



Human Lifespan Development 1

Getting to know your unit

Assessment

You will be assessed using an externally set written task worth 90 marks.

Understanding human lifespan development, the different influences on an individual's development and how this relates to their care needs is important when you are establishing your career in the health or social care professions. Health and social care professionals meet and work with a wide range of individuals who have diverse needs.

In this unit, you will be introduced to the biological, psychological and sociological theories associated with human lifespan development. You will explore the different aspects of physical, intellectual emotional and social development across an individual's lifespan. You will examine factors affecting an individual's growth and development such as the environment or genetic inheritance, and consider the positive and negative influences these have on development, including the impact on an individual's concept of self. You will explore the physical effects of ageing and the theories that help to explain psychological changes.

How you will be assessed

You will be assessed by a paper-based examination, lasting for 1 hour 30 minutes that is worth 90 marks. The examination will consist of short- and long-answer questions. The questions are intended to assess your understanding of growth and development throughout an individual's lifespan and how this may be affected by personal and environmental factors, health and the effects of ageing. You will be expected to make reasoned connections between theories and models of human growth and development to demonstrate your understanding. You will give your answers in response to the information you are given in case studies about members of one family.

Getting started

What do you already know about lifespan development? Using the life stages infancy, early childhood and adolescence, write a short description about your development so far. For early and late adulthood, predict how you think your development will progress. Reflect at the end of this unit to see whether you would change your description or predictions.



A

Human growth and development through the life stages

A1 Physical development across the life stages

Physical growth and development continues throughout a person's life but you will have noticed that development is not always smooth. During puberty you may have suddenly grown a few centimetres in a short period of time and then stayed the same height for a while. You may have noticed a small child who suddenly goes from crawling to climbing the stairs. In this section you will look at the key features of physical growth and development across the life stages.

► **Table 1.1:** Key features of growth and physical development at each life stage

Life stage	Age	Key features
Birth and infancy	0–2 years	Infants grow rapidly reaching approximately half their adult height by the time they are two years old. At around one year old infants can walk and by two years of age they can run.
Early childhood	3–8 years	Children continue to grow at a steady pace. They continue to develop strength and coordination.
Adolescence	9–18 years	Adolescents experience growth spurts. They develop sexual characteristics during puberty.
Early adulthood	19–45 years	Young adults reach the peak of their physical fitness.
Middle adulthood	46–65 years	The ageing process begins with some loss of strength and stamina. Women go through menopause.
Later adulthood	65 years onwards	The ageing process continues with gradual loss of mobility. Older adults will experience a loss of height of up to a few centimetres.

Growth and development are different concepts

Growth is an increase in a measurable quantity such as height or weight or other dimensions. **Development** is about the complex changes in skills and capabilities that an individual experiences as they grow.

During their lifespan, an individual will pass through the different stages shown in Table 1.1. Life stages are marked by physical, physiological and psychological changes.

Key terms

Growth – an increase in some measured quantity, such as height or weight.

Development – complex changes including an increase in skills, abilities and capabilities.

Skills and abilities such as gross and fine motor skills and thinking and language skills develop alongside the social roles and expectations associated with different stages of the lifespan. These are referred to as milestones.

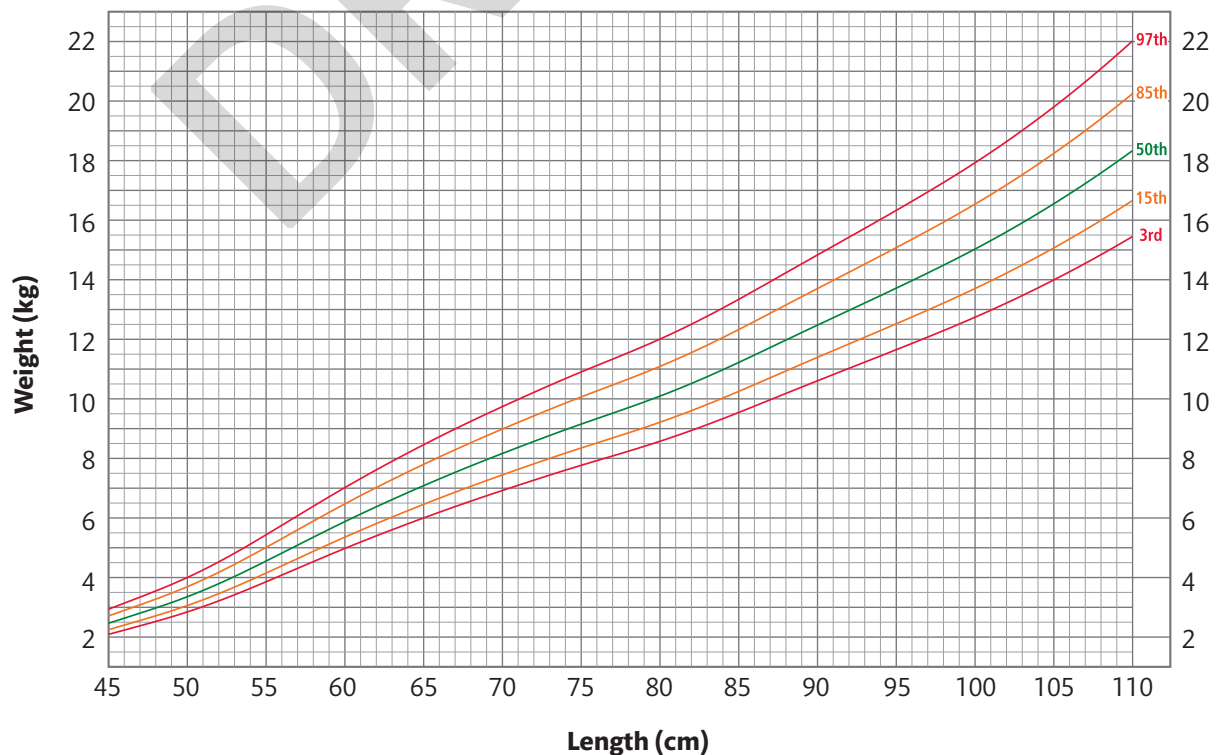
Principles of growth

Growth describes an increase in quantity. For example, children grow taller as they get older. As height increases, so does weight – this is referred to as a process of growth. Although growth is continuous, the rate is not smooth. There can be periods of more rapid growth in infancy and again during puberty which means there can be quite a difference between the rates of growth of two people who are the same age. There are also differences in the growth rates of boys and girls. Growth rates also vary in different parts of the body, for example the head circumference grows more rapidly than other areas in the first months of life. When referring to growth it is important to consider two dimensions:

- ▶ weight
- ▶ length/height.

At birth and then between six to eight weeks, a baby's head circumference will be measured to check the size and growth of the brain.

Infants grow rapidly during the first six months of their lives. Healthy newborns double their birth weight by four to five months, and triple it by the time they reach a year old. By the age of two, a healthy infant will be approximately half their adult height. Not only can growth measurements help a health visitor to monitor a child's health and development, they can also identify other issues for example if an infant is under- or overweight or growing too slowly. Infants will grow on average about 12 cm (4 inches) and gain about 2.5 kg (5 lbs) between one and two years of age. Between their second and third birthday, an infant will gain another 2 kg (4 lbs) and grow about 8 cm (3 inches) more. A health visitor will carry out the measurements and plot the results on a growth chart to ensure that an infant is meeting their milestones.



▶ **Figure 1.1** An example of a height-weight chart for girls

If an infant or child is growing as expected their weight will rise steadily following the **centile lines** marked on their growth chart. All information is recorded in a personal child health record. This ensures that if there is cause for concern about weight or height an early referral to a paediatrician can be made. An infant's head circumference will also be measured if there is any concern about development.

Principles of development

Development describes changes that might be complex and involve ability levels altering.

Development happens:

- ▶ from head to toe – an infant will first be able to control their head, then develop control over their body to enable them to sit and finally have control over their legs and feet to allow them to crawl and eventually walk
- ▶ from the inside to the outside – an infant learns to control movements in their body first then in their arms and legs until, finally, they can control the small muscles in their fingers
- ▶ in the same sequence but at different rates
- ▶ holistically – areas of development are dependent on and influence each other.

Development can be seen as a journey. As the journey progresses, children reach a number of key **milestones**. These are also referred to as **developmental norms** and describe the skills that infants, children and adolescents are expected to develop at particular ages or stages of their life. These norms include walking, talking or tying shoe laces. The four main areas of skills acquisition are:

- 1 physical – gross and fine motor skills
- 2 social development
- 3 emotional development
- 4 intellectual development and language skills.

Although children will pass through the same developmental stages, you should remember that every child is unique and develops at their own rate. Norms help professionals describe an average set of expectations. If a child develops faster than the norm it does not necessarily mean that the child is 'gifted'. Neither does it mean that there is something wrong if a child develops more slowly.

Very few people experience their life in 'compartments' labelled 'physical', 'intellectual', 'emotional' or 'social'. Most people experience physical, intellectual, emotional and social development holistically. For instance, the development of a child's social skills is dependent upon the development of their intellectual and language skills. One developmental aspect cannot be assessed without looking at the other aspects. Developmental milestones provide a useful guide for professionals and enable them to recognise, monitor and take appropriate action if development is delayed in one or more of developmental areas.

Physical development in infancy and early childhood

Two aspects of physical development are **gross motor skills** and **fine motor skills**.

Development of gross motor skills

Gross motor skills are movements that involve using the large muscles of the body. These skills allow children to control those body movements that require the use of

Key term

Centile lines (percentiles)

– lines on a graph used to show average measurements of height, weight and head circumference. The lines represent the values of the measurements taking into account age and sex.

Key terms

Development norms – a description of an average set of expectations with respect to a young child's development. For example, by the age of 12 months a child has the ability to stand alone.

Milestone – an ability achieved by most children by a certain age. It can involve physical, social, emotional, cognitive and communication skills, for example walking, sharing with others, expressing emotions, recognising familiar sounds and talking.

Gross motor skills – large movements that involve using the large muscles of the body which are required for mobility, for example rolling over.

Fine motor skills – involve smaller movements that require more precise direction (dexterity) and use smaller muscles, for example picking up a pencil.

large muscles in the legs, arms and the torso of the body. As soon as a baby is born, their gross motor skills begin to develop. Gross motor skills are essential for physical play for example playing 'tag', which involves running after friends, catching up with them, reaching out and touching someone. Everyday tasks like walking upstairs, running, jumping and throwing a ball, require the use of gross motor skills.

Development of fine motor skills

In contrast, fine motor skills are actions that require the use of smaller muscles in the hands, fingers and toes. These allow infants to pick things up using their finger and thumb, wriggle their toes in the sand and hold a crayon or small toy. Dressing and undressing, drawing, scribbling and stacking toys are other examples of fine motor skills.

Infancy (0–2 years)

Development milestones

Newborn babies are helpless when it comes to muscle coordination and control. They are unable to hold up their heads, roll over, sit up or use their hands to move objects deliberately. Developing both gross and motor skills allows increasing and more complex movement. By around the age of two, infants develop and use both gross and fine motor skills as they become more independent. For example, when playing with shape-sorting toys, they use gross motor skills to hold their body steady enough to grasp the shapes firmly and use fine motor skills to fit each shape in the correct slot. Table 1.2 shows some developmental milestones for gross and fine motor skills for infants aged from birth to two years.

► **Table 1.2** Gross and fine motor skills developmental milestones in infancy

Age	Gross motor skills	Fine motor skills
Newborn	Primitive reflexes such as grasp	Holds their thumbs tucked into their hands.
1 month	Lifts chin, some control of head.	Opens hands to grasp a finger.
3 months	Can lift their head and chest when lying on front.	Can briefly grasp a rattle.
6 months	Rolls over, can sit up for a short time without support, kicks legs when held up.	Moves objects from hand to hand, can pick up dropped toys if they are in sight.
9–10 months	Crawls, begins to cruise (walking while holding on to objects).	Uses finger and thumb to hold a small object.
12–13 months	Stands alone, can walk without help.	Manipulates and places toys.
18 months	Climbs onto furniture.	Builds a short tower with blocks.
2 years	Propels a sit-on toy with their feet, throws a large ball.	Draws lines and circles, turns a page.
2 and a half years	Jumps from a low step, kicks a ball.	Uses a spoon and fork, builds a tower of 7–8 blocks.

Early childhood (3–8 years)

Development of gross motor skills

Children's practical abilities associated with gross motor skills continue to develop. By the age of three, most children will be able to use pedals to ride a tricycle, run and balance on one foot for one second. By the age of four, children may be able to kick and throw a large ball. At five years, they can hop using each foot separately. By the age of six or seven a child may be able to skip and ride a bicycle. At eight years old they will have good strength and body coordination so that they can take part in many sports and activities.

Research

Find more developmental milestones charts and create a table like Table 1.2.

See when most children would be able to:

- run forwards and backwards
- button and unbutton clothing
- write their own name
- use joined-up writing
- walk in a straight line
- turn the pages of a book.

For each of the points above, state whether this is an example of a gross motor skill or a fine motor skill.

Development of fine motor skills

Fine motor skills are the ability to control and coordinate smaller movements and muscles such as the movement of hands and fingers. By the age of three, children should be able to control their movements enough to use a pencil to copy letters or build a tower with cubes. By the age of five, most children should be able to dress and undress on their own, including tying their own shoelaces. At eight years of age, they will have good control of their small muscles and be able to draw detailed pictures.

Adolescence (9–18 years)

During adolescence, males and females will experience a number of physical and growth changes.

Development of primary and secondary sexual characteristics

Puberty takes place over several years. It is a period of rapid change and growth and is experienced by both females and males. Table 1.3 shows some primary and secondary sexual characteristics for both sexes. Primary sexual characteristics relate to the changes and development of reproductive organs, while secondary characteristics are outward signs of development from a child into a man or woman.

Key term

Adolescence – an important status change following the onset of puberty during which a young person develops from a child into an adult.

► **Table 1.3** Primary and secondary sexual characteristics

Primary sexual characteristics (present at birth and develop during puberty)		Secondary sexual characteristics (develop during puberty)	
Female	Male	Female	Male
The uterus enlarges and the vagina lengthens.	Enlargement of penis and testes.	Breasts develop and the areola (the area around the nipple) swells and darkens.	Changes in larynx (Adam's apple) causing voice to deepen.
The ovaries begin to release eggs.	Spontaneous erections caused by blood flowing into chambers in the penis may happen.	Hair grows in armpits and pubic area.	Hair grows in armpits and pubic area, facial hair.
The menstrual cycle commences.	The testicles begin to produce spermatozoa (sperm), beginning of ejaculation.	Redistribution of body fat causing hips to widen.	Redistribution of muscle tissue and fat.

Key terms

Puberty – a period of rapid growth during which young people reach sexual maturity, and become biologically able to reproduce and secondary sexual characteristics develop.

Hormones – chemical substances produced in the body and transported in the blood stream that control or regulate body cells or body organs. For example, the sex hormones produced by the ovaries and testes are responsible for the development of secondary sexual characteristics in puberty.

Puberty in girls often starts between the ages of 11 and 13 although it may begin earlier. Boys generally start puberty later, often between 13 and 15 years of age. Puberty is a development stage that prepares the body for sexual reproduction. It is triggered by the action of **hormones** that control sexual development. Both boys and girls may experience a 'growth spurt' when they grow taller at a faster rate than before.

The role of hormones in sexual maturity

Sex hormones are responsible for the changes that occur in puberty. The pituitary gland controls the release of sex hormones in both females and males. The release of sex hormones controls the onset and rate of puberty, the physical changes such as pubic and axillary hair growth and egg and sperm production. It can prove to be a difficult time emotionally for young people as levels of hormones going up or down often cause mood swings.

The main female hormones are oestrogen and progesterone. The ovaries start to produce oestrogen and progesterone which are responsible for changes including ovulation and menstruation. The first period is a significant, notable change for young females as it indicates the onset of fertility.

The main male hormone is testosterone. The testes start to produce testosterone which stimulates sperm production, indicating the onset of fertility. Testosterone is also responsible for the development of secondary sexual characteristics such as a deeper pitch and tone of the voice.

Case study

Changes in adolescence

Jake is 13 and his parents have noticed that he has suddenly become very shy, locking the bathroom door and asking them to knock before they enter his bedroom. Jake has noticed that his penis has grown (primary sexual characteristic) and he knows that his testes can produce sperm. His mum has noticed that Jake's voice has begun to break and he has hair growing under his armpits (secondary sexual characteristics).

Sarah is 12 and she is embarrassed as her periods have started. Her mum has explained to Sarah that her uterus and vagina have grown (primary sexual characteristics). Sarah has noticed that her breasts have grown and her mum has taken her shopping to buy a bra. Sarah has

also noticed that she has armpit and pubic hair. Sarah has grown taller and put on weight (caused by increased fat layers under the skin). These are all secondary sexual characteristics. Sarah is getting anxious about changing for her PE lessons at school as she thinks other girls will laugh at her.

Check your knowledge

- 1 Thinking about Jake and Sarah, write a definition that explains the difference between primary and secondary sexual characteristics.
- 2 List the female and male sex hormones and write a brief description of their function in puberty.

Research

Physical development is not controlled purely by genetics. Berryman et al (1991) argue that records show that, in the 1860s, girls did not start puberty until aged 16. It seems that children now start puberty earlier. Consider what environmental influences might have an impact on physical development, for example improvements in diet and increased body weight.

