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A Pilot Program in Collaboration with Community Centers to Increase Awareness and Participation in Skin Cancer Screening Among Latinos in Chicago

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Introduction

Although White populations are more frequently affected by skin cancer, recent studies have highlighted late-stage presentations in Latinos [1-6]. Diagnosis in these individuals often occurs once tumors are thicker or have metastasized [1-6]. An essential part of improving survival rates is early detection yet our group recently described low levels of physician skin examinations and education on self-skin examinations in Chicago Latino communities [7].

Lay health workers (LHWs) may assist in health education by serving as a connector between health care providers and health care consumers. They are not medical professionals but have undergone a defined health education curriculum organized by a local

community center. LHWs have been found to be effective educators in underserved Spanish-speaking communities where they have delivered multiple cancer education programs [8]. This pilot study examined using Spanish-speaking LHWs to educate the public about skin cancer, perform focused skin examinations, and encourage community members to attend physician skin screenings in underserved Latino communities in Chicago.

Methods

The Institutional Review Board of the University of Illinois at Chicago approved this study. Two LHW programs, Centro Comunitario Juan Diego and Centro San Bonifacio, participated. LHW inclusion criteria were minimum age of 18 years, Spanish-language fluency, completion of required LHW-related training, and attending a 1-hour didactic session. Enrollment was voluntary and occurred over a 2-month period. LHWs were randomized into either a diabetic skin findings or skin cancer education intervention. Diabetes was chosen as the control intervention since foot exams are a regular part of diabetic checks. This would allow both groups of LHWs to have similar examinations.

Pre and post-educational intervention, the LHWs responded to items of the *Skin Examination Questionnaire* (SEQ) which measures knowledge of surveillance, risk perception, and self-efficacy in performing skin examinations. The skin cancer questions all have reliability and validity testing in the literature [9]. The didactic session taught skin cancer basics and emphasized examination of easily accessible high risk sites including the face, palms, and soles (Table 1) [10, 11].

LHWs in both groups were to record clinically suspicious lesions on supplied body maps (BM). Each client was assigned a unique identifying number and their map consisted of one white (collected by LHW) and yellow copy (retained by client). LHWs were to encourage individuals with a concerning lesion to attend a free physician screening at the community center. Clients were asked to bring the yellow BM copy to their screening so the suspicious lesion could be identified by the doctor. If LHWs submitted BMs, they were eligible to receive an honorarium (\$5 per week) for 3 months with a maximum honorarium of \$60. Dermatologist screening occurred once a month for three consecutive months with one final visit 3 months later. Individuals who required further care were referred to county health clinics.

Results

Thirty-four LHWs at both sites voluntarily attended lectures and 22 submitted both pre and post-SEQs (12 from melanoma group and ten from diabetes group). Most improved from “not at all” confident (12/12 pre) to “somewhat confident” (9/12 post) about performing skin examinations and three remained “not at all” confident (Table 2). A total of 133 BM were submitted with 64 individuals attending physician skin screenings. Two were from the diabetes group with the remaining referred by the skin cancer LHWs. Since BM were submitted only for suspicious lesions, the total number of skin screening performed by LHWs is not available. Thirteen persons came for screening based on word-of-mouth from

family or friends who were educated by LHWs. Table 3 lists diagnoses made by the physician.

Discussion

Traditional ways to deliver health care information have failed to reach Latinos as evidenced by late-stage skin cancer detection and associated poor outcomes. Currently, the literature offers few suggestions on how to begin to reach this community in order to improve education and early detection. This pilot program offers a possible approach that addresses many barriers facing the Latino community including language/-communication, cultural differences, lack of health insurance to gain initial access to care, and fear of discrimination [11]. Lay individuals are encouraged to examine their skin or to allow “a spouse, close friend or family member” to assist with the exams [12]. The results of this pilot study are encouraging since LHWs with minimal training were willing to serve as the “friend” for focused screening of high risk sites and successfully encouraged many to attend physician screenings. Community-based education by LHWs on skin cancer may encourage and facilitate Latinos to access the professional medical care system for further evaluation and help reduce late-stage presentations.

