Trust in One's Physician: The Role of Ethnic Match, Autonomy, Acculturation, and Religiosity Among Japanese and Japanese Americans

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ABSTRACT

PURPOSE Trust is a cornerstone of the physician-patient relationship. We investigated the relation of patient characteristics, religiosity, acculturation, physician ethnicity, and insurance-mandated physician change to levels of trust in Japanese American and Japanese patients.

METHODS A self-administered, cross-sectional questionnaire in English and Japanese (completed in the language of their choice) was given to community-based samples of 539 English-speaking Japanese Americans, 340 Japanese-speaking Japanese Americans, and 304 Japanese living in Japan.

RESULTS Eighty-seven percent of English-speaking Japanese Americans, 93% of Japanese-speaking Japanese Americans, and 58% of Japanese living in Japan responded to trust items and reported mean trust scores of 83, 80, and 68, respectively, on a scale ranging from 0 to 100. In multivariate analyses, English-speaking and Japanese-speaking Japanese American respondents reported more trust than Japanese respondents living in Japan (*P* values < .001). Greater religiosity (*P* < .001), less desire for autonomy (*P* < .001), and physician-patient relationships of longer duration (*P* < .001) were related to increased trust. Among Japanese Americans, more acculturated respondents reported more trust (*P* < .001), and Japanese physicians were trusted more than physicians of another ethnicity. Among respondents prompted to change physicians because of insurance coverage, the 48% who did not want to switch reported less trust in their current physician than in their former physician (mean score of 82 vs 89, *P* < .001).

CONCLUSIONS Religiosity, autonomy preference, and acculturation were strongly related to trust in one's physician among the Japanese American and Japanese samples studied and may provide avenues to enhance the physician-patient relationship. The strong relationship of trust with patient-physician ethnic match and the loss of trust when patients, in retrospect, report leaving a preferred physician suggest unintended consequences to patients not able to continue with their preferred physicians.

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INTRODUCTION

Trust between a patient and physician is a cornerstone of the patientphysician relationship.^{1,2} Trust can facilitate health information exchange,³ as well as determine a patient's willingness to seek care,^{3,4} receptivity to health promotion counseling,⁵⁻⁷ openness to examination and treatment,^{4,5,7-11} and likelihood of return for follow-up care.^{5,10} Patients with more trust in their physician are likely to be more satisfied with care^{5,11-14} and to have positive clinical outcomes.^{5,9,11} In recent years, patient trust has been challenged by perceived conflicts of interest inherent in managed

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care^{8,15-20} and by societal changes leading to increased patient autonomy and information access. In an era of increased cultural diversity and potential language barriers, trust is crucial for patients struggling to accept diagnoses and to follow complex treatment plans.

Despite the important role of trust in the physicianpatient relationship, there are considerable gaps in our understanding about factors underlying patient trust in their physicians. Conceptually, physician characteristics and behaviors, patient demographics and clinical factors, patient view of the physician-patient relationship, and characteristics of the relationship, all combine to influence trust in one's physician. Previous studies identified physician behaviors related to patient trust, such as technical competency and good interpersonal skills.^{21,22} Other important determinants of trust include physician office structure and staffing.^{21,23} Increased patient age is related to a higher level of trust in physicians, ^{10,20-22,24} but it is unknown whether patient desire for autonomy or religiosity (both related to age) play a role in this finding. The characteristics of patient sex,^{10,11,20,24-26} education,^{10,11,20,26} and income^{11,24} have weak or nonexistent relationships with trust. One study suggests that patients with worse physical and mental health status have less trust in their physician.²⁷ Continuity of care^{21,22} and increased duration of the physician-patient relationship^{10,20,24,28} are associated with increased trust. Patients given a choice of physicians also tend to be more trusting.²⁰ Little is known, however, about whether such cultural factors as patient-physician ethnic match and acculturation affect trust.

We performed a cross-cultural survey of a single ethnic group to understand how predisposing patient factors, cultural issues, patient-physician relationship characteristics, and insurance-mandated physician change affect patients' trust in their physicians. Based on the literature and clinical experience, we specified a priori a set of predisposing patient variables that we expected would be related to trust. We hypothesized that persons desiring more autonomy^{3,29,30} would be less trusting of physicians. We also anticipated that married persons and those with greater religiosity would have greater trust. Those with increased acculturation to Western mores and an ethnic match with their physician also would be more likely to have increased trust, because language and cultural obstacles would be less formidable. Patients required to change physicians because of insurance mandates might be less trusting of their new physicians.

METHODS

We surveyed older persons of Japanese heritage to understand the determinants of trust. Three cohorts of Japanese were identified: 1 cohort of Japanese living in Japan, and 2 groups of Japanese Americans representing different levels of acculturation. Consistent with validated acculturation scales, Japanese language fluency was used as a proxy for acculturation.³¹⁻³³ Less acculturated Japanese-speaking Japanese Americans were sampled from settings geographically distributed around Los Angeles: 2 apartment complexes in Little Tokyo (a Japanese enclave established by older generations), 2 social clubs for older Japanese, and 2 Japanese American social organizations. More acculturated English-speaking Japanese Americans were randomly sampled from member lists of 3 geographically distinct Japanese American community centers in the Los Angeles area. Japanese living in Japan were either members of social clubs or older family members of workers at a hospital in Nagoya, Japan.