Early adulthood (19–45 years)

Physical strength peaks

Young adults are usually at the peak of their physical performance between the ages of 19 and 28. By this age, young adults have reached their full height and strength, and reaction time and manual dexterity are also at their peak. After this, age adults may gradually lose some strength and speed, although these changes are often unnoticed outside of competitive sport. Decline in physical capabilities may be exacerbated toward the end of this life stage if individuals have an unhealthy diet, do not take regular exercise and maintain an unhealthy lifestyle.

Exercise and a healthy diet can help to develop physical fitness and athletic skills into middle adulthood.



- What are the physical and psychological benefits of regular exercise in adulthood?

Reflect

As an individual moves from adolescence to adulthood, new life experiences and challenges will occur. Do you think that it is easy to identify when adolescence ends and adulthood begins?

Pregnancy and lactation

Pregnancy and lactation are key phases in an adult female's lifespan. During early pregnancy, women experience many physical and emotional changes in preparation for parenthood. Pregnancy hormones can cause mood swings.

Hormonal changes take place, with an increase in progesterone which maintains the pregnancy, while the increase in oestrogen may be responsible for the sickness some women suffer in early pregnancy. Hormones also affect the shape and appearance of their breasts, including darkened veins due to increased blood supply. Nipples and areolas darken and breasts become more sensitive and tender, preparing the breasts to produce milk (lactation) to feed the baby.

Perimenopause

By the time a woman is in her forties her ovaries gradually begin to make less oestrogen. This means that the ovaries stop producing an egg each month. This stage is generally referred to as the perimenopause transition. Perimenopause lasts until the **menopause** which is the point when the ovaries stop releasing eggs. On average perimenopause lasts four years. However, this can vary between lasting a few months or as long as 10 years. Perimenopause ends when a woman has not had a monthly period for 12 months. The reduction in oestrogen causes physical and emotional symptoms.

Key term

Menopause – the ending of female fertility, including the cessation of menstruation and reduction in production of female sex hormones.

Women in perimenopause generally experience some of these symptoms:

- ▶ hot flushes and night sweats
- ▶ breast tenderness
- ▶ loss of libido (lower sex drive)
- ▶ fatigue
- ▶ irregular or very heavy periods
- ▶ vaginal dryness, discomfort during sex
- ▶ mood swings
- ▶ trouble sleeping
- ▶ urine leakage when coughing or sneezing
- ▶ urinary urgency (an urgent need to urinate more frequently).

Middle adulthood (46-65 years)

The menopause

Women are most fertile (able to conceive children) in their late teens and early twenties. The risk of miscarriage and pregnancy complications rises with age. Between 45 and 55 years of age fertility reduces and then comes to an end in a process called the menopause. It can take several years to complete.

The menopause involves:

- ▶ gradual ending of menstruation (or stopping having periods) and a large reduction of fertile eggs in the ovaries
- ▶ an increase in the production of hormones called gonadotropins that try to stimulate egg production, which can cause irritability, hot flushes and night sweats
- ▶ a reduction in the sex hormones (oestrogen and progesterone) produced by a woman's ovaries, resulting in some shrinkage of sexual organs and sometimes a reduction in sexual interest
- ▶ associated problems such as osteoporosis, which can be caused by a reduction in the production of sex hormones.

For some women, the general hormonal changes, especially reduction in oestrogen levels experienced during the perimenopause and menopause, can lead to mood changes, depression and anxiety. This can make a woman feel that she is on an emotional roller coaster. Some women experience overwhelming sadness that they are no longer able to have children and this can affect their self-image of being a 'desirable' woman. Self-esteem and self-image can become low, which may impact on self-confidence and on quality of life during this transitional stage of the lifespan.

Effects of the ageing process

Often adults put on weight as they age. 'Middle aged spread' may happen because adults still eat the same amount of food as they did when they were younger although they have become much less active.

Along with a change in body shape – increased weight and waistline, loss of skin elasticity and loss of muscle tone and strength – people also begin show other signs of ageing, such as greying and thinning of hair and hair loss.



PAUSE POINT

Close your book and draw an outline of a female body. Note the symptoms of perimenopause around the body.

Hint

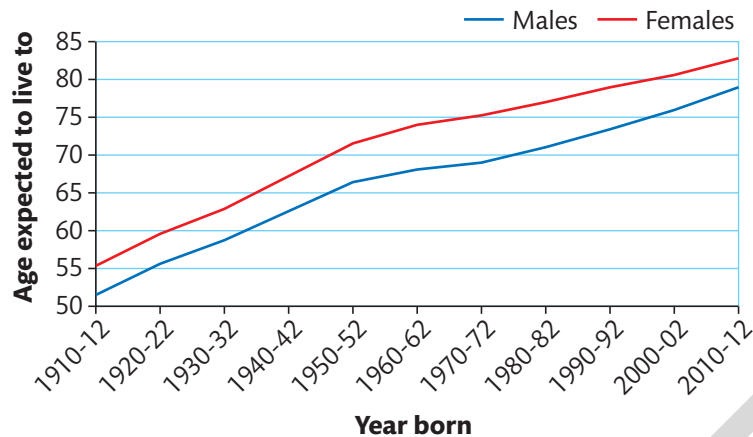
Think about what particular physical functions are changing and possible emotional changes.

Extend

Conduct a risk assessment of an athlete's training programme – how are they putting themselves at risk?

Later adulthood (65-plus years)

Predicting your life course becomes more difficult in the later life stages. Where 'old age' was once deemed to be from 65 years of age until the end of one's life, as **life expectancy** has risen, people's ideas of what is 'old' are also changing.



► **Figure 1.2** Changes in life expectancy for males and females over the last 100 years (based on Office for National Statistics data)

In round figures, 120 years is often accepted as the maximum lifespan for a human being. Britain's oldest living person in 2015 was Gladys Hooper from Ryde, Isle of Wight. Mrs Hooper celebrated her 113th birthday in January 2016.

Deterioration of health

In later adulthood, there are many changes associated with the ageing process. For example, there are changes in body systems and organs which could be the result of disease and that can impact on an individual's lifestyle. Although most body systems continue to function fairly well, the heart becomes more susceptible to disease. Individuals may begin to lose height in middle adulthood which continues into later life. By the age of 80, individuals may have lost as much as 5 cm in height. This is caused by changes in posture and compression of the spinal discs and joints. The ageing process also continues with further loss of strength and muscle loss, as well as a reduction in stamina. Mobility (gross motor skills) and dexterity (fine motor skills) become more difficult. There are small changes to the brain which include loss or shrinkage of nerve cells and a general slowing of movement and responses.

Visual and hearing problems may interfere with daily life. Older people can be more susceptible to accidents and falls due to lack of muscular strength and problems with balance or reaction time.

Older people can retain reasonable health, especially if they follow a lifestyle that includes a healthy diet and exercise. It can be a time when people take up new interests and hobbies that help to keep them physically mobile and their mind active.

Deterioration of intellectual abilities

Although many older people are in good mental health, major depressive disorders tend to be undiagnosed. Diseases and conditions that can affect health and wellbeing, for example Parkinson's disease and Alzheimer's disease, are more common in older people. As people are now living longer, Alzheimer's disease has become more prevalent. Mild cognitive impairment may be an early sign of the disease.

Key term

Life expectancy – an estimate of the number of years, on average, that a person can expect to live. Sometimes called longevity.

Key term

Cognitive impairment – when a person has trouble remembering, learning new skills, concentrating or making decisions that affect their everyday life.

Ageing can involve a loss of nerve cells in the brain and a reduction in the ability of nerves to transmit electrical signals. However this does not mean that people lose their ability to think logically or to reason as they have a wealth of experience to draw on. Many older people experience **cognitive impairment** and report problems with memory recall. For example, finding themselves often asking 'Where did I put my glasses?'. Older people may say that it takes longer to do things and they may feel they are slowing down. They may take longer to respond to questions. Reaction times might also be slower, but older people often compensate for these changes, for instance, driving more carefully. Although older people may worry, changes are a natural process of ageing and not necessarily symptoms of dementia.

A2 Intellectual development across the life stages

During their lifespan, an individual develops useful ways of thinking and learning. Intellectual and cognitive development refers to how individuals organise their ideas and make sense of the world in which they live. There are five important aspects associated with intellectual development.

- 1 Language development, which is essential for organising thoughts and to share and express ideas. It is also important for clarification.
- 2 Problem solving is an important skill that is required both to work things out and to make predictions about what might happen.
- 3 Memory is required for storing, recalling and retrieving information.
- 4 Moral development allows for reasoning and making choices, and informs the individual how to act in particular situations and how to act towards self and others.
- 5 Abstract thoughts and creative thinking are essential for thinking and discussing situations and events that cannot be observed.

Understanding how individuals learn, mature and adapt to their life stage is an essential aspect of human growth and development. As an individual progresses through the various development stages, their intellectual and cognitive ability increases. This is highlighted by studying the difference between adult and children's learning styles. The stages of intellectual development across the lifespan can be seen in Table 1.4.

► **Table 1.4** Stages of intellectual development across the lifespan

Stage	Development
Infancy and early childhood	Stages of rapid intellectual development.
Adolescence to early adulthood	Development of logical thought, problem solving and memory recall skills.
Middle adulthood	Can think through problems and make sound judgements using life experiences.
Later adulthood	Changes in the brain can cause short-term memory decline and slower thought processes and reaction times.

Intellectual and language skills in infancy and early childhood

The brain grows very rapidly during the first few years of life. During this time children learn all sorts of new skills and abilities. For example, in early infancy and childhood, there is a rapid growth in language and intellectual skills. Young children have an ability both to understand and to use language, for example a 12-month-old baby saying her first words, a two-year-old child naming parts of his body and a five-year-old constructing complex sentences.

Over an individual's lifespan, their brain grows at an amazing rate. At birth, a baby's brain is about 30 per cent of the size of an adult's brain. By the age of two, the child's brain has increased to approximately 80 per cent of the size of an adult's brain.

Speech and language are essential skills needed to communicate with others. Language development begins before birth and develops rapidly (see Table 1.5). From the age of two months, most babies will be 'cooing', and, by six months old, they will be responding by making 'babbling' noises. The fastest learning takes place for most children between the ages of two and five. By the time a child has reached the age of seven, they have learned the basics of vocabulary, grammar and sentence formation.

► **Table 1.5** The stages of language development

Age	Language development
Around 3 months	Infants begin to make babbling noises as they learn to control the muscles associated with speech.
Around 12 months	Infants begin to imitate sounds made by carers such as 'da da'. This develops into using single words.
Around 2 years	Infants begin to make two-word sentences, such as 'cat goed' (meaning the cat has gone away). The infant begins to build their vocabulary (knowledge of words).
Around 3 years	Children begin to make simple sentences, such as 'I want drink'. This develops into the ability to ask questions, 'when we go?' Knowledge of words (vocabulary) grows very rapidly.
Around 4 years	Children begin to use clear sentences that can be understood by strangers. Children can be expected to make some mistakes with grammar, 'we met lots of peoples at the shops today'.
5 years	Children can speak using full adult grammar. Although vocabulary will continue to grow and formal grammar will continue to improve, most children can be expected to use language effectively by the age of five.

There are many different ways in which language development can be promoted. See Table 1.6 for some examples.

► **Table 1.6** Encouraging language development

Infants	Young children	Adolescence
<ul style="list-style-type: none"> • Blow bubbles. • Play with puppets. • Watch and listen to other children. • Join in with action rhymes and songs. • Look at picture books. 	<ul style="list-style-type: none"> • Take part in circle time. • Take part in group activities. • Imaginary play in 'home corner'. • Share stories and rhymes. • Play word games and riddles. 	<ul style="list-style-type: none"> • Read a wide range of books and journals. • Take part in group projects. • Discuss ideas. • Plan and deliver presentations.

Theory into practice

Visit a video-sharing website such as YouTube and search for 'Speech Journey'. Watch the video clip about the milestones that most children will achieve. Make notes of some examples of one- or two-word phrases that you hear.

If you have any placements with children, see if you can identify these speech milestones.

Discuss your examples with other learners. Can you identify a general pattern in the way children develop language? Compare and contrast ways in which individual children develop differently.

Key terms

Abstract logical thinking – the ability to solve problems using imagination without having to be involved practically. This is an advanced form of thinking that does not always need a practical context in order to take place.

Egocentric thinking – not being able to see a situation from another person's point of view. Piaget thought that a young child assumed that other people see, hear and feel exactly the same as the child does.

Concrete logical thinking – the ability to solve problems providing an individual can see or physically handle the issues involved.

Piaget's model

Cognitive development is a child's ability to learn and solve problems, for example, a two-month-old baby learning to explore the environment with their hands or eyes or a five-year-old learning how to solve simple mathematical problems. One theorist who provided insight into cognitive development was the Swiss developmental psychologist, Jean Piaget.

Stages of cognitive development

His research focused on how children acquire the ability to think. He came to the conclusion that children think differently to adults. He suggested that a four-year-old cannot use abstract logic (**abstract logical thinking**) because they are not mature enough (no matter how well they are taught). He observed that infants use **egocentric thinking**, which means they can only understand the world from their own perspective. Piaget believed that the ability to think logically does not happen until around the age of seven years old when children can use simple logic (**concrete logical thinking**) to solve problems, for example that the amount of water stays the same when poured into a different shaped container.

Piaget believed that there were four stages of intellectual development which mature or 'unfold' during the early stages of the lifespan (see Table 1.7).

► **Table 1.7** Piaget's stages of cognitive development

Stage	What occurs
Sensorimotor: birth–2 years	Infants think by interacting with the world using their eyes, ears, hands and mouth. As a result, the infant invents ways of solving problems such as pulling a lever to hear the sound of a music box, finding hidden toys and putting objects into and taking them out of containers. Piaget believed that a baby would not have a way of remembering and thinking about the world until they were about 18 months old.
Preoperational: 2–7 years	Children use symbols to represent their earlier sensorimotor discoveries. Development of language and make-believe play takes place. Piaget believed that children at this stage cannot properly understand how ideas like number, mass and volume really work. A child might be able to count to 100 but might not understand what a set of 10 really means. If 10 buttons are stretched out in a line and 10 buttons are placed in a pile, a child might say that there are more buttons in the line because it is longer!
Concrete operational: 7–11 years	Children's reasoning becomes logical providing the issues are concrete. In the concrete operational stage, children may be able to understand simple logical principles. For example, if the teacher asks, 'Jessica is taller than Joanne, but Jessica is smaller than Sally, who is the tallest?' A 7 or 8-year-old might find it difficult to imagine the information needed to answer the question. However, if the teacher shows a picture of Jessica, Joanne and Sally, the child might quickly point out who is the tallest.
Formal operational: 11–18 years	This is when the capacity for abstract thinking allows adolescents to reason through symbols that do not refer to objects in the real world, as is required in advanced mathematics. Young people can also think of possible outcomes of a scientific problem, not just the obvious ones. Abstract thinking enables individuals to think through complicated ideas in their heads without having to see the concrete image.

Piaget's theory explains cognitive developmental stages up to adolescence. Some psychologists suggest that there is a 'post-formal operational' stage of thinking in which adults become more skilled in their ability to make flexible judgements. It may be that many adults develop an ability that could be called 'wisdom' as they grow older. Thinking becomes pragmatic expert knowledge about the practical aspects of life, which permits using judgement about important matters.

The development of schemas

An important aspect of Piaget's cognitive development theory was the notion that children go through a series of stages of intellectual development. He referred to these stages as schemas. According to Piaget, a schema is a category of knowledge as well as the process of acquiring knowledge. A child develops concepts about the world around them (a state of **equilibrium**). As they experience situations where new information is presented, their schemas are upset and they reach a state of **disequilibrium**. As the new information is **accommodated**, the original schemas are modified or changed so they again reach a stage of equilibrium. For example, Jack is two years old and loves walking near the farm in his village to see the animals in the fields. Jack has developed a schema for a cow. He knows that a cow is large, has four legs and a tail. When Jack sees a horse for the first time he might initially call it a cow as it fits with his schema of a large animal. Once Jack has been told that the horse is a different animal, he will modify his existing schema for a cow and create a new schema for a horse.

What do you think will happen the first time that Jack sees a miniature horse? He could mistakenly identify it as a dog unless someone explains that the animal is actually a very small horse. He must modify his existing schema for a horse to include the fact that while some horses are very large animals, others can be very small.

Tests of conservation

In the operational stage (see Table 1.7), children understand the theory of conservation – that something's appearance may change but that its quantity will stay the same. By the age of seven, they have the ability to understand that when you move liquid from a wide container to a tall thin container it does not affect its volume. Younger children might not understand this and think that the amount of liquid has changed because the appearance of the container it is in has changed. This is illustrated by the following case study.

Case study

Using play



Jack is five and a half years old. He is at Piaget's pre-operational stage. Jack loves water play and his mum is using a play activity to introduce him to the idea of the conservation concept. According to Piaget's theory, Jack will have little understanding of conservation involving liquid quantity until he is six or seven.

His mum takes two short fat plastic glasses and begins to fill them with coloured water. She asks Jack to say when the two glasses have the same amount of water in them. She pours a little of the water from one glass to the other until Jack agrees that the level of coloured water is the same. She next pours the coloured water from one of the short fat glasses into a tall thin plastic glass and asks Jack which glass has more coloured water in it. Jack, like most children under the age of six, points to the tall glass. Jack has not developed a concept or schema for the quantity of liquid remaining the same when it is poured into a different glass.

Key terms

Equilibrium – a state of cognitive balance when a child's experience is in line with what they understand.

Disequilibrium – a state of cognitive in balance between experience and what is understood.

Accommodation – modifying schemas (concepts) in relation to new information and experiences.

