

Susceptibility of Elderly Asian Immigrants to Persuasion With Respect to Participation in Research

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Familism, respect for authority, and a sense of shame/pride are cultural characteristics that might influence research participation of Asian Americans. We compared 79 elderly Asian immigrants, most of whom immigrated from China or Hong Kong, with 58 elders who were not Asian and mostly not immigrants. Responding to hypothetical situations presented on a self-administered questionnaire, the Asian group professed to be more likely to be influenced by a request from a son/daughter, landlord, physician, or advertisement ($p < 0.001$) and by a monetary incentive ($p = 0.05$). Multivariate adjustment for potential confounders attenuated the strength of these relations, but except in the case of the monetary offer, differences remained statistically significant. Within the Asian group, multivariate logistic regression modeling indicated that years lived in the US was associated with more likelihood of refusing requests to participate in research. We conclude that acculturation or assimilation into American society may build resistance to pressure to participate in research. Our findings also suggest that elderly Asian immigrants may need additional protections to achieve truly informed consent.

KEY WORDS: ethics; elderly; Chinese; immigration; language and research.

INTRODUCTION

Best known for its businesses, restaurants, and shops, it is easy to forget that Boston's Chinatown is a residential neighborhood, in which members of the community share a strong cultural and economic bond. Besides its residents, Chinatown serves as a cultural, economic, and political center for Chinese Americans from the greater Boston metropolitan area. Chinatown is a haven for recent immigrants and

a place where Chinese tradition and language predominates. Chinese immigrants in Chinatown have fostered a sense of community within the context of a metropolitan American city. In 2000, Chinatown was 69% Asian and 65% Chinese (Personal communication, Greg Perkins, Boston Housing Authority, June 4, 2004).

Like other Asian communities located in metropolitan areas throughout the United States, Boston's Chinatown is located in "an urban downtown district, mixed with business and residential zoning, an older overcrowded housing stock, near a transportation hub and/or major highways, and populated by a majority of first-generation, non-English speaking, working-class immigrants" (1).

During the 1950s and 1960s, urban renewal policies led to the building of two major highways that now define the Eastern and Southern boundaries of Boston's Chinatown. Designating the community as "blighted" helped facilitate the acquisition of over one-third of land available in Chinatown for institutional development by Tufts University

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and New England Medical Center (Tufts/NEMC). In recent years multiple high-rise towers have been built as the downtown district impinges on the community's Northern border. In addition, the city's only adult-entertainment district is adjacent to Chinatown (1).

Chinatown's inhabitants live under pressure to assimilate with American culture, yet also seek to retain values that they brought from China. Because many members of the community are unable to communicate in English, their employability and opportunities to engage in activities outside the context of Chinatown is restricted (2, 3). The language barrier affects more than access to jobs. For example, Tsai *et al.*, reports that proficiency in English and Chinese languages was positively correlated with increased self-esteem in young Chinese-American college students (4). The authors concluded that English proficiency is most likely related to the ease with which young Chinese-Americans assimilate into mainstream American culture.

The *Women of Color Health Data Book* reports that "fear of difficulties in communicating—compounded by shame, guilt, anger, depression, and other responses to certain stigmatized conditions such as mental retardation, substance abuse, and HIV/AIDS—may deter Asian Americans from seeking [medical] care promptly" (2). In particular, language barriers and low socioeconomic status contribute to elderly Chinese Americans' underuse of health services, especially the mental health services available through Western medicine (5–7). Access to health care is made even more difficult by the fact that insurance providers may not cover services such as acupuncture. In addition, Chinese traditional physicians generally prescribe and dispense medication, charging only a nominal fee for their services, with the major cost for the visit being medications. Therefore, a visit to a medical professional for a checkup without any prescriptions for medications could be a foreign concept for some immigrant Chinese Americans (2).

Tufts/NEMC is a burgeoning university and hospital, an academic institution based in Boston Chinatown, a primarily immigrant community. As such, it represents the expansion of Western medicine and research into a community whose culture is based at least in part upon an Eastern medical model (1, 2). This presents an interesting dilemma. How does a university and major medical center foster a trusting relationship with the Chinese community that it has already disenfranchised by its very presence? The answer at first seems obvious: pro-

vide culturally sensitive care and include the community in the research process. However, understanding Chinese culture and then successfully incorporating cultural nuances into a Western medical and research model presents its own unique challenges.

