

	Design	Advantages	Disadvantages	Example study
Independent groups	Where you have two separate sample groups who each take part in only one condition (e.g. 2 groups doing different memory tasks)	No order effects  Can use the same stimulus materials on both groups	Individuals difference can bias results (for example, one group may have people with a better memory in than the other)	Loftus - smashed, contacted, collided, bumped and hit groups
Repeated measures	Where there is only one sample group and they take part in more than one condition (e.g. if the same people do both different memory tasks)	Controls for individual differences because you have the same people in both groups	Order effects - people tend to get more skilled on the second trial. This can be cancelled out by randomising the order of the conditions so people do them in different orders.	Peterson and Peterson
Matched pairs (participants)	Two sample groups but this time each member of one group is matched against someone in the other group for factors such as age and gender	No order effects  Controls for individual differences (because you compare results to someone similar in the control group)	Hard to get a perfect control, takes a lot of time and effort	Tizard and Hodges - all the adopted and restored kids were matched against normal kids who were the same age and gender

<b>Quantitative Data</b>	Data using numbers to describe results (e.g. means)	Can be used to calculate statistical significance, so more scientific  Allows you compare subjects on the same scale (e.g. %)	Can't validly describe some behaviours (e.g. love)  Can't explain motivations: can only show what happens not why.
<b>Qualitative Data</b>	Data using words to describe results (e.g. quotes and descriptions)	Can give in-depth descriptions and motivations so can give us ideas on WHY something happens	Can't be used to calculate statistical significance, so less scientific  Words can be interpreted differently by different people (e.g. love)

## RESEARCH METHODS

You are expected to be familiar with the main research methods used in psychology. This includes being able to describe each method, knowing how it differs from the other methods and when each should be used. **Fill in the blanks and give an example study for each section**

Method	Description/use	Advantages	Disadvantages	Ethical issues	Example/well known study
Laboratory Experiment	An experiment conducted in a controlled environment in which you can manipulate the independent variable	<ul style="list-style-type: none"> <li>- High degree of control of extraneous variable</li> <li>- Can use technical equipment</li> </ul>	<ul style="list-style-type: none"> <li>- Low ecological validity</li> <li>- High demand characteristics</li> </ul>	- <b>psychological harm</b> due to stressful environment	Peterson and Peterson
Field Experiment	An experiment conducted in a natural environment in which you can manipulate the independent variable	<ul style="list-style-type: none"> <li>- High ecological validity</li> <li>- Low demand characteristics</li> </ul>	<ul style="list-style-type: none"> <li>- Low control over extraneous variables</li> <li>- Observation used and so can suffer from obstruction</li> </ul>	Sometimes you study people without them knowing so you lack <b>informed consent</b> and don't carry out <b>debriefing</b>	
Naturalistic Experiment	An experiment conducted in a natural environment in which you <b>cannot</b> manipulate the independent variable due to ethical restraints	<ul style="list-style-type: none"> <li>- Can study behaviours that you can't ethically study in a lab</li> <li>- High ecological validity</li> </ul>	<ul style="list-style-type: none"> <li>- Low control over extraneous variables</li> <li>- Observation used and so can suffer from obstruction</li> </ul>	Sometimes you study people without them knowing so you lack <b>informed consent</b> and don't carry out sufficient <b>debriefing</b>	Genie  Marmot
Correlational	A study which looks at a relationship between 2 variables within one sample population (e.g. age and weight)	Can show you the relationship between 2 variables and tell you the direction and strength of that relationship	Can't determine cause and effect <ul style="list-style-type: none"> <li>- Don't know which one comes first</li> <li>- Could be a 3<sup>rd</sup> variable</li> </ul>	Can be used to suggest that something is causal when it isn't and thus harm people (e.g. distant mothers causing Autism)	Holmes and Raye

