Knowledge about Osteoporosis and Risk of Consequent Bone Fracture Among the Elderly People

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OBJECTIVES

Our study aims to assess the level of knowledge about osteoporosis, and the extent of osteoporosis risk among older people.

METHODS

The cross-sectional survey was carried out in 2022, among aged 60 years and older people selected by a nonrandom sample selection method (n=185). Groups within the self-administered questionnaire included socio-demographic variables, the Osteoporosis Knowledge Assessment Tool (OKAT), FRAX calculator, and the Osteoporosis ssment Questionnaire (OPAQ-SV-34). Descriptive statistical analysis, ANOVA and Spearman correlation analysis (p<0.05) were performed using SPSS 28.0 software.

RESULTS

The average age of the respondents was 68.89 years, and 16.8% have osteoporosis diagnosed by a doctor. We measured an average of 8.9±3.15 points in the OKAT questionnaire (from 20 maximum scores) 94.6% of respondents (175 people) did not have sufficient knowledge about osteoporosis (<15 points). Based on the FRAX calculator, there is an 11.44±7.5% chance of a major osteoporotic fracture and a 3.6±4.5% chance of a hip fracture among respondents. The chances of a large osteoporotic fracture (13.2%) and a hip fracture (5.5%) are significantly (p=0.001) higher among those over 70 than in the 60-64 age group (7.9% and 1.3%). There is a positive, weak and significant correlation between age and the chance of a large osteoporotic fracture (r=0.375, p<0.001). There was a negative, weakly significant correlation between BMI and the chances of a major osteoporotic fracture (r=-0.342, p<0.001). Only 45.4% of the sample subjects participated in the screening examination, with significantly more women (p<0,001) among them. The highest average risk score (OPAQ-SV) was measured for daily activities (33.3), and the lowest was for body image (13.5). Age had a positive weak significant correlation (r=0.399, p<0.001) with the fear of falling.

CONCLUSIONS

Great emphasis must be given to expanding our knowledge of osteoporosis to prevent consequent bone fractures, especially among high-risk elderly.
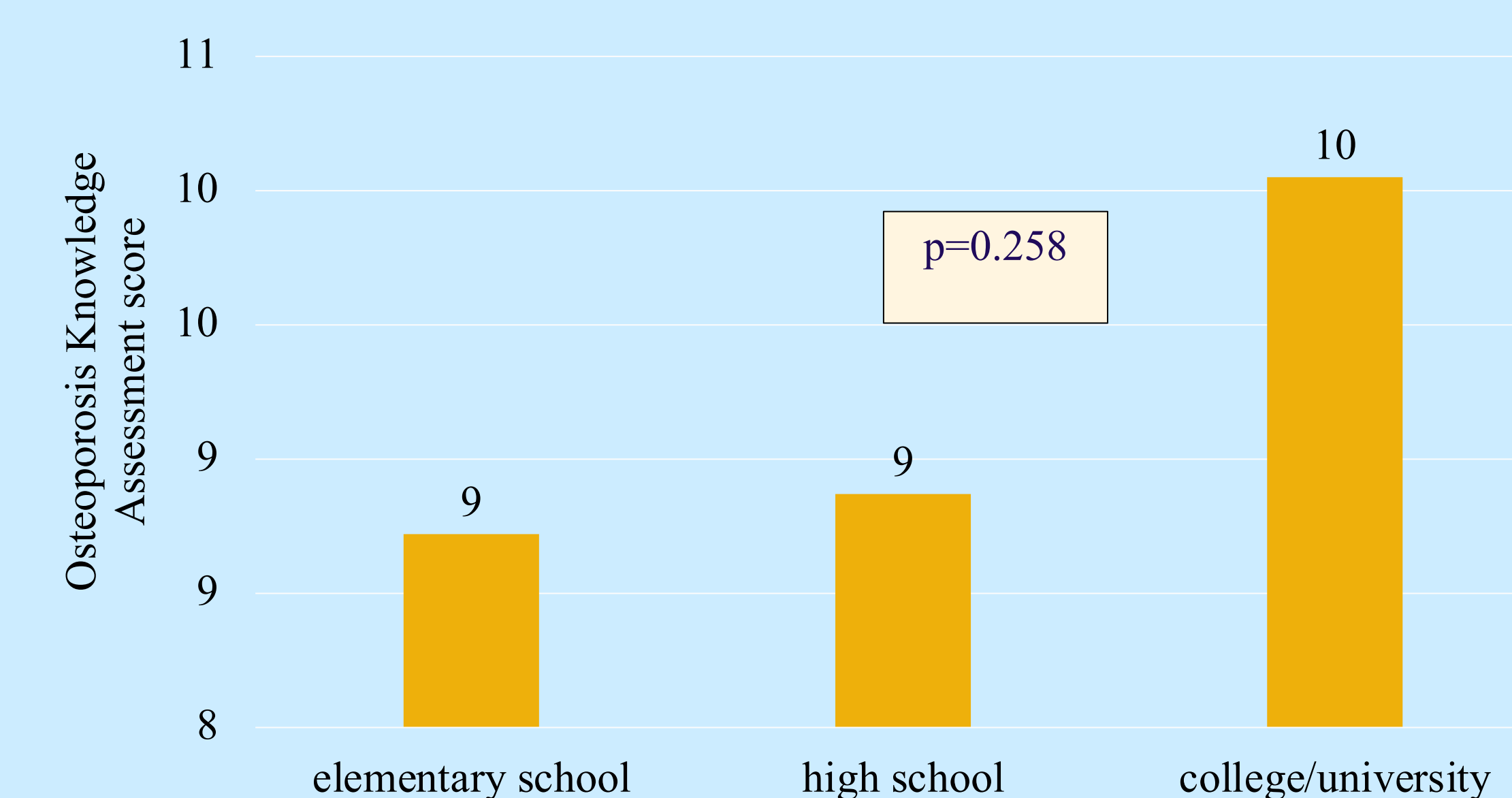

