

# Collecting client information

Level 2 Gym-based programme  
planning and preparation

## Learning outcomes

By the end of this session you will be able to:

- Identify different methods to collect client information, appropriate to the individual
- Explain the protocols to follow for screening clients prior to gym-based exercise
- Identify risk stratification models that can be utilised by a gym
- Identify the variables that can be used when risk-stratifying clients

## Learning outcomes

By the end of this session you will be able to:

- Explain what is meant by low, medium and high-risk
- Identify the importance of safely storing client information

## Methods of collecting client information

Before collecting any information from a client, consideration should be given to the client's level of experience in the gym environment

An instructor will need to identify which health screening questionnaires and lifestyle assessments are best to use for each client or to follow their organisations specific protocol

## Physical Activity Readiness Questionnaire – PAR-Q

The PAR-Q is a valid, time efficient, easily understood and effective health/medical questionnaire

The incidence of cardiovascular problems during physical activity is reduced by nearly 50% when individuals are screened in advance

All clients must be screened for coronary and other medical risk factors before engaging in any exercise programme

## Methods of collecting information – PAR-Q

The major objective of the PAR-Q is to determine risk

The PAR-Q is important because:

- It helps to identify apparently healthy individuals
- It assists in identifying persons who need special attention or who should not be exercising until they obtain written clearance from their doctor
- It creates opportunities to ask about the client's health

## Methods of collecting information – PAR-Q

The PAR-Q is important because:

- It helps instructors become more familiar with the client's physical capabilities
- It can help protect instructors against potential legal problems
- It opens communication between Drs and instructors
- It is simple and quick to administer and increases the safety of the exercise programme

## Methods of collecting information – PAR-Q

When an individual has been identified as having a condition or risk factor that could be aggravated by physical activity, that person must be referred to their doctor for approval and advice prior to participation and temporarily deferred from participation in exercise

## Methods of collecting information – Informed consent form

After informing your client about their programme and what it may contain, the informed consent form is used to confirm that the client has understood the potential risks and benefits involved in the exercise programme, and is consenting to taking part

## The health commitment statement

Some health and fitness clubs use the health commitment statement (HCS)

- Not a legally binding document
- Designed avoid barriers to participation that may be created from a 'yes' response on a PAR-Q
- Outlines a club's commitment to the individual, covering areas such as confidentiality and safety
- Individuals agree to adhere to rules and regulations and inform the club of any changes to their health

## Physical measurements

Taking physical measurements can identify potential health risks

Some tests will provide valuable health information and some reflect a client's fitness levels

Taking progress photographs (before, during and after) is a valuable motivational tool

## Physical measurements

- Resting heart rate – can be measured using a digital heart rate monitor or manually at the radial pulse
- Blood pressure – can be performed using a digital blood pressure monitor or manual measurement

## Physical measurements – Body mass index (BMI)

BMI is used to assess weight relative to height, and is an approximate indication of obesity and associated health risks

Often used as a reference in large-scale population studies

- Weight: Use the same scales and the same conditions to improve the reliability of results
- Height: Measure without shoes at the same time of day

## Physical measurements – Body mass index (BMI)

- **BMI = weight (kg)/height (m)<sup>2</sup>**
- Multiply height (in metres) by itself (height squared)
- Divide weight (in kilos) by height squared
- The figure you get is their body mass index (BMI)

## Waist to hip measurements

The pattern of body fat distribution is an important predictor of health risks

People who have more fat around their trunk and abdomen are at a higher risk of premature death compared with people who have more fat distributed around their limbs

## Waist to hip measurements

The size of the waist in comparison to the hips (waist-to-hips ratio) is an indicator of the distribution of fat on a person's body

- The waist measurement should be in line with the belly button
- The hip measurement should be around the widest part of the hips
- The ratio is worked out by dividing waist circumference by that of the hip
- Health risks increase with higher waist-to-hips ratios

## BMI and waist measurement risk

	BMI	Men: waist less than 102cm Women: waist less than 88cm	Men: waist more than 102cm Women: waist more than 88cm
Underweight	Less than 18.5	No additional risk	No additional risk
Normal	18.5-24.9	No additional risk	No additional risk
Overweight	25.0-29.9	Increased	High
Obesity class			
I	30.0–34.9	High	Very high
II	35.0–39.9	Very high	Very high
III	More than 40	Extremely high	Extremely high