Familism, reverence for authority, and a sense of shame/pride are three cultural characteristics thought to influence the health of Asian Americans living in the United States. Familism refers to a family-centered decision-making process that is frequent in Asian cultures. Reverence for authority refers to a cultural idea that persons in positions of power, physicians for example, are to be respected as being particularly knowledgeable and their directions followed. For many Asians questioning authority is seen as disrespectful. Shame/Pride refers to the importance of hierarchy in Asian culture. An individual may achieve authority, especially the elderly, because their age reflects wisdom obtained through life experience. In addition many Asians do not wish to inflict shame upon or embarrass their family as shame for the individual can be reflected upon the entire family (2).

The concepts of familism and reverence for authority are of particular interest to those engaged in research, because of their divergence from the Western concept of individualism, upon which current research ethics guidelines are based (8). According to the *Women of Color Health Data Book*, family decision-making regarding health care issues is common amongst Asian Americans. In Asian societies with hierarchical structures, such as Chinese or Korean Americans, patients may be less inclined to question a physician's diagnosis and treatment out of respect for the physicians' authority.

An increasing number of articles have been published addressing issues unique to research involving as well as affecting Asian communities. For example, Lam *et al.* have explored the effectiveness of media education versus lay health workers in increasing the number of Pap smears Vietnamese women receive, concluding that direct interaction with a health worker is a stronger influence than is the media (9). Clark *et al.* (10) concluded that focus groups, when organized through community input, could be very useful in establishing an initial working relationship between the researchers and community members. Brugge *et al.* (11) developed message concepts about secondhand smoke that were tailored to Chinese and Vietnamese communities in Boston.

Asian immigrants might be less willing to resist pressure to participate in research studies. We decided to start by exploring the roles children,

landlords, physicians, money, and the media play in the decision process when elderly consider whether or not they wish to participate in a research study. While other influential people could be considered (religious leaders, teachers), we chose a selection that seemed relevant based on our experience and that represented what we thought could be a range of strengths of persuasion. Asian immigrants living in or near Boston's Chinatown are contrasted with elderly non-Asians living in the Boston area. We hypothesized that elderly Asian immigrants living in Chinatown would be significantly more likely to indicate that they could be persuaded to join a research study.

METHODS

Study Populations

We aimed to recruit two very different populations, one immigrant Chinese and the other non-immigrant non-Chinese. While the first group was entirely Asian, there were three Asian immigrants who were not from China or Hong Kong (Thailand, Vietnam, and Macau). In the second group there were a small number of non-Asian immigrants (9; immigration dates ranging from 1920 to 1997). These two groups are henceforth referred to as the "Asian" and "non-Asian" groups.

A health fair targeting the elderly Chinese population of Chinatown was held in the lobby of the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University (HNRC) for 4 h (1–5 P.M.). The design of this fair consisted of several health stations, each providing educational materials or services such as blood pressure readings. The implementation of the health fair was a result of an ongoing collaboration between the Community Advisory Board of the Human Nutrition Research Center and The Greater Boston Chinese Golden Ages Center (GBCGAC), a community-based service agency (12).

The target participants, the Chinese elderly, do not typically read or write English. Therefore, all written materials were translated into Cantonese and then back translated to English. Kun Chen, of the GBCGAC, oversaw translation. Translators, both provided by GBCGAC and one of the coauthors (WL), were available at all health stations to provide oral translation as well. During the health fair, participants were asked if they would share their health data, such as blood pressure level, blood lipid levels, etc., without any identifiers, with the Tufts research

team. Included in the data collected at the health fair was basic demographic information and responses to six questions regarding research participation (See Table I for a list of the questions). Data from 79 participants at the fair was collected through both self-administered and interview administered, in a written survey format.

There was an error in the translation of the question: "Have you ever volunteered in a research study?" In traditional Chinese, the letter that indicates, "have done something" (曾) is very similar to "will or willing to do something" (會). While the surveyors corrected the error after only a small percentage of the surveys were completed, we have chosen to leave the question out of the analysis.

The non-Asian survey consisted of the same demographic and research participation questions. Participants were required to be able to understand written English in order to fill out the survey. We sought sites easily available to us that we thought would produce a non-Asian, nonimmigrant population. Accordingly, we collaborated with Mary Ann Hardenbergh, Director of Project Healthy Plus at ABCD (Action for Boston Community Development), and Dan O'Leary, Program Director for Mystic Valley Elder Services (MVES), to find appropriate locations for conducting our survey. In all 58 surveys were collected from non-Asian elders sites: 31 surveys collected at a Foster Grandparents meeting at ABCD in Boston, Massachusetts and 27 surveys collected during lunch provided at a Senior Center in Medford, Massachusetts, run by MVES.