Egocentrism

Much of Piaget's preoperational stage focuses on what children are unable to do. Like the concept of conservation, the idea of egocentric behaviour centres on abilities that children have not yet developed. Egocentrism is best described as a young child's inability to see a situation from another person's point of view. They assume that other adults and children see, feel, and hear exactly the same as they do. At nursery, preoperational children engage in parallel play – they play alongside rather than together with other children. They are absorbed in their own world and speech is used to externalise their thinking rather than to communicate with other children.

Criticisms of Piaget

Although Piaget's theory remains influential in the early years sector, there are criticisms that he based his theory on observations of a small number of children. Critics of Piaget also suggest that the age/stages he describes may be more fluid than he thought and that he underestimated and/or overestimated children's cognitive abilities. Watching children playing at the age of five, for instance, often shows that they do understand other's feelings and are far less egocentric than Piaget suggested. Bruner did not agree with Piaget's notion of fixed stages and 'readiness' to learn. He believes that, with adult support, children can be helped to progress to higher level thinking skills. He, like others, thought that an individual's ability to use formal logical thought may depend on how much encouragement they have received to think logically. Other research suggests that children take longer than 11 years to become skilled at abstract logical thinking. Cognitive development might not be part of a maturation process, it could depend on a child's environment and the quality of their formal and informal education.

Research

Research Piaget's stages of cognitive development, the development of schemas and how he used his tests of conservation. You can watch examples of Piaget's Conservation experiment on video-sharing websites. To what extent do you think his theory may be used in explaining children's thoughts and actions. What do critics say about Piaget's theories?



PAUSE POINT

Close the book and draw a flow chart to show Piaget's theory on the development of schemas.

Hint

Schemas are ideas or concepts that children develop, eg based on experiences or things that they see in their environment.

Extend

Produce a case study that helps to explain your chart.

Chomsky's model of language acquisition


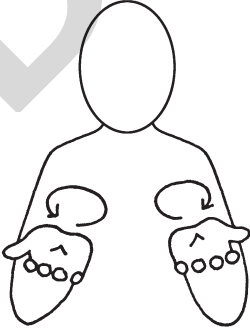
Noam Chomsky (1959) believed that the ability to develop a signed or spoken language is genetically programmed into individuals. This means that all individuals have the ability to understand and use language, regardless of other abilities, and to become fluent in their first language by the age of five or six.

Language acquisition device (LAD)

Chomsky states that individuals are born with a 'language acquisition device' (LAD) that enables children to recognise and develop the languages they experience. According to Chomsky's theory, children are 'preprogrammed' to acquire language

and it evolves naturally in the same way that children have the ability to stand and to walk. The ability to use language develops because of maturation – it is the unfolding of an individual's biological potential. Chomsky believes that a child could not possibly learn a new language through imitation alone because the grammar and syntax of the language around them is often highly irregular. For example, an adult's speech is often broken up, and they use slang or jargon and ungrammatical sentence construction. Chomsky believes that babies need to experience other people using language but that they do not need to be trained in order to speak. He noted that even if adults around a child use correct grammar or even correct a child, they will continue to apply plural 'rules', for instance 'deers' or 'geeses', if they have reached that particular stage of language development. Chomsky applied his theory to all languages, not just English, as they all contain nouns, verbs, consonants and vowels.

Critics of Chomsky point out the lack of scientific evidence to support his theory. Social constructivists such as Bruner would argue that social interaction, particularly in the early stages of language development, is critical and has far more influence on children than Chomsky suggested. Others argue that Chomsky put too much emphasis on the grammar in sentence structure rather than how children construct meaning from their sentences. Chomsky did not take into consideration children who experience delayed language development for a variety of reasons, for example children who have a learning disability or hearing or speech impairments. Children with Down syndrome are among those whose language is frequently delayed.

Sign	Sign note
Sleep	 Eyes closed
Where?	 No sign note

Discussion

Working in small groups, discuss how quickly you learnt to speak when you were young. Compare this with your experience of trying to learn a second language in school. Reflect on how far personal experiences can be explained in terms of a genetic basis for a person's first language.

Early to middle adulthood

In early adulthood, individuals apply the knowledge, skills and experience they have gained during their life. This helps them to think logically and find realistic answers. At this life stage, they are likely to be in job roles which require them to think through problems and make decisions, sometimes relating to complex situations. New brain cells will continue to develop even though, in middle adulthood, there may be a gradual decline in the speed of processing information.

The effects of age on the function of memory

Memory loss in later adulthood

It is assumed that memory loss is associated with the ageing process. However, the brain has an amazing capacity to produce new brain cells at any age. Just as exercise can protect muscular strength, lifestyle, health activities and daily activities have an impact on the brain. Age-related memory lapses can be frustrating but are not necessarily a sign of dementia. Physiological changes that can cause a temporary malfunction in the way the brain functions are part of the ageing process. It might take an older person longer to learn and recall information and this is often mistaken for memory loss. There is a difference between memory lapses and the type of memory loss associated with Alzheimer's disease and other forms of dementia.



PAUSE POINT

Remember the life stages and key physical and intellectual development milestones. Draw a life pathway labelling each stage along the route.

Hint

There are six life stages described in this unit. Make sure you know and can give age ranges for each life stage.

Extend

Note one example of physical and intellectual development for each life stage and then check your ideas against the milestones.

A3 Emotional development across the life stages

Emotional development is the way an individual begins to feel about and value themselves and other people. This forms the basis of **emotional literacy** and **empathy**. Emotional development begins with **attachments** which an infant forms to their main caregiver. If a child forms a strong attachment to their main caregiver, it can help to ensure a positive **self-image** and good **self-esteem**. Table 1.8 shows the key features of emotional development throughout the lifespan.

Key terms

Emotional literacy – the ability to recognise, understand and appropriately express emotions. Emotional literacy is essential for forming positive social relationships.

Empathy – the ability to identify with or understand another's situation or feelings, 'walking a mile in someone else's shoes'.

Attachment – a strong emotional connection between a child and caregiver.

Self-image – the way an individual sees themselves, their mental image of themselves.

Self-esteem – how a person feels about themselves, self-worth or pride.

► **Table 1.8** Key features of emotional development

Life stage	Emotional development
Infancy: 0–2 years	Attachment Bowlby (1953) argued that infants have an inbuilt need to form an attachment with a carer. The quality of this attachment may affect emotional development for the rest of the child's life. Salter Ainsworth et al (1978) and Marris (1996) argue that the quality of our early attachment influences the assumptions we make about ourself and others. Infants who are securely attached will grow up with the emotional resources needed to cope with uncertainty in life. Infants who are insecurely attached may have a reduced ability to cope with stress and major life events.

► **Table 1.8** – *continued*

Early childhood: 3–8 years	Understanding self and others Children use their imagination to begin to understand the social roles that other people play. Children begin to imagine a ‘me’, an idea of self or self-concept . Relationships with other family members may influence whether a child feels valued or has a sense of self-worth. The way a child gets on with teachers and friends may influence their self-confidence. The child might develop a permanent sense of confidence or a sense of failure and inferiority.
Adolescence: 9–18 years	Identity During adolescence, this sense of self continues to develop. An adolescent needs to develop a secure self-concept . A person needs a clear understanding of identity in order to feel secure when working with other people or in order to make a loving sexual attachment. This may be a stressful time as self-esteem may depend on developing identity.
Early and middle adulthood: 19–65 years	Intimacy In adulthood, an individuals’ self-esteem is influenced by lifestyle such as their job or marital status. Self-image is affected by personal appearance and how others see you. Individuals need to learn to cope with emotional attachment to a sexual partner. This may involve not being too self-centred or defensive and not becoming emotionally isolated.
Later adulthood: 65+ years	Making sense of your life Older people need a secure sense of self to enable them to cope with the physical changes associated with ageing and death. People who fail to make sense of their lives might experience emotional despair.

Key term

Self-concept (sense of identity) – an awareness formed in early childhood of being an individual, a unique person and different from everyone else.

Attachment to caregivers

A secure attachment to a main caregiver means that a child will feel secure, loved and have a sense of belonging. Caregivers are the secure base from which children explore the world around them. They are protectors and help the child to feel happy, secure and confident. It is important that parents ensure that children have the physical, mental and emotional nourishment to develop healthily. Secure attachments in childhood lead to happier and healthier attachments with others in the future. If there is a lack of a healthy attachment, then a mistrust of care givers or adults in authority could develop. Insecure attachments can lead to behavioural issues, a lack of ability to receive affection or manipulative behaviour. Children may not develop the secure base necessary to cope with life events.

Theories of attachment

John Bowlby refers to attachment as a deep and enduring emotional bond that connects a child to their primary caregiver.

His attachment theory originated during the 1930s. While working as a child psychiatrist treating many emotionally disturbed children, Bowlby began to consider a child’s relationship with their mother. Bowlby linked the importance of social, emotional and cognitive development to the relationship that the child had with their mother. He believed that children were biologically preprogrammed to form attachments and that infancy is a critical period for forming positive attachments. This led Bowlby to consider problems associated with early separation from the primary caregiver.

Working with James Robertson, Bowlby observed that children experienced **separation anxiety**, an intense distress, when separated from their mothers. The child's distress and anxiety did not disappear even when they were being fed by another carer. Bowlby suggested that attachment could be understood as evolving from the caregiver providing safety and security for the infant. According to Bowlby, infants have a universal need to seek close proximity with their caregiver when under stress or feeling threatened.

Critics argue that Bowlby oversimplified his theory. Rutter argues that maternal **deprivation** in itself may not result in long-term problems. He suggests that **privation** is far more damaging. Privation happens when children have not had the opportunity to form attachments or have poor quality attachments caused by a lack of social or intellectual stimulation. While Bowlby believed that attachment is a natural, biological process, others suggest that it is learned behaviour influenced by factors such as the environment, culture and/or the baby's temperament. You can read more about the nature/nurture argument later in this unit.

Research by Schaffer and Emerson suggests that babies are most likely to form attachments to caregivers who respond effectively to their signals. This is not necessarily the person they spend the most time with. This is referred to as sensitive responsiveness. The most important factor in forming attachments, therefore, is not the adult who feeds and changes the baby but the adult who plays and communicates with them.

Schaffer and Emerson (1964) identified a sequence in the development of attachment (see Table 1.9).

Key terms

Deprivation – being deprived of a caregiver to whom an attachment already exists.

Privation – being deprived of the opportunity to form an attachment.

Separation anxiety – the fear and apprehension that infants experience when separated from their primary caregiver.

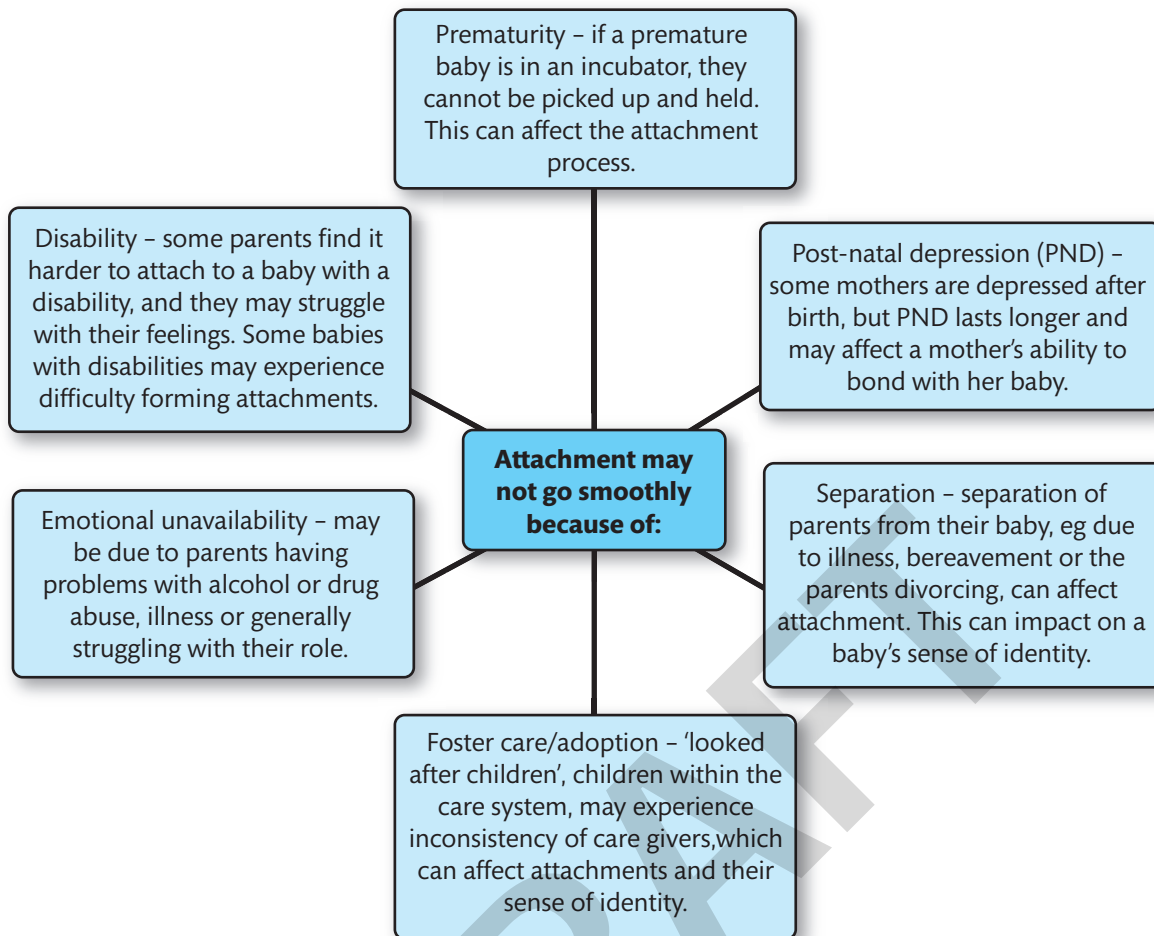
► **Table 1.9** Schaffer and Emerson's sequence of attachment

Age range	Stage
Up to 3 months	Most babies respond indiscriminately to any caregiver.
3 months up to 7 months	Infants can distinguish the difference between their main caregiver and other people. The infant will accept care from other people.
7 months up to 9 months	This is when the infant looks to particular people for security, comfort and protection. The baby shows fear of strangers and unhappiness when separated from their main caregiver. Some infants are more likely to display fear of strangers and stranger anxiety than others.
9 months +	The baby starts to become more independent and forms several attachments, referred to as multiple attachments.

Key term

Stranger anxiety – when an infant becomes anxious and fearful around strangers.

Parenting is one of the most important factors affecting children's development. The way in which parents feel about their child and how they form a relationship with them is crucial. Babies need strong attachments in order to be emotionally and socially well developed. Children with good attachments are likely to have more confidence, higher self-esteem and are, therefore, less likely to show clinginess and demanding behaviour. However, there are several factors that can affect the attachment process and impact on a child's overall development.



► **Figure 1.3** Examples of reasons for poor attachment

Case study

Ibrahim – early attachment



Ibrahim was born two months' prematurely and the midwife quickly realised that he had Down syndrome. Ayesha, Ibrahim's mum, was 47 years old when he was born and had experienced a difficult pregnancy. After the birth, Ibrahim was taken to the maternity intensive care unit. Ayesha experienced a severe bout of post-natal depression. Ayesha's husband Farid worked long

hours as a senior pharmacist and her eldest daughter, Samira, was overseas on a gap year before going to university. Tariq, aged 15 had always been very close to his mum and he helped to look after the baby. Tariq was very good at talking and playing with Ibrahim as well as feeding and bathing him and changing his nappies. Ibrahim soon developed an attachment to Tariq and was very upset when his brother was not with him, refusing to take his feed and becoming very distressed.

Check your knowledge

- 1 Describe what attachment means and explain the importance of attachment in a child's development.
- 2 Explain three factors that have affected Ibrahim's attachment to his mother.
- 3 To what extent can Bowlby's theory justify Ibrahim's reaction to being separated from his brother?

The development and importance of self-concept

Definitions and factors involved in developing positive or negative self-esteem

Positive self-esteem is an important part of emotional wellbeing. Self-esteem involves both self-confidence and self-acceptance. In children, self-esteem is shaped by what they think and feel about themselves. Children who have high self-esteem have an easier time in relationships, resisting peer pressure, making friends and handling conflicts. Children with a positive self-esteem have a generally optimistic view of the world and their life in general. Babies and infants can achieve a growing sense of self and a positive self-esteem through the attachments which they develop with their main caregivers, as shown in Table 1.10.

► **Table 1.10** Development of self-esteem

Age	Developmental stage
0–18 months	During infancy, babies start to build self-esteem by having their basic needs met, for example closeness, love and comfort. Babies gradually become aware that they are loved as their primary caregivers provide comfort, care, support and attention. This shows the infant that they are important, as well as safe and secure.
18 months–2 years	Although infants have not yet developed a clear understanding of self-esteem, every time they learn a new skill they begin to realise what they can achieve and begin to learn about themselves, what they can do, what they look like and where they belong. If infants are shown love by their primary caregivers and treated as special, this impacts on their self-esteem. Infants who feel unloved find it more difficult to develop a sense of self-worth and to value themselves.

By the time a child reaches the age of four, positive self-esteem is reinforced by what the child can do successfully and independently, and also by the feedback they receive from their carers. Parents and carers can help to foster a child's self-esteem by teaching problem-solving skills. They should also include children in tasks that provide a sense of accomplishment, asking children for their opinions and introducing children to social settings. Parents can also encourage young children to accept failure as well as success, seeing it as a learning experience and not a negative process.