## Body composition measurements

The principle behind skin fold measurement as an indicator of health risks is that the amount of subcutaneous fat (fat just beneath the skin) is proportional to the total amount of body fat

Measurements can be obtained by:

- Skinfold callipers
- Bioelectrical impedance
- Hydrostatic weighing
- DEXA scan

## Fitness testing

Fitness assessments should be tailored to a client's needs and goals. Examples include:

### **Muscular strength**

- Sit-up test
- Back extension test
- Press-up test
- Plank test
- Maximum repetition

## Fitness testing

### **Cardiovascular fitness**

- Cooper run
- Rockport walk test
- Machine-based fitness test
- Multi-stage fitness test

### **Flexibility**

- Sit and reach test
- Lying hamstring test

## Deferral and delay of exercise

Reasons for deferral and delay of exercise include:

- **Health changes** – any changes to health status should be discussed and referred to a GP before continuing with exercise
- **Illness** – If the client is feeling unwell, they should be advised to delay exercise until they feel better
- **Pregnancy** – clients should check with a GP before starting exercise

## Referral to a GP for medical clearance

Referral is recommended in the following situations:

- PAR-Q response – if the client answers yes to one or more questions, have a diagnosed condition or signs and symptoms of a condition
- Combined risk factors – clients who have two or more risk factors for cardiovascular disease
- Injuries that may be aggravated by exercise
- Doubt or uncertainty – if the instructor has any doubt or uncertainty, they should refer to the GP

## Confidentiality

- An instructor must respect a client's confidentiality
- Any information gathered should be treated as privileged, and not divulged to anyone else, including family and friends
- In accordance with the **Data Protection Act**, information collected should remain confidential
- Paper documents should be kept in a locked file and electronic documents password protected

## Confidentiality

If you feel that the client's wellbeing would benefit from the disclosure of something to another relevant professional their permission must be sought explaining why it would be beneficial

If they refuse, that is their prerogative and you must respect that

## Risk stratification

The key factor for determining participation in activity should be the extent to which the potential or actual risks are outweighed by the benefits

This is called risk stratification

Usually, the benefits of being more active will outweigh the risks

## The purpose of risk stratification

- Identify people who may be at risk during exercise, a physical assessment or test
- Assess the level of risk (low, moderate, high) and the likelihood and severity of risk attached to the client becoming more active
- Assist with exercise prescription, recommendations
- Enable the development of a suitably informed, safe and effective exercise programme
- Ascertain the appropriate level of supervision

## Identifying risk

Risk stratification models provide guidance to identify cardiovascular disease (CVD) risk factors and other lifestyle factors that could increase risks

The categories are:

- Medical referral
- Special attention
- Normal (fit and healthy)

## Identifying risk

### **Medical referral**

- Clients have a serious condition or serious medical risk factor for CVD
- They should always be referred to a medical professional for clearance
- The majority of clients in this group will benefit from a regular exercise programme but need to be supervised by an appropriately qualified instructor

## Identifying risk

### **Special attention**

- Clients may have several factors that contribute a higher risk for CVD
- Two or more risk factors place the client at low to moderate risk and multiple factors will increase the risk
- These clients should be referred to a medical professional for clearance and might be best suited to an exercise referral instructor

## Identifying risk

### **Normal (fit and healthy)**

- Clients in this group have no health problems
- No identified risk factors for CVD
- Have been following a regular exercise programme for at least two months

## Risk stratification tools

In the UK, there is no single model used for risk stratification and therefore no standardised approach within the fitness industry. The following are widely used:

- Risk stratification pyramid
- The logic model
- Irwin and Morgan risk stratification tool

## Risk stratification pyramid

- One of the earliest UK models for risk stratification
- Identifies four levels of client (apparently healthy, low-risk, moderate-risk, high-risk)
- At each stage of the pyramid, the qualifications that an instructor needs in order to work with these groups are stated, along with the type of exercise environment/ activity setting