Figure 1.
Osteoporosis Knowledge Assessment mean score based on education level (085)

Figure 2.
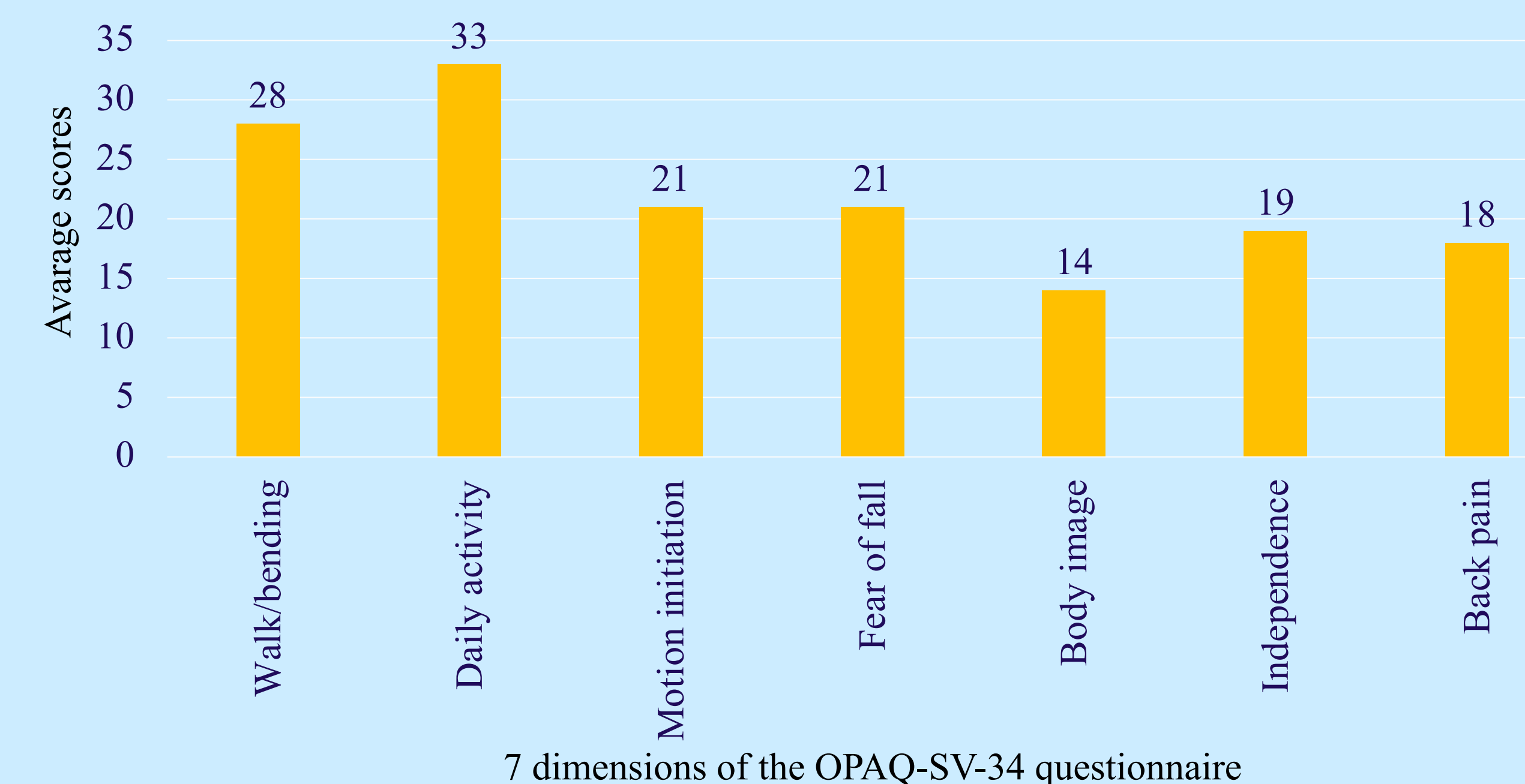*Fracture Risk Assessment score (FRAX) based on age*