The Tufts-NEMC Institutional Review Board deemed both surveys exempt from informed consent.

Survey Collection

Asian Surveys

The participants themselves filled out most of the surveys, but when they could not read Chinese, the survey was read to them and filled in by the interpreters. There were three interpreters/interviewers—two senior men and a female graduate student (author (WL)), all of whom were Chinese. The interpreters were instructed by one of the authors (DB) to be neutral and to not pressure potential respondents. Observation of data collection supported the premise that the interviewers followed the instructions. Some participants filled the survey when standing in line waiting for other services, while some others filled

Table I. Proportions and Crude and Adjusted Odds Ratios for Research Participation

	Asian group (<i>n</i> = 79)	Non-Asian group (<i>n</i> = 58)	Crude OR (95% CI)	Adjusted OR (95% CI)
If your son/daughter asked you to participate in a research study that you did not want to participate in, would you:				
* Agree to participate	73% (<i>n</i> = 57)	24% (<i>n</i> = 12)	7.6	3.7 ^a
* Refuse to participate	13% (<i>n</i> = 10)	31.4% (<i>n</i> = 16)	(2.78, 20.78)	(1.0, 14.4)
* Don't know	14% (<i>n</i> = 11)	45% (<i>n</i> = 23)	<i>p</i> < 0.001	<i>p</i> = 0.06
If your landlord/housing director asked you to participate in a research study that you did not want to participate in, would you:				
* Agree to participate	73% (<i>n</i> = 55)	15% (<i>n</i> = 8)	17.6 (6.0, 51.2)	11.2 ^b
* Refuse to participate	12% (<i>n</i> = 9)	43% (<i>n</i> = 23)	<i>p</i> < 0.001	(3.4, 36.1)
* Don't know	16% (<i>n</i> = 12)	43% (<i>n</i> = 42)		<i>p</i> < 0.001
If your physician asked you to participate in a research study that you did not want to participate in, would you:				
* Agree to participate	76% (<i>n</i> = 58)	25% (<i>n</i> = 14)	6.90	4.4 ^b
* Refuse to participate	12% (<i>n</i> = 9)	27% (<i>n</i> = 15)	(2.5, 19.0)	(1.3, 14.5)
* Don't know	12% (<i>n</i> = 9)	48% (<i>n</i> = 27)	<i>p</i> < 0.001	<i>p</i> = 0.02
If you saw an advertisement in your newspaper that invited you to participate in a research study that you did not want to participate in, would you:				
* Agree to participate	55% (<i>n</i> = 42)	11% (<i>n</i> = 6)	8.46	11.0 ^a
* Refuse to participate	31% (<i>n</i> = 24)	52% (<i>n</i> = 29)	(3.1, 23.3)	(2.1, 58.5)
* Don't know	14% (<i>n</i> = 11)	38% (<i>n</i> = 21)	<i>p</i> < 0.001	<i>p</i> = 0.005
If you were offered \$50 to participate, would it change your mind about participating in any of the situations described above?				
* Agree to participate	41% (<i>n</i> = 31)	19% (<i>n</i> = 11)	2.32	1.8 ^a
* Refuse to participate	45% (<i>n</i> = 34)	49% (<i>n</i> = 28)	(0.92, 5.95)	(0.6, 5.7)
* Don't know	15% (<i>n</i> = 11)	32% (<i>n</i> = 18)	<i>P</i> = 0.05	<i>p</i> = 0.3

^aAdjusted for sex, living alone and education.

^bAdjusted for sex and living alone.

the survey at a rest space. Based on observations, some of the elderly were willing to take the survey, some were influenced by a spouse or friend, and some refused to take the survey. The refusal rate was not recorded.

Non-Asian Surveys

The general atmosphere of the two locations used to collect data from elderly non-Asians was

quite different. A female graduate student who is Asian American (author AK) conducted the surveys at both locations. She was instructed in interviewing techniques by author DB prior to collecting surveys. The Foster Grandparents meeting was a mixed crowd, consisting of elderly Chinese-speaking immigrants as well as English-speaking nonimmigrants, and Spanish-speaking immigrants. Participants who were not Asian and who were able to communicate and read English were very willing to

complete the survey. In contrast, while many female participants at the Medford Senior Center were willing to complete the survey, several male elderly refused, and tried to dissuade the female participants from participating. The majority of male elders unwilling to participate appeared to be military veterans based on their comments and paraphernalia that they wore, and were openly suspicious regarding the government and therefore our survey, despite reassurances that the data collected was confidential.