In contrast, children with low self-esteem can become passive, withdrawn and depressed. These children have difficulty dealing with problems, are very self-critical and speak negatively about themselves. A number of factors impact on children's self-esteem. They may be experiencing difficulties at school, for example completing schoolwork, being bullied or not having friends. There could be stress at home, sibling rivalry or parents arguing. Children facing these problems become pessimistic about themselves and life in general. They can become easily frustrated and see temporary problems as permanent issues.

The physical and emotional changes which occur during puberty and adolescence can present new challenges to young people. Fitting in with peer groups and gaining acceptance is very important. This is a period when young people can learn from their own mistakes and take responsibility for their own actions. Self-esteem can become fragile and may change from day to day. Many teenagers become overly concerned about their physical appearance and how they are viewed and accepted by their peers. Body image is an essential part of a young person's self-esteem. Young people who have a poor body image, who think they are fat, not pretty enough or not muscular enough, can experience low self-esteem.

There has been research into low self-esteem in young people and the problems which are associated with it. For example poor school achievement, behaviour problems, experiencing bullying, teenage pregnancy, smoking and using alcohol and drugs. Other factors include refusing to go to school, depression and thoughts of suicide.

Self-esteem is not fixed and may fluctuate through the life stages. In adulthood, the factors that impact on self-esteem may change. Career development and other personal achievements will increase a person's self-worth while stress and life events that are difficult to cope with can result in lack of confidence and negative self-esteem.

Definitions and factors involved in developing positive or negative self-image

Self-image is the mental picture, a personal view that an individual has of themselves. In other words it is like an internal dictionary which describes an individual's characteristics, for example intelligent, talented, kind, selfish, ugly, beautiful, fat or thin.



► What do you see when you look in the mirror?

Self-image is determined in early childhood by the quality of social interaction and the influence of parents or care-givers. A parent who makes positive comments about a child's appearance in a consistent way lays the foundations for a positive self-image. If a parent either ignores a child or constantly makes negative comments then this can impact on the way the child begins to see and think about themselves. Experiences with other people, teachers, family and friends can reinforce what we think and feel about ourselves. For example, if a young person is being made fun of and bullied because of the way they look, then this can lead to physical and psychological problems.

An individual's self-image can be a real or distorted view of who they actually are. It does not necessarily reflect reality. Feelings about image can become internalised and affect how an individual acts. During adolescence, physical appearance becomes particularly important because young people have to come to terms with changes in their body shape and sometimes unwanted physical characteristics, such as acne. The media often portray an ideal image of the female and male figure in advertisements. Self-image is more than what an individual looks like or how other people see the individual. It is also how a person thinks, feels and reacts to self-perceived physical attributes. A young person with anorexia or bulimia who is thin may have a self-image in which they see themselves as fat. A negative body image can lead to psychological problems including anxiety, eating disorders, depression and a negative feeling of self-worth.

Self-image can also be affected by life events and social roles. These influence how others see us and how we define ourselves. Roles such as learner, parent or member of a football team not only help others to recognise the status of an individual but also provide guidelines for behaviour. Life events, roles and status influence personal traits that can also be an important part of self-image. These lead to self-description that

can include things like, 'I am impulsive', 'I am generous', 'I tend to worry a lot'.

Interestingly, younger people have a tendency to describe themselves in terms of personal traits whereas older people feel defined by their social status. For example, 'I am a wife', 'I am a mother', 'I am a midwife', 'I am a member of the badminton team'.

Understanding self-image is very important because it explains how an individual thinks about themselves and how they interact with other people and the world around them. A positive self-image can enhance physical, social, mental, emotional and spiritual wellbeing.

Theory into practice

Produce a leaflet with the definitions and factors involved in developing positive or negative self-esteem.

Also include the definitions and factors involved in developing positive or negative self-image.

A4 Social development across the life stages

When considering social development across the lifespan, it is important to be aware of the great difference between generations and the cultural variations in the way in which individuals will experience social relationships during the course of their lives.

Social development involves learning how to interact socially with other individuals in the family and society in general. Social development provides the opportunities and skills that enable people to develop relationships. Not all individuals will experience social relationships in the same way. Some of the different factors are listed in Table 1.12.

The stages of play, in infancy and early childhood

Children learn and practise basic social skills through play. They develop a sense of self, learn to interact with other children, how to make friends and how to role play.



Jean Piaget highlighted the importance of play for learning and development. When infants play independently it is known as solo play. It starts in infancy and is common at this life stage because they have limited social, cognitive, and physical skills. Solo play provides infants with a variety of learning opportunities, in particular the chance to explore the environment at their own pace. It can help infants to focus their attention, become self-reliant, learn by making mistakes and increase their self-esteem.

Parallel play

Between the ages of two and three, infants move from solo play to playing alongside other children. They have not yet developed the sharing and turn-taking skills required for group or co-operative play. Although infants are engaged in similar activities such as water or sand play, there will be little interaction as each infant will be engrossed in their own independent activity, which is not influenced or shared with others. However, although infants may appear not to interact with other infants and older children, they do show an interest in what other children are doing and still like to be in the presence of adults and other children.



Co-operative play



Between the ages of three and eight, children begin to widen their social network group and form relationships with their peers and other adults. By the age of three, a child has become more co-operative in their play, helped by their language development. For example, moving away from having temper tantrums if they cannot get their own way, playing together with other children, sharing toys and taking turns in games. By the age of seven, most children have established a number of important friendships and others may refer to one friend as their 'best friend'.

Play is essential for communication skills, negotiating roles and beginning to appreciate the feelings of other children. By responding to their peers' feelings, children learn to be more co-operative in their play.

► **Table 1.11** Ages and stages of play

Type of Play	Age	Description of Play
Solo play	0–1 year	Looks at adults closely, puts things into mouth and touches things with hands. Plays alone with toys. Gradually begins to play simple games, for example peek-a-boo and begins to explore toys alone.
Solo play	12–18 months	Begins to play and talk alone, repeats actions and starts to play with adults, notices other children.
Parallel play	18 months–2 years	Begins to enjoy repetitive actions, such as putting objects into and taking them out of boxes. Begins to copy other children and adults. Enjoys playing with adults as well as on own. Learns to complete tasks through trial and error.
Associative play	3–4 years	Begins to play co-operatively with other children and starts to show reasoning skills by asking questions, 'why' and 'how'. They join in pretend and fantasy games negotiating and taking on roles.
Co-operative play	4–6 years	Begins to use simple rules in games. Plays co-operatively towards a shared goal and takes turns when playing table top games with other children.
Co-operative play	6–8 years	Begins to enjoy playing in small groups, making up own games and rules. Enjoys understanding and using rules, but does not usually cope well with losing.



PAUSE POINT

Use Piaget's stages of cognitive development to show how the theory helps to explain the stages of play.

Hint

Consider the importance of senses for infants when they are absorbed in solo play (sensorimotor stage) and of symbolic play and language for children during co-operative play (pre-operational stage).

Extend

Go on to explain Chomsky's model of language development in terms of the development of play.

The importance of friendships and friendship groups

Social benefits of friendships

There are many different social benefits associated with friendship groups. On a practical level, friends can help an individual cope with traumatic life events, for example job loss, serious illness, bereavement or relationship breakdown. Close friendships can help support an individual to maintain a healthy lifestyle, for example by encouragement to avoid excessive drinking, or junk food and to take regular exercise. On an emotional level, friendship groups can help people avoid loneliness, provide a sense of belonging, a sense of self-worth and self-confidence. This can lead to reduction of stress and depression and a boost in happiness. As people get older, friendships may take a back seat due to changing interests or circumstances. Other priorities begin to emerge, career and home commitments, caring for children or vulnerable parents, and may lead to friendship groups growing apart.

Effects of peer pressure on social development

Between the ages of 9 and 18, young people enter puberty and adolescence, and there is a close link between their social and emotional development. During adolescence, young people become more independent, socialising outside the family and gaining more freedom. Peer groups play an important part in this stage of social development and begin to have a greater influence on values, views and opinions. Peer pressure can be challenging for teenagers and their families, for example encouraging risky behaviour such as drinking alcohol, taking drugs and engaging in unprotected sexual activities.



► TBC (when image obtained)

Developing relationships with others

Friendship between young children is very different from friendship between older children, adolescents or adults. Young children tend to form relationships based on play. They quickly fall out with each other and just as quickly make up. Relationships for older children, adolescents and adults are more complex and may involve much more than friendship. This may require new skills. Just as children grow and develop in an observable sequence, the ability to develop relationships also tends to follow a pattern. As children mature and start to think beyond their own needs and are able to see the world from other people's viewpoints, they become able to develop meaningful relationships.

Relationships with others may be informal or formal. Informal relationships develop within families and significant people in individual's lives. They start in infancy and develop into strong bonds as they are built on trust and understanding. Informal relationships promote a positive self-concept that prepares adolescents and adults for developing intimate relationships that show mutual respect.

Formal relationships develop in different contexts between people who are not related or friends, for instance between colleagues or between teacher and pupil. Formal relationships do not involve emotional attachments but are important to social development. They demand different skills, confidence and self-esteem. Children who have positive relationships with family and others are likely to be successful in developing effective formal relationships.

► **Table 1.12** The development of social relationships

Life stage	Social development
Infancy 0–2 years	Interacting with carers Infants appear to have an in-built tendency to interact with carers. By 2 months, they may start to smile at human faces. At 3 months, they will respond when adults talk. At 5 months, infants can distinguish between familiar and unfamiliar people. Infants make their first relationships as they form an emotional attachment to carers. In the later stages of infancy, infants will play alongside other children (parallel play).
Childhood 3–8 years	First social learning Young children are emotionally attached and dependent on the adults that care for them. Children begin to learn social roles and behaviour within their family context (first or primary socialisation). A family environment might provide a 'safe base' from which to explore social relationships with other children through play. Children will learn to co-operate with other children (co-operative play). As children grow older they become increasingly independent and begin to form friendships based on a sense of mutual trust. Friendships become increasingly important as children grow towards adolescence. Children may begin to form social networks or 'circles' of friends who like and who agree with each other.
Adolescence 9–18 years	Secondary social learning During adolescence a person's sense of self-worth may be more influenced by their peers than by their family. Adolescents copy the styles of dress, beliefs, cultural values and behaviours of their own network of friends. Historically, adolescence was seen as a time of 'storm and stress'. Adolescents have to cope with the development of their own sexuality (the impact of sex hormones at puberty) and the social transition to full independence from the family. Recent research suggests that many adolescents experience a smooth transition to adult roles without serious conflict with parents.
Adulthood 19–65 years	Maturity During early adulthood, friendship networks continue to be very important. For most people, early adulthood is dominated by forming intimate partnerships and by the need to find employment/establish a career. For many people, marriage and parenthood represent major social developments in their life. In middle adulthood individuals experience time pressures that may limit their social activity. Mature adults may have to split their time between work, caring for parents, other family commitments and wider social activities. Some mature adults report a reduction in the amount of social activity due to these pressures.
Older adulthood 65+ years	Following retirement, older adults have more free time to develop friendships through taking up new hobbies, pastimes and travel. Others may choose to increase their involvement with close friends and family rather than extend their network of social contacts.

The development of independence through the life stages

Infancy and childhood

In infancy, young children are totally dependent on others for their care but, towards the end of this life stage, they begin to assert their need to become independent and attempt to do more for themselves. This comes with increased skills and abilities in dressing and feeding themselves. In early childhood, although still very dependent on parents and carers, they are widening their experience – starting school and joining clubs and activities outside the home. Children gradually become less reliant on close family and start to make their own decisions. Initially, these may be limited to activities, food choices or which clothes to wear but, by the time they reach the end of this life stage, they will have developed clear likes and dislikes.

Peer influence in adolescence

In adolescence, young people begin to question their sense of identity, and who they are, and begin to see themselves as separate and independent from their family. Young people may begin to question their family's values and become influenced by peer group norms and values. Peer influence can lead a young person to question choices and decisions that have been made on their behalf. Young people can learn from real-life experiences about the consequences of making good or poor choices.

Starting employment

Between the ages of 16 and 18, many young people begin to make important decisions about their career options. Young people need to be realistic and empowered to make informed choices about their future career prospects. Starting employment is an important transition and is effectively the first step into an adult world as their status changes from learner to employed worker. It is important to adapt from the rules and routines of a school/college/university day to the policies and procedures of the workplace. The financial independence associated with starting employment is also a step towards full independence. Managing finances, from reading a wage slip, opening a bank account to developing budgeting skills are all important aspects of becoming independent.

Leaving home

There is a clear relationship between leaving home, independence and adulthood. Independence means different things to different people but moving out of the family home is an important step in the process. At some stage in their early twenties, many young people decide to leave their family home. Although many now stay at home longer, because they are studying, unable to work or can not afford to live independently. Leaving the parental home represents a major transitional event, which is more complex than simply changing address. It could mean making certain sacrifices such as a lower standard of living. While this allows for a new level of independence and self-reliance, juggling household chores with work and managing household bills require young adults to develop a new set of skills.

Starting a family

The new status and responsibilities associated with starting a family may be an important aspect of developing independence. Developing parenting skills and becoming part of a new family unit can provide a sense of identity and a feeling of achievement. Becoming a parent is a major life change and the transition requires lifestyle changes and sometimes financial difficulties. New parents must put the needs of the new baby before their own, which can involve making sacrifices. For instance, a parent may choose to put their career on hold or change working patterns and this can impact on financial and emotional independence. Although family members may be able to offer support, the ultimate responsibility is with the new parents. Parenting can be hard work, making demands on both time and energy.

Discussion

In a small group, discuss what independence means to you.

Consider situations where you might lose some of your independence such as through accident and illness, and identify the effects it would have on your emotional development.

Share ideas with other groups.

Middle adulthood

By middle adulthood, people often have fewer family responsibilities and they can more easily pursue their hobbies and interests. It is in this life stage when individuals are more likely to reach the peak of their career and they may have more disposable income that gives them more independence, choice and freedom. It is during this life stage that individuals may begin to establish different social networks and be able to travel more. However, this is not true for everyone in this age group. Changes to the pension system may result in individuals working longer or taking on part-time work when retired. When retired, many parents at this life stage act as carers for their grandchildren or provide support for elderly parents. This can mean restrictions to an independent lifestyle.

Older adulthood

During the twenty-first century it has become apparent that Britain is an ageing society. According to a report by Age UK, the number of centenarians living in the UK has risen by 73 per cent in the last decade. Many people remain active in their eighties and nineties. For this reason, later adulthood is best viewed in two stages. After retirement between the ages of 65 and 75, many older people remain active with a busy social life, enjoying freedom from a career. Many older people take advantage of free bus passes and concessionary entrance costs. This means that independence can be maintained in later life. The internet and social media makes it easier to explore new interests and relationships. Many older people develop IT skills and make good use of social media that helps them to keep in touch. Although many people remain socially active, which is positive for all aspects of development, some older people begin to disengage from society, especially if spouses and friends have died. This can be a lonely and vulnerable stage which means they lose much of their independence and have to rely on others for their care.

Research

There are aids available that help people to maintain their independence, for example mobility aids or sensory aids.

Find out what aids are available for older people and how they can be accessed.

Assessment practice 1.1

A1

A2

A3

A4

Ayesha is 43. She has two children, Amina who is 14 years old and Saeed aged three.

Amina is experiencing puberty.

Ayesha has begun perimenopause.

Saeed's language is developing well. He is forming simple sentences and beginning to ask questions but sometimes gets his tenses and plural words wrong.

- 1 Explain, giving two examples, how puberty may affect Amina at her life stage.
- 2 Discuss the physical and emotional effects of perimenopause for Ayesha.
- 3 To what extent does Chomsky's language acquisition device help to explain Saeed's language development?

Plan

- What am I being asked to do?
- Do I need clarification about anything?

Do

- Have I considered all aspects of each question?

Review

- I can explain how I approached the task.
- Have I related the answer to the individuals in the case study?

B

Examine the ethical issues involved when providing care and support to meet individual needs

B1 The nature/nurture debate

There has been great debate about influences on human behaviour. Psychologists refer to this as the nature/nurture debate. **Nature** refers to genetic inheritance and other biological factors, whereas **nurture** refers to external influences on development such as the environment you grow up in or social influences.

Certain physical characteristics are biologically determined by genetic inheritance, for example the colour of eyes, straight or curly hair and skin pigmentation. Other physical characteristics appear to be strongly influenced by the genetic make-up of the birth parents, such as height, weight, life expectancy and vulnerability to specific diseases. However, there is still a debate as to whether psychological characteristics such as behavioural tendencies, personality traits and mental abilities are also 'wired in' before a child is born or whether they are influenced by their environment.

Bowlby's theory of attachment is a biological perspective of development (nature) as it explains the bond between mother and child as being an innate process. Chomsky's proposal that language is developed through the use of an innate language acquisition device also comes from a biological perspective. In contrast, Bandura's social learning theory (see below) is based on an understanding that the environment influences development (nurture) and that children learn through imitation and role modelling.

Characteristics and differences not observed at birth but which emerge later in life, are referred to as **maturation**. The 'nature' perspective is based on an assumption that all individuals have an inner 'biological clock' that determines when and at what rate physical development will progress.

Development as a result of genetic or inherited factors

Gesell's maturation theory

The psychologist and paediatrician Arnold Gesell was interested in children's biological maturation (that part of their growth determined by genetically determined physiological processes). In the 1940s – 1950s he developed a new methodology or 'normative approach' to researching child development which involved observing large numbers of children to find the skills and abilities that most children had in each age group. His findings were used to establish 'norms' or milestones for each developmental aspect. Gesell noted that each child moved through the sequence at their own pace. He came to the conclusion that development was predetermined and that the environment had little influence. If a child experiences delayed development, then the problem is heredity rather than the result of the child's environment and circumstances. Milestones are helpful for educators and parents today to measure children's development and to recognise developmental delay. It is important, however, to recognise individual differences in children that are influenced by environmental factors. Critics of Gesell suggest that maturation theory is not helpful in explaining individual or cultural differences or for children with learning difficulties.

