HL IB Psychology

Determinants of Health

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The Biopsychosocial Model

Explanation of the biopsychosocial model

- The biopsychosocial model (BPS) sees health as being holistically influenced by:

    - **biological factors** - such as **genetics, hormone** levels, **brain** and **anatomy**

    - **psychological factors** - such as individual **dispositions** and health **beliefs, coping skills, emotions**

    - **sociocultural factors** - such as **socioeconomic status**, **social support,** relationships, living conditions

- The BPS model was proposed in 1977 by the psychiatrist George Engel to replace the earlier **biomedical model** of health

- Engel argued that the biomedical model was **reductionist**, because it focused on the body as separate from the mind (and on parts of the body as separate entities), ignoring the **interaction** between them

Research which investigates the biopsychosocial model

- Marmot et al. (1997) found a correlation between low control over one's work and heart disease

- Suls and Rothman (2004) found that health psychologists have acknowledged the biopsychosocial model and reference it in their research, but their studies are not focused enough on the links between the biological, psychological and social domains

Both Marmot et al. (1997) and Suls and Rothman (2004) are available as 'Two Key Studies of the Biopsychosocial model' – just navigate to the next section of the Biopsychosocial Model topic to find them.

Evaluation of the biopsychosocial model

Strengths

- The biopsychosocial model of health and well-being recognises the role of **social inequalities** in the development of health problems and so can take a **proactive** approach to illness **prevention**

- The model is **empowering** for individuals as it gives them some **control** over their health by taking their **experiences** and emotions into account

Limitations

- The model is very **complex** and it can be difficult to **isolate the variables** that are responsible for a health problem when focusing on the biopsychosocial interaction between them

- The identification of psychological factors such as disposition and **personality type** as being involved in illnesses like **heart disease** can lead to patients blaming themselves for their lack of health, which is counter-productive

Two Key Studies of the Biopsychosocial Model

Key study one: Marmot et al. (1997)

Aim:

- To find out whether employees in lower position jobs – that is, with less control over their work environment – would develop heart problems over five years

Participants:

- 7000 male and female civil servants aged between 35 and 55 years old and working in Whitehall, London

Procedure:

- This was part of an ongoing **prospective longitudinal study**

- The participants were invited to the research clinic where medical checks were carried out

- A standardised **self-report questionnaire** was sent to their homes at yearly intervals for the next five years

- The questionnaires gathered **demographic information**, information about health, and job status and about the amount of control participants had at work

- **Social measures** were used, such as self-reported **environmental stressors** like:

  - neighbourhood problems

  - housing

  - loneliness

  - social support

- Self-reported **heart problems** and cases of **diabetes** or **cancer** were verified by hospital records

- Job specifications and responsibilities were also measured through independent **assessments** of the work **environment** by personnel managers

Results:

- The **rate** of heart problems for those in the lowest levels of the civil service system was 1.5 times the rate in the highest levels

- **Risk factors** such as smoking, obesity, and high blood pressure could account for some of the differences

- The most significant risk factor for developing heart disease was the degree of control that participants felt they had in the work environment

Conclusion:

- There is a **correlation** between low control over one's work and heart disease

