SOCIOCULTURAL FACTORS INFLUENCING DELAY IN SEEKING ROUTINE HEALTH CARE AMONG LATINAS: A COMMUNITY-BASED PARTICIPATORY RESEARCH STUDY

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Objectives: To assess sociocultural factors associated with delaying routine healthcare among Latinas.

Methods: Using community-based participatory research; we interviewed 287 Latinas from the Capital District, NY. The Andersen model of healthcare utilization was used to assess predisposing, enabling and need factors influencing delay in seeking care. Modified Poisson regression was used to estimate prevalence risk ratios (PRR) and 95% confidence intervals.

Results: Overall 70% of women reported delaying care. After controlling for other factors, women who were not married (PRR 1.21), had chronic disease (PRR 1.24), preferred a Latino doctor (PRR 1.18), used alternative medicine (PRR 1.28), were uninsured (PRR 1.29), or had faced discrimination during earlier health care visits (PRR 1.23), were significantly more likely to delay care.

Conclusions: Delay in seeking care among Latinas is determined by cultural and social factors that need to be incorporated in interventions aimed at improving access. (*Ethn Dis.*2010;20:148-154)

Key Words: Latina, Healthcare Utilization, Community-Based Participatory Research

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INTRODUCTION

Latinos are the largest and fastest-growing ethnic group in the United States and in New York State.[1] The Capital District of New York, comprising three small cities, fits the definition of a new Latino destination.[2] The area has seen a 185% rise in its Latino population from 1980 to 2000.[2] Latinos in rural areas and in smaller communities may face different barriers to healthcare than in areas with larger Latino populations.[3] There is a paucity of research on Latinos living in new Latino destinations in health literature[4] and there has been a call for more public health research on Latinas to improve the understanding of Latina health issues.[5]

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Studies indicate that Latinos are more likely to delay needed care for both acute and chronic conditions.[9–17] Delaying needed care may result in prolonged suffering, difficult and costly treatment, and increased morbidity and mortality.[6–8] Most studies of delay in health care have focused on cost and insurance coverage as primary barriers to health care utilization. Only one known study examined the relationship of broader sociocultural factors and delaying routine care among Latinos.[18] They found that among 132 predominantly male Mexican American workers in Arizona, perceived seriousness of a symptom was strongly related to an earlier visit to the doctor. Faith and concordance with provider sex and race were also associated with trust in the doctor and an earlier doctor visit. Bad medical experiences and practical barriers were related to avoidance. Unfortunately, their findings may not be generalizable to women and other Latino sub-groups as well as to Latinos in new Latino destinations. Women may face different barriers than men when seeking health care. Latinas living in new Latino destinations may experience different sociocultural environments and factors related to health access than those living in traditional Latino hubs. They may not have the same level of social and structural supports.[4]

When trying to understand a specific cultural group, especially in regards to understanding behavioral beliefs, a within-culture understanding can occur only when members of that cultural group are involved in the research.[18] The study, on which this article is based, used a community-based participatory research (CBPR) approach in which members of the Latino community were actively involved in the research process so that the data obtained more accurately reflected the experiences of the populations studied.[19]

METHODS

Conceptual Framework

The Andersen-Aday model of healthcare utilization was used to ex-

amine healthcare preferences, perceptions and sociocultural barriers that influence delay in seeking routine health care among Latinas in a new Latino destination (Figure 1). The behavioral model assumes that individual determinants of use of services are: a) predisposing factors of the individual, b) their ability to secure services, which enable use of services and c) their illness level, which determines need for services.[20]

