and sharing razor [14], other studies found misunderstandings about the relationship between HBV and liver cancer [18, 50]. Our findings extend this work by uncovering additional topics to address, including diet and poor hygiene as causes of HBV and a need for better understanding HBV screening test results. Furthermore, it might be the case that cultural influences such experience with medical practices in China and valuations of blood work impact attitudes about treatment in the U.S.

In Vietnamese groups, prior studies have found uncertainty in Vietnamese participants about asymptomatic transmission, duration of disease and probability of HBV cure [11]. Prior studies have also found associations between previous HBV testing and physician directives and family advocacy [13]. Our study uncovered additional need for stressing the importance of screening for HBV prior to immunization. Vietnamese groups shared attitudes about screening and immunization less frequently than the other ethnic groups in our study, which might suggest a trend throughout the ethnic community, but they also valued physician input in decision making. Additional education and patient-provider communication efforts about vaccination, prevention may be in order.

Participants also described their reasons for using CAM: when Western medicine fails or when they cannot afford Western medicine. Prior studies suggest that Asian American communities rely on the use of CAM for the treatment of mental health issues and chronic medical conditions [51, 52]. In our study, the notion that CAM offered curative powers lacking in Western medicine emerged among the Chinese group. Our study extends previous work by uncovering additional dynamics driving the use of CAM. More outreach and financial support may aid the community in weighing the benefits of Western medicine.

Regarding community outreach, participants sought information from medical providers and fellow community members, but also from the Internet. Prior studies suggest that education interventions may influence HBV knowledge in Asian communities and, in turn, knowledge levels might impact involvement in screening [22, 53, 54]. Health education campaigns should also enlist preexisting fixtures in the community—including religious organizations, community centers, local businesses, etc.—to help in outreach. More patient education in both traditional and new media is necessary for clarifying transmission and prevention, screening, and treatment misunderstandings.

Our findings are limited insofar as it is qualitative, therefore not generalizable. Some participants did not complete demographic surveys, so we could not make definitive claims about our findings representativeness per demographic subgroups. Also, additional dimensions and themes might have surfaced from completing additional focus group sections of the less-acculturated and community member groups. This may be especially true of our Korean less-acculturated focus group which was relatively small in size. Also, although we used native-language translators, some nuances of participants' opinions might have been lost in translation. Finally, the less-acculturated groups were predominantly female, which might have impacted the common themes that emerged.

Despite its limitations, this exploratory study provided many useful insights. Future studies should explore how best to improve and leverage relationships patients have with physicians

and family to encourage participation in prevention and screening and adherence to medical directives. Our findings point to implications for clinical practice. Clinics and insurance companies should consider supporting more outreach programs and financial assistance for these groups, especially providing medical follow up and linkage to further care for patients found to have HBV infection. More patient education efforts are necessary for clarifying treatment, transmission and testing misunderstandings. Education campaigns can include information in both traditional and new media outlets.

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Figure 1. Number of Focus Group Participants by Ethnicity and Community Role

*For each ethnic group, 3 community members focus groups were conducted. Groups A and B were general community members. Groups C were less-acculturated community members.

Table 1

Focus Group Questions

1	Genera	l Knowledge about HBV
	a.	What is hepatitis B?
	b.	Do Asian Americans have more or less risk for hepatitis B? Why?
	c.	What causes hepatitis B?
	d.	How is hepatitis B spread?
	e.	Have you heard of different kinds of hepatitis? What are differences between different kinds of hepatitis?
2	Prevent	lion
	a.	Are there ways to prevent hepatitis B? Vaccination? Clean food? Washing hands? Condoms? How many vaccination shots? What kind? Education?
	b.	How much money are you willing to spend on the vaccine if insurance doesn't pay for the vaccine?
	c.	Do you think that the existing education brochures give clear description of hepatitis B? Why or why not? What other ways could we improve the brochures/information?
	d.	What are the best ways to share information about hepatitis with other Asian Americans?
	e.	What do we need to educate the community? Time, people, resources?
3	Screeni	ng
	a.	How does a doctor check if somebody has hepatitis B?
	b.	Do you think people will participate in screening? Which is the best place for screening? What times of the year are best for screening?
	c.	How much do the tests cost? Can you afford to pay for the tests?
	d.	If blood testing was available, would you get screened for hepatitis? Could you pay \$20? \$30? \$40? Any concerns about blood draw?
4	Treatm	ent
	a.	Are there treatments for hepatitis B?
	ь.	If your test was positive, would you seek help? If not, why? Money? Lack of insurance? Language barriers? Transportation? Lack of time?
	c.	If your test was positive, where would you go for help or treatment? Asian/eastern medicine, western medicine, church, others? And why?

