F-2 - The Metabolic Race: an educational game

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Abstract

INTRODUCTION: *Metabolic Race* is a board game developed as an educational tool for health students. Based on diagnostic scores for Metabolic Syndrome, Diabetes Mellitus, dyslipidemia, obesity and in the prevention of these diseases, this game allows students to learn in a didactic way the clinical relevance of biochemical phenomena. **OBJECTIVES:** The game aims to consolidate Metabolic Syndrome biochemical events, diagnostic criteria and risk factors. **MATERIALS AND METHODS:** The board simulates the environment and routine experienced by university students that could contribute to the development of Metabolic Syndrome. Each group receives a board, pins, dice, question, challenge and diagnostics cards. Players move along a simplified map of Niterói city, where places as Antônio Pedro Hospital (HUAP) are pointed out. The scoring system is based on 3 criteria for Metabolic Syndrome diagnosis: glycemia, abdominal obesity and HDL cholesterol. Students can play as patients or doctors and as they move along the board their glicemia, waist circumference and HDL cholesterol change according to their diet and how much exercise they practice. At the end, it is possible to calculate each player's rate and provide proportional diagnosis. The healthiest patient that arrives at HUAP wins. **DISCUSSION AND RESULTS:** Over the last 2 years, the game has been played by 81 medical students currently attending to biochemical classes. They classified the activity as an important educational support, since 91% agreed it complements and consolidate topics discussed in classroom. It was considered entertaining by 74% of them and 86% pointed they would play again. The subject-matter was classified as difficult by 10%, highlighting the need of new methods to enhance teaching and learning process. Finally, 98% believe that games are able to optimize learning. **CONCLUSION:** Students who played the game were able to understand Metabolic Syndrome as a set of metabolic disorders, to identify its diagnostic criteria and risk factors.

Keywords: game; metabolism; teaching.