- Therefore those with low control over their day-to-day working life were more likely to develop heart disease
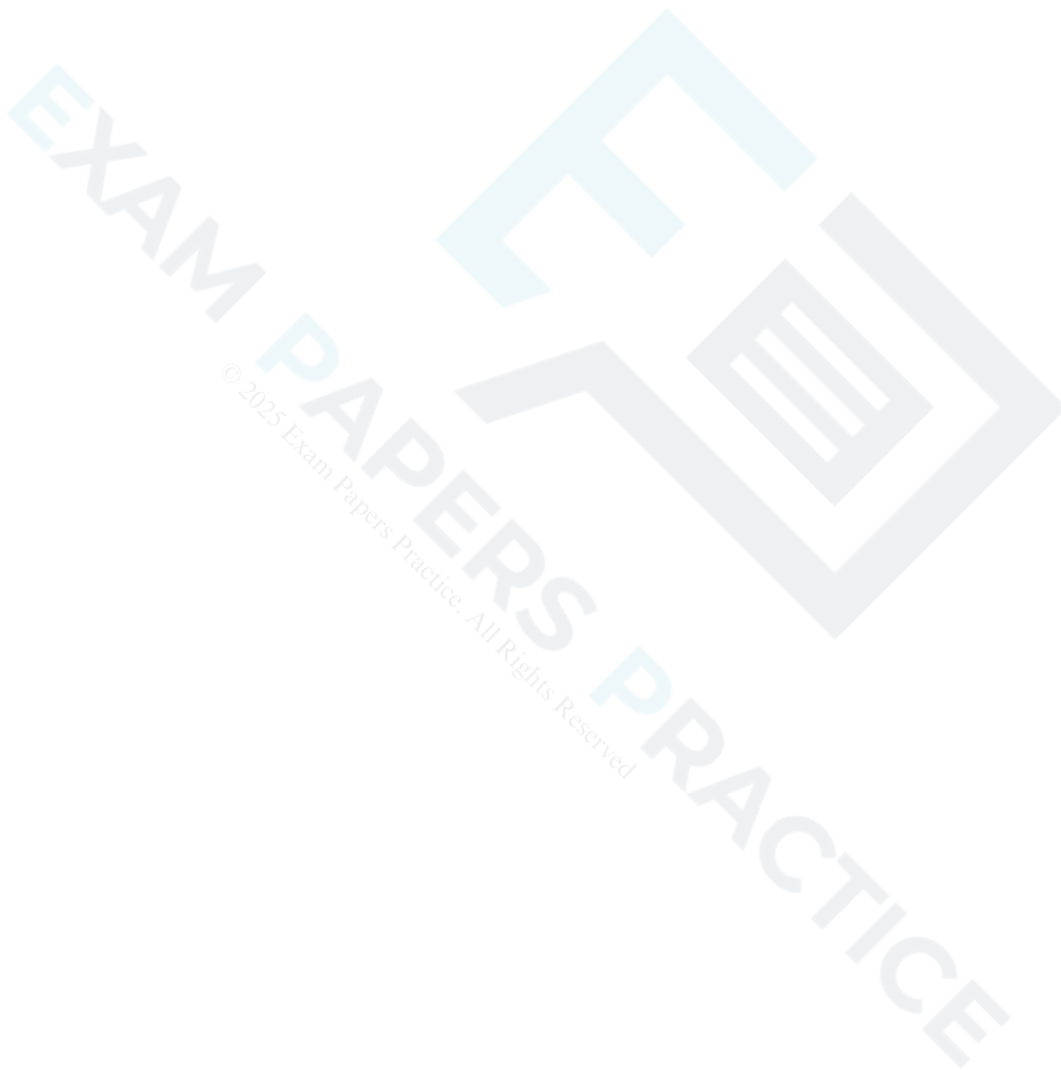
Evaluation of Marmot et al. (1997)

Strengths

- The use of **standardised questionnaires, objective** health measures and correlational analysis means that the study has some degree of **reliability**

- The **longitudinal design** of the research means that the **data** from this study can be compared with data from previous and future research

Limitations

- There are common problems with self-report questionnaires:

  - Social desirability effect – participants may underestimate their own health problems

  - Different interpretation of the question from that intended

  - Forced choices in closed-ended questions may not have matched participants' preferred answer

  - Fear that confidentiality may not be maintained may lead to untruthful answers or some questions not being answered

- A correlation can only suggest **association** rather than **cause-and-effect** so it cannot conclusively show what the source of the stress was in each participant's life

Key study two: Suls and Rothman (2004)

Aim:

- To assess the extent to which **health psychologists** use the multiple systems (biological, psychological, sociocultural) that underlie the **biopsychosocial model**

Procedure:

- **Meta-analysis** – researchers independently read and coded for key words all of the studies (numbering seventy) published in Health Psychology journal between November 2001 and September 2002

- They documented how many times biological variables, psychological variables, social variables, and **macro variables** were being assessed in the seventy studies

- Social variables focused on factors like self-reported social support and marital satisfaction, while macro variables were considered sufficient only if the studies had measured at least age, gender, ethnicity, and either education or income.