Table 2

Participant Characteristics by Ethnic Group*

		Chi	nese	Ko	rean	Vietn	amese	To	tal
		n=39	(%)	n=32	(%)	n=37	(%)	n=108	(%)
	18-40	7	(17.9)	9	(18.8)	9	(16.2)	19	(17.6)
-	41-50	14	(35.9)	8	(25.0)	8	(21.6)	30	(27.8)
Age	51-64	13	(33.3)	13	(40.6)	19	(51.4)	45	(41.7)
	>65	4	(10.3)	4	(12.5)	2	(5.4)	10	(9.3)
ζ	Male	21	(53.8)	17	(53.1)	17	(45.9)	55	(50.9)
Gender	Female	18	(46.2)	15	(46.9)	19	(51.4)	52	(48.1)
	None	0	(0)	0	0)	-	(2.7)	1	(6.0)
	Elementary School	0	0)	0	0)	0	0	0	0)
	Middle School	0	(0)	2	(6.3)	4	(10.8)	9	(5.6)
Dducation	High School/GED [↑]	7	(5.1)	S	(15.6)	12	(32.4)	19	(17.6)
Education	Vocational School	З	(7.7)	1	(3.1)	0	(0)	4	(3.7)
	College	16	(41.0)	18	(56.3)	14	(37.8)	48	(44.4)
	Advance Degree	17	(43.6)	9	(18.8)	9	(16.2)	29	(26.9)
	Other	0	(0)	0	(0)	0	(0)	0	(0)
	English	9	(15.4)	3	(9.4)	13	(35.1)	22	(20.4)
Language Preference	Native Tongue	31	(79.5)	29	(90.6)	23	(62.2)	83	(76.9)
	Other	1	(2.6)	0	(0)	0	(0)	1	(0.9)
	<=5	16	(41.0)	4	(12.5)	9	(16.2)	26	(24.1)
Years in US	5-10	4	(10.3)	5	(15.6)	L	(18.9)	16	(14.8)
	>10	19	(48.7)	23	(71.9)	22	(59.5)	64	(59.3)
	Physician - English	15	(38.5)	10	(31.3)	17	(45.9)	42	(38.9)
	Physician – NT \ddagger	32	(82.1)	21	(65.6)	26	(70.3)	79	(73.1)
Sources of Medical Information $^{\$}$	Trained Traditional	33	(7.7)	2	(6.3)	10	(27.0)	15	(13.9)
	Trained Western	8	(20.5)	9	(18.8)	9	(16.2)	20	(18.5)
	Family	6	(23.1)	4	(12.5)	10	(27.0)	23	(21.3)

		Chi	inese	K0	rean	Vietn	amese	T_0	tal
		n=39	(%)	n=32	(%)	n=37	(%)	n=108	(%)
	Friends	12	(30.8)	5	(15.6)	7	(18.9)	24	(22.2)
	$Media - NT \ddagger$	10	(25.6)	7	(21.9)	13	(35.1)	30	(27.8)
	Media - English	×	(20.5)	4	(12.5)	9	(16.2)	18	(16.7)
	Internet	11	(28.2)	7	(21.9)	6	(24.3)	27	(25.0)
	Less than \$20,000	7	(17.9)	S	(15.6)	15	(40.5)	27	(25.0)
	\$20,001-\$40,000	×	(20.5)	9	(18.8)	9	(16.2)	20	(18.5)
Income	\$40,001-\$50,000	1	(2.6)	2	(6.3)	4	(10.8)	L	(6.5)
	\$50,001-\$75,000	1	(2.6)	9	(18.8)	1	(2.7)	8	(7.4)
	More than \$75,000	19	(48.7)	6	(28.1)	10	(27.0)	38	(35.2)

 $\overset{*}{}_{\rm T}$. Total counts may not add up to 100% due to missing values;

 \dot{r} General education development;

 $t_{
m Native \ tongue;}$

 $\overset{S}{}_{M}$ ultiple responses per participant were possible.

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