Survey Procedure and Contents

The survey questionnaire was administered in 1997 for English-speaking Japanese Americans and in 1998 for Japanese-speaking Japanese Americans and Japanese living in Japan; it was mailed in the United States and hand-delivered in Japan. Nonrespondents were sent a postcard reminder and a second mailing. The survey protocol was approved by the Institutional Review Board at the University of California, Los Angeles. Five hundred thirty-nine English-speaking Japanese Americans, 340 Japanese-speaking Japanese Americans, and 304 Japanese living in Japan responded to the guestionnaire for response rates of 92%, 82% and 91%, respectively. Of these, 467 English-speaking Japanese Americans (87%), 315 Japanese-speaking Japanese Americans (93%), and 175 Japanese living in Japan (58%) responded to trust items.

The self-administered questionnaire contained several previously validated scales.³⁴⁻³⁶ An English language version of the questionnaire was initially developed based on findings from focus groups with Englishspeaking and Japanese-speaking Japanese Americans and Japanese living in Tokyo.³⁷ The Japanese language questionnaire was constructed by forward and backward translation. The questionnaire included the SF-12 Health Survey³⁸ items modified from a validated Japanese version of the SF-36,^{39,40} and a Japanese language version of Ende's Autonomy Preference Index.41,42 The survey instrument development is discussed in greater detail elsewhere.43 Japanese living in Japan completed the Japanese language version, English-speaking Japanese Americans completed the English language version, and Japanese-speaking Japanese Americans completed the questionnaire in the language of their choice, with most selecting the Japanese version.

The questionnaire elicited demographic information and information about religion. To investigate religious affiliation and level of religiosity, we asked respondents whether they thought of themselves "as a religious person," and whether they were "officially a member of a parish, congregation, temple, or other place of worship." Clinical factors included the SF-12 physical and mental health components measuring health-related quality of life (HRQOL), the number of chronic health conditions, and whether the patient was hospitalized in the past 6 months. The Autonomy Preference Index (API) assessed desired level of autonomy in decision making ($\alpha = 0.86$).

Respondents were asked whether they had a regular physician and the duration of the relationship with that physician. Japanese Americans were also asked whether they had been "forced to change doctors due to ... insurance coverage in the past 5 years," if they wanted to "continue seeing [their] prior doctor," how long they had seen their previous physician, and current and previous physician ethnicity.

Japanese Americans also completed 6 items measuring acculturation ($\alpha = 0.82$). The scale was highly correlated (r = 0.71) with a longer instrument, the Suinn-Lew Asian Self-Identity Acculturation Scale,³¹⁻³³ and yielded scores ranging from 0 to 100 (100 = maximum acculturation). Items included the respondent's preferred language, self-designated ethnicity, country of birth, country of rearing, and number of foreign-born parents and grandparents.³³

Measurement of Trust

Respondents were asked 3 questions about the amount of trust they had in their physician: "How much do you trust your doctor to provide you high-quality medical care?" "How much do you trust your doctor to always make medical decisions in your best interest?" and "How much do you trust your doctor to provide you with the amount and kind of medical care that you would want if you were critically ill?" Response options included not at all, a little, somewhat, mostly, and completely (1 = not)at all, 5 = completely). These items were adapted from a previously validated 10-item scale designed to investigate the influence of payment method on trust.¹² The 3 items were formed into a trust scale with $\alpha = 0.92$ (α = 0.91, 0.93, and 0.91 for English-speaking Japanese Americans, Japanese-speaking Japanese Americans, and Japanese living in Japan, respectively). If respondents answered only 2 trust items (n = 11), these items were used to form the trust scale. This scale was transformed to a 0 to 100 score by subtracting 1 from the mean score and multiplying the result by 25.11 Findings from this sample suggest that trust increases 1 point for each year of physician-patient relationship.

Statistical Analysis

We performed bivariate analyses to assess the relationship between patient characteristics and trust with correlation coefficients, *t* tests, and analysis of variance, as appropriate for continuous and categorical measures. Continuous variables included age, education, mental and physical HRQOL, number of chronic conditions, duration of relationship with physician (in years), API (on a scale from 1 to 5, with 5 = greatest desire for autonomy) and acculturation score. Categorical variables included sex, marital status, household income (\$1 = \$140),⁴⁴ religious affiliation, religiosity (not religious, religious but not a church member, or religious church member), health insurance, recent hospitalization, physician ethnicity, and study cohort.