Results:

- Only 26% of the studies included measures from all four domains (i.e., biological, psychological, social, and macro)

- 38% included measures in three of the four domains

- Psychological variables were measured in over 94% of the studies being assessed, but biological, social and macro variables only showed up in around half of the studies

- The inclusion of biological and social factors was limited, in terms of reference to the actual aim of the study undertaken by the health psychologist:

  - Biological factors assessed mainly referred to a disease used to determine the sample

  - Social factors assessed measured people's subjective judgments about relationships with friends and family

  - Macro variables assessed were simply used to describe the demographics of the sample

- Studies reviewed mainly focused on the interactions between either psychological and social factors or psychological and biological factors

Conclusion:

- While health psychologists have acknowledged the biopsychosocial model enough to reference it in their research, their studies are not focused on the links between the different domains

- Research exploring interconnections between biological and social factors appear to have been especially limited

Evaluation of Suls and Rothman (2004)

Strengths

- The information is objective and complete, covering an 11-month period and using two coders who agreed on the word categories, leaving little room for **researcher bias**

- The meta-analysis is thorough and investigates to what extent each of the biological, psychological, and social components are conceptually linked rather than regarded as separate entities are merely used to help sample selection

Limitations

- The words were coded without much context and so we have little understanding about how the variables associated with the biopsychosocial model were weighted or analysed

- The study was carried out between 2001 and 2002, so it is over twenty years old and the findings therefore lack some **temporal validity**, as the frequency of use of the biopsychosocial model by medical practitioners may well have increased

Worked Example

The question is, *'Discuss the biopsychosocial model of health and well-being.'*

This question is asking you to give a considered and balanced argument regarding the underlying beliefs and the use of biopsychosocial model. Here are two paragraphs for guidance:

The biopsychosocial (BPS) model of health and well-being was developed by George Engel in the 1970s in response to the previous dominant "medical model", which was reductionist, focusing only on the biological correlates to health and ignoring psychological and social factors. The BPS model looks at health and well-being more holistically and argues that no one factor alone is enough to explain health or illness. It is the interaction of all three components that is important. We can see this in Marmot et al.'s research into workplace stress and cardiovascular disease.

Marmot et al's (1997) research was part of a prospective longitudinal study into the correlation between low-status jobs in the British civil service and poor health, especially the link with stress-associated illness, like heart disease. Whereas the medical model associated heart disease with biological factors like obesity and high blood pressure, this research looked at the psychological and social factors as well, and the interaction between these and the physical explanations. The study used self-report questionnaires, medical checks and hospital reports. A correlational analysis showed a relationship between the degree of control that participants felt they had in the work environment and poor cardiovascular health.

Dispositional Factors & Health

What are dispositional factors?

- **Dispositional factors** are **internal personal characteristics** we possess, such as **genetic** makeup, **beliefs, values, attitudes** and **personality**

- **Situational factors** are **external** to us and over which we have little or no **control**, such as **socio-economic status**, physical **environment, cultural** and **social norms**

- Situational factors may affect disposition and vice-versa and this is part of the interaction identified by the biopsychosocial model

- **Attribution theory** suggests that someone's attitude towards the **cause** of their **illness** depends on whether or not they take **responsibility** for their health (a dispositional explanation)

What is the link between dispositional factors & health?

- Much research into dispositional factors and health has focused on the '*Big Five*' **personality traits** of:

  - **Openness to experience** – the willingness to investigate and try new things

  - **Conscientiousness** – being **goal-directed**, having the

  - ability to **plan,** having **impulse control**

  - **Extraversion** – shown via level of **engagement** with the outside world

  - **Agreeableness** – shown via level of **concern** for others and general **optimism**

  - **Neuroticism** – the tendency to experience **negative emotions** and being prone to **stress**

- Openness, conscientiousness and extraversion are **positively correlated** with health, and while neuroticism is **negatively** correlated with health (Joyner et al., 2018)

- Agreeableness and health have a more **complex relationship**, as too much concern for others (i.e. not attending to your own needs) can be related to poor health

- Psychologists also divide health-related dispositional factors into those which are **positive** and those which are **negative**

- **Positive factors:**

  - **Optimism bias** – those who are generally more optimistic about life tend to have better health and better coping skills and **recovery** rate if they do become ill (Sharot et al., 2011)

  - **Self-efficacy** – belief in one's ability to control and **manage** one's health