<p><b>Questionnaire</b></p> <p><b>SELF REPORT</b></p>	<p>A written set of questions which can either be open, closed or ask subjects to rate responses on likert scales</p>	<p>highly standardised and reliable</p> <p>cheap to produce so can have large sample</p>	<p>- low validity because people may not know why they do things</p> <p>high social desirability problems</p>	<p>Ensure <b>confidentiality</b> by having anonymous questionnaires</p> <p>No <b>debriefing</b> if someone finds the answers upsetting</p>	<p>Holmes and Raye</p>
<p><b>Interview</b></p> <p><b>SELF REPORT</b></p>	<p>Can be structured or unstructured.</p> <p>Usually a trained interviewer will ask questions to a subject and record all answers and analyse using Content analysis</p>	<p>Can pick up on body language</p> <p>Can follow up questions if there are interesting responses</p>	<p>Social desirability</p> <p>Low reliability as different interviewers may have different levels of skill, phrasing of questions and following up of answers</p>	<p>Must ensure <b>confidentiality</b> by not revealing personal information without consent</p> <p>Good for <b>debriefing</b> since they can ask you questions at the end.</p>	<p>Little Hans - Freud</p>
<p><b>Case study</b></p>	<p>A study of one person or a small group of people who have exceptional behaviours. Usually takes place over a long period of time</p>	<p>can get high quality in depth data</p> <p>can study rare behaviours</p>	<p>can't generalise as the sample is so small and thus very effected by individual differences</p> <p>a relationship may form between experimenter and subject which biases results</p>	<p><b>Psychological harm</b> as you may make the subject feel that they are abnormal</p> <p>Good <b>debriefing</b> because of all the one-on-one time</p>	<p>Genie</p> <p>little Hans</p>
<p><b>Longitudinal Studies</b></p>	<p>Studies which follow subjects over a long period of time</p>	<p>Can watch change over time so determine cause and effect</p> <p>Low Demand Characteristics</p>	<p>Lots of room for confounding variables</p> <p>Expensive and time consuming so small sample</p>	<p><b>Psychological harm</b> as you may make the subject feel that they are abnormal</p> <p>Good <b>debriefing</b> because of all the one-on-one time</p>	<p>Tizard and Hodges</p> <p>Genie</p>

## Definitions of Abnormality/ Psychopathology

	Definition - AO1	Examples/criteria - AO1	Strengths - AO2	Weaknesses - AO2
Deviation from Social Norms	Someone is abnormal if they break the implicit social rules of a group	E.g. It would be abnormal for a boy to wear a skirt to school in England, but fine for him to wear a kilt in Scotland.	Caters for cultural relativism as it accepts that different cultures have different norms	<b>Can't generalise</b> - i.e. hard to create a universal definition for what is abnormal  <b>Rebels</b> - some people deliberately break social norms (e.g. suffragettes) but they are not mentally ill.
Mental Health	Someone is abnormal is they fail to meet the criteria for mental health	Jahoda - Positive attitudes to self Self actualisation Resistance to stress Autonomy Accurate perception of reality Adapting to environment	Takes a medical approach so sees the disorder as an illness. This legitimises the treatment and removes the perception that people can chose to just snap out of it.	<b>Not Useful</b> - Few people meet the criteria for ideal mental health  <b>Cultural Relativism</b> - what is ideally healthy in an individualistic culture (e.g. autonomy) may not be seen as healthy in a collectivist culture
Failure to Function Adequately	Someone is abnormal is they are unable to adapt and cope with everyday life.	Rosenhan and Seligman  Can't adapt Distress Irrational Rare behaviours Breaks social norms/morals Observer discomfort	Practically useful as it says we will help people when they need help rather than forcing our concept of abnormality on them	<b>Subjective</b> - what one psychiatrist sees as not coping may be different from that of another psychiatrist  <b>Validity</b> - some people function fine but are mentally abnormal (psychopaths) and some people don't function fine but are not mentally ill (e.g. long term unemployed).