## The logic model

- The ACSM model for risk stratification
- Health and medical history should be checked for:
  - The presence of diagnosed CVD conditions
  - Signs and symptoms indicating presence of CVD, pulmonary disease and/or metabolic disease
  - CVD risk factors
- Clients who show more than two signs and symptoms must be referred to a GP prior to participation

## Irwin and Morgan risk stratification

- This tool takes the form of a simple traffic light system
- Highlights the categories of risk as low, medium and high

## Protocols for screening

- Follow the criteria contained within the PAR-Q document
- Establish suitability for participation or grounds for referral
- Know legal and professional responsibilities
- Adhere to confidentiality and data protection
- Ensure tests are valid, reliable and accurate

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## Behaviour modification theories

- Theory of reasoned action (Ajzen and Fishbein, 1975)
- Theory of planned behaviour (Ajzen, 1988)
- Health belief model (Rosenstock, 1966)
- Health locus of control (Wallston, Wallston, Kaplan and Maides, 1976)
- Social cognitive theory (Bandura, 1977)

## Theory of reasoned action

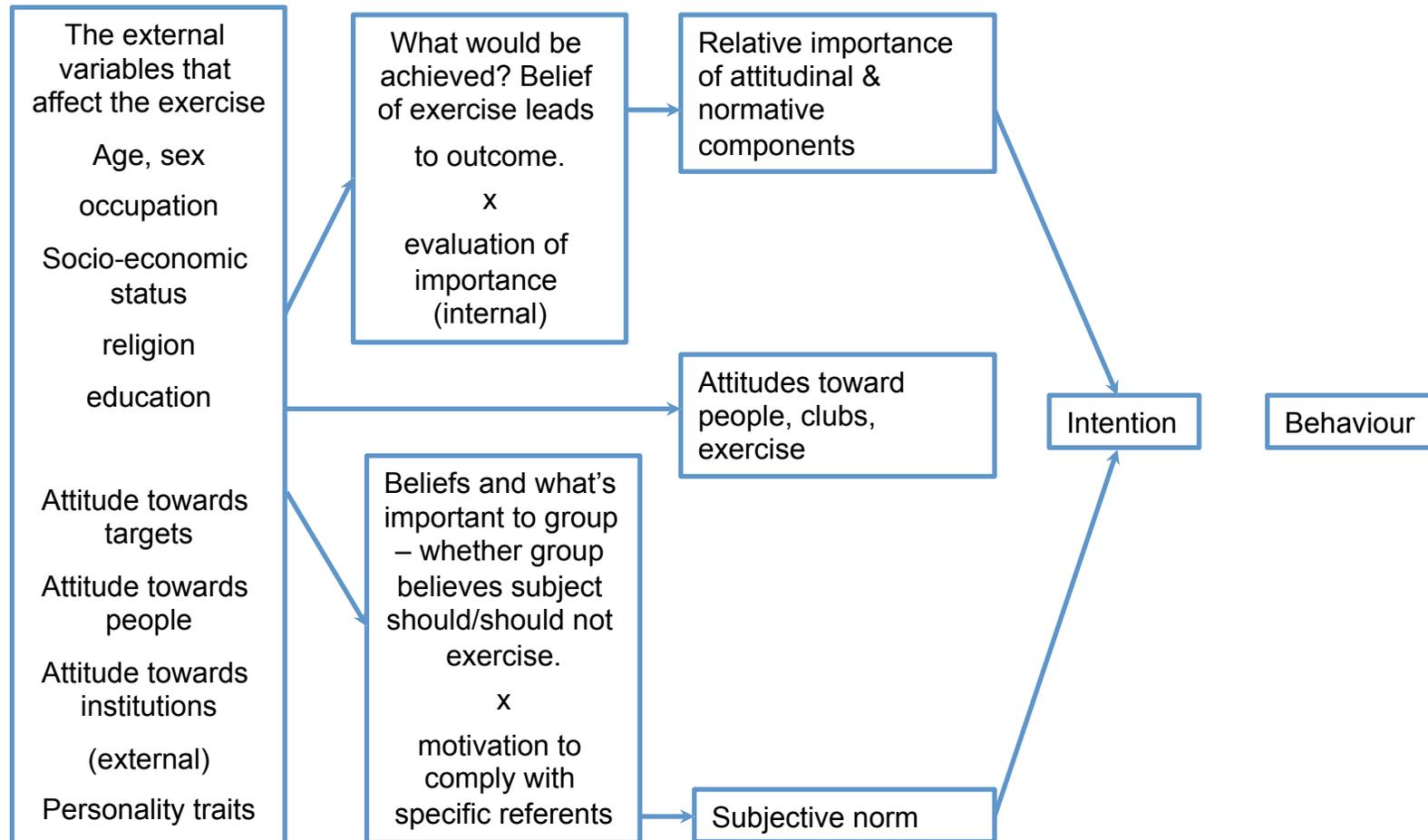
- An individual's intention to perform an action depends on their attitude towards it
- If a person perceives a particular behaviour as positive, their attitude towards the chosen behaviour is positive
- Individuals consider the implications of their actions before acting

