

# UNIVERSITY OF JAFFNA, SRILANKA SECOND EXAMINATION FOR MEDICAL DEGREES – DECEMBER 2016 COMMUNITY & FAMILY MEDICINE

Date: 18.01.2017

Time: 3 hours

ANSWER ALL THE SIX QUESTIONS

Answer each question in a separate answer book.

1. You are a medical officer in the Family Health Center, Kondavil. Suba is a 26-year-old woman who has been referred to you by the local postpartum clinic. Suba, her husband and members of his extended family are living in Kondavil. This is the first time that you have met her. She has had an arranged marriage and the family has struggled with financial pressures. Her husband is very close to his mother, who advises him on all issues related to the baby. Her husband says that Suba seems unhappy and does not want to do anything. She is reluctant to get out of bed or to look after the baby, and complains of pain in her stomach constantly. He discloses that his mother thinks Suba is lazy because she is unwilling to do household chores.

# **Medical history**

Her husband says Suba did not disclose any past medical history to him, so her past psychiatric history is unknown.

#### On examination

An initial physical examination does not reveal anything abnormal.

- 1.1 Define the following terms
  - 1.1.1 Referral in primary care

(10 marks)

1.1.2 Coordinated care

(10 marks)

- 1.2 After receiving the referral from the postpartum clinic, how would you need to tailor your approach within this consultation? (30 marks)
- 1.3 After consultation, you have decided to refer Suba to a mental health team. Describe the essential components of an ideal referral letter. (20 marks)
- 1.4 Briefly describe the available resources to provide comprehensive care for the patient (30 marks)
- 2. Musculoskeletal disorders (MSDs) affect the muscles, nerves, blood vessels, ligaments and tendons. Workers in many different industries and occupations can be exposed to risk factors at work, such as lifting heavy items, bending, reaching overhead, pushing and pulling heavy loads, working in awkward body postures and performing the same or

similar tasks repetitively. Exposure to these known risk factors for MSDs increases a worker's risk of injury.

- 2.1. Name five(5)musculoskeletal disorders that could be experienced by a worker at an automobile service station (10 marks)
- 2.2. Name the five (5) groups of hazards found in workplaces (15 marks)
- 2.3. Define the term ergonomics (05marks)
- 2.4. Briefly describe the important steps in preventing occupational hazards mentioned in 2.2 (40 marks)
- 2.5. Briefly describe the role of a primary care physician in managing above mentioned health issues (30 marks)
- 3. The School Heath Programme in Sri Lanka has the following goals: to ensure that school children are healthy; to develop their capability to self-promote their own health and promote the health of family members and the community; and to enable school children to derive optimal benefit from the educational opportunities provided to them.
  - 3.1. List at least seven stakeholders who may be involved in achieving these goals

(15 marks)

- 3.2. Briefly describe the importance of maintaining a healthy environment in schools to achieve these goals. (20 marks)
- 3.3. Briefly describe the role of an area PHI in maintaining a healthy school environment. (40 marks)
- 3.4. Briefly describe the importance of implementing School Medical Inspection/School Health Programme in relation to reducing maternal morbidities and mortalities in the country. (25 marks)
- 4. The table below lists four health expenditure indicators relevant to Sri Lanka and India.

2014	Sri Lanka	India
Per capita total health expenditure (in US	127	75
dollars)		
Government expenditure as a % of total	56	30
health expenditure		
Government expenditure on health as a %	6	4
of total government expenditure		
Out-of-pocket spending on health as a %	42	62
of total health expenditure		

(Source - World Bank Data 2016; data have been rounded off to the nearest whole number)



4.1. Define per capita health expenditure

(10 marks)

- 4.2. On average, how much does the government of Sri Lanka and India spend, respectively, on health per citizen (in US dollars)? (10 marks)
- 4.3. Which country places greater priority on health? Justify your answer using the data provided in the table. (40 marks)
- 4.4. The government of Sri Lanka allocates less than 5 % of the health budget to the preventive sector. Discuss how this policy could influence the prevention and control of non-communicable diseases in the country. (40 marks)
- 5. The incidence of overweight and obesity is on the rise among adolescents in urban Sri Lanka. The Non-Communicable Disease Unit of the Ministry of Health tasks you to carry out a systematic review of the effectiveness of school-based nutritional interventions for the reduction of overweight and obesity among school-going children.
  - 5.1 What is a systematic review?

(20 marks)

5.2 How is a systematic review different from a literature review?

(20 marks)

- 5.3 What are the advantages of a systematic review? How would a systematic review be of use to the Non-Communicable Disease Unit in formulating school-based nutritional interventions? (30 marks)
- 5.4 A systematic review of life-style interventions for child obesity (Ho et al. 2012) published in *Pediatrics* yielded among other findings, changes in BMI depicted in the figure below:

#### A Outcome: Change in BMI (kg/m<sup>2</sup>) at the end of active treatment

	Lifestyle	interver	tion	Written education		Mean Difference		Mean Difference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Randor	n, 95% Cl
Weigel 2008, 12 mo	-1.5	1.89	36	2.8	2.33	30	49.1%	-4.30 [-5.34, -3.26]		
Johnston 2007, 6 mo	-0.16	1.05	46	0.64	0.9	25	50.9%	-0.80 [-1.27, -0.33]	-	
Total (95% CI)			82			55	100.0%	-2.52 [-5.95, 0.91]		
Heterogeneity: Tau <sup>2</sup> = 5.96; Chi <sup>2</sup> = 36.40, df = 1 ( $P < .00001$ ); i <sup>2</sup> = 97%									_4 _2	7 1
Test for overall effect:	Z = 1.44 (F	<b>?</b> = .15)							Favors lifestyle	Favors written edu

### B Outcome: Change in BMI z score at the end of active treatment

	Lifestyle	Lifestyle intervention		Written education			Mean Difference		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	
Weigel 2008, 12 mo	-0.34	0.32	36	0.26	0.37	30	4.9%	-0.60 [-0.77, -0.43]		
Fullerton 2007, 6 mo	-0.13	0.14	52	0.04	0.12	28	20.7%	-0.17 [-0.23, -0.11]	~~@@~~	
Estabrooks 2009, 6 mo,1vs3#	-0.07	0.01	68	-0.05	0.01	38	37.2%	-0.02 [-0.02, -0.02]		
Estabrooks 2009, 6 mo,1vs2#	-0.03	0.01	64	-0.05	0.01	38	37.2%	0.02 [0.02, 0.02]	•	
Total (95% CI)			220			134	100.0%	-0.06 [-0.10, -0.02]	<b>♦</b>	
Heterogeneity: $Tau^2 = 0.00$ ; $Chi^2 = 273.61$ , $df = 3$ ( $P < .00001$ ); $I^2 = 99\%$									-0.5 -0.25 0 0.25 0.5	
Test for overall effect: Z = 3.16 (	P = .002								Favors lifestyle Favors written edu	

# 1vs2 means comparing intervention arm 1 to arm 2

- 5.4.1 What is the statistical term used for this representation of data? (10 marks)
- 5.4.) What is your interpretation of the success/failure of the intervention for children who participated at the end of active treatment? (20 marks)

## 6. Write short notes on

6.1. Life style clinics	(25 marks)
6.2. Palliative care	(25 marks)
6.3. Electronic Indoor Morbidity Mortality Register (E-IMMR)	(25 marks)
6.4. Prevention of cervical cancer	(25 marks)