## Approaches

Approach	Treatment	Strengths	Weaknesses
<p>Biological approach suggests mental illness is caused by problems in the brain.</p> <ol style="list-style-type: none"> <li>1) Due to genes (<u>Gottesmans</u> Twin study)</li> <li>2) Due to imbalance in neurotransmitters (GABA, Dopamine, Serotonin)</li> <li>3) Due to structural brain problems (<u>Lawrie</u> – 40% bigger ventricles in schizophrenics)</li> </ol>	<p>Treatments</p> <ol style="list-style-type: none"> <li>1. Drugs Chlorpromazine MAOI's and SSRIS Benzodiazepines</li> <li>2. ECT <u>Pagnin</u></li> </ol>	<p><b>Scientific and falsifiable</b> – i.e. we can test whether drugs work or the size of the brain is different in controlled studies</p> <p><b>Effective</b> – 75% of people respond to ECT, millions of people find Prozac useful</p>	<p><b>Reductionist</b> – simplifies complex behaviours like depression or schizophrenia down to biological components but there are other factors such as environment and stress</p> <p><b>Ethics</b> – lots of biological treatments have side effects (e.g. ECT –memory loss, anti-psychotics – movement disorders)</p>
<p>Behavioural approach suggests that mental illnesses are acquired through unconscious learning through conditioning.</p> <ol style="list-style-type: none"> <li>1) Classical conditioning can initiate disorders through paired associate (e.g. Little Albert)</li> <li>2) Operant conditioning can maintain disorders through reinforcement (i.e. the attention anorexics get when they lose weight)</li> <li>3) We can learn through watching others being conditioned (SLT) for example watching a mother be scared of spiders.</li> </ol>	<p>Treatment</p> <ol style="list-style-type: none"> <li>1. Flooding</li> <li>2. Systematic Desensitisation</li> <li>3. Behavioural modification</li> </ol>	<p><b>Strengths</b></p> <p><b>Scientifically</b> tested in controlled conditions and the behaviour can be objectively observed</p> <p><b>Highly effective</b> treatments for certain disorders especially phobias (not effective in more complex</p>	<p>Weaknesses</p> <p><b>Over simplistic</b> – it suggests that humans are essentially simple animals that learn through association without any recognition of personality, rational thought, or free will.</p> <p><b>Generalising from animals</b> - Much of research into conditioning is on animals who may have much more simple learning mechanisms than humans</p>

<p>Cognitive Approach suggests that mental illness is caused by faulty thinking.</p> <ol style="list-style-type: none"> <li>1) Incorrect or negative schema (Beck's Triad of negative beliefs)</li> <li>2) Attributions – Beck (internal/external, Specific/Global, stable/unstable)</li> <li>3) Beliefs</li> </ol>	<p>Treatments</p> <ol style="list-style-type: none"> <li>1. <u>Ellis</u></li> </ol>	<p><b>Scientific and falsifiable</b> – i.e. we can test whether drugs work or the size of the brain is different in controlled studies</p> <p><b>Effective</b> – 75% of people respond to ECT, millions of people find Prozac useful</p>	<p><b>Reductionist</b> – simplifies complex behaviours like depression or schizophrenia down to biological components but there are other factors such as environment and stress</p> <p><b>Ethics</b> – lots of biological treatments have side effects (e.g. ECT –memory loss, anti-psychotics – movement disorders)</p>
<p>Behavioural approach suggests that mental illnesses are acquired through unconscious learning through conditioning.</p> <ol style="list-style-type: none"> <li>4) Classical conditioning can initiate disorders through paired associate (e.g. Little Albert)</li> <li>5) Operant conditioning can maintain disorders through reinforcement (i.e. the attention anorexics get when they lose weight)</li> <li>6) We can learn through watching others being conditioned (SLT) for example watching a mother be scared of spiders.</li> </ol>	<p>Treatment</p> <ol style="list-style-type: none"> <li>4. Flooding</li> <li>5. Systematic Desensitisation</li> <li>6. Behavioural modification</li> </ol>	<p><b>Strengths</b></p> <p><b>Scientifically</b> tested in controlled conditions and the behaviour can be objectively observed</p> <p><b>Highly effective</b> treatments for certain disorders especially phobias (not effective in more complex</p>	<p>Weaknesses</p> <p><b>Over simplistic</b> – it suggests that humans are essentially simple animals that learn through association without any recognition of personality, rational thought, or free will.</p> <p><b>Generalising from animals</b> - Much of research into conditioning is on animals who may have much more simple learning mechanisms than humans</p>