Key terms

Nature – genetic inheritance and other biological factors.

Nurture – the influence of external factors after conception such as social and environmental factors.

Key term

Maturation – a genetically programmed sequence of change, for example the onset of the menopause.

Discussion

In a small group, discuss the importance of milestones for professionals when observing and assessing the development of infants and children. Give reasons for how knowing a child's stage of development can improve developmental outcomes for children in the longterm.

Development as a result of environmental factors

Bandura's social learning theory

Albert Bandura's social learning theory is based on his observations of learning occurring through observing the behaviour of others. You may have seen a young child modelling behaviours, for instance pretending they are on a mobile phone or copying dance moves. Unfortunately, children may copy unwanted behaviour such as hitting as well. Bandura suggested there were four stages of behavioural learning. Firstly, the child notices the behaviour of another person. This is likely to be someone close to them or who they admire, such as an older sibling. Secondly, the child 'internalises' the action by remembering what they have observed. Thirdly, although they may not copy straight away, they will reproduce the behaviour when the opportunity occurs. Lastly, depending on the outcome (**positive or negative reinforcement**) children will either repeat the behaviour or desist. Bandura (1961) based his theory on a famous experiment using a Bobo doll in which he demonstrated that children learn and copy aggressive behaviour by observing adults behaving aggressively. The importance of modelling appropriate behaviours is recognised by many teachers and parents.

Stress-diathesis model

The **stress-diathesis** psychological model helps to explain how stress caused by life events (nurture) can interact with an individual's genetic vulnerability (nature) to impact on their mental wellbeing. According to this theory, some individuals are born with certain biological or genetic predispositions to a mental illness, referred to as diathesis. A person who has a genetic predisposition to a psychological disorder might never develop the disorder if they do not experience stress in their life. High levels of stress, such as family conflict, abuse, trauma or problems at school, could trigger the onset for those with a predisposition.

Key terms

Positive reinforcement – the behaviour is repeated because of personal satisfaction (intrinsic reinforcement) or rewards (extrinsic reinforcement).

Negative reinforcement – the behaviour is not repeated to avoid an adverse experience such as lack of satisfaction or to avoid being told off.

Key term

Diathesis – a predisposition or vulnerability to mental disorder through abnormality of the brain or neuro transmitters.

Reflect

Form small groups to discuss what nature/nurture means to you. Draw overlapping circles on a large sheet of paper. Note the characteristics that you mainly associate with your genetic makeup (nature) in one circle and those you mainly associate with your environment (nurture) in the other. Place characteristics that are affected by both in the overlap.

While these theories are useful guidance they do not provide the answers as to whether development throughout the lifespan is down to nature or nurture. It is probably more useful to assume that hereditary and environmental factors (nature and nurture) interact to influence the type of person an individual becomes and the type of behaviour they display.

B2 Genetic factors that affect development

Each living cell in the human body has a nucleus containing 23 pairs of chromosomes. In each pair of chromosomes, one comes from the father and one from the mother. Each chromosome carries units of inheritance known as genes, and these genes interact to create a new set of instructions for making a new person. Genes, for example, determine the colour of your eyes and hair and whether you will be short or tall.

Genes are made of a substance called deoxyribonucleic acid (DNA). DNA contains the instructions for producing proteins. It is these proteins that regulate the development of a human being.

Genetic predispositions to particular conditions

A predisposition is the possibility that you will develop a certain condition. A **genetic predisposition** means that you inherit that possibility from one or both of your biological parents. However, a genetic predisposition does not mean that it is a certainty that you will develop that condition. Although the genetic makeup that predisposes these conditions cannot be altered, we can sometimes alter environmental factors and offer support and treatment to allow the individuals to develop and lead life as healthily as possible. There are some inherited conditions, some rarer than others, that have serious consequences for a child's growth and development.

Key term

Genetic predisposition

– inherited genes that determine physical growth, development, health and appearance.

Cystic fibrosis

Cystic fibrosis is caused by a faulty gene thought to be carried by as many as 4 per cent of the UK population. The gene is recessive, which means that both parents must be carriers for their children to develop cystic fibrosis. When both parents carry the faulty gene, there is a one-in-four chance that their child will be born with cystic fibrosis.

Cystic fibrosis results in a defective protein being produced that can cause the lungs to become clogged with thick sticky mucus. People with cystic fibrosis may have problems absorbing nourishment from food and they may also suffer from respiratory and chest infections. In the past, children with cystic fibrosis often had a very short life expectancy, but contemporary medical treatments have succeeded in extending both quality of life and life expectancy. Physiotherapy helps people with cystic fibrosis to clear mucus from their lungs. Various drugs help control breathing and throat and lung infections, and a special diet and drugs help with food absorption. In the future, it may become possible to use genetic therapy to replace the faulty gene.

Brittle bone disease

Brittle bone disease may be passed from a person's parents, but it can also develop from a genetic mutation. Children born with brittle bone disease are at high risk of fracturing or breaking their bones easily because their bones develop without the right amount or type of a protein called collagen. There are different types of the disease and some types are more serious than others. Children with brittle bone disease can often be helped through physiotherapy, assistive equipment and drug treatments to help strengthen their bones.

Phenylketonuria (PKU)

PKU is a rare genetic disorder that prevents a child from breaking down phenylalanine, an amino acid (a building block for protein) found in many foods such as milk, meat and eggs. In PKU, if the child eats foods containing phenylalanine there is a build-up of harmful substances in the body that damages brain development. The condition cannot be cured. All babies in the UK are screened at birth by a heel-prick blood test. If a high phenylalanine level is detected, treatment will be started immediately with a special diet and medication to prevent the buildup of harmful substances. A baby born with undetected PKU would fail to meet developmental milestones and experience developmental delay as their brain became damaged. Untreated PKU would result in severe learning disability and the child's death.

Huntington's disease

Huntington's disease can develop at any age but often starts between the ages of 35 and 55. Huntington's disease is an inherited neurodegenerative genetic disorder that causes progressive damage to certain nerve cells in the brain. It can affect muscle coordination and cause mental decline and behavioural changes. The brain damage gets progressively worse over time, with perception, awareness, thinking

and judgement (cognition) affected. Although the symptoms of the disease can vary between individuals, and even affected members of the same family, the progress of the disease is usually predictable.

The earliest signs are hardly noticeable and may be missed or mistaken for other conditions, for example subtle changes in personality and mood swings, irritability, altered behaviour and fidgety movements. As the disease progresses, the features of the disease can include psychiatric problems, problems associated with feeding, communication and erratic behaviour. During the later stages of the disease, movement, behaviour and cognitive abilities are affected and the individual becomes increasingly dependent on other people for care and support.

Kleinfelter Syndrome

Kleinfelter syndrome is not easy to identify in small children as the signs and symptoms are not always obvious. It is estimated that around one in 600 boys will be born with this condition, sometimes referred to as XXY. The extra X chromosome is acquired after the baby is conceived; it is not an inherited condition. Some of the signs include that the baby is slow in reaching milestones such as sitting up, crawling and walking. The baby may be born with undescended testicles. Poor muscle power, delayed communication and a passive personality may also be signs. Many boys with this condition also experience difficulty socialising and expressing their feelings which can impact on emotional development and lead to low self-confidence.

Some boys with this condition experience mild learning difficulties such as low attention span and difficulty with literacy skills, especially reading, writing and spelling. They also experience higher rates of dyslexia or dyspraxia. Other physical signs include low energy levels and extra growth spurts, particularly in the legs and widening of the hips. The onset of puberty is often not affected. However, the testes do not increase in size and there may be a lack of testosterone leading to a flabby body, low muscle tone, a reduction in calcium in the bones, small firm testicles, a small penis and lack of body or facial hair. There may be difficulties with sex drive (libido) and fertility. Treatment is available for low testosterone levels.

Most adult males with this syndrome are able to live independently and establish careers and relationships.

Down Syndrome

Down syndrome is a genetic condition that occurs as a result of an extra chromosome (chromosome 21). The condition can cause varying levels of learning disability, the characteristic physical features and associated medical issues. Approximately 750 babies born in the UK will have Down syndrome and recent research estimates that 60,000 people in the UK have the condition.

In the vast majority of cases, Down syndrome is not inherited. It is simply the result of a one-off genetic 'mistake' in the sperm or egg. There is a higher risk of giving birth to a baby with Down syndrome for women 45 years and older (about 1 in 50). In comparison, a 20-year-old woman has a risk of one in 1500.

The life expectancy of people who have Down syndrome is generally between 50 and 60 years but with improvements in health care a small number of people with the condition live into their 70s.

According to research by NHS Scotland (2004), people with Down syndrome experience a higher incidence of depression. Other health conditions that are more common are hearing, visual or heart problems.

Improved health and social care support and education has provided opportunities for young people who have Down's syndrome to leave home and live independently so that they are able to form new relationships and gain employment.

Colour blindness

True colour blindness is a very rare condition in which an individual has no colour perception at all. Colour vision deficiency, where individuals have difficulty in distinguishing between different colours, is commonly known as colour blindness. It affects approximately 2.7 million people in Britain, about 4.5 per cent of the population, mostly men. The condition can vary in severity and some people do not realise that they are colour blind, leading healthy lives without treatment.

For the majority of people, the condition is genetic. Inherited colour vision deficiency is a result of an abnormality in the retina (the light-sensitive layers of cells that line the back of the eye). Others will experience the condition as a result of other diseases such as diabetes and multiple sclerosis. The ageing process or a side effects of certain types of medication can also affect colour recognition.

Although it is important to identify any colour blindness in young children so that their learning experience is not affected, for most people the condition does not lead to long-term health problems. It is important that health and social care providers take colour blindness into consideration when delivering services by using appropriate colour schemes when producing printed information.

Duchenne muscular dystrophy

The muscular dystrophies (MD) are a group of inherited genetic conditions that gradually weaken muscles leading to disability. It is a progressive condition and worsens over time. Muscular dystrophy is caused by changes in the genes responsible for the structure and functioning of a person's muscles. This causes changes in the muscle fibres that interfere with their ability to function. The most common and severe form of the muscular dystrophies is Duchenne muscular dystrophy. This condition is inherited on the female gene and is passed only to male offspring.

According to research by Muscular Dystrophy UK (2015), about 1 in 3500 boys in the UK are born with Duchenne muscular dystrophy. There are about 2500 boys living with the condition in the UK at any one time.

Duchenne muscular dystrophy is caused by genetic mutations on the X chromosome. This prevents the body from producing a vital muscle protein, dystrophin, which is essential for building and repairing muscles. The muscular weakness is not noticeable at birth but becomes more noticeable in early childhood and more prominent as the child grows older.

The condition is usually diagnosed by the age of five and, by the time an individual is 12, they may have to use a wheelchair. It is a serious condition with muscle weakness mainly in muscles near to the trunk of the body, around the hips and the shoulders. This means that fine motor skills such as using hands and fingers, are less affected than gross motor skills. Many young men with Duchenne muscular dystrophy face severe health problems, especially by their late teens, as the muscles of their heart and lungs weaken.

Although the condition is severely disabling, many young men with Duchenne muscular dystrophy are able to lead active lives. Survival beyond age 30 was rare, but research and medical advances are increasing this and life expectancy is beginning to improve. The right specialist health and social care can make a huge difference to both the quality and length of life.

Key term

Susceptibility – an increased likelihood of acquiring a disease because of an individual's genetic makeup.

Susceptibility to disease

According to the World Health Organization (WHO), most diseases involve environmental factors and the complex interaction of many genes. In other words, although an individual may not be born with a disease, their genetic make-up may make them susceptible to acquiring it later in life. Diseases and disorders that are more likely to happen in individuals with a **susceptibility** include certain types of cancer, diabetes and having high blood cholesterol.

Cancer

There are over 200 types of cancer. Cancer is a cell disease that results in them becoming abnormal and dividing to make even more abnormal cells. Most cancers are attributed to environmental and lifestyle factors. For example, lung cancer is closely linked with tobacco use and skin cancer to over exposure to ultraviolet (UV) light. It is estimated that over 40 per cent of cancers can be prevented by making different lifestyle choices such as diet, not smoking, reducing alcohol intake, exercising and avoiding environmental factors such as exposure to the sun or asbestos dust. Some people are more at risk because they have inherited gene faults that increase their risk. There are a number of cancers where a genetic link has been shown, including cancer of the breast, bowel, womb and kidney. For those with the faulty gene, getting cancer is not inevitable although an unhealthy lifestyle will increase the risk.

Diabetes

Diabetes is an increasingly common chronic condition affecting millions of people in the UK. Approximately 1 in 16 people (3.9 million) in the UK have diabetes and this figure has doubled since 1996. Although other factors, such as environment and lifestyle are more likely to play a role in Type 2 (later/mature onset) diabetes, there is a strong predisposition to developing both Type 1 (early onset, insulin-dependent) and Type 2 diabetes. The genetic risks of developing Type 1 diabetes is higher if either or both, biological parents have diabetes. The risk for developing Type 2 diabetes is almost 90 per cent if you have an identical twin who is diabetic.

High blood cholesterol

Lifestyle factors, such as unhealthy diet, smoking or lack of exercise increase the chance of having a high blood cholesterol level for most people. Cholesterol is a fatty substance that is carried around the body by proteins. Too much can cause a build-up in the artery walls. This can cause heart disease and other cardiovascular diseases.

Another reason for high cholesterol levels is an inherited condition that runs in families, known as familial hypercholesterolaemia. In the UK, approximately 1 in 600 people have this condition. It is caused by a gene alteration inherited from a parent. People with this type of high blood cholesterol are born with the condition and it can lead to early heart problems unless treated. There is a 50 per cent chance that a child or a sibling of someone diagnosed with familial hypercholesterolaemia will also have the condition.

Biological factors that affect development

The environment inside a mother's womb can have a dramatic influence on a child's development. If a woman smokes or drinks alcohol during pregnancy, foetal development may be affected. The nicotine inhaled in smoking contains carbon dioxide which gets into the blood stream restricting the amount of oxygen to the foetus. Children born to mothers who smoke tend to weigh less at birth and are more prone to infections and are twice as likely to die of cot death. It can affect a child's long-term

development including their attention span and learning abilities. Taking drugs and getting some types of infection can also damage a child's development in the womb.

Foetal alcohol syndrome

Drinking alcohol during pregnancy carries a huge risk to a baby's health and development. Mothers may give birth to children with foetal alcohol syndrome. Children with this condition have developmental and physical defects which have life-long effects. They tend to be smaller and to have smaller heads than normal caused by poor brain development. These children may also have heart defects, learning difficulties and neurological problems.

Maternal infections during pregnancy

If a pregnant woman is exposed to, or acquires infections such as rubella (a type of measles) or cytomegalovirus (a herpes-type virus) the foetus may be adversely affected. Rubella is particularly dangerous during the first month of pregnancy. If a mother becomes infected in this period her baby may be born with impaired hearing or eyesight, or a damaged heart. Most women are vaccinated against rubella to prevent this risk. Cytomegalovirus (CMV) is a common virus belonging to the herpes family. It spreads via bodily fluids. Most people are infected with CMV at some stage of their life but the majority have no noticeable symptoms. If a pregnant woman has an active infection they can pass it to the foetus and this is referred to as congenital CMV. Around one or two babies in 200 are born with Congenital CMV and around 13 per cent of those are born with symptoms such as deafness and learning difficulties and 14 per cent will develop problems later on.

Lifestyle/diet during pregnancy

Our biological life starts at conception, approximately nine months before we are born. Babies are affected by what their mothers eat during pregnancy and breast-feeding. Some recent animal research suggests that if a pregnant or breast-feeding woman has a diet high in sugar and fat it can result in an increased risk of high blood cholesterol and later heart disease for the child. Malnutrition or a lack of healthy food during pregnancy may result in a lifetime of poor health for the child. The Food Standards Agency (FSA) recommends that pregnant women should eat plenty of fresh fruit and vegetables, plenty of starchy foods such as bread and pasta and rice, foods rich in protein such as lean meat, chicken and fish, plenty of fibre and foods containing calcium such as milk and cheese. They also advise that women should avoid or limit alcohol and avoid too much caffeine, which may result in a low birth weight.



PAUSE POINT

Write a one-sentence definition for: Genetic predisposition, Susceptibility to disease and Biological factors.

Hint

Complete this sentence. 'Genetic predisposition is an increased likelihood of developing the condition because ...'

Extend

Write a short case study for each factor to expand your answer.

Congenital defects

Congenital defects are the most common cause of childhood chronic illness, disability and death. About 9 in every 1000 children in the UK are born with congenital defects. The most common and severe congenital disorders are heart defects, **neural tube defects** and Down syndrome.

Congenital defects may be genetic but other factors can also be responsible, for example:

- **socio-economic factors** especially lack of access to sufficient nutritious food during pregnancy

Key terms

Congenital – present at birth.

Neural tube defects – congenital defects of the brain, spine or spinal cord, such as spina bifida.

- ▶ **environmental factors** such as working or living in polluted areas, exposure to chemicals or pesticides, excessive use of tobacco, alcohol and drugs during pregnancy
- ▶ **infectious diseases (during pregnancy)** such as syphilis and rubella.

Sometimes it can be difficult to identify a specific cause.

Some congenital defects can be prevented by adequate antenatal care including screening, vaccination and adequate intake of nutrients such as minerals and vitamins, especially folic acid.