Data Analysis

Descriptive statistics, in the form of means and proportions were used to characterize the two populations. Formal group comparisons were made by use of the Fisher's Exact Test, chi-square and 2-sample *t* tests. Multivariate analysis of covariance and logistic regression were used to compare the two groups, after adjustment for demographic characteristics, such as sex, living alone, and education. Relative risks and their 95% confidence intervals were estimated from logistic regression analysis. Associations where $p < 0.05$ were deemed statistically significant; those where $0.05 < p < 0.10$ were deemed of borderline significance. Due to the dearth of information in this area, we felt that it was preferable to minimize type I error over type II error. All analyses were conducted using SPSS Version 11.5.

RESULTS

Participant Demographics

The total number of surveys obtained was 137. More than half (58.4%; $n = 79$) of the surveys collected were from the Asian group versus 41.6% ($n = 58$) from the non-Asian group. Table II presents the basic demographic data for the two groups. The non-Asian group was more likely to be female and was 7 years older, on average, than the Asian group. The non-Asian group had lived in the United States an average of 71 years versus 14 years for the Asian group. The majority of the Asian group (73%) lived with someone else, whereas 73% non-Asian group lived alone. The Asian group was divided between living in Chinatown (42%) and the Boston area (55%), whereas none of the non-Asian group lived in Chinatown.

Almost all of Asian group (96%) spoke a Chinese dialect (37% Mandarin, 61% Cantonese, 30% Toishanese, some speaking multiple dialects),

with only two considering English to be their primary language, and one reporting other. While the entire non-Asian group spoke English, 93% reported English to be their primary language, with 7% reporting their primary language to be other. A majority (77%) of the Asian group was able to read Chinese, and 99% reported their ability to read and speak English as "none or some." This is in contrast to the non-Asian group, approximately 96% of whom could read and speak the English language proficiently. None of the non-Asian group respondents were able to speak or read Chinese. The majority of both groups was retired or had never worked outside of the home. There was a significant difference in educational level between the groups, with 58% of the Asian group having completed either high school or college versus 88% of non-Asian group having completed high school or college.

Descriptive Analysis

Table I presents details of the descriptive analysis. About three-fourths (73%) of Asian group reported that they would agree to participate in a research study, if their son or daughter were to ask them, even if they did not want to participate. In contrast, only 24% of the non-Asian group would agree. The same percentage of the Asian group reported that they would agree to participate in a research study, if their landlord or housing director asked them. In comparison, only 15% of non-Asian group would participate based on their landlord's request. Similarly, 76% of the Asian group reported that they would agree to participate in a research study if their physician asked them to whereas only 25% of non-Asian group would agree. About half (55%) of the Asian group reported that they would agree to participate in a research study after seeing an advertisement in a newspaper. In contrast, only 11% of non-Asian group reported that they would agree to participate. Forty-one percent (41%) of the Asian group and 19% of the non-Asian group would participate if offered \$50. Table I shows that the non-Asian group was much more likely to choose "don't know" to these questions (32–48%) compared to the Asian group (12–16%).

Multivariate Analyses

Odds ratios for affirmative responses to the five questions are presented for Asian compared to non-Asian groups (Table I). Crude odds ratios were