## Multi-Store Model - Atkinson and Shrifin

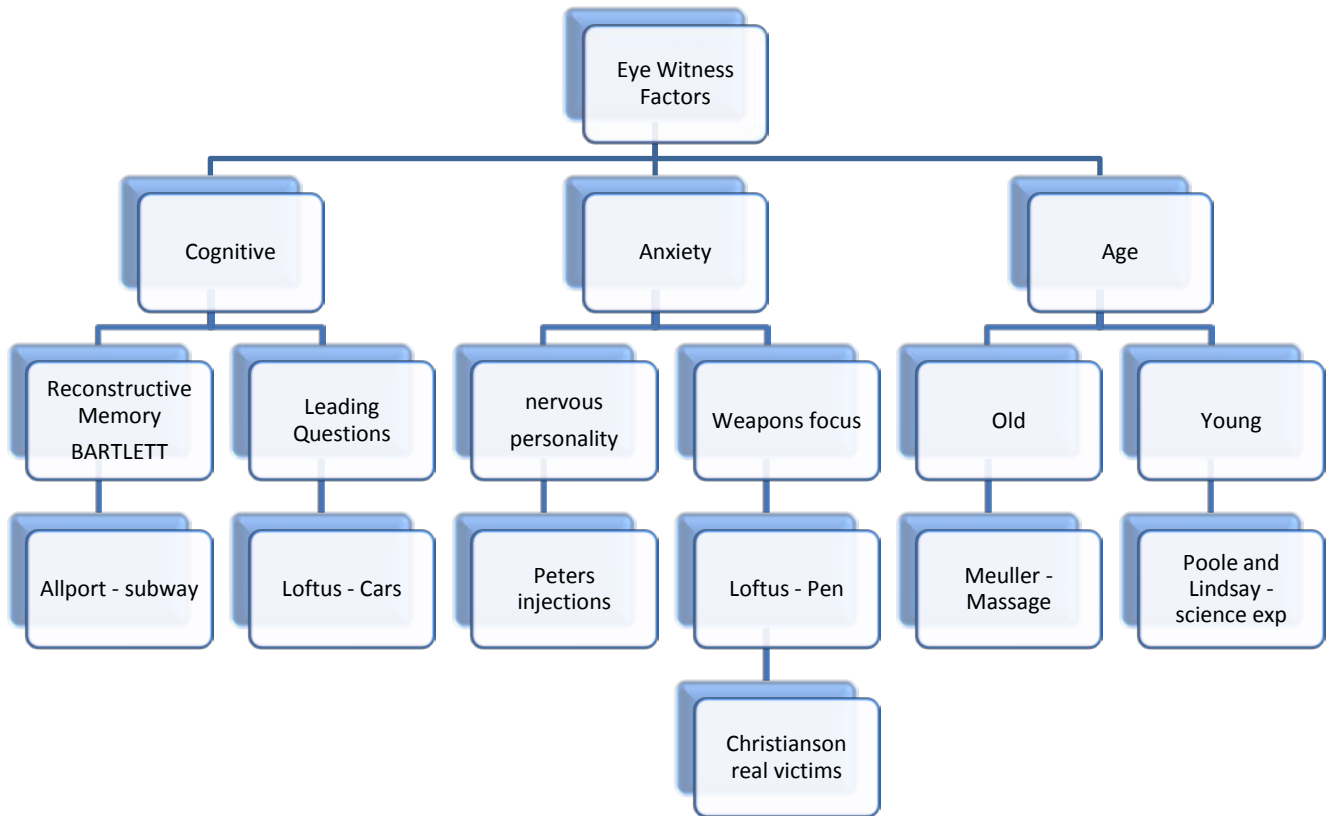
	Encoding	Capacity	Duration	Forgetting	Transfer
Sensory	All senses	At least 12 items <b>(Sperling)</b>	0.5 sec <b>(Sperling)</b>	Trace decay	Attention
Short Term	Acoustic <b>(Baddeley)</b>	7+-2 <b>(Jacobs)</b>	18-20s <b>(Peterson)</b>	Displacement	Elaborative rehearsal
Long Term	Semantic <b>(Baddeley)</b>	Potentially unlimited <b>(Bahrick)</b>	40-50yrs <b>(Bahrick)</b>	Decay	NA

