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The Satisfaction of Latina Breast Cancer Survivors with Their Healthcare and Health-Related Quality of Life

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Abstract

Objective: The aim of this study was to evaluate the relationship of satisfaction with the cancer care doctor and health-related quality of life (HRQOL) among Latina breast cancer survivors (BCS) by (1) assessing whether satisfaction would be positively correlated with HRQOL and (2) assessing whether satisfaction would significantly influence HRQOL while controlling for covariates.
Methods: The cross-sectional study used self-report data from 117 Latina BCS. Satisfaction was measured with the Hall Satisfaction Index, and HRQOL was measured with the Functional Assessment of Cancer Therapy–General (FACT-G). Analyses included calculation of descriptive statistics, *t* tests, bivariate correlations, analyses of variance (ANOVAs), and multivariate analyses.
Results: Latina BCS had high satisfaction and generally good HRQOL. The Hall Satisfaction Index total score was positively associated with FACT-G functional well-being ($r = 0.265$, $p = 0.004$). Multivariate analyses showed that the Hall Satisfaction Index total score was a significant predictor of FACT-G functional well-being ($p = 0.012$). Employment status was also a significant predictor, where being employed or retired resulted in better functional well-being than being unemployed.
Conclusions: Latina BCS were quite satisfied with their cancer care doctors, and high levels of satisfaction with the cancer care doctor influenced functional well-being when confounding variables were controlled. Despite reportedly high satisfaction, Latina BCS did report barriers to satisfaction that could be considered cultural. Implications are discussed.

Introduction

There has been an increasing focus on the health-related quality of life (HRQOL) of cancer survivors as treatment advances have been made and the number of survivors has increased.[1] The National Cancer Institute (NCI) places recent estimates of cancer survivors living in the United States to be near 12 million.[2] HRQOL has been defined as a subjective, multidimensional concept that encompasses physical, social, functional, and psychological/emotional well-being factors related to the health of an individual.[3,4] HRQOL can be thought of as the extent to which an individual's usual or expected well-being in these dimensions is affected by an illness or related treatment.[5] Research into HRQOL is necessary to improve understanding of the ways that chronic illness affects well-being and thus guide the development of interventions to improve the individual's experience.

The amount of research devoted to HRQOL has grown in recent years and is quite vast; however, there is less information available about ethnic minority women surviving breast cancer, specifically Latinas. Among Latinas, the leading cause of cancer death is breast cancer, and it also is the most common malignancy in women in the United States.[6] Results from multiethnic studies have shown that Latinas present with later-stage cancer, receive differential treatment less than the standard of care, have biologic factors that indicate a poorer prognosis, and have a higher risk of breast cancer mortality and worse survival compared with non-Latino white populations.[7–10]

In a multiethnic study, Latina breast cancer survivors (BCS) reported the lowest levels of HRQOL across domains (physical, social/family, emotional, functional, and breast cancer-specific well-being) and patient-doctor relationship quality.[11] Culture-related factors may contribute to ethnic differences in

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ratings of patient-doctor relationship; for example, one study found that patient-doctor relationship quality was not a significant predictor of HRQOL for African Americans, but it was for European Americans, Latinas, and Asian Americans.[11] In qualitative interviews, Latina BCS cited many issues affecting survivorship, including but not limited to family well-being, emotional well-being, and sexual health.[12] The HRQOL of Latina BCS is significantly impacted by such physical issues as nausea and pain, and Latina BCS tend to report more emotional distress and related concerns than black and non-Hispanic white women.[13,14] The majority of research has shown poorer HRQOL and higher distress among Latinas when compared to other groups, but there is some inconsistency; one study found that Latinas and white women did not significantly differ by level of distress.[15]

There has been much research devoted to the covariates of HRQOL. One construct that is frequently studied alongside HRQOL (and sometimes substituted for HRQOL) is patient satisfaction. Although the two constructs share similarities, they are different constructs. Despite several decades of research, development of instruments to measure satisfaction with care has been hampered by inconsistent or vague definitions of the construct.[16,17] Satisfaction with healthcare is subjective, based on the patient's assessment of healthcare services. Patient satisfaction was conceptualized by Linder-Pelz and Struening as "multiple evaluations of distinct aspects of health care which are determined (in some way) by the individual's perceptions, attitudes, and comparison processes."[18] A more recent definition is "subjective judgment resulting from the appraisal of the health care experience, generally involving some implicit or explicit comparison of the actual events with an individual's expectation."[19] Early satisfaction research showed that doctor conduct was the most important factor in determining overall patient satisfaction, whereas current studies support that trust in the physician is strongly related to satisfaction.[18,20]