  - **High self-esteem** – a **realistic belief** in one's own **worth/value** that leads to good **self-care** along with the ability to accept **help** from others when necessary

- **Negative factors:**

  - **Pessimism bias** – an expectation that **danger** lurks around every corner which can lead to **hyperarousal** and **worry**, which increases stress

  - **Learned helplessness** – a belief that one is unable to cope with negative events such as ill-health

  - **Low self-esteem** – a feeling of low worth/value that inclines an individual to neglect their health

  - **Type A personality** – someone who is **tense, irritable, competitive** and always in a **hurry** is more likely to suffer from **cardiovascular disease** (Rosenman et al. 1976)

Evaluation of dispositional factors and health

Strengths

- This explanation of health beliefs provides a **coherent** and **evidence-based** argument for how dispositional factors affect health

- The dispositional explanation highlights the **variation** in different people's responses and outcomes to the same health problem, aiding individual diagnosis

Limitations

- Much of the research into dispositional factors and health is based on **self-report** methods such as **questionnaires** and so is subject to **participant bias**

- **Bidirectional ambiguity** - it is not clear whether healthy people are more optimistic and positive, or if their optimism is the **defining** factor in their health (i.e. they are healthy *because* they are positive)

Which study investigates dispositional factors and health?

- Rasmussen et al. (2009) conducted a meta-analysis of relevant research and found optimism to be a significant predictor of positive physical health outcomes

Rasmussen et al. (2009) is available as one of 'Two Key Studies of Dispositional Factors and Health Beliefs' – just navigate to the Dispositional Factors and Health Beliefs section of this topic to find them.

The Health Belief Model

What is the health belief model?

- The **health belief model (HBM):**

    - The HBM was developed in the USA in the 1950s-60s

    - It was becoming apparent that certain behaviours like **smoking** and being **overweight** were **hazardous** to health

    - Despite the above **awareness**, people seemed **unwilling to change** their unhealthy behaviours

- Psychologists tried to highlight this **resistance** to positive behaviour change by using the HBM as an **explanatory model**

- The HBM describes the **steps** involved in a person deciding on **action** or **inaction** regarding their own health:

1. **Perception** of the possible **seriousness** of the potential health problem

2. Awareness of the **risk** of them suffering from a health problem

3. **Motivation** and **responsiveness** to **internal or external cues to action**

4. **Cost-benefit analysis** of the **benefits** of action vs. the risks of inaction

- At every step, the individual's **belief** in their own **self-efficacy** will affect their perceptions and their final decision

- The **decision-making process** will also be subject to a person's **personality, background, education** and **personal history**

- Thus the HBM is an **dispositional** explanation of the decision to change behaviour

Dispositional factors & health beliefs

- **Dispositional factors** not only affect health, they also affect **health beliefs**

- Two dispositional factors that **influence** a person's beliefs about them developing a health problem and their ability to **cope** are:

    - **optimism bias**

    - self-efficacy

- **Optimism bias** is linked to **risk perception**: we **overestimate** the behaviours we engage in to **protect** our health and **underestimate** our bad habits

- Optimism bias means that we **perceive** our risk of developing a certain **illness** as low and it can prevent us from taking necessary action

- **Self-efficacy** is belief in one's own ability to **change** bad habits that may be **damaging** to health

- Ajzen (1985) updated an earlier theory to develop his **theory of planned behaviour**

- The theory of planned behaviour outlines three **factors** that **predict** behavioural **intentions** such as health beliefs:

    - **Attitude** towards the healthy behaviour

    - **Subjective norms** of those around us towards the behaviour

    - **Self-efficacy –** our belief that we can change our behaviour, which directly affects our motivation and perseverance in changing it

Evaluation of the health belief model

Strengths

- The HBM provides a clear explanation for why people continue to engage in unhealthy behaviour in the face of evidence that they should stop in order to avoid illness

- The HBM has been used to inform the development of **interventions** to improve health behaviour

Limitations

- The HBM tends to ignore **environmental** and **cultural** factors in explaining people's health behaviour

- The model does not account for the role of **physical** and **psychological addiction** in maintaining some unhealthy behaviours

Which study investigates dispositional factors and health beliefs?