All the variables selected for the bivariate analysis were included in a multivariate model, with the exception of income, health insurance, and number of chronic conditions, which were not significantly correlated with trust in bivariate analyses and were highly correlated with other independent variables. We used multistep multiple linear regression. The first model contained demographic variables only. Then clinical variables (hospitalization and HRQOL) were added to the model. Subsequently, API and physician-patient relationship duration were added. The results of only the full model and the model containing demographic and clinical characteristics are presented because adding clinical variables to the demographic model caused little change. Missing physical and mental HRQOL items (n = 151) were replaced using mean substitution. A separate multivariate analysis was performed with Japanese Americans using the same multistep approach, acculturation and physician ethnicity were included in this full model. Model goodness-of-fit was evaluated using adjusted R². Two respondent outliers were excluded from the analyses; deletion had minimal effect on regression variable parameter estimates or significance levels.

A separate analysis examined the effect of changing physicians and physician ethnicity on patient trust. Change in trust was computed by subtracting trust in current physician from trust in previous physician. Change in trust by physician ethnicity was evaluated for patients who had to change physicians, comparing those who preferred not to change physicians with those who found change to be acceptable. We performed *t* tests and Wilcoxon nonparametric 2-sample tests, as appropriate, to assess changes in trust within and between the 2 groups. Multivariate analysis was used to explore the relationship between change in trust (the dependent variable) and patient demographics, clinical variables, API, acculturation, physician-patient relationship duration, current and previous physician ethnicity, and patient desire to continue with previous physician.

RESULTS

The sample included 467 English-speaking Japanese Americans, 315 Japanese-speaking Japanese Americans,

Characteristic	English-speaking Japanese Americans	Japanese-speaking Japanese Americans	Japanese Living in Japan
Number	467	315	175
Mean age, y (SD)*	64.5 (13.5)	74.7 (9.1)	65.8 (8.6)
Male, %*	61.7	35.1	40.2
Marital status, %*			
Married	70.0	50.7	76.4
Divorced or separated	5.6	10.4	6.9
Widowed	19.9	33.3	14.4
Never married	4.5	5.6	2.3
Household income ≤\$50,000, %*†	58.4	84.6	79.3
Working, %*	43.5	23.1	35.3
Mean years of education (SD)*	14.1 (2.9)	11.5 (2.6)	11.3 (2.6)
Religious affiliation, %*			
Christian	37.1	14.3	2.9
Buddhist	47.7	61.5	70.4
No specific affiliation	13.1	19.3	24.4
Other religion	2.2	5.0	2.3
Religiosity, %*			
Not religious	48.6	47.0	57.6
Religious, not a church member	16.3	23.0	27.3
Religious, church member	35.1	30.0	15.1
Health Insurance, %*			
National insurance	NA	NA	100
Medicare	41.5	32.8	NA
Private	55.7	46.8	NA
Medicaid alone/no insurance	2.8	20.4	NA
Have a regular doctor, %‡	99.8	98.0	100
Ethnicity of regular doctor, %*			
Japanese	35.7	66.2	NA
White	40.2	12.8	NA
Other Asian	17.0	19.0	NA
Other ethnicity	7.2	2.0	NA
Mean years with regular doctor (SD) [‡]	3.5 (1.3)	3.7 (1.3)	3.8 (1.1)
Autonomy Preference Index (SD)*§	3.1 (1.2)	1.7 (0.8)	2.3 (0.99
Mean acculturation score (SD)*	69.1 (23.8)	26.0 (23.7)	NA
HRQOL, mean (SD) [¶]			
Physical summary score*	48.9 (9.6)	47.1 (8.8)	46.2 (8.5)
Mental summary score*	53.6 (7.8)	49.8 (8.8)	45.6 (7.5)
Mean number of chronic conditions (SD)	2.2 (1.7)	2.0 (1.6)	2.0 (1.5)
Hospitalization in past 6 months, % [‡]	6.2	12.6	9.1

HRQOL = health-related quality of life.

* P <.001.

+ Japanese yen converted to US dollars ($\pm 140 = \pm 1$).

‡ P <.01.

§ Autonomy Preference Index ranges from 1 to 5; higher score indicates greater autonomy.

 $\mid\mid$ Acculturation score ranges from 0 to 100; higher score indicates more acculturation.

¶ Health-related quality of life measured by SF-12 on 0 to 100 scale; higher score is better.

and 175 Japanese living in Japan. English-speaking Japanese American respondents were more likely to have higher income. Japanese-speaking Japanese American respondents were more likely to be older, female, not working, and either divorced, separated, or widowed. English-speaking Japanese American respondents had the largest proportion of Christians and religious church members, whereas Japanese respondents living in Japan had more Buddhists. Mean physical and mental HRQOL scores decreased from English-speaking Japanese American respondents to Japanese-speaking Japanese American respondents to Japanese respondents living in Japan. English-speaking Japanese American respondents had more chronic conditions than the other groups but fewer recent hospitalizations. English-speaking Japanese American respondents reported the greatest desire for autonomy, followed by Japanese respondents living in Japan and then Japanese-speaking Japanese American respondents. Patient-physician relationship duration was similar across groups. English-speaking Japanese American respondents were more acculturated than were Japanese-speaking Japanese Americans respondents (69 vs 26), and Japanese-speaking Japanese Americans respondents were more likely to have Japanese physicians (Table 1).

