Educational Intervention as a Public Health Strategy:
A Case of Osteoporosis Awareness in a South Asian Community

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INTRODUCTION

• Osteoporosis is a major public health problem in the United States affecting postmenopausal women

• Responsible for more than 1.3 million fractures nationally each year

• 2.7 million Texans have osteoporosis

• Osteoporosis is both preventable and treatable, therefore, increasing awareness and knowledge becomes essential for disease management and prevention

OBJECTIVES

• To assess the awareness of osteoporosis prevention among peri and post menopausal South Asian women in the Dallas Fort -Worth Metroplex

• To determine whether there is an improvement in osteoporosis knowledge two weeks after administering a health education intervention
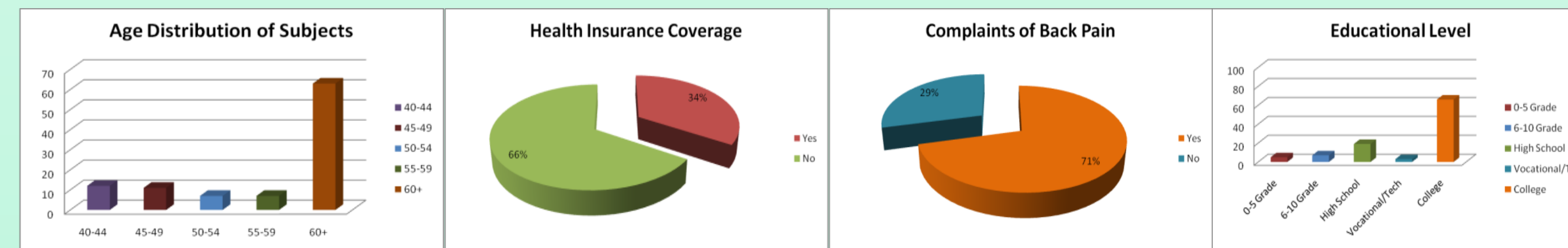
STUDY DESIGN

• This is a quasi-experimental prospective study involving a pretest survey, educational intervention, and a post-test survey

• Pre and post intervention data were collected by using a questionnaire

• Information on knowledge, beliefs and attitudes regarding osteoporosis were collected as well as demographic information

• Inclusion Criteria:
    - Women
    - 40 years and above
    - Attending South Asian Community Centers