Assessing patient satisfaction is important so that unmet needs and expectations can be identified and appropriate steps can be taken if necessary. It is clinically relevant to do so because satisfied patients are more likely to be active in their own healthcare, comply with treatment, and continue using medical services.[21–24] This is cost-beneficial. As services improve, expenditures are optimized. This may be particularly relevant for the Latina patient population, as studies have shown that Latinas have a harder time communicating with providers than do non-Latinas, receive less medical risk information, and receive less health advice from their doctors.[25–27] Further, among a Latina patient sample, satisfaction with the healthcare relationship was significantly associated with adherence to recommended mammography screening.[28]

Given the importance of the relation between satisfaction with the healthcare relationship and HRQOL, we evaluated the influence of satisfaction with doctor on HRQOL. First, we hypothesized that there would be a positive correlation between HRQOL and satisfaction with doctor. Second, we hypothesized that satisfaction with doctor would uniquely influence HRQOL, while controlling for covariates. Although a detailed review is beyond the scope of this article, the framework for this study is informed by the standard HRQOL model and the biopsychosocial model; satisfaction with doctor may act as a protective factor influencing HRQOL directly and as a psychosocial factor by acting as a mediator that influences health-promoting activities (e.g., adhering to medical advice). Also, by use of a standardized measure as well as exploratory items developed for this study, the study explores factors (e.g., patient acculturation level, ability of doctor to speak Spanish, unfriendly staff) that may impact satisfaction with the cancer care doctor and healthcare setting among Latina BCS.

Materials and Methods

Participants and procedures

Participants were part of a larger study population who participated in an analysis of the psychosocial needs of Latina families adjusting to breast cancer diagnosis. After Institutional Review Board (IRB) approval, Latinas diagnosed with breast cancer were recruited through San Antonio, Texas, breast cancer clinics, organizations, and support groups that included the Susan G. Komen for the Cure San Antonio affiliate, Alamo Breast Cancer Foundation, and American Cancer Society; 117 of 146 identified survivors agreed to participate, for a response rate of 80%. A Latina BCS was defined as a female diagnosed with breast cancer in any stage of treatment or remission with self-reported Latina ethnicity.

Survivors were interviewed by a bilingual interviewer, who administered a 202-item questionnaire that contained items concerning psychosocial adjustment to breast cancer and knowledge and attitudes. Interviews were conducted in English or Spanish according to preference at the participants' preferred location and time; average duration of the interview was approximately 1 hour. The study followed all guidelines as set forth by The University of Texas Health Science Center at San Antonio IRB and the San Antonio Cancer Institute Protocol Review Committee.

Measures

The current study pertains only to questionnaire items related to the sociodemographics, illness characteristics, acculturation level, HRQOL, and satisfaction with doctor. Sociodemographic items, illness items, and approximately half of items related to satisfaction and feelings about the doctor were developed for this study. Standardized measures were used to measure satisfaction with doctor, HRQOL, and acculturation level.

Standardized measures. Satisfaction with doctor was assessed with a slightly revised version of the Satisfaction Index developed by Hall et al.[29,30] The Satisfaction Index was developed to assess satisfaction with healthcare providers, including doctors, nurses, and social workers, in the previous 2–3 months. In this study, items were worded to pertain specifically to the doctor in charge of cancer care. The scale includes 12 items that assess overall satisfaction, amount of provider contact, relief of worry, communication, humaneness, and technical competency of providers. In original development, the Satisfaction Index had a 6-point scale ranging from strongly disagree to strongly agree; however, in the current study, a 5-point scale from strongly disagree to strongly agree was used. Higher total scores on the Satisfaction Index indicated higher satisfaction with healthcare. The Satisfaction Index has a reported internal consistency of Cronbach's alpha 0.89 and has been used in other studies.[30,31]

Cancer-specific HRQOL was assessed with the Functional Assessment of Cancer Therapy-General, version 2 (FACT-G), supplemented with the FACT Breast Cancer Subscale, which measured breast cancer concerns.[4] The FACT-G is a multidimensional measure and includes subscales to measure physical well-being (Physical WB subscale, 7 items); functional well-being (Functional WB subscale, 7 items); social well-being (Social WB subscale, 7 items); and emotional well-being (Emotional WB subscale, 5 items). There is also a subscale assessing relationship with doctor (Relation WD subscale, 2 items). In addition, the Breast Cancer subscale assessed concerns specific to breast cancer. Items were rated on a 5-point Likert-type scale from 0 (not at all) to 4 (very much). Higher scores indicated higher HRQOL. Initial validation with mixed cancer patients showed the FACT-G has adequate to good reliability and validity. The validity of measuring HRQOL as separate dimensions was upheld via results that subscales were differentially responsive to groups known to differ on the dimensions. Spanish translations of the FACT-G and Breast Cancer subscale have been successfully used with cancer patients.[32] The scale is now in its fourth iteration. Among a sample of Latina BCS, the mean score on version 4 FACT-G was 80.1 (standard deviation [SD] 17.4).[11]