Theory into practice

Research and put together a presentation for other students about genetic factors that affect development. Make your presentation creative and colourful. Include the key words and definitions in the form of a glossary.

Key terms

Pollutant – a substance that contaminates something such as air or water and may make it unsafe.

Respiratory disorders – conditions affecting the upper respiratory tract, trachea, bronchi, bronchioles, alveoli, pleura and pleural cavity.

Cardiovascular problems – any disorder or disease of the heart or blood vessels.

B3 Environmental factors that affect development

Exposure to pollution

Air and water pollution can influence development and be a major source of ill health. There is growing concern about the impact of air quality, both indoors and outdoors, and the contribution it makes to causing particular illnesses such as asthma and other respiratory problems. The environment may contain many chemicals from vehicle exhaust systems and industrial emissions. Household **pollutants** include mould and some cleaning products that emit poisonous gases.

Respiratory disorders

Tobacco smoke, combustion products and air pollution associated with various toxins and pollutants are among the major substances harmful to the respiratory system. These substances affect the nerves and muscles used for breathing and can also have a bad effect on the lining of the air passages. **Respiratory disorders** range from mild, for example a runny nose or sore throat to more severe conditions such as bacterial pneumonia, chronic obstructive pulmonary disease and lung cancer.

Cardiovascular problems

The risk factors associated with **cardiovascular problems** include smoking tobacco and air pollution. Recent studies suggest that environmental pollution is linked to increased illness and death. Tobacco smoke is linked to changes in the lining of the heart and blood vessels causing clots (thrombosis), which may lead to a heart attack. Exposure to other chemicals that cause air pollution has also been reported as increasing the risk of thrombosis and raised blood pressure. Exposure to pollution during pregnancy may be linked to the baby having congenital heart defects and cardiovascular disease in later life.

Allergies

Allergies are caused by irritants such as dust or pollen causing the immune system to overreact. Hay fever and asthma are examples of respiratory system allergic reactions. These conditions are usually chronic as they are a response to the environment in which the individual lives. Hay fever is a seasonal reaction to certain types of pollen. It can cause sneezing, watery eyes and a runny nose, lethargy and flu-like symptoms. Asthma can range from a mild reaction to a life threatening condition. An asthma attack causes difficulty in breathing as the airways (bronchi and bronchioles) become inflamed and constricted (narrowed). This is usually a temporary

reaction and can be relieved by using an inhaler to widen the airways, although it can cause distress to young children. Asthma UK has reported that the number of people living with this condition has plateaued, but on average three people a day die from asthma.

Motor vehicles produce a range of pollutants including carbon monoxide, nitrogen oxides, volatile organic compounds and particulate matter. People who live near busy roads may be particularly exposed to this pollution.

Power stations are burning less coal, which has contributed to a fall in sulphur dioxide pollution. Improved vehicle technology, such as catalytic converters, has also contributed to a reduction in air pollution. Evidence from *Social Trends Survey* (2009) reported that emissions of nitrogen oxides fell by 46 per cent between 1990 and 2006. Diesel vehicles, originally thought to be less polluting than petrol engines, emit four times more toxic pollution than a bus.

While official statistics report improvements in the levels of air pollution, there are concerns that it is still a serious problem. Research by King's College London (2015) identified that nearly 9500 people die prematurely in London each year as a result to long-term exposure to air pollution. The research identified that London, Birmingham and Leeds are the most polluted cities in the UK. London has been found to have air pollution twice the level permitted by WHO standards. People living in cities may be more at risk of developing cardiovascular problems and respiratory disorders.

Research

Just how serious is air pollution in your own area? Research the sources and level of risk of pollution. You could share and discuss your findings with other learners to help you decide how serious this issue is.

Reflect

According to the British Heart Foundation, people with coronary heart disease should avoid spending long periods of time in areas where traffic pollution is a high risk. In February 2015, the European Commission took legal action against the UK Government for failing to reduce nitrogen dioxide emissions quickly enough.

Levels of pollution appear to be falling but are current levels acceptable? Think about the impact on young children and people who have heart or respiratory disorders.

Poor housing conditions

Poor quality housing is associated with poor health and quality of life. The WHO (2010) published a report that focused on the links between poor housing and the impact on the health and wellbeing of individuals. The English Housing Survey (2011) showed that there are approximately 4.5 million households in the UK experiencing fuel poverty. Evidence suggests that living in poor housing increases the risk of respiratory and cardiovascular disease, as well as anxiety and depression. A cold damp home with excessive mould and structural defects presents many different risks to health and wellbeing, including accidents and illness.



- How many health problems can you think of that would be associated with living in these type of conditions?

Overcrowded housing may limit people's access to washing, cooking and cleaning facilities. Indoor air pollution, drying clothes indoors and inadequate ventilation can be associated with respiratory disorders. Infection is more easily spread in overcrowded conditions with inadequate sanitary provision. There may also be issues with the lack of access to outdoor exercise and green spaces in some areas, particularly in low income areas, reducing opportunities for physical activity outdoors. The Child Poverty Action Group (2013) reported more play areas in deprived areas in the UK, but poorer quality spaces and equipment, and vandalism, playground misuse and danger of injury being deterrents to their use.

Respiratory disorders

Overcrowded housing, lack of heating and poor ventilation causing damp and mould in homes can lead to respiratory problems, especially asthma and other allergic responses. Babies, young children and older people are particularly vulnerable. Research has identified that more than a million children in England (English Household Survey, 2012) live in overcrowded households and that they are more at risk of getting meningitis and respiratory problems.

Cardiovascular problems

Children living for extended periods in overcrowded housing tend to have problems with their growth rate and an increased risk of heart disease in later life. Poor quality housing, especially for vulnerable adults and older people, can lead to stress which can affect an individual's blood pressure. High blood pressure can result in damage to artery walls and an increased risk of blood clots and strokes. Lack of exercise and poor diet can also lead to cardiovascular problems. Other factors that may be associated with poor living conditions are unhealthy lifestyles, including smoking, drinking and poor diet. Ready-made meals and heavily processed convenience food are often high in sugar, salt and saturated fats resulting in larger calorie intake leading to an increased risk of cardiovascular disease. There are also issues with the lack of green spaces in some areas, particularly in low income areas preventing people taking part in physical activity outdoors.

Hypothermia

Cold homes and homelessness are major causes of hospital admission to treat **hypothermia**. The number of families living in fuel poverty is rising. Families with low incomes are unable to afford to heat their homes, especially in older properties. Age UK (2012) found a link between loneliness and the risk of hypothermia for elderly people living in poor conditions. Many people over the age of 65 spend more time at home and factors such as poor heating and lack of insulation have been linked to a rise in winter deaths. Older people on low incomes may worry about the cost of heating their homes, especially if they live in older, less well-insulated properties that incur higher heating bills. Research shows that older people are more likely to live in substandard housing.

Key term

Hypothermia – excessively low body temperature, below 35 °C (normal body temperature is 37 °C).

Anxiety and depression

Poor quality housing may cause stress, anxiety, depression and mental health issues. Living in substandard housing with rising fuel bills can lead to disturbed sleep patterns, resulting in stress and anxiety. Many children living in overcrowded and poor standard housing experience anxiety and mental health issues.

II PAUSE POINT

Close your book and list four features of poor housing.

Hint

Think about the features affecting the home itself and the immediate environment.

Extend

For each point, give two possible effects on a person's health and development.

Access to health and social care services that affect development

According to National Institute for Health and Care Excellence, local authorities need to improve services for people who do not usually use health and social care services. Each local public health authority has to ensure multi-agency and partnership working within health and social care services to meet the needs of people who live in the local community.

In line with The Equality Act 2010, all health and social care services should be inclusive and have a positive impact on local people and communities. The local authority has a responsibility to identify barriers to accessing services. These could include transport, opening times, cultural and behaviour barriers. Additionally, new ways of supporting people who would not normally access services need to be identified.

Availability of transport

Travelling to appointments can be stressful. The Office for National Statistics (2006) reported that 11 per cent of households without access to a car have difficulty getting to their local GP's surgery compared to only 4 per cent of car users. Living in remote areas may mean that there is no public transport at all. Unreliable public transport services and stressful journeys can result in cancelled or missed appointments. This can have a negative impact on the health and wellbeing of frail and vulnerable people or families with young children. Missed appointments also have financial implications for health and social care services.

Using hospital car parks outsourced to private contractors can be expensive for people attending regular hospital appointments or visiting relatives in hospital.

Opening hours of services

The National Health Service provides health care for everyone. However, there are concerns that some groups of people may not have the same access to GP services and preventative health services as others. Recruitment of GPs and nurses may be difficult in deprived areas. Hospital and GP appointments during working hours may be inconvenient and there have been discussions that opening hours should better reflect the busy life styles of some service users. Several services have been introduced to improve access to primary care services such as NHS Walk-in Centres, the NHS 111 service and NHS Direct.



PAUSE POINT

Identify the particular problems of accessing health and social care services that a person with a learning disability might face.

Hint

Think about factors such as communication and mobility.

Extend

Give examples of other groups or individuals who may have difficulty in accessing services.

Research

Using the internet and other sources, investigate the services offered by the NHS outside of normal working hours. What might be the barriers to accessing these services?

Needs and requirements of particular services

Local health and social care services aim to promote an early intervention policy to tackle disadvantage and poor access to services. They intend to improve the health and wellbeing of young children and their families. Improving health and reducing poverty is important for preventing long-term health problems and reducing the risk of premature death.

They emphasise the importance of focusing on the health and wellbeing of people who would not usually access services.

People who do not access services

Homeless people and vulnerable immigrants, who may be at risk of infectious diseases, such as tuberculosis are particular groups who find it difficult to access services. Some families are difficult to reach, for example travelling families and families for whom English is not their first language. It is important to ensure that children in these families receive regular health checks and are fully immunised against childhood infections such as meningitis C and measles to prevent health and development problems.

According to a Department of Health report, 'Healthy Lives Healthy People' (2011), many people may be reluctant to register with a GP or not be registered. There are many reasons why people are unable to attend GP surgeries, for example because of caring commitments, working long hours or transport difficulties. According to the Office for National Statistics, cardiovascular disease mortality is high in deprived communities. This may be due to people not registering with a GP surgery, being reluctant to attend surgeries or having difficulty getting/attending an appointment.

Discussion

Working in small groups, discuss the following issues. Why might people require health or social care in their own home? What kind of support is available and who might deliver it? Share your findings with the whole group.

Research

Working in pairs, research your local community.

- 1 Produce a demographic profile including age, social economic grouping, environmental factors, housing and ethnic groups.
- 2 Note the type of health and social care services that are available and any gaps in services.

B4 Social factors that affect development

A family is a social group of people, often related genetically, by marriage or by living together as a group. There are many different types of family. Being part of a family group can help you to develop in the following ways:

- ▶ forming your first emotional relationships and attachments
- ▶ providing your first experiences of social interaction
- ▶ influencing your view of what is expected of you in social settings, and what is normal or socially acceptable behaviour
- ▶ providing a setting that meets your physical needs for protection, food, shelter and warmth
- ▶ supporting each other emotionally and protecting family members from stress
- ▶ helping each other financially or practically, for example families may support older relatives.

Discussion

Working in pairs discuss: 'Which social factors affect human growth and development and how can they influence an individual's health, wellbeing and life opportunities?'

Produce a thought shower of all the points you have identified.

Family dysfunction

Some families are unable to conform to the social norms expected, which prevents the family performing its expected functions. A **dysfunctional family** is a family that does not provide some or all of the benefits listed above. There are many reasons why a family may become dysfunctional. Family members may become stressed because of health problems including mental health problems, poor housing and low income. Some adults have poor parenting skills. Some may try to control other family members in aggressive or manipulative ways. Others may be insufficiently involved with their children and neglect them. Some parents may be inconsistent in the way that they teach children to behave socially and some may have grown up within a dysfunctional family themselves and have little practical experience of providing appropriate relationships and support for other family members. Stressful family environments may disadvantage children. It may be hard to develop self-confidence if there are constant emotional tensions at home.

Key term

Dysfunctional family – a family that is not providing all of the support and benefits associated with being in a family.

Parental divorce or separation

Increase in parental divorce and separation has been associated with particular consequences for children's growth and development. Parental divorce can be associated with negative outcomes and children/adolescents can experience emotional problems that may affect their self-esteem and self-confidence, leading

to emotional distress, moodiness and depression. Children and adolescents may lack resilience, placing greater reliance on and being influenced by their peers. This could lead to risky behaviours such as smoking, taking drugs or using alcohol. Additionally, there is some evidence that children of divorced parents are more likely to experience poverty and underachievement in education.

Sibling rivalry

In his social learning theory, Bandura explored the impact of role modelling and imitating behaviour. Constant exposure to high levels of family conflict, especially in dysfunctional families, could lead to a child becoming aggressive and displaying bullying behaviour towards other children in the family. Research by the psychologists Rosenthal and Doherty (1984) suggests that children who are in rivalry with their siblings or involved in bullying behaviour have quite often been bullied by their primary carers. This can be a way of children trying to gain a sense of control and power in a household in which they feel helpless and powerless. Parents or primary carers may also be responsible for deliberately or inadvertently causing sibling conflict by encouraging competition, and sometimes conflict, between siblings.



- ▶ Do you have brothers and/or sisters? If so, do you always get on well together?

Parenting styles

The developmental psychologist Diana Baumrind (1960s) identified three different **parenting styles** that she felt could contribute to the overall development of children.

- ▶ **Authoritative** – parents are not overly strict; children are brought up to respect authority and develop appropriate values and boundaries. Children in these households are often more resilient and conform more easily to the social norms of society.
- ▶ **authoritarian** – parents have very high expectations, often overwhelming their children with strict rules and regulations. Children in these households are often rebellious and may become problematic both in the family home and in wider social settings.
- ▶ **permissive** – parents make few demands, and may be reluctant to implement rules or values into the lives of their children. Children in these households often lack a sense of self-control as they have no set boundaries or respect for personal space – children may later experience problems in managing relationships and adult responsibilities.

Key term

Parenting styles – a definition of the different strategies/ways that parents use to bring up their children.

A fourth style, uninvolved parenting, was identified through further research. This type is characterised by parents who are not involved in their children's lives. They make few demands of them and lack responsiveness.

Some parents are unaware of the power they hold over their children. Developmental theorists, such as Piaget and Erikson, believed that family dysfunction was a result of lack of education and inadequate role modelling. This leads to a parenting style that is detrimental to a child's growth and development. Some parents lack emotional intelligence and the skills required to raise their children to be resilient and prepared for the outside world. Parents experiencing mental health issues or substance dependency may struggle with their own mental health or emotional issues and find it difficult to meet all the needs of their children. In some cases, this can result in neglect and abuse of their children.

Bullying

Effects of bullying on self-esteem

There is no legal definition of bullying. It can be described as repetitive behaviour intended to hurt an individual emotionally and or physically. Many children experience bullying at school but adults can also experience bullying behaviour. It can undermine self-esteem and lead to stress, depression and anxiety.

Individuals might be bullied for many reasons, for example their religion, race or particular group or culture they belong to. Bullying behaviour can take different forms – it can be non-physical such as teasing a person or name calling. More serious forms of bullying might involve making threats or physical violence. With the rising use of social media, in particular with the increased use of mobile phones, cyber bullying has increased. This type of bullying takes place online, via email, instant messenger and social networks.

Bullying can have long-term effects on self-esteem, lasting even into adulthood. The Department of Education provides advice and guidance to educational settings about how to deal with bullying behaviour. By law, all state schools must have a behaviour policy that includes measures to prevent bullying and that clearly outlines the steps that must be taken to support young people. The workplace should also have procedures to report and deal with bullying.

Self-harm

The effects of bullying can impact on a child's growth and development, especially on their emotional development. It might lead to a child feeling unsafe, lonely and isolated and losing self-confidence. They may become self-critical and believe that what is said about them is true or that it is their fault. For some people (children, young people and adults), self-harm is a way of releasing their feelings of guilt, self-loathing, distress and emotional pain. Hurting themselves makes them feel better. Self-harmers often hide their behaviour, for example by always wearing long sleeves to disguise cuts on their arms. Some children, adolescents and even adults can experience anxiety and severe depression which may result in suicidal thoughts or even suicide.

Culture, religion and beliefs

The UK is a religious and culturally diverse society. Health and social care providers may be working with service users whose culture or religious beliefs could influence treatment decisions. This can lead to complex situations and emotional distress that affects the relationship between the care provider and family members.

Medical intervention

Most faith groups emphasise the importance of prayer as part of the healing process and there is a general belief that prayer complements medical care. However, some religious groups believe that certain medical procedures should not be allowed and reject medical intervention. For example, Jehovah's Witnesses believe (based on commands in the Bible) that blood transfusions, even if needed to save a person's life, must not be accepted. In some cases, doctors have had to take legal proceedings to ensure that children can receive a life-saving blood transfusion. This affects many areas of care, for example pregnancy and childbirth, where women may require special care and counselling before delivery to minimise blood loss and deal with haemorrhage. Although Jehovah's Witnesses cannot accept blood, they do accept most other medical procedures. Most hospitals have a list of doctors who are prepared to treat patients without using a blood transfusion.

Some cultures do not believe in medical intervention and may use their own remedies for a long time before coming into the healthcare system only in a crisis. For example, many older Chinese people will use traditional or herbal remedies or diets. When they do come into the healthcare system, they may not disclose this as they fear the healthcare professional's disapproval of or disbelief in traditional medicine. This can cause problems if medication is required as there may be interactions with the herbs/ remedies they are using.