STUDY SETTING

South Asian Community Centers in Dallas Fort Worth Metroplex:
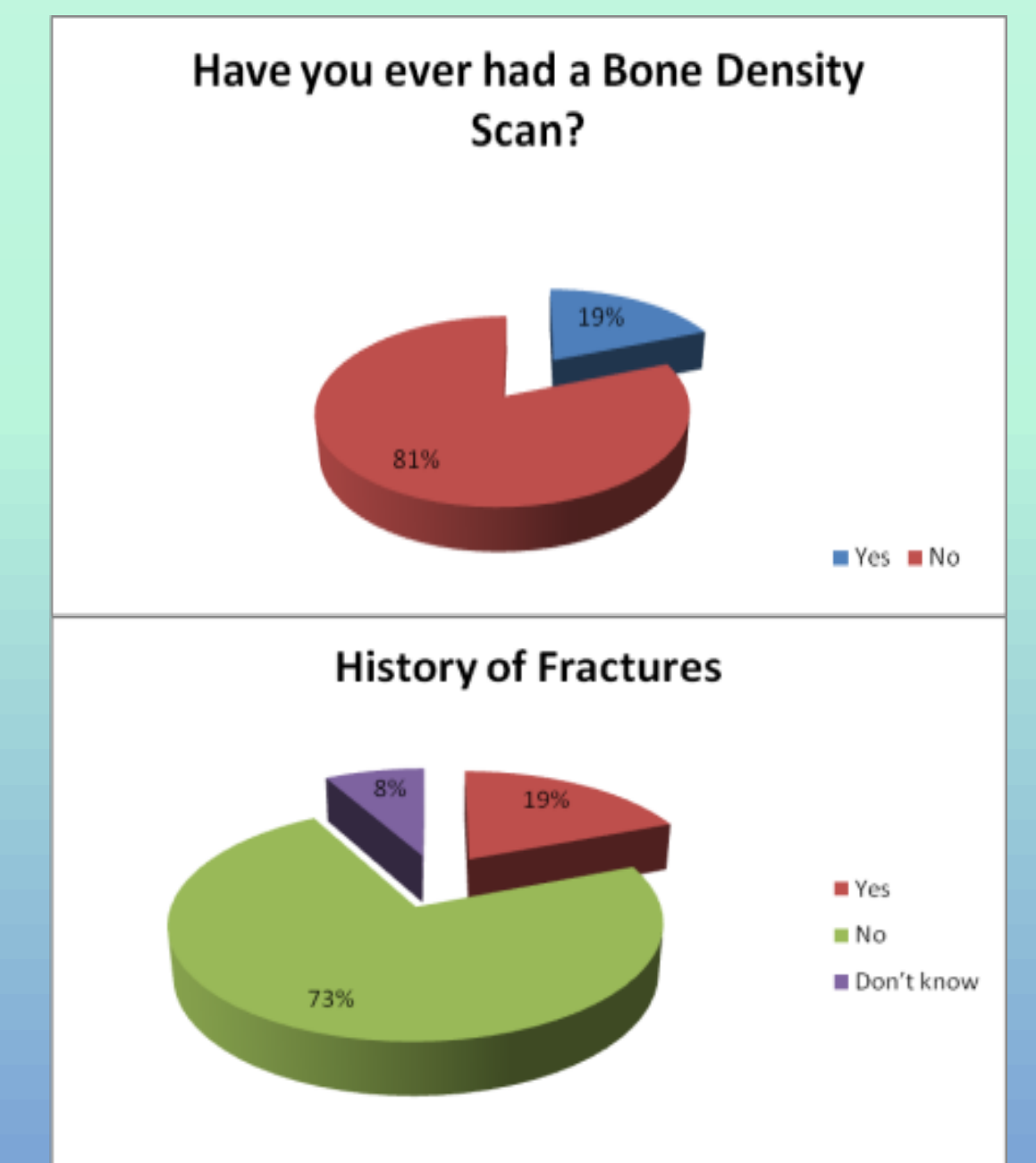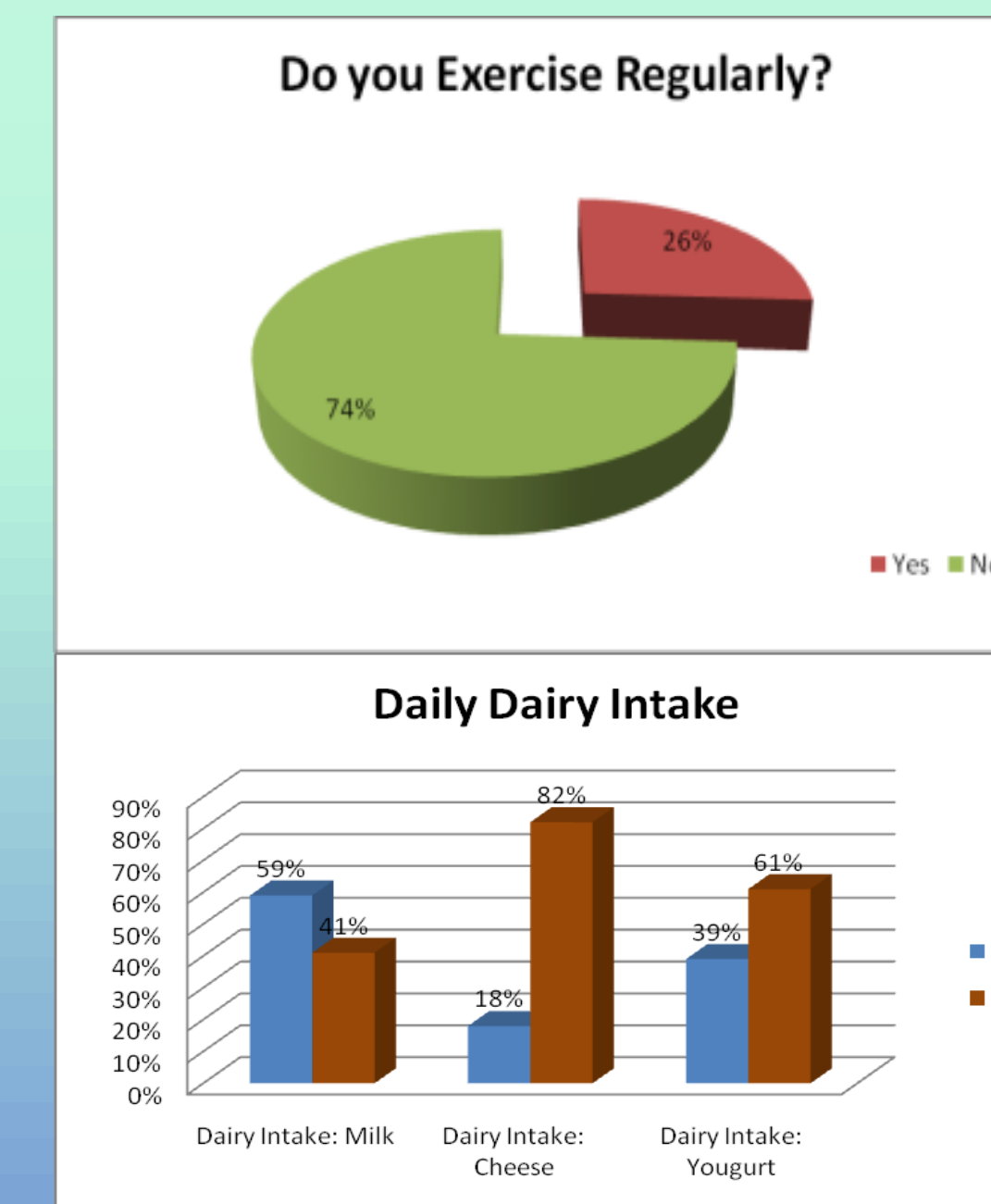
1. Richardson Center   2. Irving Center

