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Older Latinos' Beliefs and Attitudes Impacting Cancer Treatment

Iraida V Carrion[1*], Tania Estapé[2], Malinee Neelamegam[3], Jane Roberts[4], Jacqueline Wiltshire[5] and Jorge Estapé[2]

[1]University of South Florida, School of Social Work, USA

[2]FEFOC, Fundación Contra El Cáncer, USA

[3]Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, CT, USA

[4]Duvall Family Studies, University of South Florida, School of Social Work, USA

[5]College of Public Health, Department of Health Policy and Management, USA

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Abstract

Purpose: This study examined attitudes and beliefs impacting cancer treatment among Latino/as 60 years and older. Studies suggest that older Latinos lack knowledge regarding cancer treatment options and often are adversely impacted by healthcare inequities regarding cancer care options.

Methods: A survey consisting of five focused areas pertaining to knowledge, attitudes, prevention, early diagnosis, and treatment of cancer was developed and administered in Spanish (N=200). A convenience community-dwelling sample older Latino/as, ranging from 60–89 years of age were recruited at churches, Latino stores, and community centers.

Results: Among the sample, 57% reported perceptions that the risk of cancer increases with age, 34% reported that cancer was hereditary, and 59% reported beliefs that radiation, chemotherapy, and cancer-related surgery was dangerous. Yet only 27% indicated they would prefer to receive no treatment if they developed cancer in the future. Although low, 6% had erroneous beliefs, such as attributing cancer to an undeserved punishment or acquiring the illness through contact. The overall model was not significant, $\chi^2(5) = 10.12$, $p = .072$, suggesting that age, gender, being Colombian, being Puerto Ricans, and LOS in the US did not have significant effects on the odds of observing that Latino/as would prefer not to be treatment if they had cancer.

Conclusion: The findings suggest that Latino/as have knowledge about the causes of cancer yet lack knowledge regarding the outcomes of cancer treatments, which may create barriers and potentially cause older Latino/as to avoid treatment. Given that the survey was conducted in Spanish, perhaps healthcare inequity can be a concern, particularly when there is language, institutional, and cultural barriers. The information gained can be used to inform the Latino community of evidence-based interventions to demystify cancer treatments. The findings will assist in developing preventive health policies to ensure justice and equity in cancer care.

Keywords: Cancer, Latinos, Attitudes, Beliefs, Treatment

Introduction

Cancer is the leading cause of death among Latinos in the US. It is estimated that 32.2% of Latina females and 44.1% of Latino males aged 60 years or older have a lifetime probability of developing invasive cancer [1], with lower survival rates for most cancers even when allowing for age and stage distribution. This study examined attitudes and beliefs about cancer among Latinos aged 60 years or older residing in the Greater Tampa Bay area. There is some

evidence that older Latinos lack knowledge about cancer treatment options and are often adversely impacted by healthcare inequities regarding cancer treatment and care options [2, 3]. Among Latinos (especially men), use of screening tests for colorectal cancer is low [4]. In addition, as compared to about 88% of non-Latino white men, only 79% of Latinos with melanoma survive for 5 years following diagnosis because of the higher occurrence of thicker tumors and later diagnosis [1]. Prior studies have indicated that beliefs in herbal medicines and the prolonged waiting time for chemotherapy impact treatment, but these studies did not include the older Latino population [5, 6]. Another study that included only older Latino cancer patients found that they were most worried about cost of treatment, time away from work, transportation to treatment, and communication with physicians compared to Whites [7]. Given Latinos' reliance on family when making treatment decisions, it is essential for older Latinos to receive accurate information about their diagnosis if they are to communicate this effectively. However, there are no specific data regarding older Florida Latinos' beliefs and attitudes about a cancer diagnosis, treatment options, and side effects. There is an urgent need to understand those beliefs in the interest of effective intervention and psychosocial cancer care.

