

Psychology a unit 2: biological psychology (stress) flashcards assignment

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Acute Stress ??? Sympatho- Adreno- Medullary Pathway

1. Hypothalamus * Sends a signal to the sympathetic ganglia
2. Sympathetic Ganglia * Connected to internal organs * Activates the Adrenal Medulla.
3. Adrenal Medulla * Releases Adrenaline and Noradrenalin into the blood stream. * Prepares the body for fight or flight mode.

Stress as a Bodily Response
Stress is the lack of fit between the individual and their environment. What are the signs of stress?

- * Increased Heart Rate
- * Increase in Sweat
- * Increase in pupil size (dilation)
- * Increase in Adrenaline

When exposed to stressors the Sympathetic Nervous System (SNS) is activated.

The SNS either releases Adrenaline which prepares the body for flight or fight or releases glucose in the blood system for energy. The Autonomic Nervous System has 2 branches, Sympathetic Branch (SNS) and the Parasympathetic Branch (PNS). The SNS is affected when body is hit by stressors, the PNS used later-returns body back to resting state (HOMOSTATIS). PNS activated to slow down internal process.

2 Types of Stress

1. Acute Stress e. g. Unknown Pop Quiz in Class
2. Chronic Stress e. g. Whole Process of Sixth Form and Exams

Chronic Stress- Hypothalamic- Pituitary- Adrenal Axis

1. Hypothalamus * Sends a message to the Pituitary Gland . Pituitary Gland * Releases Adreno-Cortico-Tropic Hormone * ACTH triggers the Adrenal Cortex
3. Adrenal Cortex * Releases Cortisol into blood stream to ensure there is a steady flow of glucose in the blood stream.

Stress and the Immune System
The immune system helps protect the body against infection & disease (ANTIGENS)

Immune Systems Response

1. The virus infects the body
2. A Macrophage engulfs the Virus and then activates the T Cells (Thymus Cells)
3. T Cells turn into either B Cells (Bone marrow in blood stream) or Natural

Killer Cells (Cytotoxic Cells) 4. The Cytotoxic Cells infect and destroy body cells. .

The B Cells form Plasma Cells which make Antibodies 6. There a specific anti-bodies for different antigens. The specific antibodies will bind onto the antigens, which will kill the virus.

Stress and Illness * Stress on its own doesn't make you ill, may increase the risk of illness * Linked to Cardiovascular Disorder ; Immunosuppression

Stress and the Immune System * The ability to fight off anti-gens is reduces, therefore makes more likely to fall ill. * Stress response hormones effect the Immune System

Direct and Indirect Effects of Stress * Direct Biological Effects * Physical Change ; Hormone Change Maladaptive Coping Behaviour * Smoking and Drinking * Emotionally Mediated Effects * On Diet and Activity Level

Age and Gender Differences- Telephone Survey * Women found to be more likely to report problems and being stresses than men (84% v 76%) * People under age of 65 more likely to report being stresses than older people (82% v 70%)

Increased risk of Disease and Infection

Life Changes and Daily Hassel's Life Change: Experiences in our life that require significant readjustment (MARRIAGE) Daily Hassel: Minor Events out of day to day living (HOUSEWORK) Social Readjustment Rating Scale * Some of the events should be reconsidered It can be too opinionated * People deal with stress in different ways. * Stress Levels are different for all people. * Marriage may be stressful for some in particular cultures, whereas in other cultures they are not stressful

Hassles and Uplifts Scale * Lazarus 1981 * Take into account ' uplifting' effect of positive daily events on negative daily hassle's when measuring stress levels

Hassles and Uplifts – Gervais 2005 * Found that when nurses kept a diary, recording daily hassles and uplifts also recording

rate of performances showed that uplifts counteracted daily hassles, improved performance and lowered stress levels.