Figure 3.
Average scores of the 7 dimensions of the Osteoporosis Assessment Questionnaire (OPAQ-SV 34) (n=185)

	Age	Physical activity	BMI	Risk of hip fracture
Motion initation	-0.035	-0.131	0.093	-0.008
Body image	0.043	0.125	0.069	0.114
Fear of falling	0.399**	-0.055	0.005	0.314**
Backache	0.172*	-0.176*	0.023	0.174*
Independence	-0.216**	0,198*	-0.169*	-0.091
Walk/bending	0.308**	-0.282**	0.159*	0.216**

Table 1.
*Correlation matrix of OPAQ-SV-34 dimensions by age, physical activity, BMI, risk of hip fracture (n=185) **p<0.001)*
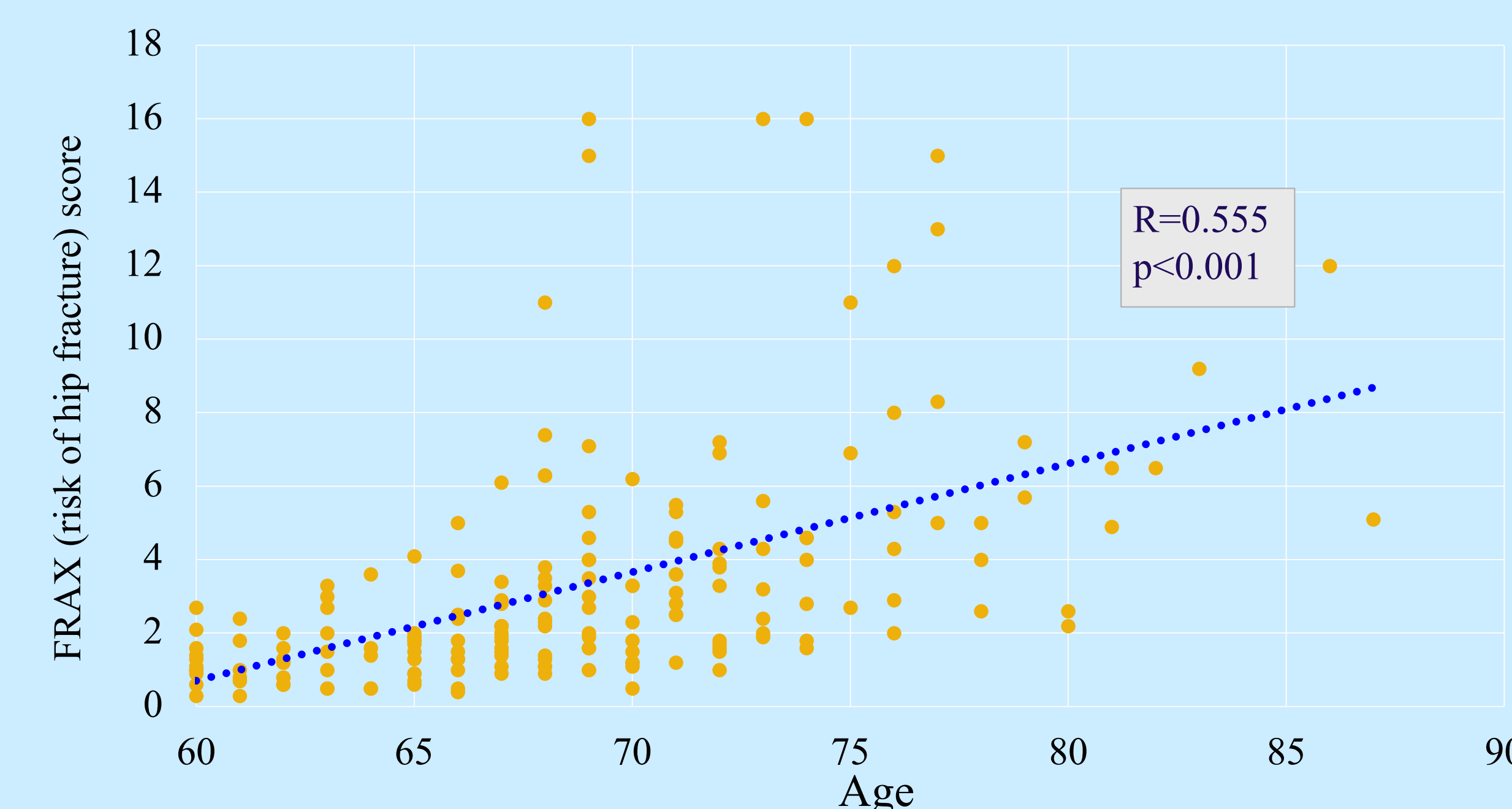