Overall, respondents had a mean trust rating of 79, with a range from 0 to 100. Thirty-one percent of respondents gave their physician a perfect score, 55% were 75 years old or older, and 13% were younger than 50 years. English-speaking Japanese American respondents had a mean trust level of 83, compared with 80 for Japanese-speaking Japanese Americans respondents and 68 for Japanese respondents living in Japan.

Characteristics	n	Mean Trust Score	R ²	P Value
Group	957			<.001
English-speaking Japanese Americans		83.2		
Japanese-speaking Japanese Americans		80.3		
Japanese living in Japan		67.5		
Male	946	80.4		.08
Female		78.4		
Age, years	935	_	0.16	<.001
Marital status	943			<.001
Divorced or separated		71.9		
Never married		80.2		
Married		78.6		
Widowed		83.9		
Household income	872			.70
< \$50,000		79.3		
>\$50,000		78.7		
Education	934	—	0.00	.87
Religious affiliation	932			<.001
Christian		83.1		
Buddhist		79.7		
Other; no specific religion		74.4		
Religiosity	932			<.001
Not religious		75.9		
Religious, not a church member		79.5		
Religious, church member		85.3		
Health Insurance	773			<.01
Medicare		84.8		
Private		80.3		
Medicaid only/no insurance		81.3		
Other insurance HRQOL from SF-12		83.3		
Physical summary score	806	—	0.02	.53
Mental summary score	806	—	0.21	<.001
Chronic conditions	932	—	0.01	.78
Hospitalization in past 6 months	934	82.0		.20
No hospitalization past 6 months		79.3		
Ethnicity of regular doctor*	765			<.001
Japanese		84.7		
White		82.1		
Other ethnicity		77.2		
Years with regular doctor	940	—	0.22	<.001
Autonomy preference index	901	—	-0.12	<.001
Acculturation score*	780	—	0.10	.004

Table 2. Bivariate Relationship of Patient Characteristics

Bivariate Correlates of Trust

Older respondents and religious respondents held higher levels of trust, especially true for those of Christian faith. Higher mental HRQOL, longer physicianpatient relationship, and less desire for autonomy also were associated with greater trust. Among Japanese Americans, trust was highest for Japanese physicians. Other demographic and clinical variables were not related to trust (Table 2).

Multivariate Analysis

In multivariate analyses, English-speaking and Japanese-speaking Japanese American respondents reported significantly more trust than did Japanese respondents living in Japan. Patients desiring less autonomy and those who had longer relationships with their physicians reported more trust in their physicians; inclusion of these 2 variables reduced the relationship of patient age, sex, and hospitalization with trust in the demographic and clinical model, but other variables were minimally affected. Divorced patients reported less trust, but widowed patients had more trust than married patients. Level of religiosity was directly related to trust, as was better physical and mental HRQOL (Table 3).

The multivariate model that included only Japanese Americans differed little from the model that included all 3 groups. More acculturated patients reported significantly more trust. In addition, patients trusted Japanese physicians more than other physicians (Table 4).

Relationship of Changing Physicians and Trust

Of 782 Japanese American respondents, 307 indicated that they had changed physicians because of insurance reasons in the past 5 years. Of these respondents, 233 reported on whether they wanted to continue seeing their previous physician and indicated the ethnicity of their current and previous physicians. Overall, patients who wanted to stay with their previous physician held greater trust in that physician compared with those who reported that change was acceptable (89.3 vs 71.3, *P* <.001). Patients who did not want to change physicians reported significantly less trust in their current physician than in their previous physician (81.8 vs 89.3, P < .001); however, patients who reported that physician change was acceptable reported slightly higher trust in their current than their previous physician (76.7 vs 71.3,

P <.01). Overall, patients who did not want to change physicians reported a significant decrease in trust compared with the change in trust reported by patients who found change to be acceptable (difference in change in trust 12.9, P <.001). This effect of mandated Table 3. Two Multivariate Models of Patients' Trust in One's Physician: Including Patients' Demographic and Clinical Variables, and Adding Patients' Autonomy Preference and Length of Relationship With Physician*

Independent Variables*	Including Demographic and Clinical Variables (95% Cl)	Including Demographic and Clinical Variables, Plus Autonomy and Length of Relationship With Physician (95% Cl)		
Group				
English-speaking Japanese Americans	13.6 (10.2-17.0)	16.6 (13.25-20.04)		
Japanese-speaking Japanese Americans	9.44 (6.02-12.9)	9.87 (6.52-13.25)		
Female	-2.88 (-5.400.34)	-2.16 (-4.62-0.30)		
Age	0.19 (0.08-0.31)	0.04 (-0.08-0.16)		
Marital status				
Divorced/separated	-5.02 (-9.38 to -0.66)	-4.84 (-9.18 to -0.50)		
Never married	2.68 (-2.71-8.07)	2.05 (-3.06-7.17)		
Widowed	3.22 (0.09-6.35)	4.05 (0.98-7.12)		
Education	-0.40 (-0.84-0.04)	-0.28 (-0.72-0.15)		
Religiosity				
Religious, not a church member	4.94 (2.09-7.79)	4.51 (1.73-7.29)		
Religious, church member	7.41 (4.82-9.99)	7.45 (4.93-9.97)		
Physical summary score	0.16 (0.02-0.30)	0.19 (0.06-0.32)		
Mental summary score	0.19 (0.05-0.34)	0.16 (0.02-0.31)		
Hospitalization in past 6 months	4.86 (0.94-8.78)	3.85 (-0.04-7.73)		
Years with regular doctor	—	2.94 (2.07-3.80)		
Autonomy preference index	—	-3.00 (-4.12 to -1.88)		