Dietary restrictions

It is important to consider dietary differences linked to religion and culture when planning a balanced diet. The commonest dietary differences encountered in healthcare are vegetarianism, halal and kosher diets. Part of faith-based dietary practice includes the food itself, the way it is prepared and served and not being allowed specific items of food. For example, dairy and meat products should be kept separate in kosher diets, with different implements used for meat and dairy products when preparing and serving kosher meals, and when washing up afterwards. Jewish people do not eat pork or shellfish. Hindu and Sikh vegetarian diets require that both equipment and diets do not come into contact with any meat. Muslims do not eat pork or non-halal meats, and they do not consume alcohol.

Whatever the rules, it is important that a balanced diet is followed to reduce the effects on health and development. Vegetarianism, for example, may have positive or negative effects on a person's development. There are usually higher levels of fruit, vegetables and fibre and lower fats in the diets which lowers the risk of high cholesterol, heart disease and high blood pressure. However, there are also health risks of nutritional deficiency for those whose diet does not contain meat or fish. For instance, calcium deficiency can result in weakened bones and teeth. Iron and vitamin B12 deficiency may affect the production of red blood cells, and protein deficiency could impact on muscle and organ function, affect the elasticity of skin and weaken bones.

Link

For more information, see *Unit 19: Nutritional Health*, learning aim B.

Link

See *Unit 2: Working in Health and Social Care*, pages xx-xx for further details.

Case study**Poor housing**

Clive and Mandy Taylor have three children. They live in a two bedroom flat in a deprived area of the city. They have complained to the landlord about the damp. There is a high crime rate in the area which has made Mandy fearful for herself and her family and she is reluctant to go out. Mandy has been self-harming

but is now getting help and has been diagnosed with depression. This worries Clive, as Mandy's mother has suffered mental illness for a number of years.

Check your knowledge

- 1 Using the information about the family, evaluate the likely explanations for Mandy's current state of health.

B5 Economic factors that affect development

Personal development can be affected by a number of key money-related or economic factors.

Income and expenditure

Income is the amount of money that households receive. People with a low income and who experience poverty are most likely to suffer ill health and reduced opportunities for personal development.

A lack of income may mean a lack of resources and not being able to live in the minimum acceptable way of society. Household resources include clothing, food and housing. Those people without the means to pay for essential resources are deemed as living in absolute poverty. Some people can afford basic resources but not much else. This is known as relative poverty, as they are poor compared to the rest of the people in society. A lack of resources may mean a person finds it hard to take part in the community. This can lead to social exclusion and a family becoming marginalised. Children born into families experiencing poverty may find it difficult to escape and become trapped in a situation that has a powerful effect on their confidence and self-esteem.

Research by the Child Poverty Action group has highlighted that poverty is associated with higher risks of illness and premature death. Poorer health has an impact on life expectancy. For example, professional people on higher incomes live on average 8 years longer than unskilled workers on low wages. Children born in the poorest areas of UK weigh on average 200 grams less at birth than children who are born into wealthier families and have a higher risk of mortality at birth.

According to the Trussell Trust, there are 445 food banks in the UK. There has been a year-on-year increase in food bank use since 2009. However, there is concern about the nutritional value of the food provided. An article in *The Guardian* (March, 2015) reported on research by Birmingham City University about the impact on families of using food banks longterm. The report identified that many food banks provided processed food, including tinned soup, meat, puddings and pasta sauce rather than fresh products. This leads to an unbalanced diet. The long-term risks could be that children and families become deficient in fibre, calcium, iron and a variety of vitamins.

Key term

Median – the middle value in a list of numbers written in numerical order. For example, 5 is the median of 2, 3, 3, 5, 9, 9, 11.

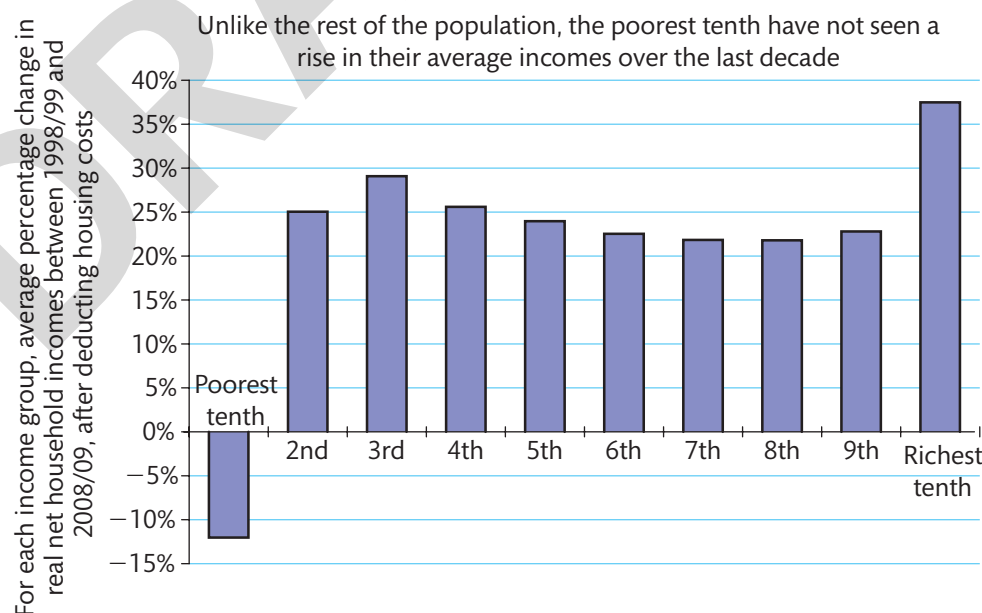
The economic resources that an individual or family has can have a major impact on their quality of life. A person's weekly income enables them to pay for their accommodation and to buy food and clothes. Income mainly comes from:

- ▶ wages from employment
- ▶ profits from your business if you are self-employed
- ▶ benefits paid by the government
- ▶ money from invested wealth, such as interest on bank accounts or bonds
- ▶ money raised through the sale or rent of property you own.

Income is not distributed equally in the UK. According to the Office for National Statistics and the Department of Work and Pensions, people in the bottom-earning 10 per cent of the population have an average net annual income of £8,468, resulting in them living in poverty. In comparison, the top earning 10 per cent have an average annual income of £79,100 – almost 10 times that of the lowest earners. Research shows that households with an income that is less than 60 per cent of the **median** income in the UK, are considered to be living in poverty. The median income compares low income families with those in the middle rather than the wealthiest, providing a truer picture of wealth distribution in contemporary society. Income can have a significant impact on health and wellbeing. Having sufficient income for their needs gives individuals more choice about their lifestyle, for instance to eat more healthily and take part in leisure activities.

Additionally, as Figure 1.4 shows, the poorest 10 per cent of society has not seen a rise in income over a ten-year period.

▶ **Figure 1.4** Average changes in household incomes in a ten-year period (from 1998/1999 to 2008/2009)



Key groups who are more likely to be on low income include:

- ▶ lone-parent families
- ▶ unemployed people
- ▶ older people
- ▶ sick people or people with disabilities
- ▶ families with single earners
- ▶ unskilled couples (where only one of the couple works, and in unskilled employment).

The impact of low income

Paxton and Dixon (2004) found that children who grew up in poverty in the 1970s underachieved academically at school, were less likely to go to university or college, and one-and-a-half times more likely to go on to be unemployed as those who did not experience poverty as children. They also earned 10 per cent less over their lifetime.

Paxton and Dixon point out the following disadvantages of poverty.

- ▶ Poverty is associated with being a victim of crime.
- ▶ Poorer communities are more likely to live in polluted areas.
- ▶ Poorer people have an increased risk of dying young.

Theory into practice

Children living in poverty are almost twice as likely to live in families experiencing fuel poverty. Low income families sometimes have to make the choice between food and heating. Children from low income families often miss out on school trips and, holidays and are not able to invite friends home for tea. Produce a fact sheet that provides information on the importance of food banks and fuel poverty. Prepare to share your findings with other learners in your class.

Employment status

Employment status is characterised by whether a person is in work or not, the type of work they do and the type of contract they have.

Being out of work is likely to mean that families live on a low income. According to the Office for National Statistics, 15.9 per cent of households have no adults working. According to Social Trends (2009), this results in 22 per cent of children, about 2.9 million children in England and Wales, living in poverty.

According to the Office for National Statistics, the percentage of households in which no adult has ever worked is 1.5 per cent, and 1.5 million children were living in these households. Of all the regions in the UK, the north east of England has the highest percentage of households where no adult is working (21.2 per cent), with the south east having the lowest (12.3 per cent).

- ▶ Even when in work, the type of job can affect a persons' wellbeing. Work that is low paid, has low status and/or is temporary puts additional stress on individuals which can lead to ill health and possibly depression. Individuals are more likely to have low self-esteem. All types of work can provide social interaction which is important for wellbeing. Work that has status, responsibility and is well paid and secure can boost health and wellbeing and result in high self-esteem. Research has shown that people who are in work are likely to be healthier both mentally and physically.

Research

Working in small groups, research the impact of low income on children and adults. Use the Office for National Statistics, The Joseph Rowntree Foundation and the Child Poverty Action Group websites. Using the statistics you find, produce a chart and short report explaining the extent that poverty rates are improving or worsening. Compare and contrast the different statistics found on the three different websites.

Education

According to the Department for Education, by the age of three, children from poorer families are estimated to be about nine months behind children from wealthier

Key terms

Attitude – assumptions that we use to make sense of our social experience.

Secondary socialisation

– the process of learning appropriate behaviour in society. Influences include education, media, government and religion/culture.

Primary socialisation – the process of a child learning the norms, attitudes and values of the culture and society in which they are growing up.

Key term

Values – principles that we use to guide our thoughts and decisions.

Key term

Lifestyle – how a person spends their time and money, a 'style' of living.

families and, by 14 years old, children from poorer families are nearly a year and a half behind. Children from poorer families do less well in GCSEs, achieving nearly two grades lower in their GCSE results. Generally, children from poor backgrounds fall behind at all stages of their education.

People with few or no qualifications are more likely to be unemployed or employed in low-paid work. This can lead to low self-image. A good education brings wider career and lifestyle choices. In adulthood, individuals are more likely to earn a higher salary and have more job satisfaction. This can lead to positive self-image and high self-esteem. Of course, some 'high-flying' jobs are high pressured which can lead to stress.

Peer groups

As a child becomes more independent, for example after starting nursery school, they begin to learn a lot about social relationships, especially when they start to play with other children. By the time a young person reaches adolescence, peer groups become very important and influential. For example, **attitudes** and beliefs might be copied from other young people, especially if they have similar interests. Peer groups also provide a second source of social learning (**secondary socialisation**) after the family (which provides **primary socialisation**).

Values and attitudes

Beliefs, **values** and attitudes are influenced by how an individual experiences primary and secondary socialisation with family, carers and peer groups. Values and attitudes are also influenced by life experiences (issues like bullying and discrimination) and the culture that an individual is brought up in and the community in which they live. Social networking and access to information found on the internet is becoming increasingly influential, particularly for adolescents. It can have a huge impact on an individual's values, attitudes and life choices and is often blamed for poor choices and unsocial behaviour.

Reflect

What social pressures do people experience to achieve good educational qualifications? Where do these pressures come from? How far have you chosen your own values and attitudes, and how far have you copied them from other people?

Lifestyle

What leisure activities do you engage in? Do you exercise? Are you careful about your diet? How do you dress and present yourself when you are among your friends? These are some of the questions that will explain your **lifestyle**. Your lifestyle represents the way you choose to spend your time and money.

To some extent, your lifestyle is something that you choose. Your choices will be limited by the money that you have and influenced by your culture and the people in your life. People on low incomes have limited choices. Most people develop habits connected to diet, exercise and alcohol use. Many people never actively choose a lifestyle, it happens because of the stress of life events or economic pressure and it can be difficult to change without support.

Nutrition and dietary choices

Some people may choose to eat a diet that includes unhealthy fatty, salty or sugary foods and drink. But others may eat an unhealthy diet because of convenience and cost. Some authors argue that convenience food that has a high fat, salt or sugar can be cheaper and easier to prepare than healthier alternatives.

A healthy diet has a balance of the carbohydrates, protein, nutrients, fats and fibre that a body needs for health and wellbeing. Deficiencies in diet may affect the health and development of bones, organs and muscles and slow the healing process. Unhealthy diets may also result in obesity that puts increased pressure on the joints and organs and may lead to heart disease and arthritis. Changes in diet can reduce the risk of health conditions such as diabetes in later life.

Exercise

Regular exercise is essential for development. It helps a person to maintain a healthy weight and is important for the skeleton, maintaining mobility and heart function. Regular exercise can also impact on a person's feeling of wellbeing, reducing the likelihood of mental health problems. The Department of Health refers to lack of any exercise as 'silent killer' as it significantly increases the risk of stroke, heart disease and type 2 diabetes.

Use and misuse of substances

It is accepted that any substance misuse can affect health and may lead to addiction. While substances may cause short-term effects that make people feel good for a while, they will quickly 'come down' from the effects and feel low. There are significant negative effects on the body in both the short and long term.

Drug use

Cannabis is sometimes used for a calming effect but the side effect is that it affects brain function – affecting thinking. It has even been linked with mental health problems, including schizophrenia. If smoked, cannabis can cause respiratory problems or even lung cancer if used with tobacco. Cocaine may give an energy boost but will result in the person feeling unwell and depressed when the effect wears off. Cocaine overstimulates the heart which can lead to a heart attack or even death. Ecstasy and speed can make individuals feel more alert but, in the long term, have detrimental effects. Ecstasy can impact on memory and cause depression, and speed can affect blood pressure and cause heart attacks.

Alcohol

In January 2016, the Department of Health recommended that adults should not consume more than 14 units a week spread over several days – and with some days alcohol free. Social Trends (2009) states that 65 per cent of men and 49 per cent of women reported drinking more than the recommended limits in 2007. Statistics also show that 32 per cent of young men and 24 per cent of young women have a lifestyle that involves heavy drinking. The guidelines from the Department of Health state that no level of alcohol consumption is risk free because research has shown an increased risk to health, particularly in incidences of cancer of the throat, mouth and breasts. Drinking over the recommended limits brings with it a higher risk of heart disease, liver disease and bowel cancer. Binge drinking can result in unintended affects as individuals often behave differently and take more risks. This can result in accidents or unprotected intercourse. Alcohol abuse is a major factor in domestic abuse.

Tobacco

Smoking can have a detrimental effect on health. Smoking can affect all the organs of the body but causes a particular problem for the lungs. It is the cause of most cases of lung cancer. Smoking significantly increases the risk of:

- ▶ coronary heart disease
- ▶ strokes
- ▶ lung disease, including cancer, emphysema and chronic bronchitis.

Smoking can also affect children in the family who inhale nicotine and the unborn baby of a mother who smokes.



PAUSE POINT

Close the book and give four factors that can influence a person's lifestyle.

Hint

Make links from income, employment status and education to lifestyle.

Extend

Identify short- and long-term effects of substance abuse.

Key terms

Predictable events – events that are expected to happen at a particular time. While expected they may have a positive or negative effect on a person's health and wellbeing.

Unpredictable events – events that happen unexpectedly and which may have serious physical and psychological effects on the individual. These effects can be positive or negative.

B6 Major life events that affect development

As an individual travels through their lifespan, they will experience a number of events that change their life to some degree. Some events are **predictable** and may be chosen or be part of the natural course of life. Other events may be **unpredictable events** that happen when they are least expected. Categorising predictable and unpredictable life events is not straightforward and depends on an individual's circumstances. For some people, issues such as divorce or redundancy may be predictable but others may be shocked to go through a marriage breakdown and divorce or deal with redundancy.

Predictable events

Predictable life events are those events that are expected to happen to an individual at a particular time. Some of these are shown in Table 1.13. For example, starting nursery school may be the first major life event a young child experiences. Many people can recall their first day at nursery school in detail. There will be positive learning experiences for the child as they meet other children and develop social skills and friendships. Experience of nursery school provides opportunities to learn to share toys and take turns in games. Children will develop communication skills as they talk and listen to other children and adults. However, the young child may feel unsupported, stressed and unsafe as their parents or carers are not there. This can lead to becoming withdrawn and isolating themselves from other children. Although predictable life events often involve positive learning, there is also a risk of stress involved.

► **Table 1.13** Influences of predictable life events on development

Predictable events	Possible influence on development	
	Positive learning	Risk of stress
Starting school/nursery	Learning to make new friends and cope with change.	Feeling unsafe – withdrawing from others. Loss of support from parents.
Beginning and changing employment	Choosing a work role and having an income from employment.	Feeling pressured by new demands on time and mental energy. Finding difficulty in adapting. Loss of past lifestyle.
Leaving home/leaving care	Achieving independence – controlling personal environment.	Feeling unable to cope in a new situation. Feeling pressured by all the new tasks. Loss of family/care support.
Leaving prison	Coping with freedom and choice.	Loss of routine, loss of a structured environment, possible lack of support with finding an income and housing. Coping with possible discrimination.
Marriage	Making emotional attachments and experiencing intimacy.	Feeling threatened by intimacy and sharing possessions. Possible loss of independence.
Parenthood	Attachment to infant. Learning parenting skills.	Disruption of previous lifestyle, loss of free time. New demands on time and energy. Feeling tired due to loss of sleep.
Retirement	Controlling own life – disengaging from work.	Loss of previous work roles. Loss of contact with work colleagues. Difficulty establishing a new lifestyle.