Age Distribution of Subjects / Health Insurance Coverage / Complaints of Back Pain / Educational Level

PRE-TEST & POST-TEST SURVEY COMPARISON   N=61

No.	Questions	PRE TEST Correct* N(%)	POST TEST Correct* N(%)	McNemur Sig. Test (2-tailed)
1	Osteoporosis is the weakening/loss of bones due to calcium deficiency.	47 (77)	61 (100)	0.000
2	Osteoporosis can lead to bone fractures.	47 (77)	58 (95)	0.007
3	Bone pain can be a sign of osteoporosis.	43 (70)	53 (87)	0.064
4	Loss of height can be a sign of osteoporosis	31 (51)	49 (80)	0.001
5	By age 80, most women have osteoporosis	36 (59)	53 (87)	0.000
6	Osteoporosis occurs after a woman stops having her periods.	35 (57)	60 (98)	0.000
7	Family history of osteoporosis is a risk factor for osteoporosis.	31 (51)	55 (90)	0.000
8	Very thin women are at risk for developing osteoporosis.	15 (25)	58 (95)	0.000
9	Overweight women are at risk for developing osteoporosis.	26 (43)	50 (82)	0.000
10	Physical exercise is beneficial for prevention of osteoporosis.	46 (75)	57 (93)	0.013
11	Calcium supplements alone can prevent bone loss.	12 (20)	19 (31)	0.189
12	Adequate calcium intake can be achieved from two glasses of milk a day.	10 (16)	39 (63)	0.000
13	Bone density scan is the screening test used to diagnose osteoporosis.	37 (61)	58 (95)	0.000
14	There are effective medicines available to treat osteoporosis.	39 (64)	56 (92)	0.000

*Pre and post N(%) represent number of respondents who reported the correct answer.

OSTEOPOROSIS AWARENESS SEMINAR SESSIONS

INTERVENTION

• Group seminars were conducted at the community centers from where the subjects were recruited

• Didactic sessions were held and relevant educational materials distributed to participants

• POST TEST SURVEY followed 2-3 weeks after each seminar session

Do you Exercise Regularly? / Have you ever had a Bone Density Scan? / Daily Dairy Intake / History of Fractures

MAIN RESULTS OF STUDY

• The results indicated significant pre/post test difference for 13 out of 14 questions especially in the areas of subject awareness regarding: the definition of Osteoporosis; risk of bone fractures; menopause and osteoporosis; family history of bone fractures; body weight and osteoporosis; age, and loss of height as risk factors

• Results also showed statistical significance in subjects' knowledge about the potential of achieving adequate calcium intake from two glasses of milk a day

CONCLUSION

• The results of our study indicated that there is a significant lack of knowledge about Osteoporosis among the South Asian immigrant population

• Furthermore, a patient-centered educational intervention can help educate, and possibly prevent Osteoporosis in this population