Methods

A survey addressing five key areas pertaining to knowledge, attitudes, prevention, early diagnosis, and treatment of cancer was developed by the Fundación Contra El Cáncer [8] in the Catalan language. It was translated into the Spanish language by a native Catalan and Spanish speaker in the United States and back translated into Catalan for accuracy by the second co- author who is a native Catalan and Spanish speaker [9]. It was administered in Spanish (N = 200). In a convenience sample of the resident community (66% female, 34% male), 29% were Columbian, 24% were Puerto Rican, 11% were Cuban, and 30% were from other Latino groups. Participants were recruited at churches, Latino stores, and community centers. All interviews were conducted in Spanish by native Spanish speakers at locations that were convenient for older Latinos, as some were unable to travel because of transportation and other physical constraints. Summary statistics were calculated for each interval and ratio variable, and frequencies and percentages were calculated for each nominal variable. A binary logistic regression was performed to examine whether age, gender, LOS in the US being Colombian, or being Puerto Rican had a significant effect on the likelihood of preference to receive treatment. Data were analyzed using SPSS version 24 for Windows. The study was approved by the University of South Florida Institutional Review Board (IRB).

Data Analysis

A descriptive analysis was performed to capture the characteristics of the study population, including means and standard deviations for continuous variables and frequencies and percentages for categorical variables. Bivariate analysis using χ^2 and Fisher's exact test was performed to assess gender differences in beliefs and attitudes in relation to cancer. Statistical significance was based on a p value of 0.05. The overall model was not significant ($\chi^2(5) = 10.12$, $p = .072$), indicating that age, gender, LOS in the US, being Colombian, or being Puerto Rican had no significant effect on the likelihood of a no-treatment preference in the event of being diagnosed with cancer. McFadden's R-squared was calculated to examine the model's fit, where values greater than .2 indicate excellent fit. For this model, the McFadden R-squared value was 0.05.

Results

Sample description

Of the 200 study participants, a majority were female (66.5%), married (47%), and had a technical or college education (56%) (Table 1). Participants ranged in age from 60 to 89 years (median 68 years), and 34% were college educated. Length of stay (LOS) in the US ranged from 1 to 72 years (median 26 years). In total, 16% of respondents had had cancer.

General beliefs about cancer

Participants' general beliefs about cancer are summarized in (Table 2). Male and female participants' beliefs about cancer did not differ significantly. A majority of

respondents (94%) believed that cancer is not contagious and that it is not a punishment for past deeds (94%). In relation to beliefs about cancer treatment, most participants (74%) considered it dangerous to use natural products for cancer treatment. Additionally, 80% of study participants were aware that hair loss from chemotherapy is not permanent.

Table 1: Demographics of study population.

	Study population (N= 200)
Age (*years),* mean (SD)	68.2 (8.0)
Gender, n (%) Male	67 (33.5)
Education, n (%) No formal education Elementary High School Technical College / University	 5 (2.5) 37 (18.5) 44 (22.0) 43 (21.5) 69 (34.5)
Marital Status, n (%) Married Living with a partner Widowed Separated Divorced Single	 94 (47.0) 19 (9.5) 30 (15.0) 11 (5.5) 29 (14.5) 17 (8.5)
Ever had cancer, n (%) Yes	32 (16.0)
Country of origin, n (%) USA Puerto Rico Cuba México Central America South America	 2 (1.0) 60 (30.2) 22 (11.1) 12 (6.0) 12 (6.0) 91 (45.7)
Length of stay in the US (*years),* mean (SD)	26.2 (16.4)

Attitudes towards cancer

In the study population, attitudes towards cancer did not differ significantly among men and women. A majority of study respondents (92%) indicated that they would prefer to know if they had cancer, and 89% would tell their friends and family if they were diagnosed with cancer. Most participants (78%) were also of the opinion that cancer patients need a psychologist, and 82% believed that being lively and positive improves one's condition. In addition, 85% of participants believed that cancer can affect a couple's relationship; 57% thought that the risk of cancer increases with age; 34% believed that cancer was hereditary; and 59% believed that radiation, chemotherapy, and cancer-related surgery were dangerous. However, only 27% indicated they would prefer to receive no treatment if they developed cancer in the future. A low proportion (6%) attributed cancer to an undeserved punishment or acquisition through contact.

