

Bone Disease

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**Abstract**

Osteoporosis is a skeletal bone disease and is accompanied by low bone quality and microarchitectural disintegration. Another important area of focus to consider when developing health messages is individual characteristics or differences of the message receiver. A control check demonstrated that the high and low health investigated groups were effectively recognized from one another. Preventive measures are especially important for children, adolescents, and young adults to understand because they are approaching the time that peak bone mass is achieved during the lifespan.

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### **Introduction**

Osteoporosis is a skeletal bone disease and is accompanied by low bone quality and microarchitectural disintegration (US Preventive Services Task Force, 2011). Financial, physical, and psychosocial consequences of osteoporosis significantly impact the individual as well as the family and community. Physically, an osteoporotic fracture is associated with increased difficulty in activities of daily living, as only onethird of fracture patients regain prefracture level of function and one-third requires nursing home placement (Riggs et al., 2012).

### **Experimental Detail**

One of the most important concepts pertaining to the prevention of osteoporosis is peak bone mass, the maximum amount of bone that an individual will attain in life. The majority of studies examining knowledge, attitudes, and beliefs regarding osteoporosis prevention, diagnosis and treatment have been conducted with older women, primarily those who have entered menopause. However, there is a small body of literature that has examined knowledge, attitudes, and beliefs regarding osteoporosis prevention among young adults (mostly college students).

### **Results**

Another important area of focus to consider when developing health messages is individual characteristics or differences of the message receiver. Riggs et al., (2012) discusses the importance of studying audience characteristics and segmenting audiences by those characteristics or differences in order to promote health messages more effectively. Research conducted by Riggs et al., (2012) has shown inconsistencies, yet most of the findings indicate that tailoring messages to groups of individuals segmented by various characteristics or

differences are more likely to appeal to their targeted audiences and may help change behavior more often than messages designed for the general public.

### **Discussion**

A control check demonstrated that the high and low health investigated groups were effectively recognized from one another. However, the high and low health-value subjects did not differ significantly in their responses to written materials nor did adherence to the recommended behaviors differ between the two groups. Similarly, health value scores failed to predict intentions to act or behavioral changes. Further multiple regression analyses were used to assess the joint ability of health value, vulnerability, response efficacy, self-efficacy and to identify predictors of intentions to pick up a free calcium supplement sample and intentions to change diet to include more calcium-rich foods and beverages. For intentions to pick up a sample of calcium supplements, self-efficacy scores emerged as the best predictor accounting for 29% of the variance.

### **Conclusion**

Osteoporosis is a growing public health concern. Although no cure is currently available, there are measures to prevent the condition. An understanding of the nonmodifiable and modifiable risk factors such as race, gender, genetics, estrogen levels, calcium and vitamin D intake, weight-bearing exercise, alcohol use, and smoking, is necessary for individuals to make educated decisions regarding the prevention of osteoporosis. Preventive measures are especially important for children, adolescents, and young adults to understand because they are approaching the time that peak bone mass is achieved during the lifespan. The higher the peak bone mass

achieved by the late teen years and early twenties, the more bone reserve for later in life when osteoporosis typically develops.

### References

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US Preventive Services Task Force. (2011). Screening for osteoporosis: US preventive services task force recommendation statement. *Annals of internal medicine*, 154(5), 356.