UNIVERSITY OF JAFFNA, SRI LANKA

SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) – (August 2022)

Academic Year 2016/2017

Community and Family Medicine-Paper II

Date: 09.08.2022   9 am. To 12 noon. (3 hours)

Answer all the **six** questions

Answer each question in a separate answer book.

1. A 45-year-old accountant working in a public sector office was referred from a community-based screening program to University Family Health Center Kondavil for managing his alcohol dependency. He is a married man with three children and his wife is a teacher.

   1.1. List five (05) health problems he may suffer due to alcohol consumption. (20 marks)

   1.2. Discuss the role of the family physician in managing his alcohol related health problems. (50 marks)

   1.3. Discuss the role of his family in managing his alcohol related health problems.

   (30 marks)

2. You are a medical officer in-charge in a primary medical care institution. The Regional Director of Health Services (RDHS) of your area has directed all primary medical care institutions to promote mental health among the elderly.

   2.1. Briefly describe the term "health promotion". (20 marks)

   2.2. List three (03) health promotion action areas in the Ottawa Charter. (15 marks)

   2.3. Describe the steps you will take to organize a mental health promotion campaign for the elderly in the capacity of a primary care doctor. (35 marks)

   2.4. Discuss the role of multi-sectoral collaboration in the activity mentioned in 2.3.

   (30 marks)

3. A study was carried out to see whether the risk of Hepatitis C (Hep C) was related to having tattoos. A sample of 600 individuals was randomly selected from a student population. In this sample, 113 had tattoo. Among individuals with tattoo, 22 were found to have Hepatitis C, and among individuals without a tattoo, 25 were found to have Hepatitis C. Researchers want to know if there is evidence from this study of an increased prevalence of Hep C for individuals with tattoo amongst the population from which they were sampled.

3.1. Mention the design used in this study. (10 marks)

3.2. Indicate the null and alternative hypotheses in this study. (20 marks)

3.3. Briefly describe how the following sampling methods could be applied in this study.

    3.3.1. Simple random sampling (10 marks)

    3.3.2. Cluster sampling (10 marks)

3.4. Answer the following in relation to this study.

    3.4.1. Construct an appropriately labelled 2x2 table to display the data. (20 marks)

    3.4.2. Calculate the odds ratio. (15 marks)

    3.4.3. Interpret the odds ratio. (15 marks)

4. Sri Lanka is in the fourth phase of demographic transition with a **total fertility rate** (TFR) of 2.2 and a **crude death rate** of 6.5 per 1000 population (Annual Health Bulletin 2017, Ministry of Health and Indigenous Medicine).

4.1. Define the following terms. (10 Marks)

    4.1.1. Total Fertility Rate

    4.1.2. Crude Death Rate

4.2. Name four (04) other indicators used to describe the fertility. (10 marks)

4.3. List four (04) health related factors influencing the fertility rate. (10 marks)

4.4. Discuss the importance of the School Health Program for achieving a favorable fertility rate in Sri Lanka. (30 Marks)

4.5. Explain the term "demographic transition". (15marks)

4.6. Briefly describe the impact of demographic transition on provision of curative health services in Sri Lanka. (25 marks)

5. A study was conducted to estimate the prevalence of sleep disorders among the nursing officers living in a district. Independent variables in this study included sex, age, marital status, number of children, years of service, type of residence, type of shift, height, weight and BMI category. The median score on the Sleep Quality Scale was 31 (IQR 27-35) points. The prevalence of sleep disorder was 60% (95% confidence interval: 55% to 65%). Sex was associated with sleep quality (Chi square value= 6.63, df = 1, p=0.01).

Answer the following questions based on the above study.

5.1. Indicate the type of variable for the following examples **giving reasons**. (20 marks)

    5.1.1. Type of residence

    5.1.2. BMI category

    5.1.3. Height

    5.1.4. Number of children

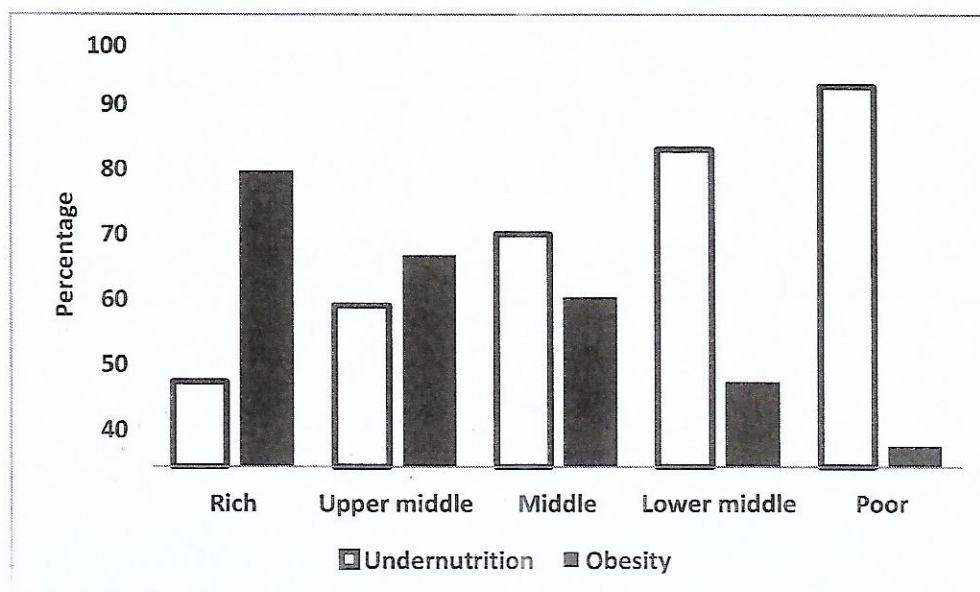5.2. Interpret the following statistics.