Note: Coefficients presented from multiple linear regression model that includes demographic and clinical variables and has n = 876 and adjusted $R^2 = 0.19$. Model including demographics, clinical variables, autonomy and physician relationship has n = 826 and adjusted $R^2 = 0.26$.

CI = confidence interval: HROOL = health-related guality of life.

* Independent variables have reference groups as follows: Group – Japanese living in Japan; female – male; age – per year; marital status – married; education – per year; religiosity – not religious; physical HRQOL score – per point on 100-point scale; mental HRQOL score – per point on 100-point scale; hospitalization in past 6 months – no hospitalization; years with regular doctor – per year; Autonomy Preference Index – per point on 5-point scale.

physician change on trust was unrelated to previous or current physician ethnicity (Table 5). In adjusted analyses accounting for patient characteristics and clinical variables, patients who did not want to change physicians suffered a loss of 15 trust points (P < .001) compared with patients who were amenable to change.

DISCUSSION

This study of Japanese and Japanese Americans found that decreased patient desire for autonomy, being married, greater religiosity, and a physician-patient relationship of longer duration were associated with greater trust in one's physician. For Japanese American respondents, Western acculturation and patient-physician ethnic match were related to increased trust, whereas insurance-mandated physician change was associated with less trust. Many of these factors are not amenable to easy change in modulating trust. The presence of these characteristics, however, can alert physicians to attend to aspects of care that appear to be affected by trust, such as adherence to medications and therapeutic recommendations.^{4,5} With such patients, physicians may want to make special efforts to build trust, including recognizing the anxiety surrounding cultural barriers and facilitating communication.⁴⁵

Patients who want to make their own decisions trust their physicians less. Physicians might enhance their relationship with patients who desire more autonomy over their health care decisions by adopting an interactive, less directive practice style. Although age has been shown in other studies^{10,20-22,24} to be a significant predictor of trust, adding autonomy preference to the demographic-clinical model removed the effect of age, suggesting that desire for autonomy mediates variation in trust by age.

Recognizing which patients are predisposed to be less trusting is the first step toward securing trust within the relationship. Divorced or separated patients might bring experiences of broken trust into the clinical encoun-

ter. Less religious patients also reported less trust. Yet, the association between religiosity and trust should be viewed cautiously, because differences may exist in how Japanese living in Japan and Japanese Americans view religion. Self-reported religiosity may be affected by one's cultural framework, church attendance and membership may be a stronger indication of religiosity in the United States than in Japan. Consistent with previous studies, a physician-patient relationship of shorter duration was associated with less trust.^{10,20,24,28,29}

Overall, English-speaking Japanese American respondents were more trusting than Japanese-speaking Japanese American respondents, who were more trusting than Japanese respondents living in Japan. The more acculturated Japanese American respondents may trust their physicians more because of a greater ease in communicating with physicians in English and an increased comfort with American physicians' manner-

Independent Variables*	Demographic and Clinical Variables (95% Cl)	Including Demographic and Clinical Variables, Plu Autonomy and Length o MD Relationship (95% Cl)		
Female	-2.43 (-5.16-0.29)	-1.77 (-4.36-0.82)		
Age	0.14 (0.02-0.25)	-0.052 (-0.18-0.07)		
Marital status				
Divorced/separated	-7.25 (-12.0 to -2.54)	-6.75 (-11.4 to -2.07)		
Never married	1.62 (-3.86-7.09)	0.49 (-4.74-5.72)		
Widowed	2.98 (-0.37-6.33)	4.50 (1.26-7.74)		
Education	-0.12 (-0.57-0.33)	-0.07 (-0.54-0.40)		
Religiosity				
Religious, not a church member	3.49 (0.30-6.68)	4.01 (0.94-7.09)		
Religious, church member	6.29 (3.62-8.97)	6.76 (4.21-9.32)		
Physical summary score	0.10 (-0.04-0.24)	0.14 (0.00-0.28)		
Mental summary score	0.28 (0.13-0.43)	0.25 (0.10-0.40)		
Hospitalization in past 6 months	4.37 (0.13-8.60)	4.31 (0.06-8.57)		
Ethnicity of regular doctor				
White	—	-3.18 (-6.01 to -0.36)		
Other ethnicity	—	-6.46 (-9.48 to -3.44)		
Years with regular doctor	_	2.59 (1.67-3.52)		
Autonomy Preference Index	_	-2.70 (-3.84 to -1.57)		
Acculturation score	_	0.08 (0.03-0.12)		

Table 4. Japanese Americans Only: Multivariate Models of Trust Including Acculturation and Physician Ethnicity

Note: Coefficients presented from multiple linear regression model that includes demographics and clinical variables has n = 705 and adjusted R2 = 0.08. Model including demographics, clinical variables, autonomy and physician relationship has n = 652 and adjusted R2 = 0.19.

