Title: Comparison of the pictorial Epworth sleepiness scale and the Epworth sleepiness scale in a sleep clinic population

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Body: Aims: The main symptom of fragmented nocturnal sleep is excessive daytime sleepiness (EDS). The Epworth Sleepiness Scale (ESS) is one of the most commonly used questionnaires to measure EDS; a pictorial Epworth Sleepiness Scale (pESS) was developed to help people with diminished literacy (1). This study compared ease of use of the ESS and the pESS in a patient population referred to a specialist sleep centre. Methods: A questionnaire including the (pESS) and the (ESS) was given to 409 patients (irrespective of diagnosis) in randomised order to self-complete. Standard statistical analysis was undertaken using SPSS v. 19 (IBM). Results: Of 409 questionnaires, 338 (87%) were valid for analysis. Mean age of respondents was 50 ± 13 years (215 males; 123 females). The ESS had been previously completed by 154 patients (46%) of whom 93 were males (60%) and 61 females (40%). Twenty-six percent of patients found the ESS and 28% the pESS very easy to do. Thirty-five patients (10.5%) required help filling out the questionnaire (28 males; 7 females), lack of literacy and disability being the major determinants. When questions on the ESS and the pESS were compared to each other, there was good correlation overall (κ=0.74). The lowest score for an individual question was for Q8-“in a car while stop for a few minutes in traffic” (κ=0.69) demonstrating differential interpretation of the written compared to the pictorial versions. Conclusion: We confirm previous work showing no significant differences between the pESS and the ESS in a general sleep population; most misunderstandings arise from the interpretation of Question 8 on the ESS. (1) Ghiassi R, et al. Thorax. 2011;66:97-100.