Acculturation is a key construct in understanding Latino behavior and could be regarded as either a protective or harmful mediating psychosocial factor. We thought it important to measure the acculturation level of this sample, first, as a sociodemographic characteristic and, second, to determine if acculturation was a positive or negative influence on satisfaction with doctor among Latinas. Acculturation was measured by a slightly revised version of the Short Acculturation Scale (SAS).[33] The SAS is a 5-item language use scale with good internal reliability and a 6-point scale: (1) only Spanish, (2) more Spanish than English, (3) both equally, (4) more English than Spanish, or (5) only English. Scores were classified as low acculturation (≤ 10) or moderate to high acculturation (≥ 11). The SAS has been validated in Latino populations and correlates with other measures of acculturation.

Items developed in this study. A subset of items was developed to assess constructs that may influence satisfaction with doctors and healthcare among Latina BCS. Items were developed to explore barriers to use (keeping doctor's appointment), barriers to compliance (following doctor's recommendations), barriers to positive clinical interaction (reasons why patient does not like doctor's office), and attitudes about trust in doctors (patients trust what doctors tell them). The first item explored barriers to compliance by assessing survivors' beliefs about the most important reasons why patients may not follow doctors' recommendations. There were 11 reasons listed, with response options that were dichotomized into yes or no. Possible reasons included reference to language (inability to understand the doctor, patient's inability to understand English), personal feelings about trust, fear, and providers (patient does not believe doctor, patient is afraid, patient does not like doctor, patient had previous bad experience with another doctor, patient has read or heard contradictory information), access barriers (cannot take time off work, too expensive), and cultural barriers (it is against patient's religion or culture, patient participates in alternative medicine instead). The second item explored barriers to use by assessing why patients may not keep their doctor's appointments, with six possible reasons, again with responses dichotomized into yes or no. Reasons included transportation, child care, work, and money issues, as well as being afraid of or not liking the doctor/clinic and fear that the news would be bad. The third item explored barriers to positive communication/interaction in the clinic by asking why patients may not like their clinic or doctor's office, with response options of yes or no: patient wait time to be seen, lack of time with doctor, language barriers, fear of news, and their feelings that office staff is not nice. The last item explored attitudes toward trust in doctors and asked whether patients always, sometimes, rarely, or never trust what their doctors tell them.

Analyses

Descriptive statistics were calculated for sociodemographic, illness characteristic, acculturation, and satisfaction and related feelings items. Analyses of the Satisfaction Index and the FACT-G included calculation of means and SDs for scores and reliability testing using Cronbach's alpha. Differences in mean scores between this study and scale development studies were calculated with independent samples Student's t test for equal variances and Welch's t test for unequal variances. Analyses using Pearson product moment correlation coefficients and one-way analysis of variance (ANOVA) tested associations between the Satisfaction Index and FACT-G, as well as sociodemographic variables, illness characteristics, acculturation, and developed satisfaction items.

Multivariate analyses were used to assess the influence of satisfaction on the multidimensional aspects of HRQOL, while adjusting for confounding sociodemographic variables as covariates. The independent variable was the Satisfaction Index total scale, and dependent variables were the FACT-G subscales that were significantly associated with Satisfaction Index in correlational analyses at $p < 0.05$. Sociodemographic or illness characteristic variables were included as covariates if they were significantly associated ($p < 0.05$) in univariate analyses with the FACT-G scale being modeled. A two-sided $p < 0.05$ was used to test for statistical significance. All analyses were conducted using SPSS 15.0 for Windows. (Chicago, IL).

Results

Latina breast cancer survivors

Descriptive statistics for Latina BCS are shown in Table 1. The mean age of survivors was 54.7 years (SD 10.2). The majority were Mexican/Mexican American/Chicano, moderately to highly acculturated to the United States, married, unemployed, Catholic, and educated at the high school level or lower.