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Table 1

Outline of LHW didactic sessions for the intervention (skin cancer) and control (diabetic) teaching groups

Lecture (skin cancer)	
1	Ask if any LHWs have had a skin cancer or know someone who has had skin cancer
2	Discuss Latinos are at risk for skin cancer including acral lentiginous melanoma
3	Review increasing incidence of melanoma and skin cancer in Latinos
4	Importance of early detection for improved survival as early skin cancer is removed with office surgery
5	Risk factors for developing skin cancer including sun exposure, family history, and number of nevi
6	Discuss ABCDEs of melanoma detection (Asymmetry, Borders, Color, Diameter, Evolution). Review photographs of changing nevi.
7	Emphasize importance of hand and foot exams
8	Pictures of nonmelanoma skin cancer
9	Prevention—sun protection, sunscreen, sun protective clothing
10	Distribute flip cards with early warning signs of melanoma
11	Reinforce ABCDEs of melanoma using flip cards for review
12	Question and answer period
13	Practice examining fellow participant's visible skin of the face, arms, and hands The skin examination enabling kit consisting of the flip cards, ruler, and magnifying lens are given to each LHW.
14	Demonstrate how to use the body map by examining each other and place a mark on the area of concern on the map.
15	Answer any remaining questions
LHW lecture (diabetic skin care)	
1	Ask if anyone has diabetes or knows someone who does
2	Discuss Latino diabetes epidemic
3	Review of risk factors and incidence
4	Discuss there are skin findings in diabetes
5	Discuss 5 diseases that can be seen in diabetes <ul style="list-style-type: none"> • Necrobiosis lipoidica diabetorum • Granuloma annulare • Diabetic bulla • Acanthosis nigricans • Neurotropic foot ulcers
7	Emphasize importance of foot exams for diabetes ulcers
8	Question and answer period
9	Distribute photos of diabetes skin findings
10	Demonstrate how to use the body map by examining each other and place a mark on the area of concern on the map.
11	Answer any remaining questions

Table 2

Skin examination questionnaire

	Pre-SC group	Post-SC group	Pre-DM group	Post-DM group
I am at risk for developing melanoma.				
Yes	2	12	1	1
No	6	0	3	2
Don't know	4	0	6	7
Has a doctor or any health care worker told you that you should examine your skin (perform skin self-examinations) for skin cancer or melanoma?				
Yes	0	0	0	0
No	12	12	9	9
Don't know	0	0	1	1
Has a doctor or health care worker taught you how to check your skin (perform skin self-examination)?				
Yes	0	0	0	0
No	12	12	9	9
Don't know	0	0	1	1
The ABCDE rule is used to diagnose melanoma.				
True	0	12	0	0
False	0	0	0	0
Don't know	12	0	10	10
I am at risk for developing diabetes.				
True	12	12	9	9
False	0	0	0	0
Don't know	0	0	1	1
How confident are you that you know the difference between a melanoma and other types of moles?				
Not at all	12	7	10	10
Somewhat	0	5	0	0
Very confident	0	0	0	0
How confident are you that you know how to examine a mole for asymmetrical shape?				
Not at all	12	2	10	10
Somewhat	0	9	0	0
Very confident	0	1	0	0
How embarrassing is it to check your client's skin?				
Not at all	2	2	4	4
Somewhat	6	8	6	6
Very	4	2	0	0
A in the ABCDE rule means the shape of the mole does not match itself on all sides.				
True	0	12	0	0
False	0	0	0	0
Don't know	12	0	10	10
How confident are you that you can carefully check your client's feet for diabetic foot ulcers?				
Not at all	0	0	0	0
Somewhat	9	10	7	2

	Pre-SC group	Post-SC group	Pre-DM group	Post-DM group
Very	3	2	3	8
How confident are you that you can examine the skin of your client's face, ears, hands, and feet for skin cancer?				
Not at all	12	3	10	10
Somewhat	0	9	0	0
Very	0	0	0	0

Twelve participants in the SC education group and ten in the DM education group

SK skin cancer, *DM* diabetes mellitus

Table 3

Dermatologist skin screening diagnoses

Study group				
Skin cancer Intervention	Acne	2	Keratosis pilaris	1
	Acanthosis nigricans	1	Melasma	1
	Angioma	3	Onychomycosis	1
	Atopic dermatitis	1	Scar	2
	Atypical nevus	1	Skin tags	8
	Benign nevus	18	Verruca	4
	Cafe-au-lait spot	3	Vitiligo	2
	Dermatitis (not specified)	2		
	Dermatofibroma	2		
	Diaper dermatitis	1		
	Dyschromia	1		
	Epidermal nevus	1		
	Lentigo	4		
	Seborrheic keratosis	7		
Diabetes intervention	Intradermal nevus	1		
	Lentigo	1		
	Seborrheic keratosis	1		
Word-of-mouth	Acanthosis nigricans	1		
	Atypical nevus	1		
	Benign nevus	2		
	Cyst	1		
	Dark under eye circles	1		
	Keratosis pilaris	1		
	Lentigo	1		
	Melasma	2		
	Molluscum	1		
	Scar	1		
	Skin tags	1		
	Ulcer	1		

Some patients may have had more than one diagnosis at time of examination