MD = physician; CI = confidence interval; HRQOL = health-related quality of life.

* Independent variables have reference groups as follows: Group – Japanese living in Japan; female – male; age – per year; marital status – married; education – per year; religiosity – not religious; physical HRQOL score – per point on 100-point scale; mental HRQOL score – per point on 100-point scale; mental HRQOL score – per point on 100-point scale; not scale; acculturation score – per guard doctor – per year; Autonomy Preference Index – per point on 5-point scale; acculturation score – per point on a 100-point scale.

isms and Western culture. This relationship of acculturation and trust is underscored by the relationship between ethnic match and trust. Yet, it is not realistic to achieve an ethnic match for all patients desiring one. Instead, cultural competency training might enhance patient trust by promoting understanding and acceptance of different cultural norms.⁴⁵⁻⁴⁹

This study raises the intriguing question of why Japanese American respondents, given the potential language and cultural barriers, report more trust in their physicians than do the Japanese respondents living in Japan. This difference may be related to response frame. Asian Americans, in general, tend to assign lower scores on physician-rating questionnaires than whites, Latinos, or African Americans⁵⁰⁻⁵²; perhaps Asians from other countries respond with lower scores than those living in the United States. Japanese, in particular, may hesitate to express strong feelings of positive or negative trust because of cultural inhibitions. Alternatively, the Japanese living in Japan might trust their physicians less

Table 5. Japanese Americans Only: Relationship of Changing Physicians and Physician (MD) Ethnicity With Trust in Physician

Previous MD		Did Not Want to Chang	to Change	MD		OK to Change MD				
	Current MD	n	Mean Previous MD Trust	Mean Current MD Trust	Change	n	Mean Previous MD Trust	Mean Current MD Trust	Change	Overall Difference
Japanese	Japanese	46	88.9	85.8	-3.1	32	74.7	79.2	4.5	7.6*
	White	6	93.1	80.5	-12.6	9	75.0	82.4	7.4	20.0
	Other	6	91.7	68.1	-23.6	6	66.7	68.1	1.4	25.0
White	Japanese	7	89.3	85.7	-3.6	6	61.1	80.6	19.5	43.1*
	White	23	91.3	84.8	-6.5	21	73.4	79.8	6.4	12.9*
	Other	6	81.9	77.8	-4.1	16	72.4	77.1	4.7	8.8
Other	Japanese	4	85.4	72.9	-12.5	3	63.9	83.3	19.4	31.9
	White	4	87.5	64.6	-22.9	12	69.4	75.7	6.3	29.2†
	Other	10	89.2	75.8	-13.4	16	66.7	65.6	-1.1	12.3*
Overall		112	89.3	81.8	-7.5‡	121	71.3	76.7	5.4 [†]	12.9 [‡]

than do Japanese Americans. Criticism by the Japanese media of inhibited communication within the physician-directed model of interaction in Japan could have eroded patient trust in their physicians. Further work should explore variations in trust between Japanese Americans and Japanese living in Japan.

These data also suggest that system factors affect trust in one's physician. Undesired switching of physicians as a result of insurance changes was associated with significantly reduced trust. These retrospective findings must be considered exploratory; however, employerbased health-plan changes directing patients to change physicians may not only be costly in terms of time to establish new relationships,⁸ they may actually harm care by diminishing trust among those resistant to change.

This study has several limitations. Despite efforts to reduce contextual differences between the English and Japanese language questionnaires, it is possible that some measurement differences persisted. Language and acculturation could affect the Likert response choices. Also, because the survey groups were drawn from urban settings, the respondents are not representative of all Japanese Americans or Japanese living in Japan, limiting the generalizability of the findings. English-speaking Japanese Americans were recruited from community centers in an area where Japanese Americans were highly concentrated, and it is possible these respondents were less acculturated than non-community-center members living outside the area. In addition, Japanese-speaking Japanese Americans were mostly older women living in communities densely populated by Japanese, although these communities were scattered over a wide geographic area. Studies of trust and ethnicity are needed on broader samples as well as with other cultural groups.

A smaller percentage of Japanese living in Japan completed the trust items than did English-speaking or Japanese-speaking Japanese Americans. Although response bias might contribute to the lower levels of trust reported by Japanese respondents living in Japan, their low response rate is more likely related to the structure of the Japanese health care system. As a result of universal insurance coverage, Japanese patients often have access to specialists or visit emergency departments instead of relying on care coordination by primary care physicians. Consistent with the 58% of Japanese respondents living in Japan who reported having a regular physician in this study, surveys have shown that about 60% of the Japanese population has a primary care physician.