Self-Reported Studies ??? Questionnaires * Involves asking a participant about their feelings and attitudes Individual Differences Not all workers in high demand jobs fall ill. Extraneous Variables: Individual personalities not taken into account Type A = Stressful Jobs Role Ambiguity Main Outline: - Requirement for the role is unclear or poorly defined. - Individual doesn't actually know what they have to do. - This results in unclear guidelines separating one role from the other. Reduction: ~ Investigating and enquiring helps deduct ambiguity. ~ Information can help clear situation (Clarification)

Lack of Control Main Outline: - Some organisation set their work load and pace. The individual has a lack of control. Research Support: * Seligman (75) found that Animal Studies and work with humans show lack of control increases stress response. Reduction: ~ Individual can receive help on how to control the work they are given (which is out of their control) Work Overload Main Outline: - Long hours at work cost individual and social structures e. g. family & friends Research Support: * Dewe (92) found that work overload is most stressful aspect of work.

Work overload has an impact on the family too. Reduction: ~ Organise work and prioritise time to family and work. ~ Complete work when given, don't leave to last minute. Physical Environment Main Outline: - Space, Temperature, Lighting and Arrangement all affect the individual. - Physical Stressors make work more difficult, energy has to be used to overcome stress. Research Support: * Evans (98) found that exposure to noise led to
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stress and aggression. Reduction: ~ Changing physical stressors to suit needs of individual. The Workplace and Stress Sources of Stress

Advantages * Simplicity * Quantitative Data can be obtained by close-ended questions which are easy to analyse * Speed and Cost * Large amounts of data can be gathered quickly and cheaply from a number of respondents in a short amount of time. Disadvantages * Question Wording * Wording could be ambiguous, questions may influence responses. Different interpretation of language could be problematic. Social Desirability. * Poorly Designed Questionnaires * Provide poor quality data Threat and Coping - Rukholm ; Viverias (93) examined relationship between stress and coping. They concluded that if a person feels threatened when exposed to a stressor, they need to deal with this anxiety through Emotion- Focused Coping - Only then they will make use of PFC Control and Coping - Park (04) undergraduates described most stressful situation as controllability - PFC is + related to good mood when dealing with stress Health Outcomes - EFC = Higher Incidence of Depression - Penley (02) PFC = Good Health Outcomes - EFC is negatively correlated with good health outcomes. Problem Focused ~ To deal with events which are controllable Most effective coping strategy if individual has a realistic chance of changing the aspects of the stressful situation. Emotion-Focused ~ Short Term ~ Used prior to PF ~ Where there are few options to change situation ~ To deal with situations which are uncontrollable Emotion ??? Focused and Problem - Focused Coping Defining a Coping Response * Folkman ; Lazarus (1980) ' Cognitions & Behaviours that a person uses to reduce stress' * Measured by using the ' Ways of Coping Questionnaire', 50 Items that score individuals on 8 different scales' Problem <https://assignbuster.com/psychology-a-unit-2-biological-psychology-stress-flashcards-assignment/>

Focused Attempt to do something active to reduce stress * Take Control * Evaluate Pros and Cons * Suppressing (Competing Activities which stop you from completing the activity to reduce stress) Emotion Focused * Attempt to regulate emotional distress associated with stress * Denial * Focusing and Venting * Seeking Social Support * Passive and Internal Process- Change thoughts and feelings instead of taking action When are they used?

Personality and Stress Personality Types * Type A * Type B * Hardy

Personality Type A Competitive, Hostile, Impatient, Very Intense, Ambitious, Rapid Speech & Likely to suffer CHD * Display stronger and more frequent stress reactions and as result a greater increase in blood pressure. Type B * Less Competitive, Patient, Slower Speech, Easy Going, Less Ambitious, Less Likely to suffer CHD Hardy Personality * KOBASA describes Hardy Personality with the 3 C's * Control- Influence events in your life (Internal Locus of Control) * Commitment ??? Individuals sense of involvement and sense of Purpose in Life. Challenge ??? Challenges in life are opportunities instead of sources of stress * Hardy Personalities cope with stress better How did they find out about Hardiness? * Questionnaire to assess Control, Commitment and Challenge * People with high scores reported fewer stress-related problems AO2 Criticisms * Carried out on White Collar- Workers ??? Lack of Ecological Validity * Supported by Kobasa's later research- Uni students showed reduces psychological harm as a result of scoring high on questionnaire * 3 C's treated as a whole, e. . Control is an important part of commitment ; challenge rather than being separate from them. * This means that Kobasa is only looking at the role of control against stress rather than a full ' personality type'. Psychological Methods of Stress Management What is

