

# Southern California Hispanic Women Osteoporosis Education and Screening Project

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## Introduction

Osteoporosis is often portrayed as a disease that is unique to postmenopausal non-Hispanic white (NHW) women; however, recent findings have demonstrated that other ethnic groups are at risk. Our study focused on identifying Hispanic women at risk for osteoporosis. The study was conducted in Hispanic postmenopausal women primarily of Mexican decent with a low income and low education background. The purpose of the study was to 1) establish whether providing Hispanic women with osteoporosis education concurrent with a T-score or a T-score plus a fracture risk assessment would motivate them to seek medical help and 2) determine whether acculturation of Hispanic women had an impact on their health seeking behavior.

## Methods

- 318 postmenopausal Hispanic women participated in the study (average age 65); most of the attendees were recruited at osteoporosis screening events at churches, senior centers and community health fairs in Ventura County.
- Osteoporosis education and written materials were provided in Spanish.
- All participants received 1) risk factor questionnaire; 2) an acculturation questionnaire; and 3) a heel peripheral bone density report.
- Some of the participants received an absolute fracture risk report.
- A follow-up survey was conducted 6 months after (via telephone and in-home interviews) to assess the participant's awareness of osteoporosis, medical intervention and the initiation of osteoporosis therapy by the patients.

## Results

At the time of the study, 14% of Hispanic women were taking estrogen (n = 45), 43% calcium (n = 137), and 21% vitamin D (n = 67). Of the 318 Hispanic women in study, 38% of the Hispanic women in the study had low bone mass (LBM)/osteopenic (T-score between -1 to -2.5; n = 121), 13% were osteoporotic (T-score of < -2.5; n = 43), and 31% of women ≥ 65 years old were osteoporotic (n=36). Follow-up surveys were completed in 201 out of 318 screened women (63%), 143 in the T-score only group (70%) and 58 from the T-score plus an absolute fracture report group (50%). There appeared to be a slightly higher response rate from the LBM compared to osteoporotic group, 64% and 58%. T-score with absolute fracture report did not have an impact on women seeking medical help (52%) compared to T-score only (60%). Age, risk factors and a T-score plus absolute fracture report did not appear to significantly influence physician's likelihood of ordering a DXA and/or prescribing an osteoporosis treatment; it also did not increase the likelihood of patients filling their prescriptions. Although the total number of women with a T-score < -2.5 was relatively small, there was a higher trend for this group in seeking medical help, physicians ordering a DXA and writing a prescription for osteoporosis therapy, and patients filling the prescription.

Table 1. Acculturation Questionnaire

	n (%)
Very Mexican	237 (75%)
Mostly Mexican	44 (14%)
Bicultural	25 (8%)
Mostly Anglicized (Americanized)	7 (2%)
Very Anglicized (Americanized)	1 (0.003%)

Table 2. T-scores from Peripheral DXAs

T-score	Age	
	< 65 (n=200)	≥ 65 (n=118)
> -1	124(62%)	30 (25%)
-1 to-2.5	69 (34%)	52 (44%)
< -2.5	7 (4%)	36 (31%)

Table 3. Risk Factors

Total Score	Age	
	< 65 (n=200)	≥ 65(n=118)
0	117 (59%)	38 (32%)
1	57 (28%)	42 (36%)
2	16 (8%)	26 (22%)
3	8 (4%)	8 (7%)
4	2 (1%)	4 (3%)

Table 4. Patients Seeking Medical Help

T-score	Yes, n (%)		No, n (%)	
	n=117	n=84	n=117	n=84
> -1	50 (43%)	48 (57%)	50 (43%)	48 (57%)
-1 to -2.5	49 (42%)	29 (35%)	49 (42%)	29 (35%)
< -2.5	18 (15%)	7 (8%)	18 (15%)	7 (8%)
T-score	Yes, n (%)		No, n (%)	
	87 (74%)	56 (67%)	87 (74%)	56 (67%)
T-score + Absolute Fracture Risk Report	30 (26%)	28 (33%)	30 (26%)	28 (33%)

Table 5. Patients Receiving an Osteoporosis Prescription

	Yes, n=54 (%)	No, n=63 (%)
T-score		
> -1	14 (26%)	36 (57%)
-1 to -2.5	27 (50%)	22(35%)
< -2.5	13 (24%)	5 (8%)
T-score	36 (67%)	51 (81%)
T-score + Absolute Fracture Risk Report	18 (33%)	12 (19%)

## Conclusions

- The study results indicated that 31% of the screened Hispanic women ≥ 65 years old were osteoporotic, based on T-score of < -2.5.
- The T-score with absolute fracture report did not appear to influence patient or physician behavior.
- Of the 43 screened osteoporotic women, 42% sought medical help. 35% received a central DXA, 30% received a prescription for osteoporosis therapy, and only 19% of these patients filled their prescription.
- These data suggest a need for future studies to focus on deeper understanding of Hispanic women's and their physicians' perceptions, attitudes and behaviors related to osteoporosis in this ethnic group.

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