Finally, this study is limited by its cross-sectional design. Its retrospective nature makes establishing a cause-effect link between mandated physician change and trust impossible. Those more satisfied with their new physician could have been more likely to report the change was acceptable compared with those who were less satisfied with their new physician.

These data expand our understanding of trust in the physician-patient relationship. They point out that such factors as religiosity, autonomy preference, and marital status are related to trust. Physicians should be aware that these factors might put their patients at risk for diminished trust, and specific attention might be focused toward building connections and confidence. The importance of cultural match emphasizes the crucial nature of cultural competency. It is important to note that physicians caring for less acculturated patients may garner less trust, but they should not be penalized by lower trust measures. Minimizing insurance shifts that force apart established physicianpatient relationships would enhance the trust physicians have established with their patients and may maximize the attendant clinical benefits.

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Key words: Trust; acculturation; personal autonomy; physician-patient relations; Asian Americans

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References

- Crawshaw R, Rogers DE, Pellegrino ED, et al. Patient-physician covenant. JAMA. 1995;273:1553.
- Montaglione CJ. The physician-patient relationship: cornerstone of patient trust, satisfaction, and loyalty. Manag Care Q. 1999;7:5-21.
- 3. Dunn L, Perry BL. Where your patients are. Prim Care. 1997;24:715-721.
- Lau JT, Yu A, Cheung JC, Leung SS. Studies on common illnesses and medical care utilization patterns of adolescents in Hong Kong. J Adolesc Health. 2000;27:443-452.
- Safran DG, Taira DA, Rogers WH, et al. Linking primary care performance to outcomes of care. J Fam Pract. 1998;47:213-220.
- DiMatteo MR. Enhancing patient adherence to medical recommendations. JAMA. 1994;271:79-83.
- Francis V, Korsch BM, Morris MJ. Gaps in doctor-patient communication. Patients' response to medical advice. N Engl J Med. 1969;280:535-540.

- Mechanic D, Schlesinger M. The impact of managed care on patients' trust in medical care and their physicians. JAMA. 1996;275:1693-1697.
- Mostashari F, Riley E, Selwyn PA, Altice FL. Acceptance and adherence with antiretroviral therapy among HIV-infected women in a correctional facility. J Acquir Immune Defic Syndr Hum Retrovirol. 1998;18:341-348.
- Thom DH, Ribisl KM, Stewart AL, Luke DA. Further validation and reliability testing of the Trust in Physician Scale. The Stanford Trust Study Physicians. Med Care. 1999;37:510-517.
- Thom DH, Kravitz RL, Bell RA, Krupat E, Azari R. Patient trust in the physician: relationship to patient requests. *Fam Pract.* 2002;19: 476-483.
- Keating NL, Green DC, Kao AC, et al. How are patients' specific ambulatory care experiences related to trust, satisfaction, and considering changing physicians? J Gen Intern Med. 2002;17:29-39.
- Grumbach K, Selby JV, Damberg C, et al. Resolving the gatekeeper conundrum: what patients value in primary care and referrals to specialists. JAMA. 1999;282:261-266.
- Hall JA, Dornan MC. What patients like about their medical care and how often they are asked: a meta-analysis of the satisfaction literature. Soc Sci Med. 1988;27:935-939.
- Kao AC, Green DC, Zaslavsky AM, Koplan JP, Cleary PD. The relationship between method of physician payment and patient trust. JAMA. 1998;280:1708-1714.
- Gray BH. Trust and trustworthy care in the managed care era. Health Aff (Millwood). 1997;16:34-49.
- Mechanic D. Changing medical organization and the erosion of trust. Milbank Q. 1996;74:171-189.
- Emanuel EJ, Dubler NN. Preserving the physician-patient relationship in the era of managed care. JAMA. 1995;273:323-329.
- Relman AS. The impact of market forces on the physician-patient relationship. J R Soc Med. 1994;87 Suppl 22:22-24; discussion 24-25.
- Kao AC, Green DC, Davis NA, Koplan JP, Cleary PD. Patients' trust in their physicians: effects of choice, continuity, and payment method. J Gen Intern Med. 1998;13:681-686.
- 21. Thom DH, Campbell B. Patient-physician trust: an exploratory study. J Fam Pract. 1997;44:169-176.
- 22. Thom DH. Physician behaviors that predict patient trust. J Fam Pract. 2001;50:323-328.
- Scott RA, Aiken LH, Mechanic D, Moravcsik J. Organizational aspects of caring. *Milbank Q*. 1995;73:77-95.
- Mainous AG, 3rd, Baker R, Love MM, Gray DP, Gill JM. Continuity of care and trust in one's physician: evidence from primary care in the United States and the United Kingdom. *Fam Med.* 2001;33:22-27.
- Hall MA, Camacho F, Dugan E, Balkrishnan R. Trust in the medical profession: conceptual and measurement issues. *Health Serv Res.* 2002;37:1419-1439.
- Anderson LA, Dedrick RF. Development of the Trust in Physician scale: a measure to assess interpersonal trust in patient-physician relationships. *Psychol Rep.* 1990;67:1091-1100.
- 27. Mechanic D, Meyer S. Concepts of trust among patients with serious illness. Soc Sci Med. 2000;51:657-668.
- Doescher MP, Saver BG, Franks P, Fiscella K. Racial and ethnic disparities in perceptions of physician style and trust. Arch Fam Med. 2000;9:1156-1163.
- Sullivan RJ, Menapace LW, White RM. Truth-telling and patient diagnoses. J Med Ethics. 2001;27:192-197.
- Krupat E, Bell RA, Kravitz RL, Thom D, Azari R. When physicians and patients think alike: patient-centered beliefs and their impact on satisfaction and trust. J Fam Pract. 2001;50:1057-1062.
- Suinn R, Ahuna C, Khoo G. The Suinn-Lew Asian Self-Identity Acculturation scale: concurrent and factorial validation. *Edu Psychol Meas.* 1992;52:1041-1046.

