Continuing Education in Clinical Biochemistry and the Influence of Socioeconomic Factors in Cognitive Acquisition

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INTRODUCTION: Studies related to education regarding the investigation of how subjective factors influence the cognitive acquisition are increasingly common. Therefore, this article arose from the experience of teachers in a continuing education program in the state of Pernambuco. OBJECTIVES: The aim of this study was to apply innovative didactic strategies in continuing education in health to verify the influence of socioeconomic factors on student learning during the course. MATERIALS AND METHODS: A questionnaire to evaluate socioeconomic factors. Pre-tests and post-tests to verify the cognitive acquisition process. DISCUSSION AND RESULTS: 147 health professionals aged 20-40 were divided into four groups. 73.2% of them were workers whose family income was around 1.5 and 5 minimum wages. The total range (13-40%) in the level of prior knowledge (pre-test) revealed a considerable difference concerning content domain between the groups. However, the total range in the level of final knowledge (post-test) was quite uniform (72-77%). Despite the uniformity, cognitive acquisition between the groups was quite varied (33-60%). It was noticed that the group with the highest level of prior knowledge (40%) had the lowest level of learning (33%). Relating the results of the tests to the socioeconomic aspects of each group, it was observed that the last-mentioned group consisted mainly of working students (93%) and had the highest percentage of absences (30%) during the course. This study observed that the age range and the family income did not interfere in the apprehension of the knowledge. Student's t-test (p=0.004) showed significant learning in all groups. CONCLUSION: Although innovative didactic approaches of scientific concepts learning adopt teaching models with cognitive and epistemological strategies to facilitate the transmission of knowledge, subjective factors may considerably affect student's performance.

Keywords: cognitive acquisition, continuing education, innovative didactic