- **Masiero et al. (2015) conducted a study into the relationship between optimism bias and smoking and confirmed the presence of optimism bias affecting health beliefs in smokers**

Masiero et al. (2015) is available as the second of 'Two Key Studies of Dispositional Factors and Health Beliefs' – just navigate to the Dispositional Factors and Health Beliefs section of this topic to find them.

Two Key Studies of Dispositional Factors & Health Beliefs

Key study one: Rasmussen et al. (2009)

Aim:

- To determine the strength of the relationship between **optimism** and **physical health**

Procedure:

- This was a **meta-analysis** of findings from 83 studies, with 108 **effect sizes**

- Researchers performed computerised **literature searches** of the MedLINE and PsycINFO databases and online journals

- Only research published in English language **peer-reviewed** journals were selected

- Studies needed to contain:

  - measure[s] of **dispositional optimism**

  - measure[s] of a **physical health outcome**

  - a measurement of **effect size**

  - a reported **sample size**

Results:

- A **significant** effect size was found between dispositional optimism and health (**r = 0.17**)

- An even stronger significant effect size was found for optimism and self-reported (**subjective**) measures of health (r=0.21)

- However, the effect size for optimism and **objective** measures of health was weaker (r=0.11)

- Analyses of studies grouped by types of outcome (such as **mortality, cardiovascular disease** or **immune function**) all showed the same **correlation**

Conclusion:

- There is a **correlation** between dispositional optimism and physical health, as standardised measures identified that the most optimistic participants in the studies reviewed had the best health outcomes

- The strongest correlation is between optimism and **subjective measures** of health, as the most optimistic participants' perception of their own health was as even better than the their medical test would suggest

Evaluation of Rasmussen et al. (2009)

Strengths

- Careful control of the **selection criteria** and **standardisation** of the statistical analysis increase the **reliability** of the findings

- The separation of physical health outcomes into **subjectively** and **objectively** demonstrate **construct validity**

Limitations

- There are common problems with **self-report** health **questionnaires** to gain **data** on subjective health:

    - **Social desirability effect** - participants may underestimate their own health problems

    - Different **interpretation** of the question from that intended

- A correlation can only suggest **association** rather than **cause-and-effect** i.e. those who felt the healthiest became the most optimistic, rather than vice-versa (**bi-directional ambiguity**)

Key study two: Masiero et al. (2015)

Aim:

- To analyse the influence of the **optimism bias** and consequent **health beliefs** on:

    - **smoking initiation** (when smoking is first taken up),

    - **consolidation** (when smoking becomes a **habit**)

    - **maintenance** of smoking over time

Participants:

- 633 (345 female; 288 male) participants

- Aged between 19 and 74 years old (mean age 48.01)

- **Volunteer sample** recruited through internet sites

- The sample was composed of:

    - **smokers** - 35.7%

    - **ex-smokers** - 32.2%

    - **non-smokers** - 32.1%

Procedure:

- Each participant filled out two questionnaires:

    - The **Fagerström test**

    - A questionnaire **designed** to evaluate the strength of their intention to give up smoking or to maintain their non-smoking **status**

- Participants also completed a set of **items** measured on a **Likert scale** to evaluate their health beliefs

Results:

- 63% smokers had a moderate to high **nicotine dependence level**, with a **mean** of daily cigarettes smoked being just over 20

- 41.7% of smokers reported a **high motivation to quit**, with most falling between the high and middle level.

- Smokers reported **doubt** that the cigarette smoking could be a possible cause of death for themselves

- However, smokers did see smoking as a **risk** of death for others

- Ex-smokers and non-smokers reported more **realistic judgments** regarding the risks of smoking

- Smokers underestimated the following:

  - The **power** of their own **nicotine dependence**

  - The **association** between **tobacco consumption** and **lung cancer**

- Smokers (especially younger smokers under 40 years old) overestimated the following:

  - Their own **control** over their behaviour

  - The power of **physical activity** to counteract the negative effects of smoking

- Male smokers aged over 60 showed the greatest **awareness** of their own nicotine dependence

- Female smokers consistently showed **less perception** of the risk of smoking than did male smokers

Conclusion:

- Optimism bias in risk perception may **influence** health behaviours in negative ways and reinforce cigarette smoking over time