## Theory of reasoned action

Takes into account internal and external influencing factors that affect a person's decision making, such as:

- Their domestic/physical situation
- Environment
- Attitudes towards exercise and health
- Health issues
- Health education
- Advice and attitude of others and/or the media

# Theory of Reasoned Action



## Theory of planned behaviour

- If an individual has no control over surrounding factors, they will be unlikely to adopt and maintain a chosen behaviour, regardless of whether they have a positive attitude
- E.g. A person plans to exercise and has a positive attitude but feels that they can't exercise due to work/family commitments
- E.g. If friends or colleagues do not exercise, an individual may feel pressured not to exercise, as this is normal behaviour within their environment

## Health belief model

- Aims to explain and predict health behaviours by focusing on people's attitudes and beliefs
- A 'value expectancy' model - behaviour is based upon the value that it and its outcome will have to the individual
- Based on the assumption that a person will take action only if an adverse health condition can be avoided, and if the action can be conducted with ease and confidence

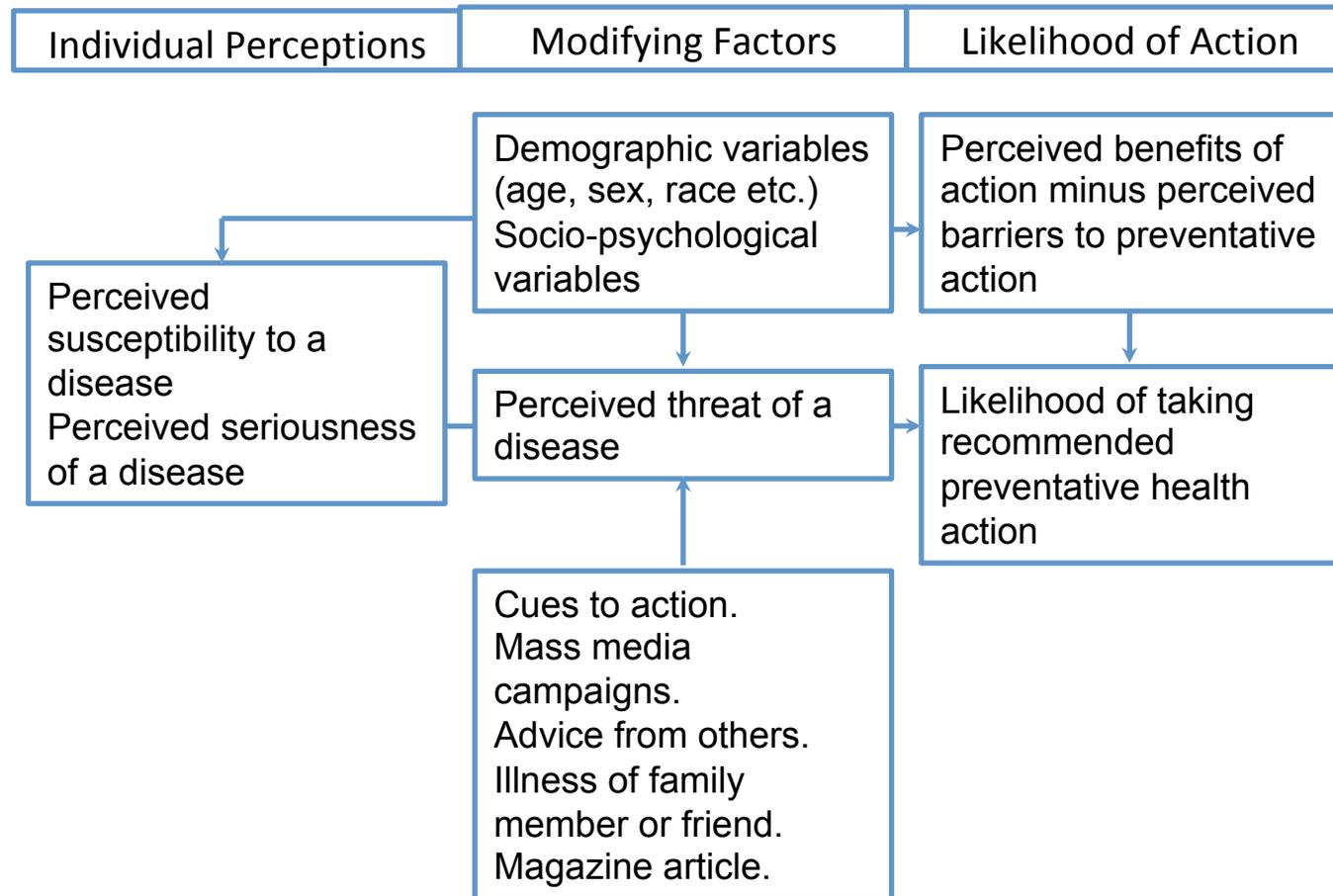
## Health belief model

An individual will not comply with preventative health recommendations unless they:

- Are provided with relevant information
- Are particularly likely to benefit from taking action
- Believe they have the ability to be a success

This model does not take into account other factors, such as cultural differences, socio-economic status and previous experience, that can affect people's decisions

# Health Belief Model

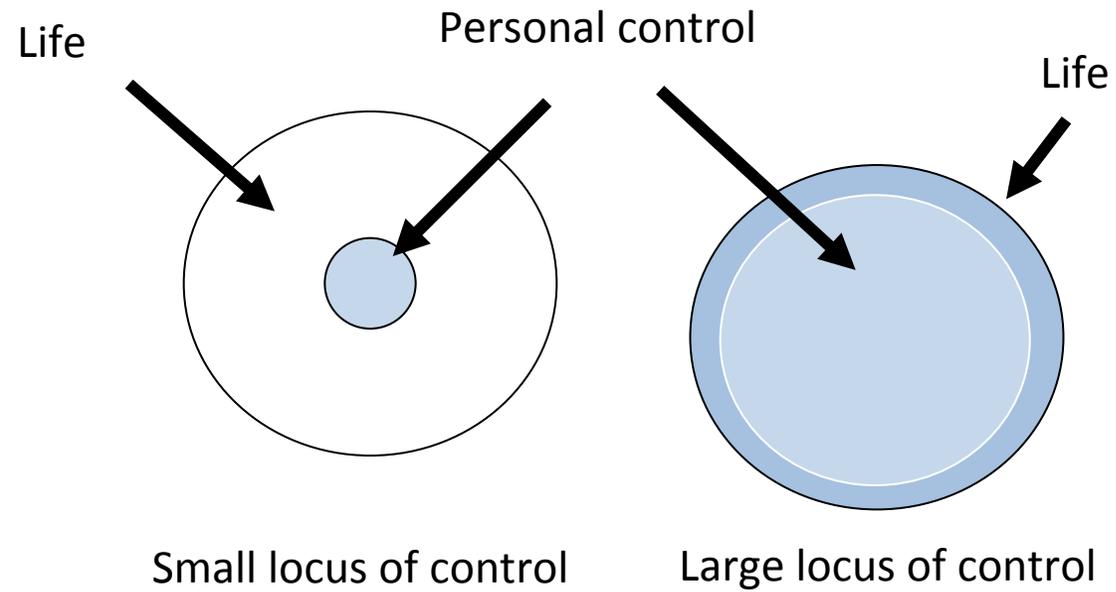


## Locus of control

The degree of control that people believe they possess over their personal health

