

AQA Psychology A-level

Option 2: Stress

Summary Notes

This work by [PMT Education](https://www.pmt.education) is licensed under [CC BY-NC-ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)



Part 1 — The Physiology of Stress

Stress is the body's response to a perceived threat or challenge, and involves a range of physiological changes that help us cope with the stressor.

Selye (1936) proposed the **General Adaptation Syndrome (GAS)**, which suggests that stress is a **non-specific response** that helps the body adapt to a stressor. According to **Selye**, the body passes through **three stages** when exposed to prolonged stress:

Stage	What Happens
Alarm Reaction	The body immediately detects a stressor , causing activation of the sympathetic branch of the autonomic nervous system (ANS) . This produces the fight or flight response , increasing physiological arousal so the body can respond quickly to the threat.
Resistance	If the stressor continues, the body tries to resist the stressor and maintain functioning. Energy resources are rapidly used to keep the body in a state of increased arousal. As the stress becomes chronic , the body attempts to reduce this arousal through greater activity of the parasympathetic branch of the ANS.
Exhaustion	If the stressor continues for too long, the body's energy resources become depleted . The physiological symptoms seen during the alarm reaction return, while prolonged stress can lead to immunosuppression and diseases of adaptation , such as cardiovascular disease (CVD) and hypertension .

Physiological responses to Stress

There are two main types of physiological response to stress:

- **Acute stress** → short-term response to an immediate stressor
- **Chronic stress** → longer-term response to an ongoing stressor

1. Acute stress

The **acute stress response** occurs when the body perceives an **immediate threat**.

- Sensory information about the stressor is sent to the **hypothalamus**.
- The hypothalamus activates the **sympathetic branch of the ANS**.
- This triggers the **sympathomedullary pathway (SAM)**.
- The **adrenal medulla** releases the hormones **adrenaline** and **noradrenaline**.
- These hormones produce the physiological changes needed for **fight or flight**.



These changes include:

- **Vasoconstriction** → blood is redirected towards muscles.
- **Pupil dilation** → allows more light to enter the eyes.
- **Reduced digestive activity** → energy is redirected towards immediate survival.

Once the stressor is no longer an immediate threat, the **parasympathetic branch of the ANS** becomes more active. This produces the **rest and digest response**, returning the body towards its normal state.

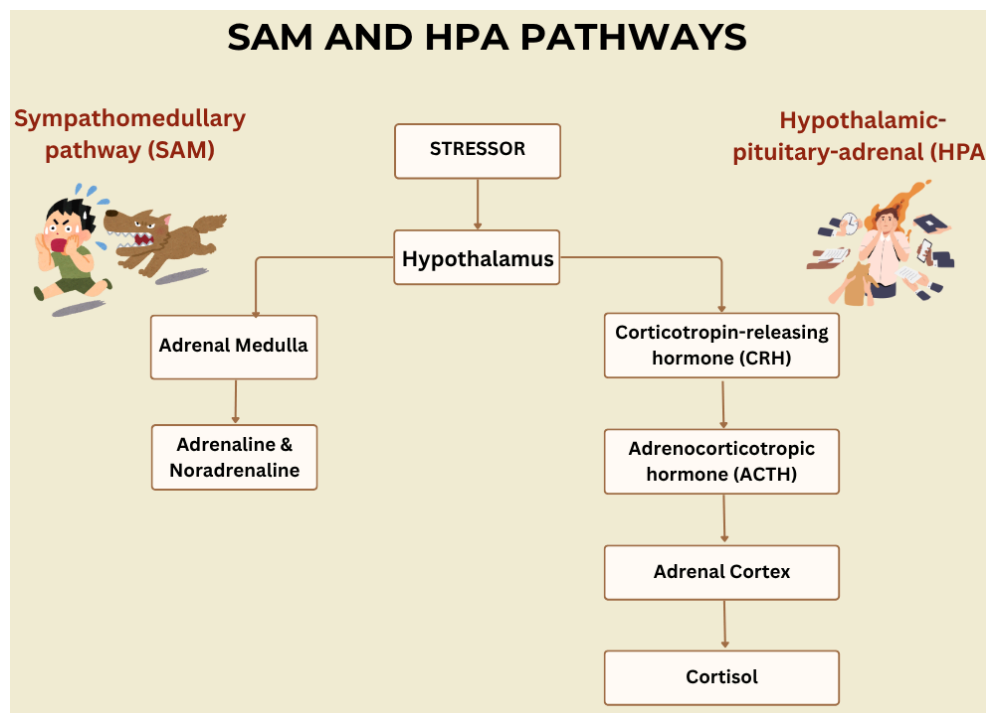
2. Chronic stress

Chronic stress involves a longer-lasting physiological response and activates the **hypothalamic-pituitary-adrenal (HPA) axis**.

- The **hypothalamus** releases **corticotropin-releasing hormone (CRH)**.
- CRH stimulates the **pituitary gland** to release **adrenocorticotrophic hormone (ACTH)**.
- ACTH stimulates the **adrenal cortex** to release **cortisol**.
- **Cortisol** helps maintain the body's energy supply and physiological arousal during prolonged stress.

Cortisol is useful in the short term because it helps the body **maintain a prolonged response to the stressor**, but chronically high cortisol levels can have **damaging effects on the body**.

The HPA axis is controlled by **negative feedback**. As cortisol levels rise, this reduces the release of **CRH and ACTH**, preventing the stress response from continuing unnecessarily and limiting potential physiological damage.



AO3 EVALUATION

A strength of Selye's General Adaptation Syndrome is that there is **research support from animal studies**. **Selye (1936)** exposed rats to different stressors and observed a similar pattern of physiological responses: an initial **alarm reaction**, followed by **resistance** and eventually **exhaustion** when the stress continued. This suggests that stress may produce a **predictable sequence of physiological changes**, supporting the validity of the three-stage model. However, because the research used rats, it may not fully represent the human stress response.

A further strength is that research into the **stress response has real-world applications**. Understanding the role of **cortisol** in the stress response has helped explain why people with **Addison's disease**, who cannot produce sufficient cortisol, can struggle to respond to severe stress and may experience an **Addisonian crisis**. This has contributed to the use of **cortisol replacement therapy**, helping patients maintain appropriate cortisol levels. Therefore, research into stress has **practical value for improving medical treatment**.

