

# Nutritional knowledge and calcium intake on health professionals

Lisandra Alves; Marta Jardim; Sofia Pedrosa; Sónia Mendes; Tiago Nogueira; Juliana Souza; Vera Ferro-Lebres.

Dietetic Scientific Area - Diagnostic and Therapeutic Technology Department - Health Higher School - Polytechnic Institute of Bragança - Portugal

investigacaohaps@hotmail.com

## I. Introduction

Calcium intake plays an important role in the maintenance and development of bone mineral density and in the prevention of some diseases like osteoporosis and kidney calculi.<sup>1,2</sup> Adequate lifelong calcium intake is essential in optimizing bone health.<sup>2</sup>

Nutrition knowledge is one of the key factors to improve eating behavior.<sup>3</sup> Studies have found a positive association between nutritional knowledge (NK) and eating behavior.<sup>4</sup> It is demonstrated that a better knowledge leads to better eating habits.<sup>4,5</sup>

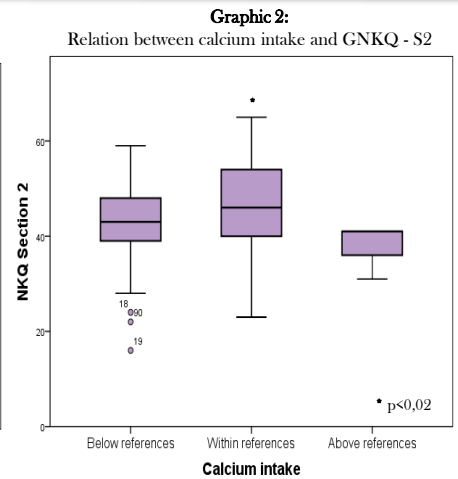
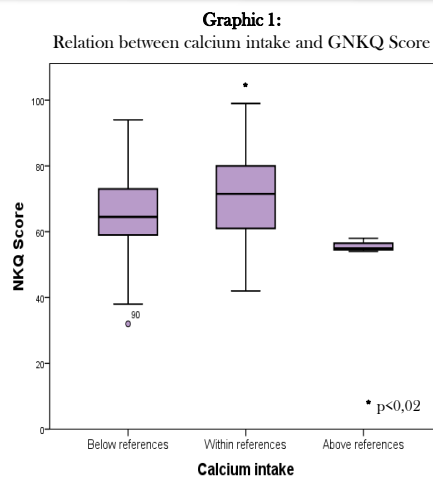
There are no studies on the relation between NK and calcium intake.

## II. Aim

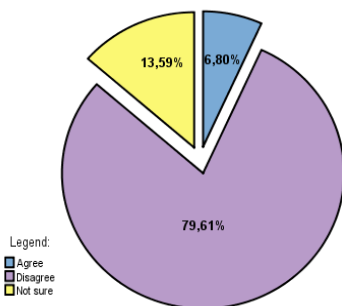
► Verify if calcium intake on health professionals is influenced by their nutritional knowledge.

## IV. Results

Individuals that had a calcium intake within DRI's had a significantly higher GNKQ Total Score (mean rank = 58,09;  $p=0,016$ ) and GNKQ Section 2 Score (mean rank = 57,75;  $p=0,035$ )



**Graphic 3:** There is more calcium in a glass of whole milk than a glass of skimmed milk?



**Table 1:** Descriptive analysis of the sample

	Total	Male	Female
n (%)	103 (100%)	25 (18%)	78 (56%)
NKQ Total Score Mean ± SD	67,95 ± 13,55	68,48 ± 10,345	67,78 ± 14,476
NKQ Section 2 Score Mean ± SD	44,42 ± 9,77	45,40 ± 6,770	44,10 ± 10,568
Calcium Mean ± SD	1231,18 ± 515,13	1106,43 ± 497,19	1271,16 ± 517,48
Dietitian/ Nutritionist n (%)	12 (12%)	1 (8%)	11 (92%)
Nurse n (%)	59 (59%)	14 (24%)	45 (76%)
Pharmacist n (%)	9 (9%)	3 (33%)	6 (67%)
Physician n (%)	6 (6%)	4 (67%)	2 (33%)
Neurophysiologist technician n (%)	14 (14%)	3 (21%)	11 (79%)

## V. Conclusion

Professionals that presented calcium intake within the recommended values, had a higher score in GNKQ Total Score and in the Section 2. These are coherent results, as the 2<sup>nd</sup> section is the one where knowledge about the content of calcium in dairy products is assessed.

Past and actual studies show a significant relation between NK and dietary habits. The same seems to happen with the mineral calcium. It appears that NK influences calcium DRI's compliance on health professionals.

Further researches are suggested once this is a pioneer study on the subject - nutritional knowledge and calcium intake.

## References

- Reyes M, Archer JA, Nunlee-Bland G, Daniel G, Mongan OA, Makambi K. Bone mass in physicians: A Howard University Hospital Pilot Study. *J Natl Med Assoc.* 2004; 96:299-305.
- Manguano KM, Walsh SJ, Insogna KL, Kenny AM, Kerstetter JE. Calcium intake in the United States from dietary and supplemental sources across adult age groups: New Estimates from the National Health and Nutrition Examination Survey 2003-2006. *J Am Diet Assoc.* 2011; 111:687-695
- Hankey CR, Eley S, Leslie WS, Hunter CM, Lean MEJ. Eating habits, beliefs, attitudes and knowledge among health professionals regarding the links between obesity, nutrition and health. *Public Health Nutrition.* 2003; 7(2): 337-343
- Glanz K, Rimer BK, Lewis FM, eds. *Health Behavior and Health Education: Theory, Research, and Practice.* 3rd ed. San Francisco, CA: Jossey-Bass Publishers; 2002
- Ares G, Gimenez A, Gambaro A. Influence of nutritional knowledge on perceived healthiness and willingness to try functional foods. *Appetite.* 2008;51:663-668.
- C. Lopes. Reprodutibilidade e Validação de um questionário semi-quantitativo de frequência alimentar. In: *Alimentação e cuidado agudo do miocárdio: um estudo caso-controlo de base populacional.* Universidade do Porto. 2000, pp. 79-115.
- Souza JA. Conhecimentos Nutricionais - Reprodução e Validação do Questionário. [Tese]. Porto. 2009
- Wardle J, Parmenter K, Waller J. Nutrition knowledge and food intake. *Appetite.* 2002;34:269-275.
- Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids (Macronutrients); ISBN: 0-309-65520-X, 1357 pages, 6x9, (2005) <http://www.nap.edu/catalog/10490.html>