### Evaluation

Strengths	Weaknesses
Can account for some neurological evidence <ul style="list-style-type: none"> <li>• Clive Wearing has LTM not STM</li> <li>• Scans show separate parts of the brain do STM/LTM</li> </ul>	Has problems with KF who had no short term memory for sounds or words but could recall pictures.
Testable model with evidence to support the idea of different encoding styles in different memory stores (e.g. <b>baddeley</b> )	Overly-Simplistic – for example sometimes we only experience something once but recall it forever even without rehearsal –flashbulb memory
	A lot of the research is done in the lab and the tasks lack ecological validity – e.g. <b>Sperling</b> , <b>Peterson</b> etc

### Working Memory Model

Strengths	Weaknesses
Can account for neurological evidence <ul style="list-style-type: none"> <li>• <b>KF</b> has no acoustic working memory but has visual</li> <li>• Scans show separate parts of the brain do working memory and CE</li> </ul>	Central Executive is very ambiguous. Seems to do everything but doesn't tell us how. For example, it shifts attention, but how does it do this?
More complex understanding of memory, seeing it as an active process of pulling information from LTM in order to process daily information.	A lot of the research is done in the lab and the tasks lack ecological validity – e.g. <b>Baddeley</b>
	<b>Bertz</b> – found that people can listen to music and do an acoustic task. Seems it's not as simple as one acoustic store, instead different types of acoustic information may be processed separately.



**Improving Eye Witness Testimony**

**Cognitive Interview – Geiselman**

- Context Restatement
- Order (reverse)
- Perspective (change)
- Everything (recall everything)

**Enhanced Cognitive Interview Technique – Fisher**

- Open questions
- Never interrupt
- Don't judge
- Minimize distractions

Strengths	Weaknesses
<b>Kohnken (99)</b> – meta analysis of 50 studies. 81% of subjects performed better in ECIT than police interview - generate a lot more material	<b>Geiselman</b> – <ul style="list-style-type: none"> <li>• Doesn't work well with children under 8</li> <li>• Works less well the longer after the crime</li> </ul>
Avoids reconstructive memory – Loftus (open questions)	<b>Kebbel (99)</b> – surveyed police in UK widespread use now of the CI. Police found it useful but were concerned about the amount of incorrect information gathered and the time it took to carry out. They used RE and CR but rarely used CP and RO. and found that there was
	ECIT – creates a 28% more incorrect statements than normal police interview.

Strategy	Description	Strenght	Weakness
Mnemonics	Peg Word Method of Loci	Master memorisers use these techniques and can recall hundreds of items very quickly	Only really works for items you can visualise (e.g. hard to recall chemical formula's this way)  Doesn't promote understanding or processing of information so no good for recall of anything other than random items  Can get interference, where the first list overlaps with the second list and subjects get confused
Chunking	Grouping items into similar groups and then recalling the chunk rather than a list of sepearte items	Maximises the use of hte STM 7+- 2 and has been shown by <b>Miller</b> to increase the amount you can recall	Easy to forget an entire chunk of information  Some items don't chunk. Shopping lists are not very representative of day to day memory (e.g. what I did yesterday)
Levels of Processing	Deeper the processing the better the recall – Semantic best, visual worst	Evidence shows this to be true <b>Craik and Lockhart</b>  It aligns with our knowledge of how the brain works – i.e. building stronger links between neural pathways increases recall	
Context	Encoding Specificity Principle	<b>Geisleman</b> – more likely to recall information if it aligns to the context we heard it in (e.g. voice is male or female).	Only a slight help! Generally speaking we recall what is more interesting rather than stuff we experienced in the same place.