Discussion

The findings suggest that older Latinos have some knowledge of the causes of cancer but believe that radiation chemotherapy and cancer-related surgery are dangerous. If unaddressed by medical professionals, these beliefs, coupled with existing language and access barriers that contribute to health inequities among Latinos, will likely cause anxiety and depression [10] Additionally, cancer treatment decisions are likely to be impacted during COVID-19 outbreak. The pandemic and beliefs may cause older Latinos to resist and avoid treatment because of worries and fears about side effects. When older adults are diagnosed with cancer, misconceptions about cancer treatment and prognosis can lead to the spread of fallacies among friends and families, and more reliable information is needed regarding the outcomes of cancer treatments. Informal cancer information is more likely to be shared among older Latinos and is more likely to be valued as important. Although the study is not representative of all older adults in the state of Florida and the stage of cancer diagnosis of 16% of the participants is unknown the finding provides important data. Equipping older Latinos with culturally relevant educational material, targeting them to increase awareness will reduce the risk of cancer within the Latino community [4]. As a result, the lives of older Latinos will be enhanced, as well as those of their family and friends. This research sets the stage for a series of further studies that will expand our knowledge of cancer beliefs and attitudes and treatment options for specific cancers and subgroups. This information can be

used to provide the Latino community with information about evidence-based interventions, so demystifying cancer treatments. The findings will contribute to the development of appropriate preventive health practices and policies that enhance the knowledge of future Latino generations.

Table 2. Frequencies and percentages of participants response to questions about their general beliefs about cancer.

	Male	Female	All	p-value
The risk of developing cancer increases with age				
Yes	41 (62.1)	74 (58.7)	115 (59.9)	0.66
No	14 (21.2)	34 (27.0)	48 (25.0)	
Don't Know	11 (16.7)	18 (14.3)	29 (15.1)	
Cancer in older people is less aggressive than in younger				
people	18 (27.3)	37 (29.1)	55 (28.5)	0.60
Yes	23 (34.8)	51 (40.2)	74 (38.3)	
No	25 (37.9)	39 (30.7)	64 (33.2)	
Don't know				
Cancer has a cure				
Yes	17 (26.2)	28 (22.2)	45 (23.6)	0.45
No	10 (15.4)	13 (10.3)	23 (12.0)	
Depends on the type	37 (56.9)	79 (62.7)	116 (60.7)	
Don't know	1 (1.5)	6 (4.8)	7 (3.7)	
Cancer is contagious				
Yes	2 (3.0)	0 (0)	2 (1.0)	0.10
No	60 (90.9)	128 (96.2)	188 (94.5)	
Don't know	4 (6.1)	5 (3.8)	9 (4.5)	
Cancer is a punishment for something that has been done				
Yes	1 (1.5)	0 (0)	1 (0.5)	0.24
No	60 (90.9)	126 (95.5)	186 (93.9)	
Don't know	5 (7.6)	6 (4.5)	11 (5.6)	
Cancer is hereditary				
Yes	27 (40.3)	41 (30.8)	68 (34.0)	0.50
No	13 (19.4)	28 (21.1)	41 (20.5)	
Sometimes	23 (34.3)	50 (37.6)	73 (36.5)	