Table II. Demographic Characteristics of Participants

	Asian Group (<i>n</i> = 79)	Non-Asian Group (<i>n</i> = 58)	
Sex			
Female	62% (<i>n</i> = 46)	84% (<i>n</i> = 48)	<i>P</i> = 0.005 ^a
Male	38% (<i>n</i> = 28)	16% (<i>n</i> = 9)	
Mean age (years)	70.6 (<i>n</i> = 73)	77.0 (<i>n</i> = 53)	<i>P</i> < 0.001 ^b
Average years lived in the United States	13.8 (<i>n</i> = 74)	70.5 (<i>n</i> = 52)	<i>P</i> < 0.001 ^b
Living situation			
* Alone	25% (<i>n</i> = 18)	73% (<i>n</i> = 42)	<i>P</i> < 0.001 ^a
* Not alone	73% (<i>n</i> = 55)	28% (<i>n</i> = 16)	
Neighborhood			
* Chinatown	42% (<i>n</i> = 31)	0%	
* Boston	55% (<i>n</i> = 41)	100% (<i>n</i> = 57)	<i>P</i> < 0.001 ^a
* Outside Boston	2.7% (<i>n</i> = 2)	0%	
Primary language			
* Chinese	96% (<i>n</i> = 71)	0%	<i>P</i> < 0.001 ^c
* English	3% (<i>n</i> = 2)	93% (<i>n</i> = 54)	
* Other	1.3% (<i>n</i> = 1)	7% (<i>n</i> = 4)	
Ability to read primary language	77% can read Chinese	98% can read English	
Ability to read English	99% none/some (<i>n</i> = 69)	1.4% none/some (<i>n</i> = 1)	<i>P</i> < 0.001 ^c
	● 56% none (<i>n</i> = 39)	● 0% none	
	● 43% some (<i>n</i> = 30)	● 1.4% some (<i>n</i> = 1)	
	1.4% well (<i>n</i> = 1)	95% well (<i>n</i> = 54)	
Ability to speak English	99% none/some (<i>n</i> = 70)	3.6% none/some (<i>n</i> = 2)	<i>P</i> < 0.001 ^c
	● 54% none (<i>n</i> = 38)	● 0% none	
	● 45% some (<i>n</i> = 32)	● 3.6% some (<i>n</i> = 2)	
	1.4% well (<i>n</i> = 1)	96.4% well (<i>n</i> = 54)	
Work status			
* Employed (full/part time)	16% (<i>n</i> = 11)	8.8% (<i>n</i> = 5)	<i>P</i> = 0.23 ^a
* Retired/never worked	84% (<i>n</i> = 58)	92% (<i>n</i> = 55)	
Educational status			
* No school/grade school	43% (<i>n</i> = 31)	12% (<i>n</i> = 7)	<i>P</i> < 0.001 ^a
* High school/college	58% (<i>n</i> = 42)	88% (<i>n</i> = 51)	

^aPearson Chi-Square.

^b*t*-test for equality of means.

^cFisher's exact test.

all statistically significant and, except the offer of money, they all had *p* values below 0.001. Adjustment for these variables attenuated the relative risks in models for the influence of son/daughter and monetary offer questions, so that they were no longer statistically significant. The newspaper question remained statistically significant after adjustment. The landlord and doctor questions both remained statistically significant after adjustment for sex and living alone; the model could not be further adjusted for education due to model instability. Overall, the demographic variables that were entered into the regression models reduced associations.

Predictors of research participation within the Asian group (*n* = 79) were also of interest. The variables considered were age, years spent in the U.S., living alone, and education level. For their son or daughter asking the respondent to participate, only years lived in the U.S. was of borderline significance

(*p* = 0.07) with a 6% increase in likelihood to refuse to participate for each year in the U.S. For the question regarding landlord influence, only years lived in the U.S. was statistically significant (*p* = 0.05) with a 7% increase in likelihood to refuse to participate for each year in the U.S. For their doctor asking the respondent to participate, only years in the U.S. approached statistical significance (*p* = 0.06) with a 6% increase in likelihood to refuse to participate for each year in the U.S. For a newspaper ad or an offer of \$50, none of the variables was statistically significant.

DISCUSSION

Demographics and Selection Criteria

Our purpose was to compare the susceptibility of Asian and non-Asian populations to influence from their children, landlords, physicians, a

newspaper ad, and an offer of money with regard to participation in a research study. We set out to survey two very distinct population groups. Based upon previous research regarding the Chinatown community (1, 3), we assumed that seeking out Chinese elders via a health fair within Chinatown would recruit participants who were predominantly immigrants who did not speak English well. This proved to be the case. Equally important was our recruitment of non-Asian elders. Our sources for the non-Asian group provided us, as we had hoped, with a population that was predominantly nonimmigrant and English-speaking. Thus we achieved two convenience samples that differed in key characteristics we set out to distinguish.

Our sampling strategy was designed to recruit two groups that would be similar on demographic factors other than Asian, immigrant, and primary language. Although age of the two groups was similar, education level, work status, and the percentage living alone differed substantially between the two groups. Because both groups were modest sized convenience samples, we cannot state that the responses that we report here are generalizable to larger populations.

Research Participation

Unadjusted comparison of the research participation questions (Table I) showed striking differences in the willingness of the Asian and non-Asian groups to participate in a study when influenced by a son/daughter, their landlord, and their physician. The Asian group's answers suggested that they were particularly susceptible to influence from such persons with respect to changing their mind about participating in a research study in which they did not want to participate. About three-fourths of the Asian group indicated that they would be influenced whereas only one-quarter or fewer of the non-Asians would be influenced. A newspaper ad or an offer of \$50 was less persuasive to the Asian group and not at all persuasive to the non-Asian group. It is striking to us, however, that even these impersonal approaches were reportedly convincing to many in the Asian group.

