

tion view, biomedical knowledge still plays a role in the physician's clinical case representation, whereas the two-worlds view assumes that it does not. In order to investigate this issue, participants were instructed to carefully study a short case description that was associated with a particular disease. Subsequently, medical students and family physicians were instructed to judge whether or not a presented target item was related to the case description. Targets were biomedical or diagnostic items that were either related or unrelated to the case. Findings were more in line with the knowledge encapsulation than with the two-worlds view, in that physicians judged related biomedical items faster than unrelated items, and physicians outperformed medical students in judging related biomedical and diagnostic items.

*H19 Bio-psychosocial problems and academic achievement in university students*

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This study explores the evolution of bio-psychosocial problems and their relations with academic achievement in a follow-up study of five years (1998-2003). The participants are university students of the Faculty of Science of Porto University. Specifically this study has two main goals: (1) To analyse the relations between bio-psychosocial problems and academic achievement in their 1st year at university, and by the end of their degrees/majors (2) to analyse whether or not, and in what extent, students' bio-psychosocial problems predicted students' academic achievement, in their 1st year at the university and by the end of their degrees/majors. Data analysis suggests that the number of the bio-psychosocial problems felt in 2003 is negatively correlated with academic achievement at the end of the degree. However the number of the bio-psychosocial problems expressed in 1998 does not correlate with academic achievement in 1998, which may indicate that the bio-psychosocial problems referred by freshmen seems to be different from those felt five years later. Study difficulties is the only significant predictor of the academic achievement in 2003, when a multiple regression analysis is conducted with a group of potential bio-psychosocial problems as independent variables. Regarding the same model applied during the first year at the university (1998) the bio-psychosocial problems that predict the academic achievement, are depression and drug abuse. These data suggest that, during the first year at the university, students must be experiencing life transitions which in turn characterize different problems, more typical of late

adolescence than adulthood, such as drug abuse.

*H20 Challenges and constraints in Learning Anatomy*

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To be skillful in anatomy is recognized as being crucial on both pre-clinical and clinical level in medical education. Its importance has been explained in terms of the effect it has on high quality learning in clinical areas, on medical training, and especially on surgical specialties. The purpose of this paper is to find out about the characteristics of high quality learning anatomy in terms of students' experienced challenges, and learning strategies. Seventy-one first year students who just passed their anatomy exam, responded on a six-point Likert scale to the statements presented about their anatomy learning, deep learning approach, mindfulness, lack of regulation, exhaustion and their socio-demographic background. The results show that the constructed instrument assesses characteristics of the involving factors in learning anatomy. Two distinct underlying factors with satisfactory reliability were identified: challenging constraints and learning strategies. The internal consistency reliability (Cronbach alpha) for both subscales was higher than 0.60. Students' responses to challenging constraints showed negative and significance correlation with deep-learning and mindfulness and negative and significance correlation with lack of regulation. The scores for learning strategies correlated significantly and positively with expressed level of exhaustion. The preliminary results indicate variations among students in association with the assessed variables. Significant differences were found in relationship to gender, ethnicity, examination results and admission types. It is suggested that learning and teaching anatomy should be considered in relationship to challenges and constraints of learning anatomy and to students' psychological and social characteristics.

*H21 When the culture is not your own: The effect of context on teacher thinking and practice in higher education*

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The internationalisation of higher education in countries such as Australia and the UK has resulted in increased numbers of South-East Asia students in higher education classrooms. While considerable attention has been given to exploring the im-