	Male	Female	All	p-value
Don't know	4 (6.0)	14 (10.5)	18 (9.0)	
Surgery is dangerous				
Yes	38 (56.7)	80 (61.1)	118 (59.6)	0.24
No	13 (19.4)	32 (24.4)	45 (22.7)	
Depends	1 (1.5)	0 (0)	1 (0.5)	
Don't know	15 (22.4)	19 (14.5)	34 (17.2)	
Anaesthesia is dangerous				
Yes	43 (64.2)	95 (71.4)	138 (69.0)	0.35
No	17 (25.4)	25 (18.8)	42 (21.0)	
Depends	1 (1.5)	0 (0)	1 (0.5)	
Don't know	6 (33.5)	13 (9.8)	19 (9.5)	
Radiotherapy is dangerous				
Yes	37 (55.2)	77 (57.9)	114 (57.0)	0.52
No	15 (22.4)	26 (19.5)	41 (20.5)	
Depends	1 (1.5)	0 (0)	1 (0.5)	
Don't know	14 (20.9)	30 (22.6)	44 (22.0)	
Hormone therapy is dangerous				
Yes	13 (19.4)	39 (29.5)	52 (26.1)	0.23
No	14 (20.9)	22 (16.7)	36 (18.1)	
Depends	1 (1.5)	0 (0)	1 (0.5)	
Don't know	39 (58.2)	71 (53.8)	110 (55.3)	
Chemotherapy is dangerous				
Yes	40 (60.6)	79 (59.8)	119 (60.1)	0.98
No	17 (25.8)	32 (65.3)	49 (24.7)	
Depends	1 (1.5)	2 (1.5)	3 (1.5)	
Don't know	8 (12.1)	19 (14.4)	27 (13.6)	
Natural products are dangerous				
Yes	5 (7.6)	10 (7.9)	15 (7.8)	0.73
No	47 (71.2)	96 (75.6)	143 (74.1)	
Don't know	14 (21.2)	21 (16.5)	35 (18.1)	

	Male	Female	All	p-value
Hair loss caused by chemotherapy is permanent				
Yes	4 (6.1)	9 (7.1)	13 (6.7)	0.30
No	50 (75.8)	105 (82.7)	155 (80.3)	
Don't know	12 (18.2)	13 (10.2)	25 (13.0)	
Vomiting that chemotherapy causes can be avoided				
Yes	26 (39.4)	44 (35.2)	70 (36.6)	0.45
No	17 (25.8)	30 (24.0)	47 (24.6)	
Depends	1 (1.5)	0 (0)	1 (0.5)	
Don't know	22 (33.3)	51 (40.8)	73 (38.2)	
Cancer treatment is worse than the disease				
Yes	16 (23.9)	26 (20.6)	42 (21.8)	0.44
No	36 (53.7)	59 (46.8)	95 (49.2)	
Depends	1 (1.5)	1 (0.8)	2 (1.0)	
Don't know	14 (20.9)	40 (31.7)	54 (28.0)	
Do you know what a clinical trial is?				
Yes	24 (36.4)	40 (31.5)	64 (33.2)	0.50
No	42 (63.6)	87 (68.5)	129 (66.8)	
Do you know what randomization is?				
Yes	19 (29.2)	22 (17.7)	41 (21.7)	0.09
No	46 (70.8)	102 (82.3)	148 (78.3)	
Do you know what a placebo is?				
Yes	29 (44.6)	46 (37.1)	75 (39.7)	0.52
No	35 (53.8)	74 (59.7)	109 (57.7)	
Don't know	1 (1.5)	4 (3.2)	5 (2.6)	
Do you know what informed consent is?				
Yes	33 (50.0)	68 (54.0)	101 (52.6)	0.65
No	33 (50.0)	58 (46.0)	91 (47.4)	

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Author's Contribution

The authors of this paper, Carrion, Estape, Neelamegam, Roberts, Wiltshire and Estape each contributed to the preparation of this manuscript.

Dr. Iraida V. Carrion: Conceptualization, Methodology, Data Curation, Supervision, Writing – Original draft preparation, Funding Acquisition.

Dr. Tania Estapé: Conceptualization, Formal Analysis, Writing –Review & Editing Dr. Malinee Neelamegam: Statistical Analysis, Writing – Review & Editing

Dr. Jane Roberts: Funding Acquisition, Writing – Review & Editing

Dr. Jacqueline Wiltshire: Statistical Analysis, Writing – Review & Editing Dr. Jorge Estapé: Writing – Review & Editing

Ethics Statement

This study was submitted and approved by the University of South Florida Internal Review Board.

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***Corresponding author:** Dr. Iraida V. Carrion, Associate Professor, University of South Florida, School of Social Work, 13301 Bruce B. Downs Blvd., Tampa, FL 33612-3807, USA;

E-mail: icarrion@usf.edu