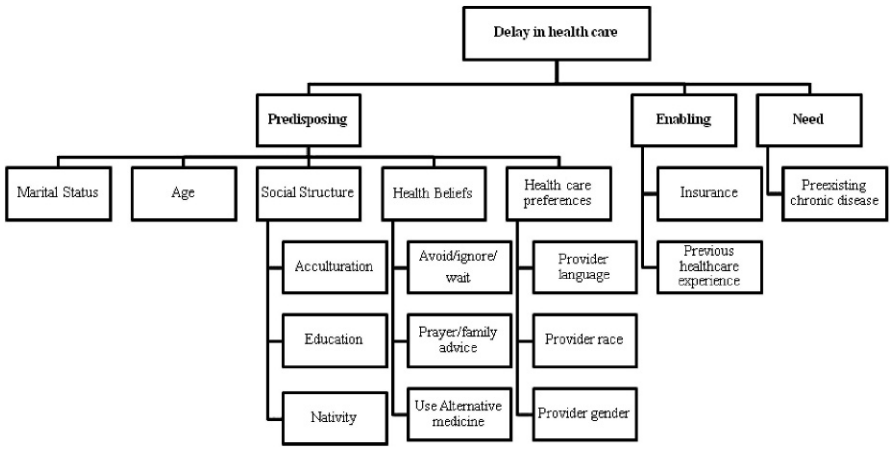

Fig 1. Andersen model of healthcare utilization explaining effect of sociocultural factors on delay in seeking health-care among Latinas

Participants and Setting

The researchers collaborated with Centro Civico, a community based organization that provides comprehensive services to Latino children and families. Latina community members were actively involved in the development and implementation of the study as well as the interpretation of the preliminary findings, which were first presented at an open community meeting.

A survey was self-administered among 289, mostly Puerto-Rican, Latinas living in the Capital District of New York State to assess cultural and social barriers that influenced their healthcare utilization. Since the target population was not concentrated in one area and therefore hard to reach, a snowball sampling design was used.[21] The study participants were recruited through community organizations and given a $10 gift card. The survey questions were derived from themes identified in four focus groups. A focus group guide was developed in collaboration with community members. The groups were co-facilitated by an institutional review board (IRB) certified, trained community partner. Analysis of the focus groups identified several themes that were interpreted by community members and translated into 70 closed ended survey questions. The survey was translated into Spanish by a professional translator and then back translated by a bilingual research assistant. The Spanish and English versions of the survey were then tested by two focus groups in the community during which participants verified the conceptual accuracy. They also critiqued the language translation and the cultural appropriateness of the survey questions and the question ordering. The IRB-trained partners also helped recruit participants.

Dependent Variable - Delay in Health Care

The outcome variable, delay in medical care, was derived from the National Health Interview Survey (NHIS) questionnaire[22] and was modified based on the focus group themes. We measured delay by using a multipart question with yes/no responses for attitudinal/behavioral items following the general prompt: ''There are many reasons people delay getting medical care. In the past 12 months have you delayed getting care for any of the following reasons?'' The responses listed barriers identified by the focus groups. Participants were assigned as likely to delay if they had one or more yes responses.

Independent Variables

Predisposing factors are individual characteristics that exist prior to the episodes of illness that predict use of health services. In our study, predisposing factors included age, marital status, education, immigrant status, acculturation, health beliefs and health care preferences.

Demographic variables such as age, marital status and education were measured using validated questions from standard questionnaires.[22,23] Acculturation was measured using the eight-item National Health Interview Survey (NHIS), which is a modified version of the Delgado scale used in the Hispanic Health and Nutrition Examination Survey (HHANES) acculturation scale.[24] The question on language preference for radio stations was excluded because there are no Spanish radio stations in the study area.

Most healthcare barriers to questions were based on the Commonwealth Fund Survey or the NHIS survey but modified to include barriers identified in the focus groups.[11,22] The variables measuring healthcare beliefs were assessed by a multiple option question that was condensed to the following: ''In most cases when I have a symptom or if I feel ill, I: 1) ignore the health problem, 2) consult family or pray and 3) use alternative medicine (including home remedies, consulting naturalists, Santeria or Babalao).'' Healthcare preferences included preference for a female health provider or provider of the same race/ethnicity or both.

Enabling factors are resources for obtaining services such as insurance coverage and perceived accessibility of care based on previous experiences. Previous experience with the healthcare system was assessed by asking participants whether they thought they would have gotten better medical care if they: 1) were a different race/ethnicity, and/or 2) spoke better English. Insurance status was classified as private, Medicaid, Medicare and uninsured.