Evaluation of Masiero et al. (2015)

Strengths

- Measures of nicotine addiction, motivation and risk perception were carried out with all participants, allowing for **comparisons** between smokers, ex-smokers and non-smokers

- The data can be used to inform **health protection strategies** and aid smokers to quit

Limitations

- Self-report measures may affect the **validity** of responses as participants may underestimate the numbers of cigarettes they smoke daily

- The volunteer sample was recruited through internet sites and so it may not be **representative** of most smokers, reducing the **generalisability** of the findings

Worked Example

The question is, *'Discuss the role of health beliefs in health behaviour.'* [22]

This question is asking you to give a considered and balanced argument regarding how health beliefs can influence health behaviour. The argument needs to be supported by evidence. Here are two paragraphs for guidance:

Since the 1950s, health psychologists have tried to explain why people ignore health information and engage in harmful behaviour. One of the reasons is because of their health beliefs, which are related to dispositional factors and affect their behaviour. One of those beliefs is an optimism bias. This is a cognitive bias that has a positive correlation with physical health, with optimistic people being the most healthy. However, it also affects health beliefs, especially the perception of risk, as Masiero et al's (2015) survey of the risk perception of cigarette smoking demonstrated.

Masiero et al. investigated how optimism bias affects health beliefs about smoking and especially about a person's perception of their own dependence level, control over their behaviour and long-term health risks. They used an online survey of volunteer participants aged between 19 and 74. Their questionnaires were sent out to smokers, ex-smokers and non-smokers and the answers compared. They found that smokers tended to have an unrealistic optimism bias concerning their own risk of dying from smoking-related diseases and the power of the physical activity they engaged in to counteract any possible negative effects of smoking. While they showed a moderate to strong motivation to give up smoking, they also over-estimated their own ability to do so, with only the older male participants acknowledging their nicotine dependence. Female smokers tended to under-estimate the risk of smoking even more than their male counterparts. Ex-smokers and non-smokers had a more realistic perception of the risks of smoking compared to smokers of all ages.

Factors which may pose a health risk

- **Risk factors** for health can be **social** or **dispositiona**l

- **Social factors:**

  - **behaviour of family and peers** – e.g. if parents smoke, children are far more likely to start smoking in their teenage years

  - **socio-economic status** – poverty is associated with having to rely on cheap food full of **carbohydrates, additives** and **sugar** e.g. obesity and **diabetes**

  - **housing** – poor accommodation carries a health risk e.g. dampness and **asthma**

  - **level of education** – low levels of education may result in being less informed of health risks e.g. inactivity and **heart disease**

- **Individual factors:**

  - **external locus of control** – possessing an external locus of control means viewing health as something that is not under one's control e.g. '*I live near so many fried chicken shops, I can't help but eat what they sell*'

  - **age** – although ageing itself is not in itself unhealthy, old age increases the risk of illnesses such as **cardiovascular disease**

  - **genetics** – some people may have a **genetic vulnerability** to some diseases e.g. a genetic **mutation** in **DNA** can cause **mitochondrial** disease

Factors which may protect health

- **Protective factors** can also be divided into social factors and dispositional factors

- **Social factors:**

  - **healthy lifestyle** of family and peers – if one's family and friends engage in a healthy lifestyle of **exercise**, good **nutrition** and no smoking, one is likely to follow suit

  - **socio-economic status** – good housing, healthy eating and access to **leisure activities** all protect health

  - **education** – school **health programmes** and a generally good level of education have a positive effect on health

- **Individual factors:**

- **internal locus of control –** possessing an internal locus of control means viewing health as something that is under one's control e.g. '*I live near so many fried chicken shops but their food isn't healthy so I'm going to avoid them''* (linked to self-efficacy)

- **age – those aged 10–14 years old have the lowest rate of death worldwide from illness or accident (WHO, 2023)**

- **genes** - genes can also offer protection against some diseases e.g. the **HLA** gene has been found to boost the **immune system**

See the section on Dispositional Factors and Health for more examples of how individual factors affect health.