CBT? Cognitive * Challenge negative thoughts (Illogical Thinking ; Irrational Thoughts) * These thoughts have an impact on our behaviour Behavioural * As behaviour starts to change, desirable behaviour will be rewarded. Stress Inoculation Training * Michenbaum Believed we can change the way we think about stressors in our life * As negative thinking causes negative outcomes, such as depression, positive thinking leads to positive outcomes. * These reduce stress responses and help in the future * Developed specifically to deal with stress * Suggests that an individual should develop a form of coping (unlike biological treatments) before the problem arises. * 3 MAIN PHASES 1. Conceptualisation * Identify Stressful Situation 2. Skills Acquisition * Learn methods of stress management 3. Application Apply skills which have been learnt to real life situations EVALUATION POINTS - Focuses on challenging what the stressors are in life as well as a - SIT can be very expensive, hence not available to everyone way of dealing with the problem - SIT is time consuming and sessions cost a lot - Can be applied to many real life situations - Requires a lots of time, effort ; motivation to get insight - Effective and Long Term Kobasa's Hardiness Training * Aims to increase self confidence and a sense of control * Another form of CBT * Involves 3 Phases 1. Focusing Client is taught to recognise the psychological signs of stress * Identify sources of stress * Acquire skills of coping 2. Reliving Stressful Encounters * Client encouraged thinking about recent stressful situations and I helped to analyse these situations. * This gives them insight in their current coping methods and how they can be more effective. 3. Self Improvement * Client taught to see stressors as challenges so they can take control of the situation rather than problem to give into. * Therapist will

suggest taking on and coping with small stressful situations and feel optimistic about doing so.

EVALUATION POINTS - Hardiness Training targets perception and coping. Thus- Attempt to change personality has a very slow effect reducing the gap between demand and ability. - Requires client to be motivated to change personality - Provides client with the ability to cope with a - Hardiness training takes time, commitment and money, variety of stressful situations which they may encounter this means that everyone is not able to afford it. in the future. - The effects of Hardiness Training is Long-Term EVALUATION BZ's ; Beta- Blockers * Speed ; Effectiveness Drugs work quickly reducing symptoms. * Availability * Prescribed immediately * Research Support * Meta-analysis studies- BZ's effective than other drugs * Not constant * Dependency * BZ's lead to physiological dependency * Tolerance * Body requires higher dosage as it become tolerant to original dose * Side Effects * BZ's cause drowsiness and affect memory Physiological Methods of Stress- Management Benzodiazepines * GABA is a natural brain chemical * BZ's help GABA slow down activity of the brain * Negative Chloride Ions (-Cl) are already in our brain * -Cl help slow down activity in our brain BZ's attach onto the GABA receptors which help more ??? Cl get through the neuron * From this, the brains excitatory neurotransmitters are reduced, hence the person is calmer. Beta-Blockers * Reduce activity of adrenaline and noradrenalin * On the neurotransmitter the beta-adrenergic receptors are blocked by the Beta Blockers * This stops the Adrenaline and Noradrenalin from getting to the receptor * This then slows down the heart rate and blood pressure. Biofeedback * Sensors are attached to the fingers * A visual image

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of the biological function is produced on screen * It shows you what happens when faced with a stressor Makes you aware of what happens whilst stressed * The individual will learn relaxation strategies which help reduce the stress response * This will be measured by the machine * This helps you realise when you are stressed, so you can clam down * It shows you which relaxation strategy is effective * The strategy is then identified and applies in a real life situation instead of in the lab

EVALUATION of BIOFEEDBACK –
Effective in some individuals, especially children – Expensive, in terms of equipment and time – Effects of Biofeedback can be Long-Term – Role of Relaxation, not more effective than muscle relaxant procedures