- **Internal health locus of control (IHLC)** – the extent a person believes that internal factors are responsible for their health/illness
- **Powerful others' health locus of control (PHLC)** – the belief that health is determined by others who influence our choices
- **Chance health locus of control (CHLC)** – the extent to which a person believes that their health/illness is a matter of fate, luck or chance

# Health Locus of Control



## Locus of control

More generally, 'locus of control' indicates the degree of control (internal or external) an individual has over a particular life situation

Individuals who have an external locus of control may believe that everyone is conspiring against them to keep them in their current situation. They blame others for their situation by disassociating themselves from the issues they face and will attribute success to luck

## Locus of control

On the other hand, individuals who have an internal locus of control believe that they have control over their own destiny and are responsible for their own situation

## Self-efficacy

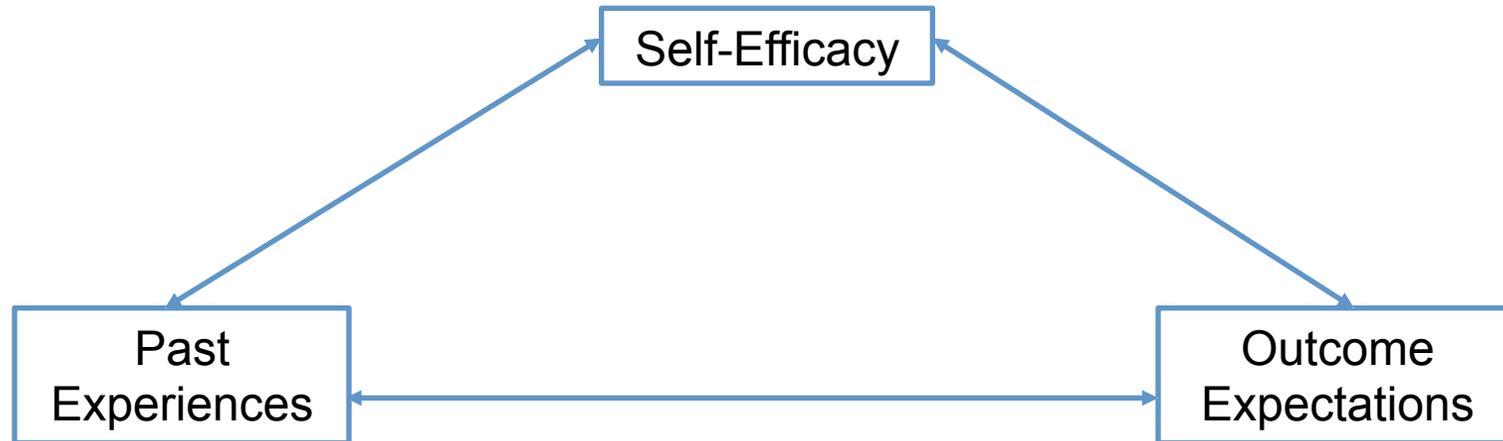
- A person's belief that he or she can be successful at achieving an action
- Determined by the outcome expectation (how much value someone places on an outcome, such as climbing the stairs without being breathless) and the person's perception of their ability to be successful
- Perception is often linked with past experiences; if individuals think that an action was previously successful and is confident in their ability to perform the action, then the action will be successful again

## Social cognitive theory

An individual's confidence or belief in their ability to be successful will determine whether the individual will engage in that behaviour or not

E.g. If a client believes that they can successfully become more physically active, or that they would be good at a certain activity, then they are more likely to try. If, however, they consider being physically active is beyond their capabilities, then they are unlikely to attempt physical activity

# Social Cognitive Theory



## Social cognitive theory

Most behaviours are learned through social interaction (observing and imitating others). Three main variables:

- **Efficacy expectations** - the individual has the confidence and the ability to perform, e.g. to swim 10 lengths of the pool
- **Outcome expectations/values** - the individual values and feels confident in the outcome, e.g. feels confident being able to swim 10 lengths of the pool
- **Past experiences** - e.g. has previously swum 10 lengths or more

## Social cognitive theory

Bandura recognised that self-efficacy was repeatedly identified as a determinant of successful behaviour modification in an exercise environment

Self-efficacy, he found, was influenced by:

- The types of activity performed
- The amount of effort expended
- How much a person persisted in the face of obstacles