Most (78.6%) Latina BCS answered the questionnaire in English. Tests for differences in sociodemographic and illness variables among respondents in English vs. Spanish revealed three significant differences ($p < 0.05$): 64.1% of English respondents had a high school diploma/GED or less, whereas 92% of Spanish respondents had a high school diploma/GED or less (chi-square (2, $n = 117$) = 7.392, $p = 0.025$); 38% of English respondents had a family history of breast cancer,

Table 1. Sociodemographics and Illness Characteristics of Latina Breast Cancer Survivors

	Mean (SD) or %
Subject age (valid $n=117$)	54.7 (10.2)
Ethnic origin (valid $n=113$)	
Mexican, Mexican American, Chicano	64.1%
Central American	1.7%
Puerto Rican	0.9%
Cuban	0.9%
South American	2.6%
Other Latino/Hispanic	26.5%
Other	1.7%
Don't know/Not sure	1.7%
Marital status (valid $n=117$)	
Married	50.4%
Living with significant other	2.6%
Separated	9.4%
Divorced	17.1%
Widowed	15.4%
Never married	5.1%
Insurance status: Have health care plan (valid $n=117$)	
Yes	96.6%
No	3.4%
Annual household income (valid $n=93$)	
≤$10K	23.7%
$10,001–25,000	34.4%
$25,001–50,000	24.7%
≥$50,001	17.2%
Educational level (valid $n=117$)	
Less than high school diploma	35.0%
High school diploma/GED	35.0%
Some college or technical school, or technical degree	20.5%
College diploma	6.0%
Advanced degree	3.4%
Employment status (valid $n=113$)	
Employed	37.2%
Retired	10.6%
Unemployed	52.2%
Survey language (valid $n=117$)	
English	78.6%
Spanish	21.4%
Religious affiliation (valid $n=115$)	
Catholic	70.9%
Protestant	9.4%
Other religion	17.9%
None	1.7%
Acculturation level (valid $n=112$)	
Low	21.4%
Moderate to high	78.6%
Years since Diagnosis (Valid $n=113$)	
One or less	55.8%
Two to five years	23.0%
6–10 years	13.3%
>10 years	8.0%
Had breast surgery for cancer (valid $n=117$)	
Yes	99.1%
No	0.9%
Anyone in family had breast cancer (valid $n=117$)	
Yes	32.5%
My mother	6.0%
My sister(s)	7.7%
My grandmother(s)	2.6%
Other	15.4%
No	67.5%

whereas 12% of Spanish respondents had a family history (chi-square (1, $n=117$) = 6.080, $p=0.014$); and 92.1% of English respondents had moderate to high acculturation, whereas only 25.2% of Spanish respondents had moderate to high acculturation (chi-square (1, $n=112$) = 47.35, $p=0.000$) (data not shown).

Analyses of Hall Satisfaction Index and FACT-G

Satisfaction Index and FACT-G means and SDs for subscale and total scores were calculated, as well as reliability testing using Cronbach's alpha. The mean Satisfaction Index total score of 4.19 (SD 0.734) indicated that the majority of Latina BCS were quite satisfied with their cancer care doctor. Comparing the results of this study to previously reported results in the Hall scale development sample of 587 frail (as defined by health status) older adults showed that Latina BCS were less satisfied, $t(184) = -2.105$, $p=0.037$, than patients in that sample.[30]

Latina BCS had adequate HRQOL, in general, as demonstrated by mean FACT-G scores: FACT-G total mean 85.94 (SD 16.036), Physical WB subscale mean 21.35 (SD 6.785), Social WB subscale mean 23.86 (SD 4.902), Emotional WB subscale mean 16.97 (SD 3.783), Functional WB subscale mean 23.76 (SD 5.015), Relation WD subscale mean 7.19 (SD 1.438), and Breast Cancer subscale mean 18.83 (SD 7.401). Survivors had significantly higher mean scores (and thus better HRQOL) than those of cancer patients in the FACT-G scale development study on the following scales[4]: Functional WB subscale, $t(211)=10.69$, $p=0.000$; Emotional WB subscale, $t(581)=5.386$, $p=0.000$; Relation WD subscale, $t(581)=2.185$, $p=0.029$; Social WB subscale, $t(581)=3.891$, $p=0.000$; and FACT total, $t(581)=2.36$, $p=0.019$. There was no significant difference in mean scores on the Physical WB subscale.

In bivariate analyses of the Hall Satisfaction Index and the FACT-G, one FACT-G subscale showed a significant relationship to the Hall Satisfaction Index: Functional WB subscale ($r=0.265$, $p=0.004$). Sociodemographic variables and illness characteristic variables were tested for significant association ($p<0.05$) with the Functional WB subscale to determine use as model covariates. Results showed that the Functional WB subscale was significantly associated with employment status, BF F(Brown-Forsythe F-ratio, 2,77.75) = 22.564, $p=0.000$; income level, BF $F(3,74.79)=4.584$, $p=0.005$; and time since diagnosis, BF $F(3,30.27)=5.915$, $p=0.003$. It was not associated with acculturation.