A limitation of early research into fight-or-flight is that it may show **beta bias by overlooking sex differences**. Much early research used **male animals**, partly because hormonal fluctuations in females could make physiological responses more difficult to measure. The findings were then often generalised to females. **Taylor et al. (2000)** proposed that females may respond to stress through "**tend-and-befriend**", involving protecting offspring and seeking social support rather than simply fighting or fleeing. Therefore, the traditional fight-or-flight response may **not provide a complete explanation of how females respond to stress**.

A further limitation of the fight-or-flight response is that it may be **too simplistic to explain the wide range of human responses to stress**. People do not always respond to stress by fighting or escaping; they may also **freeze, seek social support, problem-solve or use other coping strategies**. This is particularly important because the response to stress can depend on the **type of stressor and the individual**. Therefore, describing stress as simply "fight or flight" may **underestimate the complexity of human stress responses**.



Part 2 — The Role of Stress in Illness

Stress can have **negative effects on physical health**, particularly through **immunosuppression** and increased risk of **cardiovascular disorders**.

Immunosuppression:

Chronic stress can lead to prolonged activation of the **HPA axis**, causing continued release of **cortisol**.

Cortisol normally helps the body cope with stress, but **continually high cortisol levels can suppress the immune system**. This reduces the body's ability to defend itself against **infection and illness**.

Kiecolt-Glaser et al. (1984) investigated this by comparing blood samples from medical students **one month before examinations** and on the **first day of their exams**.

- Students showed a reduction in **natural killer (NK) cells** and **T-killer cells** during the examination period.
- These cells are involved in detecting and destroying **pathogens and abnormal cells**.
- This suggests that **prolonged stress can suppress immune functioning**.

This may explain why people sometimes find that they are **more likely to become ill after a prolonged stressful period**.

Cardiovascular disorders:

Stress can also increase the risk of **cardiovascular disorders**, including **heart attacks**. Stress activates the **sympathetic nervous system**, increasing:

- **Heart rate**
- **Blood pressure**
- The force with which the heart pumps blood

Repeated or prolonged activation can place **additional strain on the cardiovascular system**.

Wilbert-Lampen et al. (2008) investigated the effects of highly **arousing situations** by examining heart attack rates during the **2006 FIFA World Cup**.

- The likelihood of suffering a **heart attack increased by 2.66 times** during the tournament.
- This suggests that **intense psychological arousal** can increase cardiovascular risk.

The relationship between stress and cardiovascular illness is also supported by **Yusuf et al. (2004)**. As part of the **INTERHEART study**, data from around **15,000 heart attack patients** were analysed.



- **Psychosocial stress** was identified as an important **risk factor for heart attack**.
- Other important risk factors included **smoking, obesity and poor diet**.

Prolonged or intense stress can damage the body, particularly through **immunosuppression** and an increased risk of **cardiovascular disorders**.

AO3 EVALUATION

A strength of research into stress and the immune system is that it shows that **acute stress is not necessarily harmful to health**. **Dhabhar (2008)** found that rats exposed to an acute stressor showed an increase in **T lymphocytes**, suggesting that short-term stress can temporarily enhance immune functioning. This is known as an **immunoenhancing effect**, as the immune system becomes more active in response to the stressor. This challenges the assumption that stress is always damaging and suggests that **moderate, short-term stress may actually prepare the body to deal with threats**. Therefore, research into stress provides a more **balanced explanation of its effects on health**, rather than assuming that all stress is harmful.

A further strength is that there is **evidence linking stress with the progression of physical illness**. **Pereira et al. (2003)** found that HIV-positive women who had experienced **highly stressful events** were more likely to develop precancerous cervical lesions. One explanation is that prolonged stress can have an **immunosuppressive effect**, reducing the body's ability to fight disease effectively. This suggests that psychological experiences can influence **physical health and disease progression**, demonstrating an important link between psychological and physiological processes. Therefore, understanding stress may be useful in explaining why some individuals with the same illness experience **different rates of disease progression**.

A useful **real-world application** is that understanding the relationship between stress and physical illness could help inform **public health interventions**. If chronic stress contributes to immunosuppression and disease progression, encouraging people to use **stress-management techniques**, such as relaxation, exercise or psychological interventions, could potentially support physical health alongside medical treatment. This could be particularly useful for people living with **long-term illnesses**, where managing stress may help improve their overall wellbeing and potentially reduce disease progression. Therefore, research into stress has **practical and economic value**, as reducing stress could potentially reduce the need for more intensive healthcare.

A limitation of research into stress and health is that much of the **evidence comes from animal studies, which may not accurately represent human stress**. For example, animals may be exposed to stressors such as **electric shocks or food deprivation**, whereas human stress is often caused by more complex experiences such as relationship problems, financial difficulties or work pressure. Humans also differ in their **personality, coping strategies and social support**, which can influence how they respond to the same stressor. Therefore, findings from animal research may have **limited ecological validity**, making it difficult to know how accurately they can be applied to real-life human stress.



A further limitation is that **stress does not affect everyone in the same way**. Although research such as **Pereira et al. (2003)** suggests that stressful experiences can be linked to disease progression, this does not mean that stress will inevitably cause illness. Individual differences in **coping strategies, personality, genetic vulnerability and social support** may influence how strongly stress affects the immune system. This means that stress is unlikely to be the **sole cause** of disease and is better understood as one factor interacting with other biological and psychological influences. Therefore, explanations linking stress directly to poor health may be **too simplistic**.



Part 3 — Sources of Stress: Life Changes

Life changes can be stressful because they require **physical and/or psychological adaptation**. Both **negative events** (e.g. divorce) and **positive events** (e.g. marriage) can therefore create stress.

The greater the **adaptation required**, the greater the level of stress associated with the life change. Stress can also have a **cumulative effect** when an individual experiences several life changes within a short period, as the stress associated with each event can build up.

Measuring stress from life changes

Holmes and Rahe (1967) developed the **Social Readjustment Rating Scale (SRRS)** to measure the amount of stress associated with different life events.

- Each life event is given a **Life Change Unit (LCU)** score based on the amount of adaptation it requires.
- For example, **divorce = 73 LCUs**
- **Marriage = 50 LCUs**
- A person's total LCU score is calculated by adding together the scores for the life events they have experienced.