## Stress as a bodily response

### Stress

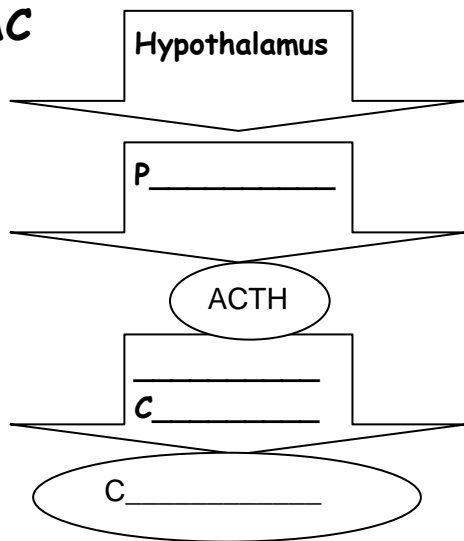
- An alarm reaction. It involves a series of changes in the b\_\_\_\_\_.
- It's what happens when you are in a p\_\_\_\_\_ or mentally demanding situation.
- It's a feeling that you don't have the a\_\_\_\_\_ to cope with the d\_\_\_\_\_ on you.

### Stressor

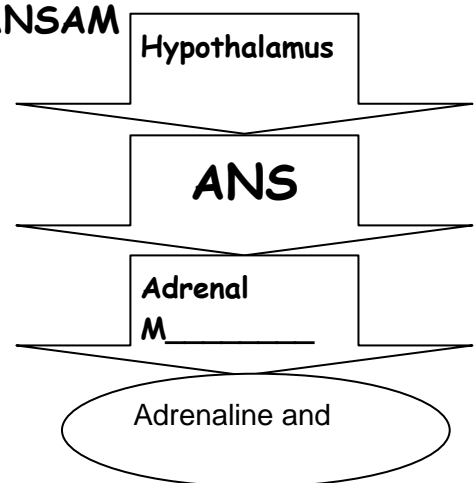
- Things that trigger the s\_\_\_\_\_ reaction in the body.
- Includes the workplace and l\_\_\_\_\_ events such as divorce.
- Can vary between people depending on their sense of c\_\_\_\_\_.

### The body's response

#### HPAC



#### HANSAM



### Effects

Heart rate ↑

Blood sugar ?

Blood pressure?

### Selye's General Adaptation Syndrome

- The reaction is the same whatever the s\_\_\_\_\_.
  - Stress (can cause l\_\_\_\_\_ t\_\_\_\_\_ effects).
1. **Alarm** - shock phase (as above)
  2. **R**\_\_\_\_\_ - high levels of stress chemicals start to damage the i\_\_\_\_\_ system.
  3. **E**\_\_\_\_\_ - energy levels f\_\_\_\_\_. Illnesses develop.

### Evaluation

- Too simplistic.
- But first attempt to link stress and i\_\_\_\_\_.
- Exhaustion stage doesn't occur because hormones 'run out' as S\_\_\_\_\_ said.

### Stress and illness

**Direct effect-** cardiovascular disorders such as h\_\_\_\_\_ and a\_\_\_\_\_.

Immune s\_\_\_\_\_ disorders leading to colds and ulcers

**Indirect effects-** via s\_\_\_\_\_, and alcohol misuse

### Key Studies

- Friedman & Rosenman 1974
- Kiecolt Glaser *et al*/1995.

# Sources of Stress

## Life Changes

Major life events e.g. marriage, moving house used to produce S\_\_\_\_\_ R\_\_\_\_\_ R\_\_\_\_\_ S\_\_\_\_\_. By Holmes and Rahe in 1967. Events rated according to the readjustment they required. E.g. D\_\_\_\_\_ of spouse =100 LCUs. (l\_\_\_\_\_ e\_\_\_\_\_ u\_\_\_\_\_s)

## Evaluation

+ served to quantify stress.

- Values are arbitrary and positive stress is ignored.

Other scales include the L\_\_\_\_\_ E\_\_\_\_\_ Scale and the Hassles and U\_\_\_\_\_ Scale.

Research using scales supports theory that s\_\_\_\_\_ causes illness but correlations are not huge.

## Workplace Stressors

- Physical environment e.g. t\_\_\_\_\_
- Work o\_\_\_\_\_
- R\_\_\_\_\_ ambiguity
- Lack of c\_\_\_\_\_

## Individual differences

**A/B personality types.** Type As are time p\_\_\_\_\_ and c\_\_\_\_\_. F\_\_\_\_\_ & R\_\_\_\_\_ showed they have a higher risk of CH\_\_\_\_\_.

