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Syllabus points

- Applications of Psychology to Health: stress as defined by Selye (1936), models of stress, health related consequences of stress – maladaptive and adaptive coping strategies
- Science Inquiry: Ethical guidelines and practices for psychological research, Formulating research, Methodology, Processing and analysing data.

Conditions

- Reading time: 5 minutes
- Working time: 50 minutes

Task Weighting

- 8% total weighting

Structure of this paper

Section	Number of questions available	Number of questions to be attempted	Suggested working time (minutes)	Marks	Score
Section One: Short Answer	2	2	35	33	
Section Two: Extended Response	1	1	15	16	
Total				49	

Section One: Short Answer Response

(33 Marks)

This section has two questions. Write your answers in the spaces provided.
Suggested working time: 35 minutes.

Question One

(13 marks)

Mrs Lee and her Psychology class wanted to test their theory that different types of meditation techniques would improve stress levels before exams. The class collected participants from their own school; Year 7's, Year 9's, Year 11's, and Year 12's. The participants were aged between 11 and 18 years old and were randomly allocated into three groups. Group 1 practices mindfulness once a day and group 2 practice Mantra meditation once a day (a practice that involves repeating a word, phrase, or sound to bring about mental focus and clarity). Group 3 practiced no meditation beyond their normal daily routine. At the end of a two-month trial, a week before the exam period, all the participants completed a stress test.

The following results were collected:

	Mean Score on Stress Test (out of 100)
Group 1: Mindfulness	57
Group 2: Mantra Meditation	65
Group 3: No Meditation	79

A statistical test on the difference between the effect of practicing meditation verses no meditation on stress found that $p = 0.47$

- a) Suggest a directional hypothesis that the class would have developed for this study.

(4 marks)

school aged from 11-18 yrs old
It is hypothesised that the students practicing adaptive coping strategies such as mindfulness and mantra meditation will achieve lower stress test results rather than the groups who practice no meditation at all, this will be measured by a "stress test" out of a scale of 100.

- b) Identify two possible sources of error in the conduction of this experiment. (2 marks)

The ages of the students varies, ^{which means the} ~~which impacts~~ type of exams and the difficulty, plus the ~~their stress levels~~, younger students severity of the test will be vastly different. The

experiment doesn't consider the work ethic or

studying ^{and individual} of the students which would impact their stress and performance.

- c) Define stress as defined by Selye (1936) ^{specified in what activities are done, so it can't be accurately measured, it is} (2 marks)
stress is a non-specific response of the body to any too vague demand (physiological & psychological)

- d) Outline what type/nature of stressor that being stressed about the upcoming exam is categorised by.

(2 marks)

Psychological stressors are initiated by an individuals thoughts, feelings, emotions and perceptions. The students will be wanting to achieve personal goals and reach self fulfillment, ^{so they} ~~and~~ feel happy and proud of themselves.

- e) Name the type of stress these students are experiencing due to exam preparation and outline what this means. (3 marks)

The students are experiencing eustress. Eustress is a positive form of stress that enhances and encourages performance and achieving goals. ~~All the students on their test on an average passed, which is a positive outcome.~~

Question Two

(20 marks)

Hugh recently graduated University and was travelling to his first big job interview. Along the way he noticed his car tire had started to go flat and needed replacing. Hugh was panicked and felt instantly stressed about making it on time for the job interview. Luckily a repair shop was close by, and he managed to get it replaced almost instantly.

- a) Describe the duration of the stressor.

(1 mark)

Acute, as it was short term, and relieved almost instantly.

- b) Identify the stage of stress Hugh was in when realising he had a flat tire and outline the characteristics of this stage.

(4 mark)

He was in an alarm stage, which is the first response when experiencing a stressful situation.

The sympathetic nervous system is triggered. The hypothalamus stimulates the adrenal glands which produces adrenaline, noradrenaline and cortisol, which results in an increase in heart rate and breath rate.

Hugh unfortunately did not get offered the job position, and it is now 3 months later, and he has failed to secure another interview opportunity. His financial situation has been a serious stressor of his for these past few months.

- c) Explain what may happen if Hugh is unable to resolve the stress, including both short-term and long-term impacts.

(5 marks)

If Hugh is unable to resolve his stress he may develop both physical and psychological complications to his health. Prolonged chronic stress can cause anxiety, depression, social exclusion and potentially cardiac implications. Short term effects could include mood swings, agitation, loss of sleep and negative self thoughts.

Due to the prolonged stress, Hugh decides to visit a psychologist, seeking help and support in managing his stress. The psychologist decides to assess Hugh's vulnerability to stress through The Social Readjustment Scale, developed by Holmes and Rahe (1967).

- d) Name the type of self-report measure used in the Social Readjustment Scale. (1 mark)

- e) Outline one strength and one limitation of this measurement tool. (2 marks)

A strength is that it collects quantitative data that can be statistically analysed. A limitation is the questions are individuals answered, which allows for subjective biases and room for exaggeration.