Holmes and Rahe (1967) found a **positive correlation** between increasing LCU scores and the likelihood of developing an **illness**. The risk of illness increased by around **50% when the total score exceeded 300 LCUs**.

Rahe et al. (1970) - Key study

Participants	2,664 US Navy and Marine personnel aboard three Navy cruisers.
Procedure	A prospective, double-blind study was carried out. • Stressful life events experienced during the six months before deployment were measured using the Schedule of Recent Experiences (SRE). • Participants' health was then monitored during deployment.
Findings	Personnel who had experienced a greater number of stressful life changes were significantly more likely to become ill during deployment . Small but statistically significant positive correlation ($r = +0.118$) between LCU scores and illness scores.
Conclusion	The findings support the idea that life changes can help predict illness , as higher levels of recent life stress were associated with a greater risk of becoming ill .



AO3 - EVALUATION

A strength of the life changes explanation is that some research uses **prospective designs, meaning stress is measured before the later health outcome occurs**. This helps establish a **temporal relationship** between life changes and illness, making it less likely that illness itself caused people to report more stressful life events. Therefore, the evidence provides stronger support for the idea that **life changes may contribute to later illness**.

A further strength is that research into life changes has **practical applications**. The **SRRS** allows healthcare professionals to identify individuals who may be experiencing high levels of stress following major life events. This means that people with high stress scores can be offered **additional monitoring, support or stress-management interventions** before stress develops into physical or psychological illness. Therefore, research into life changes has **useful preventative applications**.

A limitation of **life changes as a source of stress** is that they **ignore individual differences**. **Byrne and Whyte (1980)** argued that the same life event can have very different meanings for different people depending on the circumstances. For example, **divorce** may be highly stressful for one person but a relief for another if the relationship was abusive. This suggests that assigning the same stress score to everyone experiencing the same event is unrealistic. Therefore, the SRRS may **overestimate or underestimate** the amount of stress experienced by different individuals.

A further limitation is that **daily hassles may be a more important source of stress than major life events**. **DeLongis et al. (1988)** studied **75 married couples** and found that the accumulation of **minor daily hassles** was a better predictor of stress and illness than major life changes. This suggests that the ongoing pressures of everyday life may have a greater impact on health than isolated life events. Therefore, focusing only on major life changes may **oversimplify the causes of stress** and reduce the validity of the explanation.



Part 4 — Sources of Stress: Daily Hassles

Daily hassles are **frequent, predictable and relatively minor sources of stress**, such as arguments, traffic, financial problems or deadlines. They differ from **life changes**, which are generally **less frequent and require greater adjustment**.

A major life change can also create a number of daily hassles. For example, **getting married** is a major life change, but may lead to everyday stress through **arguments about money, changes to social arrangements or adjusting to a partner's habits**.

Lazarus (1966) suggested that our response to daily hassles depends on two stages of **cognitive appraisal**:

- **Primary appraisal** – we assess whether the hassle is **threatening, harmful or challenging**.
- **Secondary appraisal** – we assess whether we have the **resources or ability to cope** with the hassle.

Therefore, the same daily hassle may produce different levels of stress in different people depending on how they **appraise and cope with it**.

Kanner et al. (1981) – Key study

Aim	To investigate whether daily hassles or major life changes are more strongly associated with stress and psychological symptoms .
Participants	100 participants .
Procedure	Participants completed the Hassles Scale each month for 9 months . They also reported any major life changes experienced during the month before and after the study. Psychological symptoms were measured using the Hopkins Symptom Checklist .
Findings	There was a positive correlation between daily hassles and psychological stress . Daily hassles were found to be a stronger predictor of stress and psychological symptoms than major life changes .
Conclusion	Frequent daily hassles may be a more important source of stress than major life changes , because their cumulative effect can build up over time.



AO3 - EVALUATION

A strength of the daily hassles explanation is that there is **research support for the link between everyday stressors and psychological wellbeing**. **Kanner et al. (1981)** asked participants to complete the **Hassles and Uplifts Scale** and found that the number and severity of **daily hassles** were positively correlated with symptoms of **psychological distress**. In fact, daily hassles were found to be a **better predictor of stress-related symptoms** than major life events. This suggests that the accumulation of small, everyday stressors can have a significant impact on health. Therefore, the daily hassles explanation has **research support**, increasing its validity.

A further strength is that research into daily hassles has **practical applications**. Identifying the everyday stressors that people experience allows psychologists to develop interventions that focus on **coping with small but frequent sources of stress**, such as time management, problem-solving and relaxation techniques. Reducing the impact of these daily stressors may help prevent them accumulating into chronic stress. Therefore, research into daily hassles has **useful applications for stress management**.

A limitation of the **daily hassles explanation** is that it may be **too simplistic to consider daily hassles in isolation**. **Li (1991)** proposed the **amplification hypothesis**, suggesting that daily hassles become much more stressful when they occur alongside **major life changes**. For example, misplacing your keys may be a minor inconvenience on an ordinary day but much more stressful if you are already coping with **moving house or caring for a newborn baby**. Therefore, stress is likely to result from the **interaction between life changes and daily hassles**, rather than either factor alone.

A further limitation is that **daily hassles affect people differently**. **Helms et al. (2010)** suggested that the same hassle may vary in its perceived severity depending on factors such as **gender roles and personal circumstances**. For example, household-related hassles may be more stressful for individuals who take primary responsibility for domestic tasks. This suggests that it is difficult to assign the same level of stress to every individual experiencing the same daily hassle. Therefore, daily hassles may lack **universality** as an explanation of stress.



Part 5 — Sources of Stress: Workplace Stress

Workplace stress can be influenced by two main factors: **workload** and **control**. These are central to **Karasek's (1979) job demand-control model**.

- **Workload** = the amount and difficulty of work an employee is expected to complete.
- **Control** = the amount of **choice, flexibility and decision-making power** an employee has over how they complete their work.

Karasek (1979) argued that **control may be more important than workload** in determining workplace stress. Therefore, two people could have the same workload but experience different levels of stress depending on how much **control and flexibility** they have over their work.

For example, an employee who can choose **when, where and how** they complete their work may experience less stress than someone with the same workload but very little control.