Need for health care was assessed based on whether participants had a history of chronic illness, which assuming the presence of predisposing and enabling conditions, motivates individuals to use health services. Participants were categorized as having chronic illness if they had been told by a health professional that they had any of the following: hypertension, high cholesterol, gestational diabetes/diabetes, stroke, heart disease, asthma, metabolic syndrome, breast/cervical cancer or any other chronic disease.

Analysis

We used Poisson regression techniques with robust standard error estimates to assess prevalence risk ratios (PRR) and 95% confidence intervals (95% CI). This method is preferable in studies of common outcomes where conventional logistic regression would overestimate relative risks.[25,26] All reported *P* values are from two-sided tests of significance. For all statistical analysis α was set at .05. The final model was the most parsimonious model containing all variables significant at this level. The model fit was assessed using deviance and Pearson statistics. Statistical analyses were conducted using Stata 9 (Stata Corp, College Station, Tex)

RESULTS

Two participants were excluded due to incomplete responses and the final sample size was 287. Overall about 70% of women reported delaying health care. Notable proportions of Latinas used alternative medicine, ignored illnesses, preferred concordance (language, sex or racial-ethnic) with their provider, and experienced some discrimination in previous health care visits (Table 1). About 70% of women were foreign born and 80% were insured (of these a large proportion were privately insured). About 60% of surveyed women had some previous chronic illness. Several of the predisposing, enabling and need factors were significant on bivariate analyses (Table 1).

Delay in Health Care

Table 2 presents the multivariate model in the context of the constructs of the Andersen model. Among predisposing factors, marital status, health beliefs and health preferences were significant predictors. Those who were single, divorced or widowed were 21 percent more likely to delay than those who were married or living with a partner (95% CI=1.04, 1.39). Those who preferred a Hispanic/Latino doctor were 18 percent more likely to delay than those who had no such preference (95% CI= 1.01, 1.37). Those who used alternative medicine were 28 percent more likely to delay than those who did not (95% CI= 1.11, 1.49).

Among enabling factors, insurance status and previous healthcare discrimination were both significant predictors. The uninsured were 29 percent more likely to delay than those who had private insurance (95% CI = 1.05, 1.59). Medicaid and Medicare beneficiaries did not differ significantly from those with private insurance. Based on previous healthcare experiences, those who believed they would have got better care if they were a different race/ethnicity and had no accent were 23 percent more likely to delay care (95% CI=1.06, 1.44).

Need for health care was the third component of the health care utilization model; those with any chronic disease were 24 percent more likely to delay than those without (95% CI =1.04, 1.47).

DISCUSSION

This study is unique in that it used a CBPR approach to quantitatively assess the relationship between social and cultural variables and delay in routine health care among Latinas in the context of a theoretical model. This is the only known study on delay in care that used a CBPR approach, which is believed to obtain accurate perspectives of a specific cultural group.[18,19] The CBPR approach contributed to the qualitative identification and quantitative measurement of a comprehensive array of sociocultural factors that Latinas identified as influencing their use of health care.

Previous studies of delaying care in face of breast cancer found that 34% of Latinas were likely to delay care.[12] The larger proportion of women who reported delaying health care in our study may indicate that the distribution and correlates of delay in care for common health symptoms or diseases may be different from those currently experiencing specific life-threatening diseases.

According to the Andersen model, in a system of equitable distribution of health care only the demographic and need variables should influence health care use and there should be a minimal impact of social structure, beliefs and enabling factors. The goal of equity in health can only be achieved if health disparities based on social structure and resources such as insurance are eliminated and health beliefs that may delay use of care are addressed. With this goal in mind, the results of this study can be utilized to identify targets for intervention for improving health services utilization in Latino women.