- f) Using Lazarus and Folkman's (1984) theory, outline the role of the following cognitive appraisals and apply them to Hugh. (4 mark)

Primary: The initial assessment and judgement made on the situation, evaluating and measuring the harmfulness and if it will be a threat.

Secondary: Judging and assessing if one has the tools and abilities to cope effectively and deciding which coping strategy is more suitable.

- g) Explain the method of coping Hugh is using in the scenario. (3 mark)

Hugh utilised adaptive coping in this scenario.

Rather than resorting to maladaptive strategies such as consistent negative self talk or substance abuse,

he pursued beneficial and positive coping strategies that effectively address and manage the stress.

Hugh visiting a psychologist for support helps him express his emotions ~~eff~~ openly and ideate solutions & strategies.

Section Two: Extended Response

(16 Marks)

This section has **one** question. Write your answers in the spaces provided.

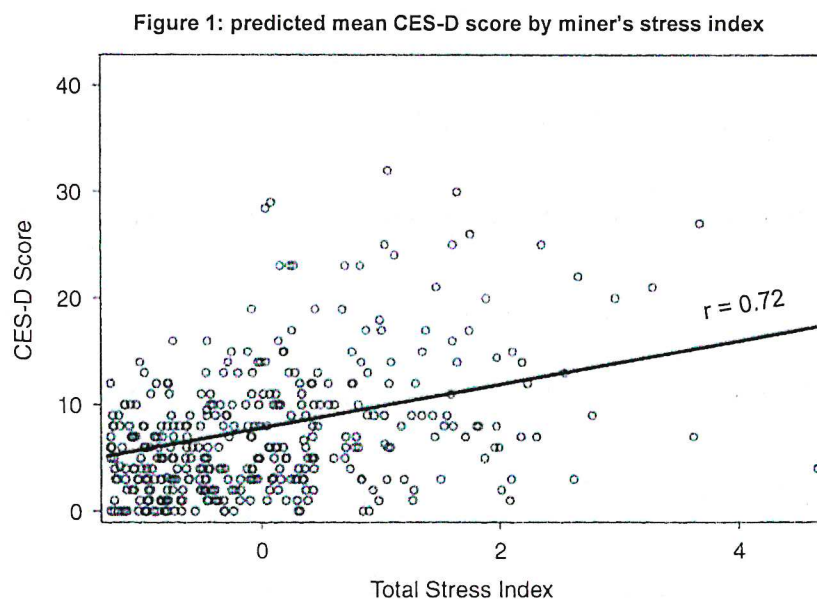
Suggested working time: 15 minutes.

Question three

(16 marks)

Psychology students at Harvard University investigated the relationship between occupational stress and depressive symptoms among coal miners. The participants were 364 coal miners from Ohio, America. The study was approved by the internal review board of Harvard University.

A total stress index score was calculated for each miner to measure the level of stress they experience as part of their occupation. The Centre for Epidemiologic Studies Depression (CES-D) scale was used. It contains 20 items that are self-rated on a four-point Likert scale according to how often each symptom occurred in the past week. The sum of the scores represents the overall (CES-D) score between 0 to 60. A score of greater than 16 is considered indicative of depression. The scatterplot below shows the results for the study.



Notes: Adjusted for age, sex, race/ethnicity, alcohol intake and smoking status.

In a series of questionnaires used to gather qualitative data, the miner's reported threat of harm (intentional and unintentional), excessive work in hard conditions and a lack of support from supervisors as their three main stressors.

In your answer, refer to the above scenario by creating a well-constructed response, addressing the following:

- Outline what stress is according to Lazarus and Folkman (1984) and identify two types of stressors that the miner's experience in their work. (4 marks)
- The university's Internal Review Board is an example of an ethics committee. Describe the role of an ethics committee and outline two ethical guidelines that this committee would monitor during the study, stating how this would occur. (6 marks)
- Based on the data illustrated in Figure 1 on page 24, comment on the relationship between stress and depressive symptoms. (4 marks)
- Describe how psychological stress arises according to Lazarus and Folkman (1984) (2 marks)

Question number: _____

According to Lazarus and Folkman, stress is the change in an individual's life and experiences.

An ethics committee's goals and purposes are to protect the participants ^{↑ safeguarding their rights.} and ensure experiments are fair, ^{secure} ~~safe~~ and humane. ~~They~~ During this study the ethics committee would monitor anonymity and privacy of the participants' results, ensuring their data is deidentified. Additionally, monitor the psychological harm these participants are enduring and ensure the experiment isn't contributing to it and if it is they have the right ~~the~~ to withdraw & should be provided help and support.

^{Results}
The ~~Table~~ in this experiment demonstrate that the higher the stress is increased by symptoms.

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Question number: _____

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END OF TEST