Bosma et al. (1997) - Key Study

Participants	Around 10,000 Whitehall civil servants .
Procedure	Researchers measured factors such as workload and job control , and examined their relationship with stress-related illness . They also used statistical analysis to control lifestyle and personality factors .
Findings	There was no significant correlation between workload and stress-related illness. However, there was a strong negative correlation between job control and stress-related illness: • As job control decreased, stress and stress-related illness increased. • This relationship remained even after controlling for lifestyle and personality factors.
Conclusion	Workplace stress is not simply caused by high workload . Low job control appears to be particularly important, especially when employees face high demands and responsibility .



Johansson et al. (1978) investigated whether **high demands and low control** at work, in a Swedish timber production factory, were associated with physiological stress.

They compared:

Finishers

- **High responsibility**
- **Low control**
- Repetitive work requiring **skill and concentration**

Cleaners

- **Lower responsibility**
- **Greater control** over their work

The **finishers** showed:

- Higher levels of **adrenaline and noradrenaline**
- Hormone levels that **increased throughout the working day**
- Higher rates of **absence and stress-related illness**

The **cleaners** showed **lower hormone levels** and fewer stress-related problems.

This provides further support for **Karasek's (1979) model**, particularly the idea that **low control and high responsibility** can contribute to workplace stress.

AO3 - EVALUATION

A strength of Karasek's Job Demand–Control Model is that there is **research support** showing that jobs with **high demands and low control** are associated with poorer health.

Karasek et al. (1981) studied almost **8,000 workers** and found that individuals in **high-strain jobs** reported the highest levels of stress and illness. This suggests that a combination of heavy workload and low decision-making control increases the likelihood of experiencing stress. Therefore, the model has **research support**, increasing its validity.

A further strength is that the model has **real-world applications for improving working conditions**. It suggests that employers should not only reduce excessive workloads but also **increase employee autonomy**, for example by allowing staff greater involvement in decision-making or flexibility over how they complete tasks. This has influenced workplace wellbeing initiatives designed to reduce **occupational stress**. Therefore, the model has **practical value** for improving employee health and productivity.

A limitation of the Job Demand–Control Model is that it **may overlook the importance of individual differences**. **Meiser et al. (2008)** suggested that **self-efficacy** (an individual's belief in their ability to cope with challenges) may be more important than control itself. They found that people with **low self-efficacy** experienced higher levels of stress when given greater responsibility, whereas individuals with high self-efficacy were less affected. This suggests that simply increasing control will not reduce stress for everyone. Therefore, the model may **oversimplify the causes of workplace stress**.



A further limitation is that the model **focuses on only two aspects of working life**.

Research such as the **Whitehall Studies** found that many other factors, including **pay, relationships with colleagues, organisational support and job security**, also influence stress levels. This suggests that workplace stress is caused by a **range of interacting factors**, rather than just workload and control. Therefore, Karasek's model may provide **an incomplete explanation of occupational stress**.



Part 6 — Measuring Stress

Stress can be measured using **self-report measures**, which ask people to report stressful experiences, or **objective physiological measures**, which measure changes in the body's stress response.

Self-report measures

Two important self-report measures are the **Social Readjustment Rating Scale (SRRS)** and the **Hassles and Uplifts Scales**.

1. Social Readjustment Rating Scale (SRRS)

- The **SRRS** measures stress caused by **major life changes**.
- It contains **43 life events**, each assigned a **Life Change Unit (LCU)** score.
- Participants report which life events they have experienced within a specified period and their **total LCU score** is calculated.
- The higher the total LCU score, the greater the amount of **life-change stress** experienced.

The LCU scores were developed by **Holmes and Rahe (1967)**. Their original participants rated how much **adjustment** each life event would require on a scale from **1–100**. The mean ratings were then used to produce the LCU values.

For example:

- **Divorce = 73 LCUs**
- **Marriage = 50 LCUs**

2. Hassles Scale

The **Hassles Scale**, developed by **Kanner et al. (1981)**, measures stress from **everyday events** rather than major life changes.

- It contains **117 daily hassles**.
- Examples include **losing your keys**, **disliking work colleagues** and **financial difficulties**.
- Participants rate the **severity** of each hassle using a **three-point scale**.



Uplifts Scale

The **Uplifts Scale** uses the same basic approach but measures **positive everyday experiences** that may reduce or counteract stress.

Examples include:

- Getting **enough sleep**
- Having a **good interaction with a colleague**
- Enjoying positive social experiences

The Uplifts Scale contains **135 items**.

DeLongis et al. (1988) combined measures of **hassles and uplifts** to provide a more balanced assessment of the everyday experiences that may **increase or reduce stress**.

Physiological measure

A more **objective** way of measuring stress is the **Skin Conductance Response (SCR)**.

- Electrodes are attached to the **index and middle fingers**.
- Stress activates the **sympathetic branch of the autonomic nervous system**.
- This increases **sweat production**.
- Increased sweat makes the skin **more electrically conductive**.
- Changes in skin conductance are recorded and compared with a person's **baseline (tonic) level**.
- A greater increase in conductance indicates **greater physiological arousal**.

This means SCR can provide a **direct physiological measure of the body's response to stress**, rather than relying on participants to remember or describe their experiences.



AO3 - EVALUATION

A strength of **skin conductance response (SCR)** as a measure of stress is that it is **objective and reliable**. Unlike self-report measures, SCR records a physiological response such as changes in **sweat gland activity**, meaning participants do not have to interpret or describe their own stress levels. This makes SCR less affected by **social desirability or inaccurate self-reporting**. Therefore, physiological measures may provide a more **objective measure of stress**.

A further strength is that using **different methods of measuring stress** allows researchers to **examine stress from different perspectives**. For example, physiological measures such as **skin conductance** can be used alongside psychological measures such as the **SRRS** and **Hassles and Uplifts Scale**. This allows researchers to compare a person's physiological response with their reported experiences of stress. Therefore, using multiple measures can provide a **more comprehensive assessment of stress** than relying on one method alone.

A limitation of skin conductance measures is that they may fail to account for **individual differences in physiological responses**. **Stable individuals** tend to show relatively little variation in skin conductance at rest, whereas **labile individuals** show much greater variation. This means that even when a baseline level is taken, the same change in skin conductance may represent different levels of stress for different people. Therefore, SCR measurements may **overestimate or underestimate an individual's true level of stress**.