**Hardy personality** Kobassa described these types in terms of C\_\_\_\_\_, C\_\_\_\_\_ and C\_\_\_\_\_. They are thought to have a lower risk of stress related illness.

**Gender** Coping strategies tend to differ. Male response is f\_\_\_\_\_ or f\_\_\_\_\_ female is t\_\_\_\_\_ and b\_\_\_\_\_.

**Culture** Social s\_\_\_\_\_ protects against stress. Other effects may be due to g\_\_\_\_\_ or lifestyle.

## Key Studies

Rahe *et al*/1970

Marmot *et al*/1997.

# Stress Management

## Key terms

**Control** Not at the mercy of events

**Physiological approaches to stress management.** Understanding and treating stress as a problem of the b\_\_\_\_. (includes use of d\_\_\_\_ and b\_\_\_\_\_)

**Psychological approaches to stress management.** Understanding and treating stress as a problem of the m\_\_\_\_. (therapies involving behaviour training also can include relaxation and m\_\_\_\_\_)

## Physiological methods

**Drugs;** Benzodiazepines (librium & v\_\_\_\_\_) reduce s\_\_\_\_\_ activity in the brain.

Beta b\_\_\_\_\_ act on heart r\_\_\_\_ and blood p\_\_\_\_\_.

+ very effective especially in short term

-can lead to d\_\_\_\_\_

+cheap

-can have side effects

+fast acting

-only target the symptoms.

**Biofeedback;** Involves recording an aspect of the stress response such as s\_\_\_\_\_ temperature or m\_\_\_\_\_ tension and learning techniques to reduce it using relaxation or m\_\_\_\_\_.

+ can be effective, especially in children

-the effect may just be due to relaxing.

## Psychological methods

### **Stress Inoculation Training**

1. Visualisation of stressful situations
2. Practice c\_\_\_\_\_ strategies
3. Put into p\_\_\_\_\_

### **Hardiness Training**

1. Spot signs of stress
2. Analyse stressful e\_\_\_\_\_s.
3. Assess which events we can c\_\_\_\_\_.

## General methods

### **Relaxation/meditation**

+ effective at relieving symptoms

- needs to be learned and practiced regularly.

-not always practical

**Exercise** deals with stress related arousal

**Social support** satisfies social needs and helps us u\_\_\_\_\_ the issues.

**Control** Those with an internal l\_\_\_\_\_ of control cope with stress better but this is hard to change as it is a factor of an i\_\_\_\_\_’s personality.

## Key studies Mix and Match

- Rahe *et al* (1970)  
Life changes as a source of stress
- Marmot *et al* (1997)  
Stress in the workplace
- Friedman and Rosenman (1974)  
Stress and Cardiovascular disease
- Kiecolt-Glaser (1995)  
Stress and the immune system

### AIMS

- To investigate whether job control effects illness
- To investigate the link between Type-A personality and CHD
- To investigate whether SRRS scores correlate with illness
- To investigate the effect of stress on the immune system

### PROCEDURES

- 2500 sailors were tested and their health status recorded over 6 months
- 3200 men tested for A/B personality and health assessed for 3½ years.
- 10000+ civil servants were questioned and observed to assess job control then health records kept for 3 years.
- 75 medical students gave blood samples at a month before exams then again during them.

### FINDINGS

- Less NK cells were found during the exam period
- Those with low job control were 4X more likely to have died of a heart attack
- A small (+0.118) correlation was found between life changes and illness
- Twice as many Type- As as Bs developed CHD

### CONCLUSIONS

- Low job control is associated with high stress
- Experiencing life events increased risk of ill health
- Exam stress reduces immune function
- Type-A behaviour increases the risk of CHD

### CRITISISMS

- Correlational study so cause/effect not proved. A natural experiment so should have ecological validity.
- Correlational study so cause/effect? All participants were male.
- Correlational study so cause/effect not proved. Not all variables were controlled.
- Correlational study so cause/effect not proved. Self reported questionnaire may give investigator effects.