Given the cultural context of the sample, we conducted several additional tests to evaluate the relationship of satisfaction with acculturation level, survey language, and time since diagnosis. The study lacked statistical power to test for interaction effects with these variables. Satisfaction was significantly related to level of acculturation as measured by the SAS ($r=-0.211$, $p=0.026$), whereas higher satisfaction was related to lower acculturation level. Satisfaction did not significantly vary by survey language; whether the survivor answered the questionnaire in English or Spanish was not associated with the level of satisfaction. Satisfaction was also not significantly related to time since diagnosis (data not shown). The finding that satisfaction was associated with acculturation level based on language preference, but not to preferred survey language, could be explained by the emotional processing involved. Choosing a survey language was

most likely a quick, cognitive decision, whereas thinking about how to answer questions about preferred language with which to communicate with friends and family was rich with emotional context.

Cronbach's alpha was 0.88 for the Satisfaction Index total scale—approximate to the internal consistency reported in the scale development study and well above the accepted cutoff of alpha ≥ 0.70 as adequate.[29,34] FACT-G had Cronbach's alpha above the alpha cutoff of 0.70 for the total scale and all subscales except the Relation WD subscale, which had an alpha of 0.68.

Analysis of developed satisfaction items

A number of items developed in the study assessed satisfaction with doctor and related feelings. We used descriptive statistics to determine why Latina BCS may not follow medical recommendations, comply with appointments, or like their doctor/clinic and to establish their level of trust. The majority of survivors (67.5%) reported that they sometimes trusted what their doctors told them, and the rest said they always do (31.6%) (Table 2). One-way ANOVAs were run to test associations between the Hall Satisfaction Index and the developed items. There were three items that were significantly associated with satisfaction: patients trust what their doctor tells them, $F(2,114) = 7.777$, $p = 0.001$; patients do not like the doctor's office because people are not nice, BF $F(2,67.201) = 4.250$, $p = 0.018$; and patients do not like the doctor's office because doctors do not spend enough time with patients, BF $F(2,84.904) = 5.491$, $p = 0.006$.

Multivariate analyses

Because the Functional WB subscale was significantly associated with the Hall Satisfaction Index, it was modeled in a multivariate analysis to assess the influence of satisfaction on HRQOL. The sociodemographic variables and illness characteristic variables that were previously identified as covariates

Table 2. Descriptive Analyses of Developed Items

Reason why you may not keep doctor appointment			
	Yes	*No*	*Not sure*
No transportation	71.8%	16.2%	12.0%
No child care	67.5%	15.4%	17.1%
Can't get off work	73.5%	12.8%	13.7%
No money	78.6%	12.0%	9.4%
Afraid of/Don't like clinic	42.7%	36.8%	20.5%
Afraid news will be bad	80.3%	12.0%	7.7%

Reason why you may not follow doctor's recommendations			
	Yes	*No*	*Not sure*
Cannot understand doctor	70.9%	16.2%	12.8%
Cannot understand English	57.3%	32.5%	10.3%
Don't believe what the doctor said	60.7%	28.2%	11.1%
Don't have the time/Can't take time off work	63.2%	21.4%	15.4%
It is too expensive	75.2%	18.8%	6.0%
Afraid	88.9%	8.5%	2.6%
Don't like the doctor	35.0%	49.6%	15.4%
Had a previous bad experience/advice with another doctor	64.1%	17.1%	18.8%
It is against religion/culture	31.9%	45.7%	22.4%
Have read or know contradictory information	45.3%	34.2%	20.5%
Participate in alternative medical approaches	53.8%	30.8%	15.4%

Reason why you do not like doctor's office			
	Yes	*No*	*Not sure*
Have to wait too long	82.9%	10.3%	6.8%
People are not nice[a]	48.7%	40.2%	11.1%
Doctors don't spend enough time[a]	65.0%	24.8%	10.3%
Doctors don't speak Spanish	56.0%	34.5%	9.5%
Afraid news will be bad	80.2%	13.8%	6.0%

Level of trust				
	Always	*Sometimes*	*Rarely*	*Not sure*
Patients trust what their doctors tell them[a]	31.6%	67.5%	0%	0.9%

[a]Significant association with Hall Satisfaction Index at $p < 0.05$.
SD, standard deviation.

were also included in the model. In this model with the Functional WB subscale as the outcome, the Hall Satisfaction Index total score was a significant predictor ($p=0.012$). The included covariate of employment status proved to be significant as well ($p=0.002$). Time since diagnosis had a trend toward significance and just failed to reach criteria for significance ($p=0.051$). Income level failed to reach significance. The entire model accounted for 38% of the total variance in the Functional WB subscale ($R^2=0.378$). The Hall Satisfaction Index score accounted for 8% of the variance in the outcome, employment status accounted for 16%, and time since diagnosis for 10%. Interpretation of the beta coefficients showed that higher Hall Satisfaction scores corresponded with higher Functional WB subscale scores (β = 1.858). Also, survivors who were employed (β = 4.199) or retired (β = 3.742) had higher Functional WB subscale scores than those who were unemployed (Table 3).