A further limitation is that **global stress measures may have limited predictive value**. Scales such as the **SRRS** combine different life events into a single overall stress score, even though the same event may affect people in very different ways and may be associated with different illnesses. For example, the **death of a loved one** may be more strongly associated with depression than an event such as pregnancy, despite potentially having similar LCU scores. Therefore, global measures may be useful for assessing **overall stress**, but they may be less effective at **predicting specific illnesses**.

Another limitation of stress scales is that some items may lack **clarity and validity**. **Dohrenwend et al. (1990)** highlighted that participants may interpret the same item differently. For example, the term “**death of a friend**” could refer to a very close friend for one person but only an acquaintance for another. This means that the same score may represent very different experiences of stress. Therefore, the wording of stress scales may reduce their **validity and reliability**.



Part 7 — Individual Differences in Stress - Personality Type

Some psychologists have suggested that **personality type** can influence how individuals respond to **stressors**, which may affect their vulnerability to certain illnesses.

Type A and Type B personalities

Friedman and Rosenman (1974) suggested that people can be broadly divided into **Type A** and **Type B** personality patterns.

- **Type A** → **competitive, hostile, impatient and time-urgent**
- **Type B** → more **relaxed, patient, cooperative and less competitive**

Type A individuals may be particularly vulnerable to stress because their **hostility, competitiveness and time urgency** can lead them to experience more situations as stressful and produce a stronger **physiological stress response**.

Friedman and Rosenman (1974) followed around **3,000 healthy men** over **8.5 years**.

- **257 men** developed **coronary heart disease (CHD)**.
- Around **70%** of those who developed CHD had originally been classified as **Type A**.
- Type A individuals also showed higher levels of **adrenaline and noradrenaline**, as well as higher **blood pressure and cholesterol**.

This suggests that the **Type A personality may increase vulnerability to CHD**, potentially because characteristics such as hostility and impatience increase physiological responses to stress.

Type C personality

Temoshok (1987) proposed a third personality pattern, **Type C**, which has been associated with **cancer**, rather than CHD.

Type C individuals tend to be:

- **Cooperative and eager to please**
- **Unassertive**
- **Patient and agreeable**
- Likely to **suppress negative emotions**, particularly anger
- More likely to put **other people's needs before their own**

The idea is that continually **suppressing emotions** may affect how an individual copes with stress and may be associated with poorer health outcomes, particularly in relation to **cancer**.



Summary table:

Personality	Key characteristics	Illness associated with it
Type A	Hostile, competitive, impatient and time-urgent	Coronary heart disease (CHD)
Type B	Relaxed, patient, cooperative and less competitive	Lower vulnerability to stress-related illness
Type C	Unassertive, cooperative and emotionally suppressive	Cancer

AO3 - EVALUATION

A strength of the **personality explanation of stress** is that there is **research support for a link between Type A personality and stress-related illness**. **Egido et al. (2012)** studied **150 Spanish men and women under 65** and found that Type A individuals were at significantly greater risk of developing a **stroke**, even after lifestyle factors such as diet and alcohol consumption had been taken into account. This suggests that personality may contribute to the development of stress-related disease independently of some health behaviours. Therefore, the explanation has **research support** and may help identify individuals at greater risk of stress-related illness.

A further strength is that research has helped identify **specific personality characteristics that may be more important than the overall Type A personality**. **Dembroski et al. (1989)** found a strong positive relationship between **hostility** and the incidence of **coronary heart disease**, with similar findings from **Carmelli et al. (1991)**. This suggests that hostility may be a more useful predictor of stress-related illness than simply classifying someone as Type A. Therefore, focusing on specific traits may provide a **more accurate and useful explanation of stress-related disease**.

A limitation of the **Type C personality explanation** is that **age may be a stronger predictor of cancer than personality**. **Greer and Morris (1975)** found a positive relationship between Type C characteristics and cancer incidence up to around **50 years of age**, but findings after this age were inconsistent. This lack of consistent replication makes it difficult to conclude that Type C personality causes cancer, as increasing age itself is strongly associated with cancer risk. Therefore, the role of personality may be **overestimated**, reducing the validity of personality types as an explanation of stress-related illness.

A further limitation is that **Type A may be too broad a category**. It combines very different characteristics, including **competitiveness, time urgency and hostility**, even though these traits may not all have the same relationship with illness. This makes it difficult to determine which aspect of the personality is actually responsible for increased health risks. Therefore, using broad personality categories may **oversimplify the relationship between personality and stress-related disease**.



Part 8 — Individual Differences in Stress: Hardiness

Hardiness refers to an individual's **resilience and ability to cope with stressful life changes**. **Kobasa (1979)** described hardiness as providing “**existential courage**”, giving individuals the determination to continue when faced with stress.

Hardiness is made up of **three dimensions**:

Commitment	Challenge	Control
Being fully involved in activities and seeing challenges as meaningful rather than giving up.	Seeing change and stress as opportunities for growth , rather than threats.	Believing that you can influence events and taking responsibility for how you respond.

People with **high hardiness** are therefore more likely to view stressful situations as **manageable and potentially beneficial**, making them more resilient to the negative effects of stress.

Kobasa (1979) studied **670 American male managers** and measured their stress using the **Schedule of Recent Experiences**.

- Some managers experienced **high levels of stressful life events** but remained relatively healthy.
- These individuals had significantly higher levels of **commitment, challenge and control**.
- This suggests that **hardiness protects individuals from the negative effects of stress** by helping them adopt a more positive and active approach to stressful situations.

Maddi (1987) investigated around **400 managers at Bell Telephone Company** during a period of major **organisational change**.

- The majority of managers experienced an **increase in stress-related illnesses**, including **strokes and coronary heart disease (CHD)**.
- However, around **one-third of the managers** showed **improved productivity** and a reduced likelihood of developing stress-related illness.
- These differences suggest that individual differences in **hardiness** may influence how successfully people **cope with stress**.



