Design and methods We assessed BDNF levels in 27 PI (DSM V criteria) patients (15 males, 56%) and in 14 controls (6 males, 43%). All subjects underwent 18fluorodeoxyglucose positron emission tomography (18F-FDG PET), brain PET with 13N-ammonium in the morning in wakefulness. Brain PET/CT scanning was performed 30 min. after administration of 250 MBq 18F-FDG. The PET images were statistically analyzed by 3D-SSP method (Z-score) using software package Cortex ID.

Results There was no difference in BDNF level in PI patients and control group: 11.9 (8.5; 100) and 12.8 (10.1; 72.8) ng/ml, respectively (p=0,138). We found a weak association between BDNF level and brain metabolism in the left prefrontal medial lobe (ρ=0.57, p=0.02) and right parietal inferior lobe (ρ=0.52, p=0.039). However, there was no association between BDNF level and 13N-ammonium accumulation which indicate the activity of glutamate synthase.

Conclusions Insomnia is not associated with the changes in BDNF levels compared to healthy control subjects, although the relation between brain metabolism and BDNF concentration requires further investigation.

| P067 | MEDICAL STUDENT EDUCATION IN SLEEP AND ITS DISORDERS: STILL MEAGRE 20 YEARS ON |

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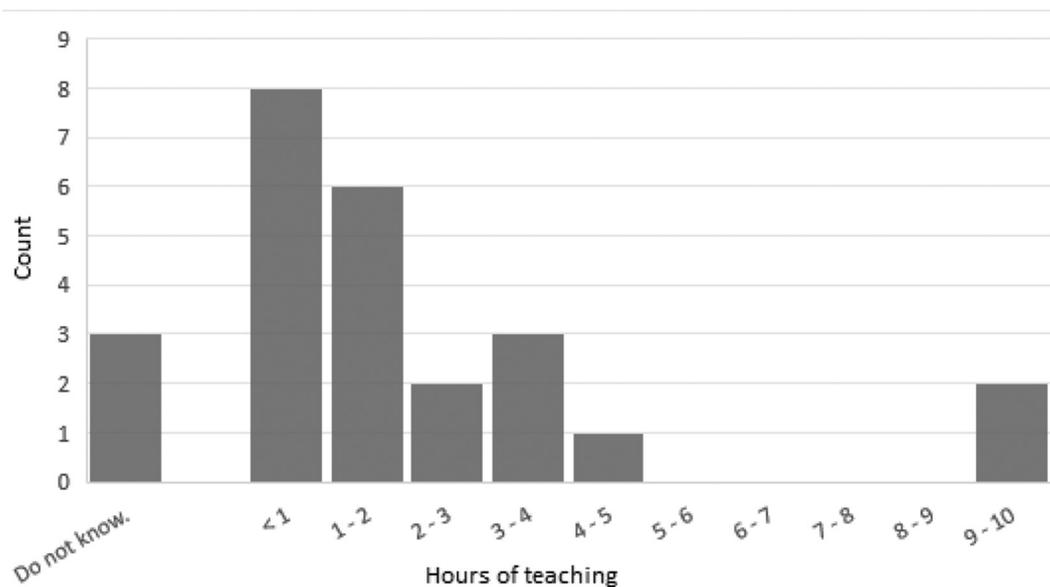
Abstract P067 Figure 1 Distribution of estimated hours of teaching time spent on sleep medicine UK medical degree courses
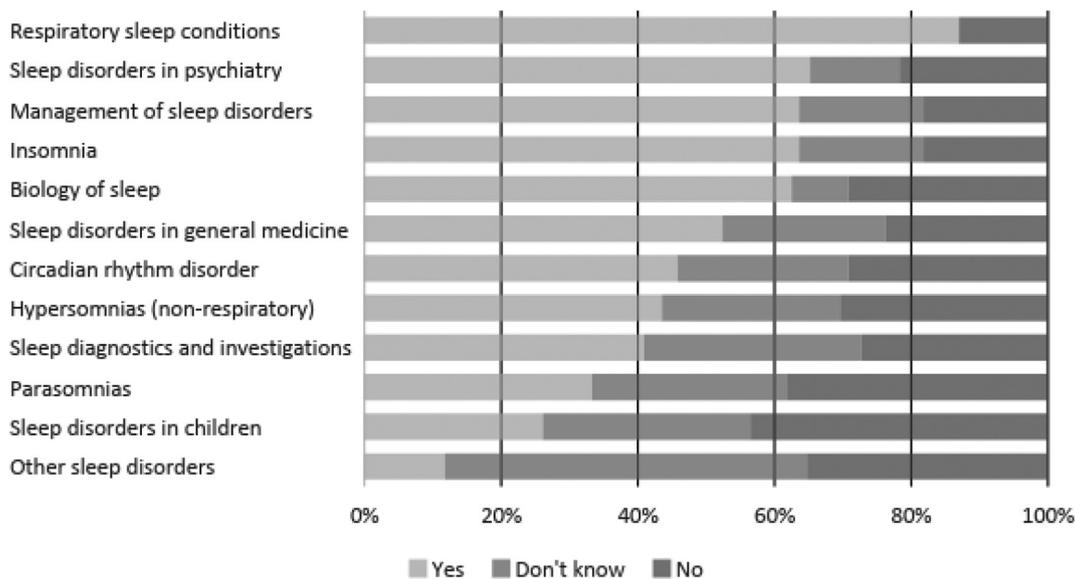
Abstract P067 Figure 2 Proportions of sleep-related topics covered in current UK medical education