The predisposing factors that were significantly associated with delay were

Table 1. Predictors of delay in seeking routine health care among Latinas (2007)

	Sample Distribution *n* (%)	Proportion who delay care (%)	Bivariate Regression* PRR (95% CI)
	Predisposing		
Marital status			
Married/living with partner	147 (51.76)	61.64	1
Divorced/widowed/single	137 (48.24)	78.68	1.28 (1.09, 1.49)
Health beliefs			
Family advice and prayer			
No	60 (22.14)	58.33	1
Yes	211 (77.86)	75.12	1.29 (1.03, 1.62)
Use alternative medicine			
No	138 (52.08)	60.58	1
Yes	127 (47.92)	84.13	1.39 (1.19, 1.62)
Delay or ignore			
No	78 (28.68)	58.97	1
Yes	194 (71.32)	76.56	1.30 (1.06, 1.59)
Provider preference			
Prefer same gender			
No	184 (64.34)	65.93	1
Yes	102 (35.66)	76.47	1.16 (1.00, 1.35)
Prefer same race			
No (Reference)	157 (55.09)	60.26	1
Yes	128 (44.91)	81.1	1.35 (1.16, 1.57)
Preferred language			
English	85 (29.72)	64.71	1
Spanish	180 (62.94)	73.6	1.14 (.95, 1.36)
Both	21 (7.34)	57.14	.88 (.59, 1.32)
Education			
<High school	121 (42.46)	77.69	1
High school or more	164 (57.54)	64.20	.83 (.71, .96)
Nativity			
US born	59 (20.63)	72.88	1
Other	227 (70.37)	68.89	.95 (.67,1.33)
	Sample Distribution Mean (Std.Dev)		
Age	44.80 (15.80)	NA	1.00 (.99, 1.00)
Acculturation	16.88 (6.98)	NA	.99 (.98, 1.00)
	Enabling		
Previous healthcare experiences	*n* (%)		
No discrimination	151 (54.51)	61.33	1
Better care if different race	16 (5.78)	68.75	1.12 (.79, 1.60)
Better care if no accent	49 (17.69)	72.92	1.18 (.96, 1.47
Better care if different race and no accent	61 (22.02)	91.80	1.50 (1.29, 1.74)
Insurance			
Private	88 (30.99)	61.39	1
Uninsured	61 (21.48)	88.24	1.44 (1.18, 1.75)
Medicaid	101 (35.56)	75.22	1.23 (1.02, 1.48)
Medicare	34 (11.97)	58.82	.96 (.69, 1.32)
	Need		
Chronic Disease			
No	107 (37.41)	58.49	1
Yes	179 (62.59)	76.4	1.31 (1.09, 1.56)

PRR-prevalence risk ratio; CI - confidence Interval; NA - not applicable.
* Each PRR is unadjusted prevalence ratio from separate bivariate models.

Table 2. Results of multivariate regression analysis of predictors of delay in seeking routine health care among Latinas (2007)

	Multivariate PRR* (95% CI)	*P* value
Predisposing		
Marital Status		
Married/living with partner	1	
Divorced/widowed/single	1.21 (1.04, 1.39)	.01
Use alternative medicine		
No	1	
Yes	1.28 (1.11, 1.49)	<.001
Prefer same race provider		
No	1	
Yes	1.18 (1.01, 1.37)	.04
Enabling		
Previous healthcare experiences		
No discrimination	1	
Better care if different race	1.04 (.75, 1.45)	.81
Better care if no accent	1.12 (.92, 1.36)	.26
Better care if different race and no accent	1.23 (1.06, 1.44)	<.001
Insurance		
Private	1	
Uninsured	1.29 (1.05, 1.59)	.02
Medicaid	1.09 (.91, 1.29)	.35
Medicare	.84 (.64, 1.10)	.21
Need		
Chronic Disease		
No	1	
Yes	1.24 (1.04, 1.47)	.02

PRR-prevalence risk ratio; CI - Confidence Interval.
* Each reported PRR is adjusted for all other variables in the model.