AO3 - EVALUATION

A strength of **hardiness** as an explanation of individual differences in stress is that there is **research support for its protective effects**. **Contrada (1989)** found that men with higher levels of hardiness showed smaller **blood pressure fluctuations** when exposed to stressors, meaning their physiological response stayed closer to their normal resting level. This suggests that hardy individuals may be better able to **manage stress without experiencing such a strong physiological response**. Therefore, hardiness may help explain why some people remain healthier when exposed to stressful events.

A further strength is that research into hardiness has led to **improvements in how it is measured**. **Funk (1992)** argued that earlier measures could confuse hardiness with **neuroticism**, because participants were asked to rate negative characteristics about themselves. **Bartone (2000)** developed the **Dispositional Resilience Scale**, designed to measure the three dimensions of hardiness more directly: **commitment, challenge and control**. This removes a potential confounding variable and gives researchers a more accurate measure. Therefore, improvements in measurement increase the **validity of research into hardiness**.

A limitation of the **hardiness explanation** is that the relationship between hardiness and health may be **correlational rather than causal**. People who score highly in hardiness may also be more likely to adopt **healthy lifestyles**, such as exercising regularly and limiting alcohol consumption, which could explain their better health. It may also be that hardy individuals simply **perceive stressors as less stressful**, resulting in lower physiological arousal. Therefore, it is difficult to know whether hardiness itself protects health, reducing the **validity of hardiness as an explanation of stress resistance**.

A further limitation is that hardiness may be **too broad a concept to explain exactly why some people cope better with stress**. The model combines **commitment, challenge and control**, but these characteristics may not contribute equally to an individual's ability to cope. For example, someone may have a strong sense of control but not view stressful situations as challenges. This makes it difficult to determine which aspect of hardiness is actually responsible for better stress responses. Therefore, treating hardiness as a single protective personality characteristic may **oversimplify the reasons why individuals differ in their response to stress**.



Part 9 — Managing and Coping with Stress: Drug Therapy

Two main types of drug therapy can be used to manage stress: **benzodiazepines** and **beta blockers**. They act on different parts of the stress response and therefore reduce different symptoms.

1. Benzodiazepines

Benzodiazepines are **anti-anxiety drugs** that reduce the psychological effects of stress by increasing the activity of **GABA**, an inhibitory neurotransmitter.

- Benzodiazepines bind to **GABA-A receptors** on the postsynaptic neuron.
- This causes **chloride ion channels to open**.
- **Chloride ions enter the neuron**, making it more negative.
- The neuron becomes **less likely to fire an action potential**.
- This reduces the frequency of **nerve impulse transmission** in the brain.
- Therefore, the **psychological effects of stress and anxiety** are reduced.

2. Beta blockers

Beta blockers act mainly on the **sympathomedullary pathway (SAM)**, reducing the **physical effects of the fight-or-flight response**.

- They bind to **beta-adrenergic receptors** on the postsynaptic membrane.
- This prevents **adrenaline and noradrenaline** from binding to these receptors.
- The physiological effects of sympathetic activation are therefore **weakened**.

This can result in:

- **Reduced heart rate**
- **Reduced blood pressure**
- **Reduced physiological arousal**
- A reduction in other physical symptoms of the **fight-or-flight response**

Comparison table:

Benzodiazepines	Beta blockers
Act mainly on the brain	Act mainly on the peripheral sympathetic nervous system
Increase the effects of GABA	Reduce the effects of adrenaline and noradrenaline
Reduce neural activity and psychological symptoms	Reduce physical symptoms of stress
Can cause drowsiness and sedation	Mainly reduce physiological arousal



AO3 - EVALUATION

A strength of **drug therapies** is that there is **strong research support for their effectiveness**. **Baldwin et al. (2013)** reviewed evidence from **randomised, double-blind, placebo-controlled trials** and found that some benzodiazepines were significantly more effective than a placebo at reducing symptoms of stress-related conditions. The use of **double-blind procedures** reduces researcher and participant expectations, while the placebo group helps control for the psychological effects of believing that treatment will work. Therefore, the evidence provides **strong support for the effectiveness of drug therapy**.

A further strength of drug therapies is that they can provide an **alternative when there are long waiting times for NHS talking therapies**. Individuals experiencing significant stress may otherwise have to wait before accessing psychological treatment, during which time their symptoms may **continue or worsen**. Drug therapy can provide **treatment in the meantime**, helping to manage symptoms while the individual waits for talking therapy. Medication can also be **more cost-effective** than repeated therapy sessions, making it a practical option for the **NHS and patients**. Therefore, drug therapies have **practical and economic value**, particularly when access to psychological treatments is delayed.

A limitation of drug therapies is that they may only treat the **proximal symptoms of stress rather than the underlying cause**. For example, benzodiazepines can reduce **anxiety**, but they do not remove the source of chronic stress or change the individual's response to the stressor. This means symptoms may return once the medication is stopped, particularly when the underlying stressor is still present. Therefore, drug therapies may be **less suitable for long-term or chronic stress**.

A further limitation is the risk of **side effects and dependency**. **Gaund and Jacoby (1978)** highlighted problems associated with benzodiazepines, including **drowsiness, weight gain and unconsciousness**. Long-term use can also lead to **tolerance**, meaning the individual requires larger doses to achieve the same effect, increasing the risk of further side effects and dependence. Therefore, the risks associated with benzodiazepines may limit their **long-term usefulness**, meaning alternatives such as psychological therapies or biofeedback may be more appropriate for some individuals.



Part 10 — Managing and Coping with Stress: Stress Inoculation Therapy

Stress Inoculation Therapy (SIT) is based on the **cognitive approach** to stress management. It suggests that stress can be reduced by changing the way individuals **think about and appraise stressful situations**.

The aim is to replace **negative, irrational or catastrophic thinking** with more realistic and effective ways of thinking and behaving.

Meichenbaum (1977) proposed that individuals progress through **three stages**:

Conceptualisation	Identify stressors - Patients and therapists identify the individual's main sources of stress. - Stressors are divided into those that can be changed and those that cannot. Develop coping strategies - Reduce or remove stressors that can be changed. - Develop strategies for coping with stressors that cannot be changed. Change cognitive appraisals - The patient learns to view uncontrollable stress as a challenge or opportunity to develop coping skills, rather than as a catastrophe. - The patient is encouraged to become the “expert” on their own condition, while the therapist provides support and guidance.
Skill acquisition	The therapist teaches the patient coping skills and gives them opportunities to practise them. These may include: Breathing techniques Meditation and relaxation Coping self-statements – positive and encouraging statements that reinforce effective coping. The patient learns that they cannot predict every source of stress, but they can prepare strategies for managing most stressful situations.