Introduction Stores' questionnaires survey in 1998 found that UK medical students received a median of 20 minutes education about sleep. We asked whether this situation has improved.

Methods A cross sectional survey of 34 medical degree courses in the UK adapted from Stores '1998 questionnaire including time spent on sleep teaching medicine, sub-topics covered, and forms of assessment.

Results 25 (74%) UK medical schools responded to our survey. The time spent devoted to sleep medicine during undergraduate training was median 1.5 hours, mode <1 hour, and mean 3.2 hours (standard deviation = 2.6, figure 1). Only two schools had a sleep syllabus or dedicated compulsory module (8%, figure 2). When asked whether sufficient time is allotted to sleep and its disorders, 50% said yes, 38% said no and 13% were unsure. Free text comments made by our respondents had recurring themes: sleep medicine is typically subsumed into teaching by other specialities, with the result that course directors are uncertain about the details of provision; obstructive sleep apnoea is often identified as the key or only relevant sleep disorder, knowledge of sleep disorders is regarded as optional, and there is inertia about the prospect of change. However, a substantial minority of respondents are enthusiastic about making improvements to the sleep education they currently provide.

Discussion Sleep medicine remains a neglected topic despite agreement on the importance of sleep in general health. Obstacles to change are similar to those noted by Stores 20 over 20 years ago, including the views that 'sleep is not a core topic' or the 'curriculum is already too crowded'. Given that doctors are often the first point of contact for the public, we recommend that medical schools should establish and implement a sleep medicine curriculum. We suggest a simple syllabus, available on request.

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| P068 | SLEEP QUALITY IN ATHLETES AND EXERCISERS |

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Introduction Insomnia symptoms are highly prevalent in athlete populations, with 64%-70% of athletes describing non-restorative sleep, frequent awakenings at night, daytime fatigue and sleepiness.[3 4 8 9 11 12 14] Factors identified to contribute to poor sleep in athletes are intense schedule of training, competition and travelling, early morning training and night-time competition.[5 6 9 11 15] The type of sport practiced is also a significant factor, with aesthetic sports and individual sports causing more sleep problems than team ball sports and team sports, respectively.[13 16] The Cognitive Model of Insomnia explains that a transition from wake to sleep is impaired by cognitive over-activity and intrusive thoughts.[7] The concept of hyperarousal has become a core component of contemporary explanatory models of insomnia.[1 2 7 10] Our study aims to 1) explore the relationship between arousal, sleep vulnerability and sporting performance, and 2) to inform of what type of sports may select for higher levels of arousal and/or sleep vulnerability.

Methods The study is a controlled online survey designed to compare elite athletes and a non-competitive/lower-level competitive high exercising control group in eight different sections. The survey comprises validated questionnaires (IPAQ; PSQI; FIRST; PSAS; ESS; VAFS; 5-MEQ; TIPI; GAD-7) and additional questions designed to address topics such as napping, fatigue, training schedule and competition schedule.

Results Preliminary results (table 1) from the pilot study (n=6) show the average sleep time in both groups is at recommended guidelines. Competitive elite athletes report a higher level of arousal in the PSAS cognitive scale (21 vs 17.75), higher fatigue (8 vs 6.5) and a discrepancy in obtained and desired sleep time when compared to competitive non-elite athletes.

Discussion Elite competitive athletes show a significant cognitive hyperarousal profile, which could have implications for both performance and potential sleep interventions. There are

Abstract P068 Table 1 Results from pilot study of abstract 'sleep quality in athletes and exercisers'

	Competitive Elite Athletes	Competitive Non-Elite Athletes
Participants (% (n))	33% (2)	66% (4)
Age (years)	25	26.5
Gender (female)	50%	50%
Type of sport (Team)	100%	25%
PSAS* (somatic scale)	8	8.5
PSAS (cognitive scale)	21	17.75
Actual sleep time	7h30min	7hrs
Desired sleep time	7h45min	7h
Napping (Yes) (%)	50%	0%
Average fatigue level**	8	6.5

*PSAS – Pre-Arousal Sleep Scale
** As indicated by the Visual Analogue Fatigue Scale (VAFS)