    5.2.1. The median score on the Sleep Quality Scale was 31 (IQR 27-35) points.
        (15 marks)

    5.2.2. The prevalence of sleep disorder was 60% (95% confidence interval: 55% to 65%).
        (15 marks)

    5.2.3 Sex was associated with sleep quality (Chi square value= 6.63, df = 1, p= 0.01).
        (15 marks)

5.3. Justify the selection of Chi square test to determine the association between sex and sleep quality. (15 marks)

5.4. Interpret the graph below. (20 marks)

4.

   4.1. Define the term 'infant mortality rate'.   (15 Marks)

   4.2. List four (04) leading causes of infant mortality in Sri Lanka.   (20 Marks)

   4.3. Briefly describe the role of the public health midwife in reduction of infant mortality.
                                                                                      (30 Marks)

   4.4. Discuss the impact of feeding practices on infant mortality.   (35 Marks)

5.

   5.1. Giving reason/s, indicate the type of variable for the following examples. (20 marks)

      5.1.1. Birth weight

      5.1.2. BMI category

      5.1.3. Type of mosquito

      5.1.4. Number of containers with mosquito larva

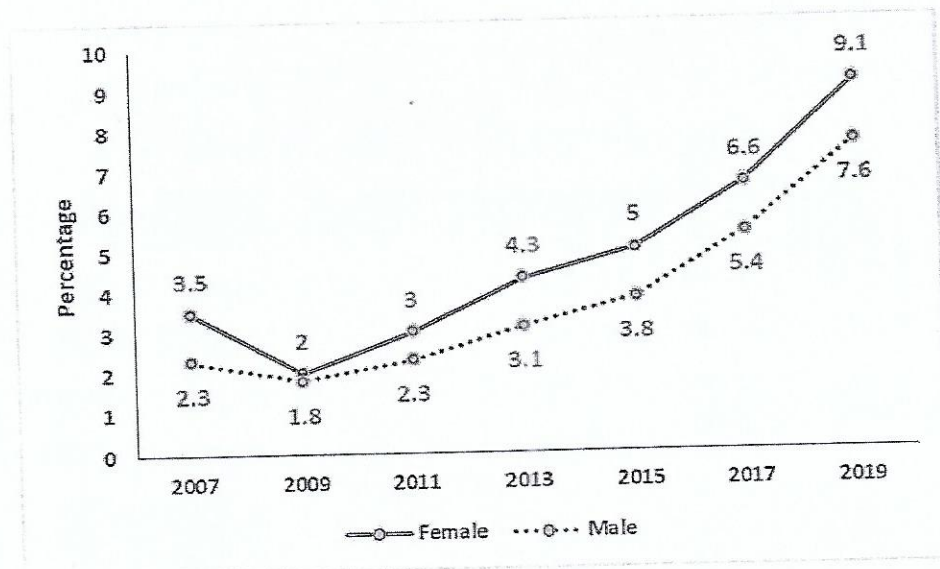   5.2. Interpret the Figure 5.2   (30 marks).

Figure 5.2. Distribution of overweight among Grade 10 children from 2007 to 2019 (Source: FHB, Sri Lanka)

5.3 Explain the term 'normal distribution'. (20 marks)

5.4 Answer the following questions based on Table 5.4. from an SPSS output. (30 marks)

Table 5.4. Distribution of age of the participants in years

Valid	Mean	SD	Minimum	Maximum	25th percentile	50th percentile	75th percentile
850	35.03	8.041	20	56	29	34	41

Indicate the following using Table 5.4

5.4.1 Range of age.

5.4.2 Median age.

5.4.3 Interquartile range of age.

5.4.4 Sample size.

6. Write short notes on the following.

    6.1 Community based geriatric care. (25 Marks)

    6.2 Walk through survey by Public Health Inspector (Factory inspection). (25 Marks)

    6.3 Effectiveness of Healthy Lifestyle Centres in Sri Lanka. (25 marks)

    6.4 Population pyramid. (25 Marks)

6. Write short notes on the following.

    6.1. Community oriented primary care   (25 Marks)

    6.2. Food Act No.26 of 1980   (25 Marks)

    6.3. Breteau index   (25 marks)

    6.4. Improving exclusive breastfeeding   (25 Marks)