Real life application and follow through	The patient applies the skills learned in stage 2 to stress-provoking situations. This may involve: • Role-play • Virtual reality • Personal experiments, where the patient deliberately enters stressful situations and practises their coping strategies. Relapse is expected rather than viewed as failure. Setbacks provide an opportunity to identify weaknesses in coping strategies and develop more effective ways of dealing with future stressors.
---	---

SIT teaches individuals to **anticipate stress, change unhelpful cognitive appraisals and develop effective coping strategies** so they are better prepared to manage future stressors.

AO3 - EVALUATION

A strength of **Stress Inoculation Training (SIT)** is that it can produce **longer-lasting improvements in coping skills**. SIT uses **inoculation**, where individuals gradually learn to recognise stressors and develop strategies for managing them. Unlike drug therapies, which mainly provide short-term relief from symptoms, SIT gives individuals skills they can continue to use when they encounter stressful situations in the future. Therefore, SIT may be particularly useful for people experiencing **chronic stress**, as it encourages greater independence from treatment.

A further strength of SIT is that it is **flexible and can be adapted to individual needs**. The three stages of SIT can be given different levels of emphasis depending on the person's difficulties, and the **number and length of sessions** can also be adjusted. **Litz et al. (2004)** developed an internet-based version of stress inoculation training, showing that the approach can also be adapted for **online delivery** rather than relying entirely on face-to-face therapy. Therefore, SIT can be made more **accessible and individually tailored**, increasing its practical usefulness.

A limitation of SIT is that it may not be **equally effective for everyone**. **Hensel-Dittmann et al. (2011)** compared SIT with Narrative Exposure Therapy in **28 survivors of war and torture with PTSD** and found a significant reduction in PTSD symptoms for Narrative Exposure Therapy, but **not for SIT**. This suggests that SIT may be less suitable for individuals who have experienced **severe or prolonged trauma**, particularly when they feel little control over what happened to them. Therefore, SIT should not be viewed as a **universally effective treatment for stress-related problems**.

A further limitation is that SIT may **underestimate the importance of individual circumstances**. People who experience chronic stress may face stressors that they **cannot realistically control or avoid**, meaning that learning better coping strategies may not remove the underlying source of stress. For example, someone experiencing ongoing trauma, poverty or an unsafe environment may continue to face the same stressors after completing SIT. Therefore, SIT may be more effective at **helping people cope with manageable stressors** than addressing stress caused by persistent external circumstances.



Part 11 — Managing and Coping with Stress: Biofeedback

Biofeedback is a stress-management technique that helps individuals **recognise and gain control over their physiological responses to stress**. It provides **real-time information** about physiological processes such as **heart rate, breathing or brain activity**, allowing individuals to learn how to deliberately **reduce their physiological arousal**.

Physiological responses can be measured using different forms of equipment:

- **EEG** → measures electrical activity in the **brain**.
- **Spirometer** → measures **respiration rate**.
- **Kymograph** → records physiological changes, such as changes in respiration.

Budzynski (1973) described the process of biofeedback as learning to **identify, modify and transfer** changes in physiological responses to stressful situations.

Identify	The patient experiences a stress response and receives an auditory or visual signal showing their level of physiological arousal. This allows them to recognise how their body is responding to stress.
Modify	The patient learns techniques to change their physiological response and reduce arousal. For example, they may use controlled breathing or meditation to lower their breathing rate and return the feedback signal towards the normal baseline .
Transfer	The patient practises these skills repeatedly so that they can eventually apply them to stressful situations in everyday life , rather than relying on the equipment.

Biofeedback can also be made more engaging by turning it into a **game**, where successful control of physiological responses allows the patient to complete a **game or maze**.

Successful responses are **positively reinforced**, increasing the likelihood that the behaviour will be repeated. Therefore, biofeedback uses principles of **operant conditioning** to encourage individuals to gain greater control over their physiological stress responses.



AO3 - EVALUATION

A strength of **biofeedback** is that there is **research support for its effectiveness in reducing stress**. **Lemaire et al. (2011)** found that doctors who used biofeedback over **28 days** showed a much greater reduction in stress scores than a control group. This suggests that learning to recognise and control physiological responses to stress can help individuals manage their stress more effectively. Therefore, biofeedback has **research support** as a method of stress management.

A further strength of biofeedback is that it has **practical applications as a non-drug treatment**. It allows individuals to monitor physiological responses such as **heart rate or muscle tension** and learn to control them using techniques such as relaxation. This means individuals can develop skills that can be used independently rather than relying on medication, avoiding problems such as **side effects and dependency** associated with some drug therapies. Therefore, biofeedback may be a useful **long-term and accessible treatment** for some people experiencing stress.

A limitation of **biofeedback** is that it may not be **suitable for everyone**. The treatment requires a high level of **motivation** because individuals must engage with the training and then apply the techniques when they experience stress in everyday life. They must also understand the relationship between their **physiological arousal and stress**, which may be difficult for some individuals. Therefore, biofeedback may be more effective for people with characteristics such as **high motivation or hardiness**, limiting its usefulness as a universal treatment.

A further limitation is that combining **biofeedback with relaxation techniques** may not always be the most **cost-effective approach**. **Bussone et al. (1998)** found that children receiving biofeedback and relaxation for tension headaches showed fewer and less severe symptoms after one and three years than those using relaxation alone. However, this suggests that the **biofeedback component** may be particularly important, meaning that relaxation training alongside it may add little benefit. Therefore, using biofeedback alone may provide a **more efficient treatment** in some circumstances.



Part 12 — Gender Differences in Coping with Stress

Lazarus and Folkman (1984) suggested that men and women may differ in the way they **cope with stress**. Men were thought to be more likely to use **problem-focused coping**, whereas women were more likely to use **emotion-focused coping**.

- **Problem-focused coping** involves dealing directly with the **source of stress**, such as finding a practical solution to a problem.
- **Emotion-focused coping** involves managing the **emotional response** to the stressor, rather than changing the situation itself. This may include **distraction, keeping busy or seeking emotional support**.