- 32. Suinn R, Rickard-Figueroa K, Lew S, Vigil P. The Suinn-Lew Asian Self-Identity Acculturation scale: an initial report. *Edu Psychol Meas.* 1987;47:401-407.
- Meredith L, Wenger N, Liu H, Harada N, Kahn K. Development of a brief scale to measure acculturation among Japanese-Americans. J Comm Psych. 2000;28:103-113.
- Murphy ST, Palmer JM, Azen S, et al. Ethnicity and advance care directives. J Law Med Ethics. 1996;24:108-117.
- Blackhall LJ, Murphy ST, Frank G, Michel V, Azen S. Ethnicity and attitudes toward patient autonomy. JAMA. 1995;274:820-825.
- 36. A controlled trial to improve care for seriously ill hospitalized patients. The study to understand prognoses and preferences for outcomes and risks of treatments (SUPPORT). The SUPPORT Principal Investigators. JAMA. 1995;274:1591-1598.
- Bito S, Matsumura S, Fukuhara S, Wenger NS. Acculturation and end-of-life-decision making: focus group comparison of Japanese and Japanese-Americans. J Gen Intern Med. 1998;13(Suppl 1):93.
- Ware JE, Kosinski M, SD K. SF12: How to Score the SF-12 Physical and Mental Health Summary Scales. Boston, Mass: New England Medical Center, The Health Institute; 1995.
- Ware J, Snow K, Kosinski M, Gandek B. SF-36 Health Survey Manual and Interpretation Guide. Boston, Mass: New England Medical Center, The Health Institute; 1993.
- Fukuhara S, Bito S, Green J, Hsiao A, Kurokawa K. Translation, adaptation, and validation of the SF-36 Health Survey for use in Japan. J *Clin Epidemiol.* 1998;51:1037-1044.
- Ende J, Kazis L, Ash A, Moskowitz MA. Measuring patients' desire for autonomy: decision making and information-seeking preferences among medical patients. J Gen Intern Med. 1989;4:23-30.
- Ohki M, Fukuhara S. Development and validation of the autonomy preference index for Japanese subjects. Japan Health Psychol. 1995;3:11-24.
- Matsumura S, Bito S, Liu H, et al. Acculturation of attitudes toward end-of-life care: a cross-cultural survey of Japanese Americans and Japanese. J Gen Intern Med. 2002;17:531-539.
- 44. Organisation for Economic Cooperation and Development (OECD). Purchasing power parity. Consumer price levels. 2001. Available at: http://www.oecd.org/pdf/M00009000/M00009294.pdf. Accessed: May 16, 2002.
- Kagawa-Singer M, Blackhall LJ. Negotiating cross-cultural issues at the end of life: "You got to go where he lives". JAMA. 2001;286:2993-3001.
- Brach C, Fraser I. Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. *Med Care Res Rev.* 2000;57 Suppl 1:181-217.
- Crandall SJ, George G, Marion GS, Davis S. Applying theory to the design of cultural competency training for medical students: a case study. Acad Med. 2003;78:588-594.
- Scott CJ. Enhancing patient outcomes through an understanding of intercultural medicine: guidelines for the practitioner. *Md Med J.* 1997;46:175-180.
- Thompson WL, Thompson TL, 2nd, House RM. Taking care of culturally different and non-English speaking patients. Int J Psychiatry Med. 1990;20:235-245.
- Taira DA, Safran DG, Seto TB, et al. Asian-American patient ratings of physician primary care performance. J Gen Intern Med. 1997;12:237-242.
- Meredith LS, Siu AL. Variation and quality of self-report health data. Asians and Pacific Islanders compared with other ethnic groups. *Med Care*. 1995;33:1120-1131.
- 52. Murray-Garcia JL, Selby JV, Schmittdiel J, Grumbach K, Quesenberry CP, Jr. Racial and ethnic differences in a patient survey: patients' values, ratings, and reports regarding physician primary care performance in a large health maintenance organization. *Med Care*. 2000;38:300-310.

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