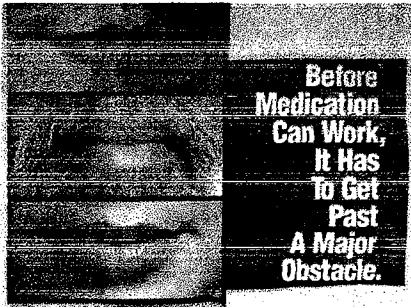


**Multicultural Medication
Adherence:
A Comparative Study**

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Studies & geriatric pop



Factors Associated with Adherence

Patient related Factors:

- Knowledge and understanding of regimen
- Cognitive function
- Depressive symptomatology
- Social support

Medication Regimen:

- # of meds
- # of pills
- Complexity of drug regimen

65-92 yo

Background

- 3 month double blind pilot study of 98 women over the age of 65 on estrogen or placebo to determine the effect on bone turnover
 - Mean adherence score evaluated by pill counts
 - Caucasian 95.8%
 - African American 80.3% *
 - Hispanic 68.3% *

*comparison of mean adherence Caucasian vs. Black and Hispanic p<.05

Hypotheses

- Medication adherence in women will be increased using nursing interventions and devices
- Medication adherence in Caucasian women is higher than minority women

Specific Aims

- Measure medication adherence
- Initiate a teaching plan
- Compare pill box with electronic monitoring device
- Assess each participant's understanding of the study

PRECEDE MODEL: MINORITIES AND MEDICATION ADHERENCE

Predisposing Factors	Enabling Factors	Reinforcing Factors
Health Beliefs Attitudes toward health care and research Self-efficacy	Behavioral Medication taking skills Pill Boxes, MEDS	Health Physiological improvement from medication
Cultural Beliefs Familialism Allopathism	Socioeconomic Transportation	Non Health Free transportation Free food Incentive gifts
Education Health Knowledge Medication Taking	Communication Language	Person Bilingual research staff
Health Status Physical Mental	Community Senior Centers Culturally compatible staff	

Adherence Study Sample

- 109 women over the age of 65 years
 - 57 Caucasian
 - 52 African American and Hispanic
- Residents of the Greater Hartford area
- Participating in an ongoing osteoporosis study at the GCRC

Study Design

- Individual instruction at each visit using a professional teaching guide on osteoporosis
- Dietary calcium instructions with written handout
- Use of pill boxes for 6 months
- Use of electronic monitors for 6 months
- Monthly telephone contact
- Follow-up visits every three months

300-1200mg Cal based on diet hx

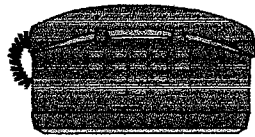
Summary of Study Visits

Standardized Teaching

- Professional teaching guide
- Individual instruction
- Simplified written instruction
- Diet instruction with written handout
- Verbal explanation of pill boxes/electronic monitors

Phone Contact

- Monthly between clinic visits
- Consistency
- Written log



DEMOGRAPHICS	Race	CAUCASIAN (n= 37)	AFRICAN- AMERICAN (n=24)	HISPANIC (n=22)
Age* (mean ± SD)		74.7 ± 5.1	73.1 ± 5.8	71.9 ± 5.7
Marital Status*				
Married	21%	30%	12%	
Widowed	40%	32%	32%	
Divorced/ single	9%	10%	53%	
Education*				
< 8 th grade	2%	12%	79%	
8 th grade to 11 th grade	23%	32%	14%	
College or >	75%	56%	7%	
Annual Household†*				
Income \$				
<20,000	17%	30%	68%	
20,000-39,999	38%	50%		
>40,000	40%	4%		
unknown	5%	4%	32%	

*p<0.05 between groups by Chi-square analysis

RESULTS

Adherence	N	Caucasian	N	African American (AA)	N	Hispanic
Baseline (BL)	57	95.4 ± 1.7 [†]	24	79.2 ± 2.6	28	83 ± 2.4
3 month	56	95.4 ± 1.7 [†]	23	83.1 ± 2.7	27	83.7 ± 2.4
6 month	56	93.3 ± 1.7 [†]	21	83 ± 2.8	26	78.6 ± 2.3
9 month	56	93.9 ± 1.7 [†]	19	89 ± 2.9*	24	78.5 ± 2.6
12 month	52	96 ± 1.8 [†]	19	88.4 ± 2.9*	25	85.8 ± 2.9**

† p < .05 compared to baseline
* p < .05 compared to previous visit
** p < .05 compared to baseline and all other visits
†† p < .05 compared to previous visit

Summary

- Medication adherence was higher in Caucasian women as compared to African American and Hispanic women.
- A statistically significant increase in adherence for the African American women was noted.
- A statistically significant increase in adherence was noted in the Hispanic women from the 9 month visit to the 12 month visit.

Future Studies

- To determine specific interventions that can be tailored to different minority groups in order to increase medication compliance.
- To conduct a phenomenological study to better understand medication taking behaviors in the Hispanic population.