Peterson et al. (2006) provides support for this distinction. In a study of **men and women experiencing infertility**, men were more likely to use **planful problem-solving**, whereas women were more likely to use **accepting responsibility and avoidance**. This provides support for the idea that **men and women may differ in their preferred coping strategies**.

Tend and befriend:

Taylor et al. (2000) proposed the **tend-and-befriend response** as an explanation for women's greater use of **emotion-focused coping and social support**.

Rather than responding to stress mainly through **fight or flight**, women may be more likely to:

- **TEND** - Care for and protect **children and others**
- **BEFRIEND** - Seek **social support** and form relationships that provide **protection and emotional support**

Taylor et al. (2000) suggested that this may have been **evolutionarily adaptive**, as fight or flight could have placed women and their children at greater risk. Staying with others and maintaining social relationships may have provided **protection and support** during stressful situations.

Biological explanation

The tendency to **tend and befriend** may also be partly explained by **hormones**. **Taylor et al. (2002)** suggested:

- **Oestrogen** → **enhances the effects of oxytocin**
- **Testosterone** → **suppresses the effects of oxytocin**

Oxytocin is involved in **social bonding, nurturing and affiliative behaviour**, so increased effects of oxytocin may help explain why women are more likely to **seek social support and engage in nurturing behaviour** when stressed.

Overall, sex differences in coping may reflect a combination of **different coping styles, social behaviour and biological influences**.



AO3 - EVALUATION

A strength of research into **gender differences in coping with stress** is that there is **research support for women using social forms of coping**. **Tamres et al. (2002)** found that women were more likely than men to use “**tend and befriend**” strategies when dealing with stress, involving seeking social support and caring for others. This may have a **biological basis**, as hormones such as oxytocin are involved in social bonding. Therefore, the research supports the idea that men and women may use **different coping strategies** when under stress.

A further strength is that **gender differences in coping can be explained by the types of stressors experienced by men and women**. **Matud (2004)** found that women were more likely to report **family and relationship stressors**, whereas men were more likely to report **work-related stressors**. This could explain why women may rely more on **emotion-focused coping**, while men may use more **problem-focused coping**. Therefore, apparent gender differences in coping may reflect differences in the **stressors people experience**, rather than simply biological differences between males and females.

A limitation is that **research into gender differences in coping may be affected by retrospective research methods**. **De Ridder (2000)** found that women reported using more **emotion-focused coping**, but this may partly reflect differences in how men and women remember and report stressful experiences. If women are more likely to recall emotionally focused responses, this could exaggerate the apparent gender difference. Therefore, conclusions about gender differences in coping may have **limited validity** if they rely too heavily on retrospective self-report.

A further limitation is that **gender alone may not determine how someone copes with stress**. Factors such as **self-efficacy, perceived control, personality and the type of stressor** may be more important than whether someone is male or female. For example, a woman facing a practical problem she feels able to control may use problem-focused coping, while a man facing an uncontrollable relationship problem may use emotion-focused coping. Therefore, it is better to view gender differences as **tendencies rather than fixed differences**, as individuals may respond very differently to stress.



Part 13 — The Role of Social Support in Coping with Stress

Social support refers to the **amount and quality of support** an individual receives from the social network they are part of. It is not simply the number of people someone knows; the **strength of relationships and attachments** is also important. A smaller, close-knit group may therefore provide more effective social support than a larger group of weaker relationships.

Schaefer et al. (1981) identified **three main types of social support**:

- **Instrumental support** → practical help or assistance with a problem.
- **Emotional support** → provides comfort and helps improve **mood and emotional wellbeing**.
- **Esteem support** → increases **self-esteem and self-efficacy**, helping the individual feel more capable of coping.

Social support does **not require the person providing support to be physically present**. Support can still be provided from a distance, for example through a **phone call, message or “get well” card**.

Social support and stress-related illness

Social support may act as a **buffer against the effects of stress**, reducing the likelihood or severity of stress-related illness.

Cohen et al. (2015) - Key Study

Aim	To investigate whether social support protects against the negative effects of stress and increases resistance to the common cold .
Participants	404 healthy participants
Procedure	Participants reported the number of hugs they received each day over 2 weeks . Their daily stress levels were also assessed by recording interpersonal hassles . All participants were then exposed to a common cold virus and monitored for infection and symptom severity.
Findings	Participants who reported the highest average number of hugs showed greater immunity to the virus and developed less severe symptoms .
Conclusion	Social support , particularly emotional support , may buffer the effects of stress and have immune-enhancing effects , reducing vulnerability to stress-related illness.



AO3 - EVALUATION

A strength of **social support** as a coping mechanism is that there is **research support for women being more likely to seek social support**. **Luckow et al. (1998)** reviewed **26 studies** and found that **25** showed women were more likely than men to actively seek and use social support when coping with stress. This supports the idea that women may be more likely to use **emotion-focused coping**, while men may rely more on problem-focused strategies. Therefore, there is evidence for **gender differences in coping strategies**.

A further strength is that social support has **real-world health benefits**. **Fawzy et al. (1993)** found that cancer patients with malignant melanoma who attended **support groups** had higher survival rates and greater **natural killer cell activity** than a control group. This suggests that emotional and instrumental support may have **immunoenhancing effects**, helping people cope with illness as well as stress. Therefore, social support may have important **practical applications in healthcare**, particularly for people experiencing serious or chronic illness.

A limitation is that **social support is not always beneficial**. **Cohen and Wills (1985)** proposed the **buffering hypothesis**, suggesting that social support is most useful when people are experiencing significant stress. When stress is low, unwanted or excessive support may instead be experienced as **intrusive or patronising**, potentially creating additional stress. Therefore, social support is not automatically an effective coping strategy and its usefulness depends on **the individual and the situation**.

A further limitation is that research may **overgeneralise gender differences in coping**. Although women may be more likely to seek social support, this does not mean that all women rely on emotion-focused coping or that men avoid social support. Factors such as **personality, perceived control, self-efficacy and the type of stressor** can influence which coping strategy is most effective. Therefore, gender should not be treated as a **fixed predictor of coping behaviour**, reducing the validity of broad gender-based conclusions.