Evaluation of risk factors and protective factors and health

Strengths

- Identifying risk and protective factors can inform organisations' policies and also family and individual behaviour change

- The **data** identifying risk factors is partly taken from WHO surveys and those conducted by schools and health centres, giving it high **construct validity** and **reliability**

Limitations

- There are difficulties in **isolating variables** and controlling for **extraneous variables** when trying to identify risk factors and protective factors for health

- Much of the research into risk and protective factors has been conducted in the USA and therefore the results may lack **cross-cultural validity**

Which studies investigate risk factors and protective factors and health?

- **Haslam et al. (2018) found a tendency to underestimate the importance of social factors for health**

- **Turbin et al. (2006)** found protective factors were more influential than risk factors in middle school participants from China and the USA

Haslam et al. (2018) and Turbin et al. (2006) are available as 'Two Key Studies of Risk Factors and Protective Factors' – just navigate to the Risk Factors and Protective Factors and Health section of this topic to find them.

Key study one: Haslam et al. (2018)

Aim:

- To investigate the tendency to underestimate the importance of **social factors** for health

Participants:

- 502 participants from the USA and the UK (56% female; 44% male)

- Age range 18–72 years (**mean** 36 years)

- A **volunteer sample** recruited using internet **crowd sourcing platforms**

- The sample came from different **educational backgrounds**

- 42% of the sample had an undergraduate **degree**

Procedure:

- Participants completed **questionnaires** containing a range of **Likert scale** questions on the following topics:

  - **perceived determinants of health:** participants were asked to **rank** in importance a **range** of health factors and say by how many years up to twenty each might increase their **life expectancy**

  - **anti-psychosocial health beliefs:** twelve items relating to **beliefs** about the importance that health **professionals** should attach to the psychosocial **dimensions** of health, such as:

    - divorce

    - poverty

    - loneliness

  - **right-wing authoritarianism:** participants responded to statements such as, 'People should always **comply** with the decision of the **majority**'

  - **social dominance orientation:** participants responded to statements such as 'Superior groups should dominate **inferior** groups'

  - **belief in biological essentialism:** participants responded to statements such as, 'Whether someone is one kind of person or another is **determined** by their **biological** make-up'

  - **controlled variables:** participants were asked their age, gender, and highest level of education and to respond to questions about their current health **status**

Results:

- Social factors for health were **underestimated** when compared to other factors such as biological and **psychological** factors.

- The following **groups** consistently ranked social factors as less important to health than other factors:

    - **younger** participants

    - **males**

    - those with a **lower** level of education

Conclusion:

- Social factors are ignored and under-played as a factor influencing health, especially amongst particular social groups

Evaluation of Haslam et al. (2018)

Strengths

- Using questionnaires with **standardised** questions and rating scales means that the study can be **replicated** easily, increasing the **reliability** of the findings

- The participants came from a wide age range and a variety of backgrounds which makes the findings more **generalisable** than a narrower **demographic** would offer

Limitations

- Rating scales may be **interpreted subjectively** as one person's idea of what a number **represents** may not be the same as another person's idea of that same number

- Questionnaire responses cannot **predict** how participants will behave, as a participant may rank **social support** as being unnecessary for health but they may derive benefit from it later

Key study two: Turbin et al. (2006)

Aim:

- To investigate the **interaction** between **social context** and risk and protective factors for health behaviours, in middle school participants from China and the USA

Participants:

- A sample of 1739 participants from middle schools in and around Beijing, and 1596 participants from middle schools in Colorado, USA

- Samples were deliberately drawn from local **urban** schools of different **socioeconomic statuses**

Procedure:

- This was a **longitudinal** study wherein participants answered a questionnaire on two different occasions, with a 1-year gap in between

- The questionnaire measured risk factors and protective factors in five areas:

    - **individual** behaviour

    - **family** context

    - **peer** group behaviour

    - school context

    - **community** context

- The questionnaire measured five health-related behaviours, some in only one area and some in more than one:

    - healthy **diet**

    - regular **exercise**

    - adequate **sleep**

    - **safety** practices –

        - in the US sample = frequency of using a seatbelt in a car with a parent and with a friend

        - in the China sample = frequency of waiting for red lights when biking and when walking

    - **dental hygiene**

Results:

- The largest correlation was found between protective factors at the social level rather than protective factors at the individual level

- Protective factors were more **influential** than risk factors at a social and individual level

- The above findings suggest that social protective factors increase health through:

