

EDUCATION SECTION

MODEL ANSWER FOR CRITICAL REVIEW PAPER: CONJOINT EXAMINATION FOR MASTER OF MEDICINE (PSYCHIATRY) AND MPM, NOVEMBER 2010

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Abstract

The critical review paper is a component of the theory examination for postgraduate psychiatry in Malaysia. Majority of students find this paper difficult, thus this article is intended to help the students understand the critical review paper better. The paper discussed below aimed to determine the knowledge, attitude and practice towards sleep among medical students of International Islamic University Malaysia (IIUM). Model answers were provided at the end of each question, as marked in italic font. ASEAN Journal of Psychiatry, Vol.12(2), July – Dec 2011: XX XX.

Title of paper: Knowledge, Attitude and Practice (KAP) Towards Sleep Among Medical Students of IIUM.

OBJECTIVES

This is the first study in Malaysia undertaken to determine the KAP of sleep among medical students in Malaysia and to determine the impact of socio-demographic factors on the KAP of sleep.

METHODS

This is a cross sectional study among 106 second and third year medical students IIUM. The students were explained about the objectives of the study and verbal consent obtained prior to participation. Demographic details which include gender, race, parents' marital status and residence were noted. Student's knowledge regarding sleep was obtained using a questionnaire originally developed by Sivagnanam et al (2004). A total of 25 statements were present in the questionnaire; 12 items referred to knowledge regarding sleep while 13 items referred to attitude regarding sleep. The practice of sleep

was assessed using a separate set of 6 questions originally developed by (Shankar, 2008).

Questions pertaining to Knowledge and Attitude covered important basic aspects of sleep physiology, pharmacology, sleep requirements, use and toxicity of hypnotics, consequences of sleep deprivation, sleep-hygiene misconceptions, and sleep practices of respondents. The responses include 3 possibilities; yes, "no," or "don't know." Scoring was done by awarding marks (correct response = 10, wrong = 1, don't know = 2, and not reported = 0) for each item of Knowledge and Attitude.

As for the Practice component, sleep problems of respondents during the week preceding the study were noted. The response for items concerning practice was a frequency-based rating scale (with options, such as "not at all" = 40, "on 6-7 days" = 10, with equal gradation in-between and not reported = 0).

Theoretically, maximum scores for Knowledge, attitude and Practice were 120, 130, and 240 marks, respectively, with a maximum grand total of 490. Analysis of the data was done using t-test for univariate analysis.

RESULTS

A total of 106 medical students participated in this study. Fifty four (50.9%) were female and 52 (49.1%) were male. The mean age of the students was 20 ± 0.56 , ranging from 18 to 22 years. 97 (91.5%) were Malays and 8 (7.5%) were non-Malays. 103 (97.2%) of the participants reported that their parents were still married, and two (1.9%) reported that their parents were divorced. 69 (62.7%) stated that their residence was in town while 29 (26.4%) in the village. The majority of the participants, 101

(91.8%), were non smokers, while 5(4.5%) were smokers. The mean \pm SD **knowledge** scores was 81.8 ± 16.8 , the mean \pm SD **attitude** scores was 65.9 ± 15.3 and the mean \pm SD **practice** score was 176 ± 26.3 .

Table 1: Model building for overall (KAP) for sleep among the medical students

Variable	B	SE	Beta	p value
Constant	317			
Parent marital status	40.8	26.1	0.16	0.12
Reference (Male)	Ref	Ref	Ref	0.05
Female	15.7	7.98	0.21	
Reference (smokers)	Ref	Ref	Ref	Ref
Non smokers	- 44.8	21.6	0.22	0.04

[F value = 2.73, p = 0.04, R² = 0.089.; KAP = Knowledge, Attitude and Practice]

QUESTIONS

1. (a) What kind of study is this? (1 mark)

Survey/ Retrospective study

(b) Outline two (2) strengths and two (2) disadvantages of this kind of study (2 marks)

Two (2) strengths

(i) _____

(ii) _____

Two (2) disadvantages

(i)

(ii)

Strengths:

- (i) *Cheap, and*
- (ii) *Easier to do*
- (iii) *Data is available for analysis without waiting for any interventions (no need to wait for follow-up)*

Disadvantages:

- (iv) *Recall bias*
- (v) *Cannot determine the cause and effects*
- (vi) *He diagnosis and detail of cases*

probably not standardized

2. Based on the information, “The mean \pm SD knowledge (K) scores was 81.8 ± 16.8 , the mean \pm SD attitude (A) scores was 65.9 ± 15.3 and the mean \pm SD practice (P) score was 176 ± 26.3 .”

(a) Define standard deviation (SD) (2 marks)

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Standard deviation refers to the standardized difference between the mean and the given values from the mean in relations to the sample size (Formula given also accepted with FULL marks but the formula must be clear)

(b) Explain the meaning of the above statement in relation to the SD or sample size difference (not more than 3 lines) (2 marks)

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The SD on Practice (P) will be more unreliable compared to the Knowledge (K) and then the Attitude (A).

2. Multivariate analysis using the multiple linear regression test was done in the analysis of independent variables that was significantly associated with overall knowledge, attitude and practice towards sleep.

(a) Give 4 assumptions that you made for a linear regression model in order for the analysis to be valid (4 marks)

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*Samples are taken at random
Samples are taken only once (independent)
Relationship between X and Y is linear
Normally distribution of Y values in relations to X
Equal variation of X-Y*

(b) Outline 2 significant findings in the model regression analysis (2 marks)

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*Gender
Smoking status*

(c) Interpret your findings based on the above (b) (4 marks)

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*Multivariate analysis using the multiple linear regression tests showed that **gender** of the students was significantly associated with overall knowledge, attitude and practice towards sleep. Female had an average of 15.7 points higher than males ($p = 0.05$). Interestingly, **smoking status** of the students significantly associated with overall knowledge, attitude and practice towards sleep. Non smokers had an average of 44.8 point higher than smokers ($p = 0.04$). This means that smoker had higher scores than non-smokers (Table 1).*

3. Outline 3 ways to improve this study (3 marks)

- (i) *Increase the sample size*
- (ii) *Sampling methods must be clear*
- (iii) *Sampling should be on probability methods*
- (iv) *Written consent must be taken*

- (v) *Better to have a control (case-control study if it is cross-sectional)*
- (vi) *Prospective study to establish the effect and cause, eg. Is KAP on sleep improve with intervention, eg. Reading, Teaching curriculum*

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