Figure 4.
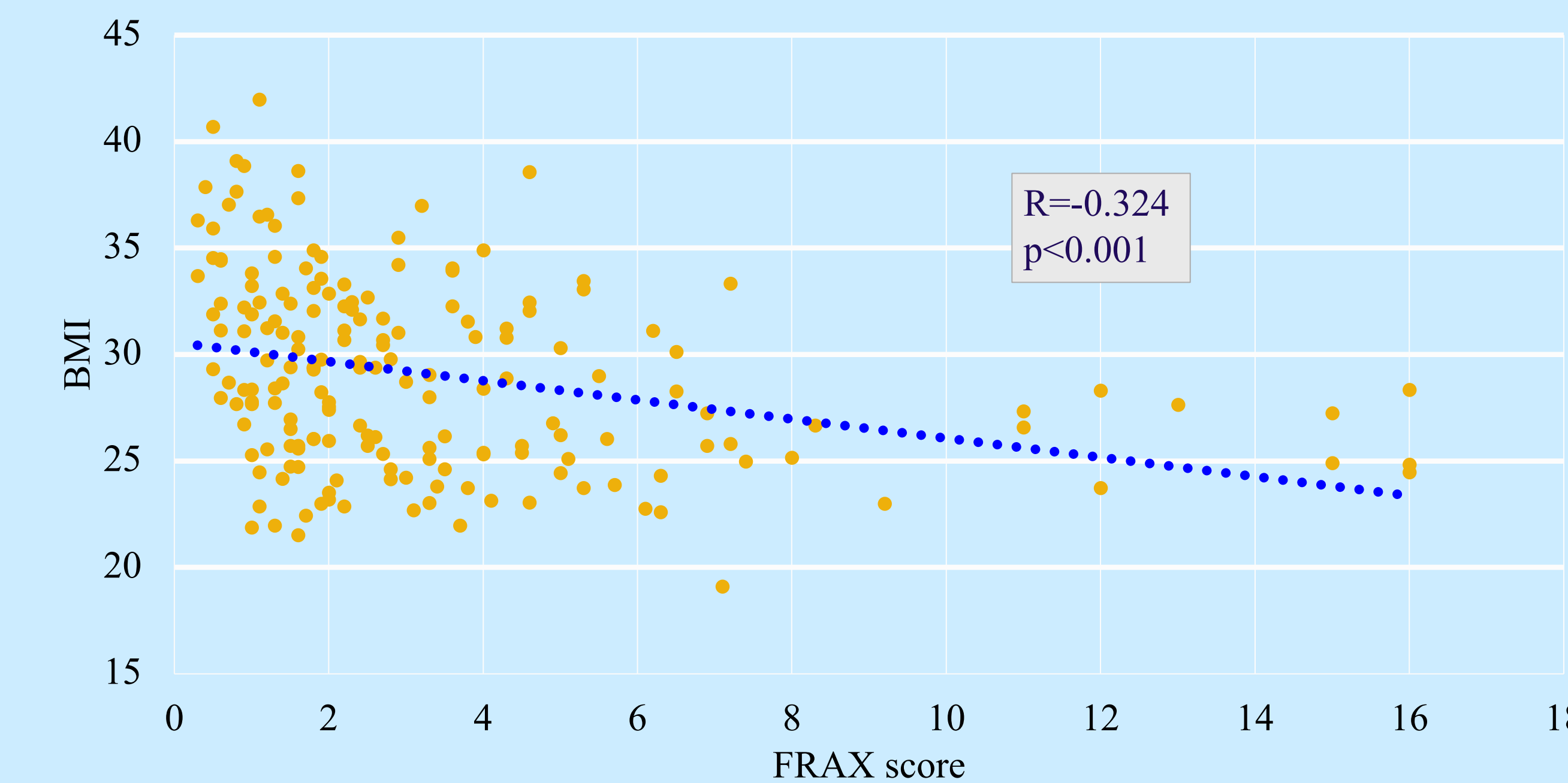Correlation between age and FRAX (risk of hip fracture) score (n=185)

Figure 5.
Correlation between the BMI and FRAX (risk of hip fracture) score (n=185)

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