Odds ratios for the five questions were all above 2 and were all statistically significant, in agreement with the substantial differences in responses between the Asian and non-Asian groups. After adjusting for demographic variables, however, most of the odds ratios were reduced (the newspaper ad question being an exception). Further, the odds ratio for the \$50 offer of money did not remain statistically significant.

This suggests to us that there is at least an element of confounding at work in the data. That is, demographic variables *other than* Asian, immigration, and primary language contribute to the differences we saw in the two groups. We cannot say whether addition of more demographic information, had it been collected, would have further reduced the observed associations.

The large percentage of non-Asians picking "don't know" suggests that they had a greater degree of uncertainty about the choice than did the Asian group. The obvious question that a respondent might have is "what *type* of research?" Although further work is needed, it is interesting to speculate that providing the respondents with concrete examples, a blood draw vs. a survey for example, might have helped the undecided come to a decision.

We chose to frame the questions about research participation such that the respondent was being asked to change their mind about participating in research in which they did not want to participate. We believed that framing the choice this way would better measure the type of influence that informed consent is designed to address. That is, the recruitment of participants to research studies should not unduly convince people to do something that they do not want to do. Our data suggest that the risk of subtly coercing people is greater among elderly Asians, predominantly Chinese immigrants, than among elderly non-Asians. One reasonable or logical interpretation of these findings is that extra care is warranted during the informed consent process for research with elderly Chinese immigrant populations.

Our exploration of the influences of demographic variables on the responses to the research participation questions within the Asian group indicated that years lived in the US was the only significant predictor for influence from sons/daughters, landlords, and doctors. This is consistent with acculturation influencing susceptibility to pressure to participate in a research study. It is possible that as Chinese Americans assimilate into American society, the American ideal of individualism at least partially displaces more traditional Chinese values.

Familism, reverence for authority, and a sense of shame/pride are three characteristics believed to influence the health of Asian Americans living in the United States (2). The language barrier has also been documented to deter elderly Chinatown community members from seeking appropriate medical care. These characteristics may be relevant in explaining our results. It may be, however, that socioeconomic

factors play a substantial role as well. Adjustment for SES indicators reduced the associations that we saw. Whether similar levels of persuasiveness would be found in other immigrant populations recently removed from a low-income agrarian economy should be pursued in future investigations.

The elderly Asian group that we surveyed were significantly more influenced by children, landlords, physicians, and the media compared to their non-Asian counterparts even after adjusting for potential confounding variables. However, we suspect that the significant influence of children upon the responses of elderly Asians may derive from family decision-making. Similarly, a landlord or physician is seen as a person of power and respect. Therefore, if reverence for authority is a cultural characteristic of the elderly Asians surveyed, it could also be affecting the decision-making process regarding research participation. In addition, it may be that one's inability to communicate in the English language contributes to shame felt by elderly Asian Americans. There is a need to investigate more thoroughly whether or not these cultural characteristics are truly explanatory.

A newspaper ad also acted as a relatively persuasive influence upon elderly Asians when compared to the non-Asians. We postulate that a person with whom they have personal contact influence elderly Asians more, which is why money was not as strong an influence.

Future Work

Several lines of future investigation that would be interesting to explore as follow up to the study presented above arise from our work. First, it would be useful to explore how a physician's cultural background (Asian vs. non-Asian) might affect the role that doctors play in influencing research participation. Second, we generalized the category of "newspaper" to represent the media in the decision-making process. Perhaps viewing mock advertisements, for example, a television advertisement or a newspaper advertisement would be instructive. Finally, similar inquiry with a more detailed explanation of the research study would further our understanding of determinants of research participation in this group.

Our analysis is also relevant to the specific situation of Tufts/NEMC because the institution is located in Boston Chinatown. We hope that this study informs and encourages future responsible research

in the Chinatown community and that it may work to improve the relationship between Tufts/NEMC and its neighboring residents.

We believe future efforts to include the Chinatown community in the research process must take into account how easily persuaded community members can be toward participation. In practice, it may not be easy to integrate Chinese views of familism, respect for authority, and sense of shame/pride into a Western view of individualism and autonomy. In addition to clarifying the difference between Asian and non-Asian views of participation in research, finding ways to convey informed consent that takes into consideration differences in culture, class, and other factors is essential if consent to participate in research is to be truly informed.

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