marital status and health beliefs. Since marital status may be a proxy for social support, its association with delay in care suggests a need for a deeper understanding of the influence of social support. Women who used alternative medicines were more likely to delay care. The use of complementary and alternative medicines among the Latino population is high, and has been shown to influence use of medical care among cancer patients.[8,27–29] Latinos use alternative medicine because of cultural or religious beliefs, because of the cost of conventional medicine, and in response to dissatisfaction with conventional medical treatment.[9,27] Patients with unmet medical needs are also known to use alternative medicine.[30]

Having a preference for a race/ethnicity concordant physician was associated with delaying care. Latinos have been reported to prefer ethnicity and sex concordant healthcare providers,[18,20,31] but previous studies show conflicting results regarding the association of racial-ethnic concordance with delay in seeking health care.[18,32] A shortage of Latino physicians in underserved areas of New York State such as the Capital District[33] may contribute to delay among Latinas who have preference for a race/ethnicity concordant physician.

In our sample more than 80% of women had some insurance which is nearly double the national average for this ethnic group.[34] This provided us with a unique opportunity to study sociocultural aspects of health care utilization among Latinos who do not have an insurance barrier. Still women who were uninsured had a higher risk of delay but among the insured, type of insurance was not related to delay in health care. We found that Latinas who, based on their past healthcare experiences, felt that they would receive better care if they were a different race/ethnicity and had no accent were more likely to delay care. This is of particular concern because of the high proportion (approximately 45%) of women in this study who reported experiencing some discrimination in previous healthcare encounters. This is in contrast to the Institute of Medicine Report where experiences of discrimination within healthcare settings were reported by about one-fifth of Latinos.[10] The higher proportion reported in our study may be because the study is based in a new Latino destination where providers may not be as sensitive to Latino needs and culture. Discrimination has also been reported to be associated with delay in seeking care for suspected breast cancer among Latinas in previous literature.[12]

In our study, acculturation did not influence delaying health care.

Finally, the need component of the Andersen model was found to be a significant predictor of healthcare delay. Patients with past medical problems have been found to delay care in cases of acute myocardial infarction.[35] Two possible explanations are that multiple health problems may impede a person's ability to seek timely care and there may be fear of finding out about serious health problems. The latter reason was identified by women participating in the preliminary focus groups that guided this study (Jurkowski, personal communication).

In our study, acculturation did not influence delaying health care. Yet, previous studies in Latino populations

have found that level of acculturation influences healthcare utilization.[15,36] The absence of an effect of acculturation could be because acculturation experiences of our population sample, which was mainly Puerto Rican, may differ from that of other Latino populations. Our study sample also had a high proportion of insured people especially those with private insurance. The absence of an effect of acculturation in a population with high insurance coverage is consistent with previous research.[37]

This study has some limitations. The only feasible option to survey this hard-to-reach population was a convenience sample based on a snowball sampling scheme.[21] The data for this study was based on self reports. Participants may have been hesitant to report discrimination in health care. This would bias our results towards the null. Though most of the questions on our survey were derived from standard surveys, some questions were modified in order to better understand barriers as identified in focus group discussions in the same community. These modified questions are not yet psychometrically validated. The particular scale used may not have adequately measured the acculturation process of the mainly Puerto Rican participants in this study.[24,38] This may have contributed to the null results for the association of acculturation with delay in health care in our study. Finally, since our study population is predominantly Puerto Rican, research is needed to corroborate relevance of these findings among other Latino subgroups.

The results of the study underline the importance of sociocultural factors in modulating health behaviors. These results can be utilized to improve healthcare delivery and tailor health interventions among Latinas especially those residing in areas with smaller Latino populations. The influence of health beliefs, enabling and need factors in this population needs to be better understood to eliminate health disparities. Future research should explore the contribution of characteristics of the unique social milieu of different Latino populations to address disparities in healthcare utilization.

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AUTHOR CONTRIBUTIONS

Design concept of study: Jurkowski
Acquisition of data: Jurkowski, Alomar
Data analysis and interpretation: Insaf
Manuscript draft: Insaf
Statistical expertise: Insaf
Administrative, technical, or material assistance: Jurkowski, Alomar