Regarding time since diagnosis, although the covariate failed to reach significance, the trend suggests interesting results. Survivors who were diagnosed in the preceding 1 year scored lower on the Functional WB subscale than those diagnosed >10 years earlier (β = −1.273). However, survivors diagnosed 2–5 (β = 2.111) or 6–10 years earlier (β = 1.021) had higher scores on the Functional WB subscale than those diagnosed >10 years earlier, with the 2–5-year cohort scoring the highest on the Functional WB subscale.

Discussion

There has been substantial growth in the amount of research devoted to understanding how satisfaction with care is related to other outcome variables. For instance, it was previously found that Latina BCS more readily adhered to recommended mammography if they were satisfied with their healthcare relationship.[28] The current article was devoted to understanding how satisfaction with doctor might influence HRQOL among a sample of Latina BCS. We predicted that there would be a positive correlation between HRQOL and satisfaction with doctor and that satisfaction with doctor would uniquely predict HRQOL, while controlling for covariates. Key findings were that Latina BCS were satisfied with their cancer care doctors, and satisfaction was significantly and positively correlated with HRQOL (functional well-being). High levels of satisfaction, in turn, influenced functional well-being when confounding variables were controlled.

Latina BCS in this study were reportedly quite satisfied with their cancer care doctors when evaluated using the Hall Satisfaction Index. When compared to results from the Hall Satisfaction Index development sample of frail older adults, the Latinas in this study were slightly less satisfied. However, Latinas' average mean scores of 4.19 still indicate that they scored close to the ceiling. This is not uncommon in satisfaction research, where there are few reports of patients expressing dissatisfaction.[35] Qualitative studies have found that although patients report high satisfaction on standardized surveys, in-depth interviews reveal more negative views.[36–38] It is for that reason that we surveyed Latina BCS' satisfaction and related feelings with not only the standardized Hall Satisfaction Index but also items developed specifically to tap into areas of their culture and related barriers.

The relationship of satisfaction with doctor and several other important covariates was assessed: acculturation level, survey language, and time since diagnosis. Satisfaction was not significantly related to survey language or time since diagnosis, in that it did not matter if Latina BCS completed the survey in English or in Spanish; their satisfaction levels did not vary, and the length of time since they were diagnosed with breast cancer was not related to their satisfaction with the doctor. However, satisfaction was significantly associated with acculturation level. Latina BCS who were less acculturated had higher levels of satisfaction than those with higher acculturation. One study found that low-income, less acculturated Latinas are more satisfied than non-Latina whites women.[39] Another found that Latinas with less acculturation had higher life satisfaction that Latinas who were more acculturated.[40] One possible explanation for the finding here is that more highly acculturated Latinas are more familiar with the healthcare environment and hold higher expectations and, thus, are less satisfied when those expectations are not met.

In general, compared to the FACT-G scale development study of cancer patients, Latina BCS had better well-being on

Table 3. Multivariate Analyses Results for Influence of Satisfaction with Doctor on Health-Related Quality of Life

Model	*Independent variable and covariates*	*Beta coefficient*	*SE*	t *value*	p *value*	*Partial eta-squared*
FACT-G	Hall Satisfaction Index total	1.858	0.720	2.581	0.012	0.081
Functional	Employment status					
Well-Being	Employed	4.199	1.158	3.626	0.001	0.147
subscale	Retired	3.742	1.712	2.186	0.032	0.059
	Unemployed	Ref	Ref	Ref	Ref	Ref
	Income level					
	≤$10,000	−1.313	1.687	−0.778	0.439	0.008
	$10,001–$25,000	−2.728	1.520	−1.795	0.077	0.041
	$25,001–$50,000	−2.196	1.630	−1.347	0.182	0.023
	≥$50,001	Ref	Ref	Ref	Ref	Ref
	Time since diagnosis, years					
	≤1	−1.273	1.931	−0.659	0.512	0.006
	2–5	2.111	2.142	0.986	0.327	0.013
	6–10	1.021	2.078	0.491	0.625	0.003
	>10	Ref	Ref	Ref	Ref	Ref

Ref, reference categories; SE, standard error; FACT-G, Functional Assessment of Cancer Therapy-General.