    - **modelling** healthy behaviour

    - providing **controls** against unhealthy behaviour

    - a **supportive** social environment

Conclusion:

- Results suggest that healthy behaviour is more readily fostered by the modelling of such behaviour by family and peers, rather than by individual efforts to control unhealthy behaviour

Evaluation of Turbin et al. (2006)

Strengths

- A **large-scale** longitudinal study of adolescents from two different cultures and varying socio-economic backgrounds increases the reliability of the findings

- The findings can be used to **enhance** protective factors for adolescent health through **promoting** adolescent health behaviours and reducing the negative **impact** of risk

Limitations

- The **translation** of the questionnaire into Chinese means that some of the terms may have had different **meanings** in the two samples

- Samples were drawn from local, urban schools in each country, and so the data are not widely generalisable beyond this demographic

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✏️ Worked Example

The question is, *'Evaluate research investigating the role of risk factors and/or protective factors in health.'*

This question is asking you to weigh up the strengths and limitations of one or more studies investigating how risk factors and/or protective factors influence health. Here are two paragraphs for guidance.

Research into the role of risk and protective factors in health have identified both social and individual factors that influence people's health behaviour. Protective factors increase the likelihood of healthy behaviour, through individual or social controls or social support. Risk factors increase the likelihood of unhealthy behaviour, through increased vulnerability or opportunity. Turbin et al (2006) investigated the interaction between social context and risk and protective factors for health behaviours, in middle school participants in China and the USA. They used a longitudinal study wherein participants answered a questionnaire on two different occasions, with a 1-year gap in between. The questionnaire measured health behaviours, risk factors and protective factors and the participant sample of over 1700 children from middle schools in China and nearly 1600 from middle schools in USA was deliberately drawn from local urban schools of different socioeconomic statuses.

There are several strengths with this study. The size and variety of backgrounds of the students, plus their different cultures, adds to the reliability of the findings. The longitudinal design and the standardised questions also mean that a comparison can be drawn between the first answers to the questionnaire and the second answers; between the answers of the Chinese students and those from the USA, also adding to the reliability. The careful construction of the questionnaire to ask questions about health behaviours, risk and protective factors in five areas, means that the internal validity of the data should be high. However, there are also limitations. The translation of the questionnaire into Chinese means that some of the terms may have had different meanings in the two samples. Also, samples were drawn from local, urban schools in each country, and so the findings lack generalisability as we cannot be sure that a different sample would have shown the same results.

Summary Table: Key Studies of Determinants of Health

SUMMARY TABLE: KEY STUDIES OF DETERMINANTS OF HEALTH	
Topic	**Two Key Studies**
The Biopsychosocial Model of Health & Well-being • Use both of these studies to answer a question on the biopsychosocial model • Use Marmot et al. (1997) to answer a question on dispositional factors and health, as a counter-argument	Marmot et al. (1997) Suls & Rothman (2004)
Dispositional Factors & Health Beliefs • Use both of these studies to answer a question on dispositional factors and health beliefs • Use both of these studies to answer a question on risk factors and health	Rasmussen et al. (2009) Masiero et al. (2015)
Risk Factors and Protective Factors and Health • Use both of these studies to answer a question on the role of risk factors and protective factors and health	Haslam et al. (2018) Turbin et al. (2006)

How do I use these studies in an exam question on this topic?

- IB students have a *lot* of content to cover (particularly students taking Psychology at Higher Level) so the purpose of this revision resource is to slim down and streamline the number of studies you need per topic/exam question

- The exam question command term will be one of the following: 'Evaluate', 'Discuss', 'Contrast' or 'To what extent'

- Each command term requires you to answer the question in slightly different ways, using the content as shown in the summary table above i.e. specific studies per topic/question

- In order to slim down the content you need to revise you can see above how some of the studies can be used for more than one potential exam question

- Marmot et al. (1997), Rasmussen et al. (2009) and Masiero et al. (2015) can be used to answer more than one potential exam question on Paper 2 content so you may decide to keep all of these studies and 'throw away' any studies which you find that you don't need to revise

- Remember that all Paper 2 questions are ERQs (Extended Response Questions) which are worth 22 marks, take an hour to write and need to be rich in critical thinking