all dimensions except for physical well-being (where there was no difference), better overall (total) well-being, and more satisfaction with the patient-doctor relationship.[4] In addition to the core dimensions of HRQOL, although not directly comparable, Latinas in this study had lower well-being on a measure of HRQOL specific to breast cancer concerns than that of a validation study of breast cancer patients who completed version 3 of the Breast Cancer subscale (data not shown).[41] This result is corroborated by qualitative findings that Latina BCS are especially vulnerable to a sense of damaged womanhood because of body image and sexuality concerns.[24] The findings in this study that Latinas have better emotional well-being and higher satisfaction with the patient-doctor relationship quality compared to other cancer patients are interesting because previous studies have found that Latinas have the lowest scores on emotional well-being and patient-doctor relationship quality compared to other ethnic groups.[11] In that previous study, however, Latinas fared worse on all domains of HRQOL, whereas in this sample, HRQOL was generally good. The reason why Latinas differed so greatly on HRQOL scores between the two studies is not readily evident.

Regarding the relationship of satisfaction and HRQOL, the prediction that the two would be positively correlated was upheld for one dimension of HRQOL, where Latina BCS who were more satisfied with their doctors had significantly better functional well-being. Level of satisfaction was not related to overall well-being, nor was it related to social well-being, relationship with doctor, physical well-being, emotional well-being, or breast cancer concerns (e.g., feelings of sexual attractiveness or being bothered by weight change). The fact that the Hall Satisfaction Index taps into provider communication and kindness may be particularly salient to this sample of Latina BCS, given that the culture is very rooted in *personalismo* (warm and empathic relationships) and *simpatico* (affectionate, close relationships).[42]

Analysis of the items developed in this study to assess satisfaction and related feelings of Latina BCS revealed that whereas Latina BCS reported relatively high levels of satisfaction with their doctors on the Hall Satisfaction Index, looking at personal factors reveals areas of concern where they are more likely to show dissatisfaction. In evaluating "reasons why you do not like the doctor's office," the majority of Latina BCS endorsed Yes for all items: the wait is too long, people are not nice, doctors don't spend enough time, doctors don't speak Spanish, and they are afraid the news will be bad. Also, one item assessed whether "patients trust what their doctors tell them" always, sometimes, or rarely. Most (67.5%) Latinas reported patients sometimes trust what their doctors say. Attitude about trust was significantly associated with the Hall Satisfaction Index; therefore, being satisfied is related to attitudes of trust in doctor. Despite reportedly high levels of satisfaction on the Hall Satisfaction Index, Latina BCS reported more negative attitudes regarding trust in doctors. There is no item assessing attitudes about trust in doctors on the Hall Satisfaction Index; this is one example of why it was important to explore patient experiences among this unique cultural sample of Latina BCS.

In addition, there was a significant relationship between scores on the Hall Satisfaction Index and feeling that people were not nice in the doctor's office and doctors did not spend enough time with patients. These items tap into the previously mentioned cultural ideas of *personalismo* and *simpatico*. The Latino culture is founded on core values of close, empathic relationships where there is understanding and warmth. As found in this study, if Latinas do not feel that their doctors are spending enough time with them, that they are being treated nicely in the office, or that they can trust their doctor, their satisfaction will be affected. Other heavily endorsed items for not keeping doctor's appointments or following recommendations had to do with feeling afraid.

Other developed items assessed access barriers and other cultural barriers, such as language. Latina BCS endorsed not understanding the doctor and not understanding English as reasons why one may not follow doctor's recommendations; however; these were not significantly associated with satisfaction. Latinas also heavily endorsed access barriers to keeping doctor's appointments, such as transportation, child care, work obligations, and expense. One other finding worth mentioning, although it was not significantly associated with satisfaction, is that a majority of Latina BCS endorsed participating in alternative medical approaches (e.g., in the Latina culture, use of a *curandero* or healer) as a reason for not following doctor's recommendations.

Finally, we predicted that satisfaction would be a unique indicator of HRQOL among Latina BCS with covariates controlled. Satisfaction significantly predicted functional well-being when covariates were included in the model, where Latina BCS who were more satisfied with their doctors had better functional well-being. Looking more closely at functional well-being, this domain assesses the cancer survivor's ability to work, find fulfillment in work and life, ability to enjoy life, ability to sleep well and enjoy leisure activities, and ability to accept his or her illness—it is the ability to perform and enjoyment received. Ashing-Giwa et al.[43] recently defined "functional strain" as "the poor or unfavorable outcome of the functional well-being domain of HRQOL" or the "summative demands of daily living, and familial and work burdens." Their research found that Latinas reported the lowest work capability level and that Latino ethnicity was a risk factor for functional strain. Latinas BCS have also reported worry about how they will support their families financially and feelings that cancer had significantly affected employability.[44]

The current study has shown that satisfaction with doctor is one mechanism by which the functional well-being, or lack of, is impacted. Perhaps Latina BCS who are satisfied with their doctors are more likely to adhere to medical recommendations and more likely to follow through with their care, thus impacting their health outcomes and ultimate ability to maintain and enjoy employment and leisure activities. There are implications here for future work in the area of satisfaction with doctor and functional well-being among Latina BCS.

Latina BCS are a unique cultural group whose needs and expectations may differ from those of previously reported samples. Assessing patient satisfaction and its relationship to HRQOL is clinically relevant; Latinas have poorer HRQOL than other ethnic groups, and satisfaction may be one mechanism by which health is affected. For instance, dissatisfaction may create a barrier to adherence, as Sheppard et al.[28] found that Latinas who were satisfied with their doctors were more likely to adhere to recommended mammography. The current study found that

Latina BCS had high levels of satisfaction with doctor, which is in line with most satisfaction research of other ethnic groups,[35] satisfaction was significantly associated with functional well-being, and satisfaction significantly influenced functional well-being when other confounding variables were controlled. To our knowledge, this is the first study to assess the influence of satisfaction with doctor on HRQOL among Latina BCS. Latinos are a large, quickly growing, heterogeneous group, and the cultural contribution of each subgroup may differentially influence the association of satisfaction with doctor and HRQOL. Therefore, future studies should be conducted by evaluating relevant variables between larger samples of BCS from different Latina subgroups.

There are several limitations to the current study that must be considered when interpreting the findings. First, it is not advised to make causal inferences, given that the data are cross-sectional. There is also the potential for respondent bias, given that data are based on self-report. By the nature of this study, there is the potential that Latina BCS responded in a socially desirable way. In addition, patients may fear losing services if they respond that they are not satisfied. These factors may have much to do with the ceiling effects found in satisfaction research. Researchers have proposed several ways to handle this: focusing on patient experiences rather than evaluation of services, evaluating dissatisfaction rather than satisfaction, and making a clear distinction in order to evaluate levels of satisfied vs. very satisfied, as most tend to choose one of the two.[37,45] To address the issue of evaluating patient experiences, this study included a set of developed items to explore satisfaction or dissatisfaction through barriers to use and adherence, feelings about interaction with clinic staff, and attitudes about trust in physician. This study, however, recruited BCS from clinics, organizations, and support groups that focused specifically on breast cancer, so they may have had higher levels of satisfaction to begin with and, thus, reported accurately. Regarding the set of exploratory items developed for the study, those items did not undergo psychometric testing, and future work should include plans to establish reliability and validity. An additional limitation, as previously mentioned, is that the study lacked statistical power to test for interaction effects among key variables; thus, future research would benefit from exploring such relationships. It should also be mentioned that findings about the acculturation level of the sample and the association of acculturation with other variables is limited by the nature of the instrument. The study used a unidimensional instrument that measured language as the proxy for acculturation. Recent research has shown that to best understand the relationship of acculturation to health and psychosocial variables, one should assess many constructs, including not only language but also the behaviors and preferences for friends, food, and entertainment. Using such a measure would have substantially increased respondent burden and was beyond the scope of the present study, but future studies would be strengthened by using multidimensional measures of acculturation. Finally, the relatively small sample size affects the generalizability of the findings. Despite these limitations, the current study appears to be the first to evaluate the influence of satisfaction on the HRQOL of Latina BCS, using a standardized, psychometrically sound measure of satisfaction with healthcare provider. In addition, the study included Latina BCS from several different ethnic origins, socioeconomic strata, and stages of survivorship.

Conclusions

Latina BCS were satisfied with their cancer care doctors, and satisfaction with their cancer care doctors was significantly and positively correlated with HRQOL (functional well-being). High levels of satisfaction with the cancer care doctor, in turn, influenced functional well-being when confounding variables were controlled. Future research should further evaluate the relationships among these variables in this culturally unique population of cancer survivors and establish psychometric soundness of exploratory items developed in this study. Next steps would be to include subgroups from the Latina culture and larger samples, with the statistical power to test for interaction effects among key variables, as well as to use other identified methods of measuring satisfaction/dissatisfaction and personal experiences to arrive at the most accurate picture. Such research could identify unmet needs and expectations, thus improving HRQOL for Latina BCS. By identifying areas where Latina BCS might be unsatisfied with their cancer care doctor, doctors and clinics may design appropriate individually tailored care, programs, and interventions to increase satisfaction, which in turn might improve the functional well-being of Latina BCS, enhancing their ability to work and enjoy life throughout cancer survivorship.

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No competing financial interests exist for any of the authors.

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