Unpredictable events

Unpredictable life events happen unexpectedly and can be a shock. This can impact on an individual's physical and psychological wellbeing. Table 1.14 shows some life events that may be unexpected. When a sudden life event occurs, there is always a risk that an individual will feel out of control, which can cause stress and anxiety. Although people may die at any stage of their lifespan, unexpected death, for example as a result of an accident or unexpected illness, can be a huge shock. The sense of loss and grief can be extremely difficult to deal with. The bereavement period is a time for adjusting to the loss as well as dealing with the emotional upheaval that this entails. Although many older people expect the death of spouses and friends, the death of an adult child can have a devastating effect on their physical and emotional wellbeing. They may find adjustment and adaptation extremely difficult.

► **Table 1.14** Influences of some unpredictable life events on development

Unpredictable event	Possible influence on development	
	Positive learning	Risk of stress
Birth of a sibling	Learning to make new emotional attachments.	Jealousy and rivalry – emotional tension because role within the family has changed. Older child/children may lose attention from parents.
Redundancy	Learning to adapt to changes in income and lifestyle.	Refusal to accept change. Anger or depression. Failure to cope with loss of income and lifestyle.
Illness and serious injury	Learning to adapt to physical change.	Grief at the loss of good health. Anger or depression and failure to adapt to disability.
Divorce	Learning to cope with a new lifestyle.	Resentment or depression. Grief at the loss of the relationship. Failure to adapt to a new lifestyle. Possible financial hardship.
Bereavement	Learning to cope with loss and a new lifestyle.	Grief at the loss of the relationship. Failure to adapt to an unwanted lifestyle.

The effects of life events on health

Major changes in life may interact with all aspects of growth and development. For example, retirement, redundancy, divorce, bereavement or serious injury might all result in a loss of income or having to live on a low income. Leaving home, marriage or parenthood might all involve changes in your home or in your community and friendship networks. Major life events will change your social, emotional and economic circumstances. Life events may involve feelings of loss and grief and involve lifestyle changes. Being seriously injured or being divorced requires an individual to change and adapt to a new lifestyle, which can have physical, psychological and financial implications. Even predictable and welcome changes can involve learning new things and coping with a range of losses. For example, leaving primary school and starting at secondary school requires adapting to new rules and routines and getting used to a new environment.



PAUSE POINT

Identify five predictable life events and explain their positive and negative effects on health and development.

Hint

These are the events that most people will experience at set points in their life.

Extend

What might help to reduce the negative impact of life events on individuals?

Holmes–Rahe social readjustment rating scale

Psychologists have looked to find ways to rate and measure total stress scores in a way that will help individuals cope with difficult events. Holmes and Rahe (1967) developed a questionnaire called the Social Readjustment Rating Scale (SRRS) (see Figure 1.10), which identified major stressful life events. The SRRS identifies 43 life events each with a different score for a stress level. They asked individuals to score how the events they had experienced affected their stress levels. They discovered that the higher the score and the importance of each event identified, the more likely an individual was to become unwell.

However, each individual is unique and deals with stress factors in different ways. Holmes and Rahe assumed that each stressor would affect people in the same way. Critics of their theory stress that this is not necessarily true, for some people the breakdown of a relationship and getting divorced can be an extremely stressful time, yet, for others, it can almost be a relief, especially if the arrangements for divorce have been amicable. For most people, major life events are not experienced very frequently but they can still experience stresses and strains in daily life, for example losing keys, traffic jams, physical appearance or weight. These are referred to as 'daily hassles'.

Reflect

Think of a life event that you have experienced, for example starting school or breaking up with a friend. Consider how you adapted and describe the feelings that you experienced.

Stress levels

Stress is an automatic response to dealing with challenging situations or life events. When an individual is stressed their body is flooded with hormones that raise heart rate, increase blood pressure, boost energy and prepare them to deal with the problem: this is known as the 'fight or flight' mechanism. If prolonged or out of context, stress responses may interfere with day-to-day life and become a serious psychological and physical problem, making the individual unwell.

It is difficult to define stress. The psychologist Richard Lazarus provided a useful definition, 'stress is experienced when a person perceives that the demands exceed the personal and social resources the individual is able to mobilise.'

The effects of stress and an individual's ability to cope with the demands of stressful events, depend on how threatened and vulnerable they feel rather than on the stressful event itself. There is a focus on stress and stressful events in contemporary society and the word stress is used to describe many situations. Examples range from feeling overloaded with college work, to constant demands via social media to the breakup of a relationship or the death of a loved one. Stress can be short term, and may be a positive motivational force, for example waiting to take an exam or performing in a college play. Or it may be longer term, with negative effects on an individual's health, for example someone experiencing chronic health problems, the breakup of a long-term relationship or financial difficulties.

Health

Stress can cause an individual to become irritable, fatigued, have headaches, lack motivation and be unable to concentrate. This can lead to over/under eating, smoking or drinking too much alcohol to cope. Chronic stress can lead to anxiety attacks,

Instructions: Mark down the point value of each of these life events that has happened to you during the previous year. Total these associated points.

Life event	Mean value
1. Death of spouse	100
2. Divorce	73
3. Marital separation from mate	65
4. Detention in jail or other institution	63
5. Death of a close family member	63
6. Major personal injury or illness	53
7. Marriage	50
8. Being fired at work	47
9. Marital reconciliation with mate	45
10. Retirement from work	45
11. Major change in health or behaviour of a family member	44
12. Pregnancy	40
13. Sexual difficulties	39
14. Gaining a new family member (ie birth, adoption, older adult moving in etc)	39
15. Major business readjustment	39
16. Major change in financial state (ie a lot better or worse off than usual)	38
17. Death of a close friend	37
18. Changing to a different line of work	36
19. Major change in the number of arguments with spouse (ie either a lot more or a lot less than usual regarding child rearing, personal habits etc)	35
20. Taking on a mortgage (for home, business etc)	31
21. Foreclosure on a mortgage or loan	30
22. Major change in responsibilities at work (ie promotion, demotion etc)	29
23. Son or daughter leaving home (marriage, attending college, joined military)	29
24. In-law troubles	29
25. Outstanding personal achievement	28
26. Spouse beginning or ceasing work outside the home	26
27. Beginning or ceasing formal schooling	26
28. Major change in living condition (new home, remodelling, deterioration of neighborhood or home etc)	25
29. Revision of personal habits (dress manners, associations, quitting smoking)	24
30. Troubles with the boss	23
31. Major changes in working hours or conditions	20
32. Changes in residence	20
33. Changing to a new school	20
34. Major change in usual type and/or amount of recreation	19
35. Major change in church activity (ie a lot more or less than usual)	19
36. Major change in social activities (clubs, movies, visiting etc)	18
37. Taking on a loan (car, tv, freezer etc)	17
38. Major change in sleeping habits (a lot more or a lot less than usual)	16
39. Major change in number of family get togethers	15
40. Major change in eating habits (a lot more or less food intake, or very different meal hours or surroundings)	15
41. Vacation	13
42. Major holidays	12
43. Minor violations of the law (traffic tickets, disturbing the peace. etc)	11

Now, add up all the points you have to find your score.

150pts or less means a relatively low amount of life change and a low susceptibility to stress-induced health breakdown.

150 to 300pts implies about a 50% chance of a major health breakdown in the next 2 years

300pts or more raises the odds to about 80%, according to the Holmes–Rahe statistical prediction model.

► **Figure 1.5** The Holmes–Rahe Life Stress Inventory

depression and cardiovascular problems (caused by high levels of stress hormones). Once an individual is experiencing chronic stress and depression it becomes harder to recover, especially if they have low levels of social support. The individual may be irritable, depressed and apathetic, which may alienate family and friends who could offer support.

High levels of stress hormones over a long period of time can affect many of the body's systems causing a variety of health problems, for example:

- ▶ immune system – susceptibility to infections and colds, especially if unhealthy behaviours such as excessive alcohol consumption are used to deal with the stress
- ▶ cardiovascular system – high blood pressure, heart attacks, arrhythmias and sudden death
- ▶ respiratory system – breathlessness, asthma
- ▶ digestive system – loss of appetite, gastric ulcers, duodenal ulcers, irritable bowel syndrome
- ▶ musculoskeletal system – tension headaches, taut muscles, muscular twitches
- ▶ endocrine system – diabetes, loss of sex drive, absence of menstruation.

People who are stressed can be indecisive, have impaired judgement, muddled thinking and make errors. This can sometimes be through their inability to sleep and feeling fatigued. They may also be more accident prone.

Stress can affect an individual's emotions, especially self-esteem and self-image.

Assessment practice 1.2

B1

B2

B3

B4

B5

B6

Mary was a shy, only child. She enjoyed playing alone and had a small friendship circle. Mary experienced bullying in Year 5 that continued at secondary school which affected her self-image and self-esteem. Mary was very close to her mother and was devastated when she died of breast cancer when Mary was 18.

Mary has been married for 21 years to Bill and they have three children, aged 12, 15 and 18. Bill is a paramedic and works different shifts every week.

Three years ago, Mary had to give up work as a nursing home manager as she needed to be home for the children. Mary was disappointed to leave her job which she loved and which gave her the status needed to boost her self-esteem. Mary missed her colleagues' company. As the children are now older, Mary works part-time as an assistant occupational therapist. She may soon go to university to study for a degree.

Unfortunately, Mary and Bill have begun to experience marital difficulties. They argue a lot about money. Bill has started to spend nights away and has begun divorce proceedings. He wants to sell the house. Mary is distraught, and feels more stressed as their eldest daughter will soon be leaving home to go to university.

Mary has started to drink a little too much alcohol. She is having difficulty sleeping and has put on weight, due to a poor diet and not exercising. Mary's friendship circle has reduced, initially because of her busy lifestyle, but more recently because she is withdrawn and depressed. Mary has stopped taking care of her appearance and her personal hygiene has started to suffer.

- 1 Identify two predictable and two unpredictable life events that Mary has experienced.
- 2 Explain, giving two examples of factors that have influenced Mary's development.
- 3 Discuss Mary's emotional wellbeing in relation to the Holmes-Rahe social adjustment scale.

Plan

- Have I fully understood Mary's situation in the case study?
- What do I know about the Holmes-Rahe social adjustment scale?
- How confident do I feel in my own ability to complete this task?

Do

- Am I confident that I know what I am doing and what it is I should be achieving?

Review

- I can explain which elements I found easiest.
- I can explain how I would approach the hard elements differently next time.

C

Effects of ageing

C1 The physical changes of ageing

By the time an individual reaches their late sixties, their body functions begin to decline. For example, they may experience hearing loss in higher frequencies. They may become far-sighted and experience impaired night vision. Joints may become stiffer and bones may lose calcium and become brittle bringing an increased risk of fractures. However, each individual is unique and their experience of the ageing process is different. Some people develop serious problems associated with ageing in their fifties, whereas other people have few problems even in their nineties.

Research

Produce a thought shower of as many aspects of physical changes that are due to ageing that you can think of.

These physical changes do not come about just because bodies 'wear out'. If you take regular exercise, you may expect to live longer and stay healthier than people who do not. The physical changes associated with ageing may come about because there is a limit to how many times body cells can repair and renew themselves and because of damage that builds up over a lifetime.

Cardiovascular disease

As an individual ages, they have an increased risk of cardiovascular disease, (disease of the heart and blood vessels). The main purpose of the heart is to pump blood around the body. Many older people develop narrowing of the arteries and other blood vessels due to fats such as cholesterol being laid down in the walls of the blood vessels. This process of 'clogging up' is called atherosclerosis. Atherosclerosis can result in higher blood pressure (which puts the person at risk of stroke) and heart attacks. The blood vessels can also start to lose their elasticity causing the heart to work harder, increase in size and raise the blood pressure. Fatty deposits can break away and block the artery. If the coronary artery is partly blocked, it may cause angina, experienced as breathlessness and chest pains. If there is significant blood flow blockage, the person may experience a heart attack.

There were almost 160,000 deaths associated with cardiovascular disease in 2011. Approximately 74,000 of these deaths were caused by coronary heart disease, which is Britain's biggest killer.

Effect of lifestyle choices

There are a number of risk factors associated with cardiovascular disease, including a family history of heart disease, ethnic background, poorly controlled diabetes and a prolonged rise in blood pressure (hypertension). Poor lifestyle choices, such as being overweight/obese, smoking and lack of exercise, increase the risks of cardiovascular disease, and its effects, in older age.

The degeneration of the nervous tissue

An individual's senses depend on the nervous system (nerves, the spinal cord and the brain) which is composed of nervous tissue. Nervous tissue allows an individual to receive stimuli and process information. Some sensory experiences are positive,

such as the smell of a cake baking, and some are not. For example, an individual accidentally hitting their thumb with a hammer will experience pain – the sensory impulse travels along nerves to the brain and back and tells the thumb that it hurts.

As the ageing process progresses, brain function begins to decline. However, different aspects of brain function are affected at different rates. For example, short-term memory and the ability to learn new material tend to be affected relatively early. The ability to use words and vocabulary may begin to decline after the age of 70. Cognitive and intellectual ability (the ability to process information) is usually maintained until around the age of 80, if no neurological disorders are present. Reaction time and performance of tasks may become slower as the brain processes nerve impulses more slowly. However, it is important to note that the effect of various conditions that are common in older people, for example strokes, depression, under-active thyroid gland and Alzheimer's disease, can make it difficult to analyse the effects of ageing on brain function. It is worth noting that some areas of the brain may produce new nerve cells and new skills can be learned, for example, after a stroke with the help of occupational therapy.

Blood flow to the brain decreases with the ageing process, especially for people who have some form of cerebrovascular disease, which is more likely in people who have smoked for a long time, have high blood pressure, high cholesterol or diabetes. This may result in the loss of brain cells prematurely, possibly impairing mental function and increasing the risk of dementia, especially if lifestyle changes are not made or medication is not taken.

Having very high blood pressure, diabetes or high cholesterol levels can speed up the age-related decline in brain function. Physical exercise may slow this down.

Nervous tissue degeneration also occurs because, as people age, impulses become slower and age-related changes in function can become more noticeable when the nerves are injured by something, for example diabetes. The self-repairing process in cells occurs more slowly and incompletely making older people more vulnerable to injury and diseases. Decreased sensation, slower reflexes and a tendency to be clumsy can also be a result of the degeneration of nervous tissue within the nervous system. Hence memory, thought and abilities to perform tasks can be affected.

Discussion

A common myth is that all older people become senile and increased confusion may be put down to 'getting old', whereas it might actually be caused by illness. Consider stereotypes of older people. Using the information about degeneration of nervous tissue, discuss to what extent this myth is true or not.

Osteoarthritis

Osteoarthritis is a degenerative disease, a result of wear and tear of the joints and the ageing process. It is one of the commonest types of arthritis in the UK, with over eight million people suffering from the condition. Osteoarthritis causes the joints to become painful and stiff, especially the hips, knee, neck, lower back, hands or feet. The symptoms' severity can vary between individuals. Some experience occasional mild symptoms whereas others experience severe and constant problems, making it difficult to carry out daily activities. Although being overweight and having a family history may add to the chance of developing osteoarthritis, the exact cause is difficult to identify. However, recent research by Coventry University identified multiple injuries in the same joint before an injury has fully healed as a cause.

Women are more likely than men to be affected by osteoarthritis. It can occur at any age, but generally appears between their late forties and 75 years of age.

Physical changes due to osteoarthritis include thinning and roughening of the joint cartilage. **Cartilage** is a protective cushion between the ends of the bones. As the bones start to rub together, moving the joints causes pain and swelling. Eventually, this leads to bony outgrowths, spurs or osteophytes, developing on the ends of the bones, causing damage to the soft tissues around the joints. One of the major impacts is that gradual smooth movements of the affected joint become difficult and this limits movement such as walking, using stairs or lifting heavy objects.

People often confuse osteoporosis and osteoarthritis. Osteoarthritis is a degenerative disease that damages joints at the end of the bones. Osteoporosis is a condition in which the bones become less dense, making them fragile and liable to fracture. Both conditions can cause back pain and height loss, especially in older people.

Degeneration of the sense organs

As part of the ageing process, sensory awareness gradually decreases. For example, an individual's sense of balance can become impaired, both hearing and vision may deteriorate, and the ability to taste and smell may diminish. These can all lead to a range of physical problems.

Changes generally begin when people are about 50 years of age. However, they become noticeable when an older person begins to need to turn up the sound on the radio or television, or add more salt and pepper to their food or starts wearing glasses with stronger magnification.

After 45 years of age, the eye's ability to focus begins to weaken and, for many people, by 65 years old there may be little focusing power left, making small print more difficult to read. Up to half of people over the age of 90 may have serious problems with vision.

Cataracts result from changes in the lens of the eye. As people grow older, the lenses can become hard and cloudy which can result in blurred vision. Cataracts may start forming between the ages of 50 and 60, but often take time to develop and start causing symptoms. The majority of people over 75 years of age have some degree of cataract formation. Diabetes greatly increases the chances of developing cataracts.

Glaucoma is an increase of fluid pressure within the eye. It can affect eyesight in later life with symptoms that can range from hazy or blurry vision or eye pain to sudden loss of vision.

Some older people experience an increase in wax in the outer ear that can block sound transmission to the sensory nerves. Difficulty in hearing high frequency (or high-pitched) sounds also increases with age as the sensitivity of nerve cells in the inner ear decreases. If this is accompanied with a loss of nerve cell function then they may experience partial or complete hearing loss.

For many older people, once they have accepted these ageing processes they will try to make adjustments or adaptations to their environment and use resources to help them perform daily tasks. However, if there is a sudden change in vision, hearing, taste, smell or touch, it is important for older people to seek medical advice.

The reduced absorption of nutrients

Energy requirements may change in older age particularly if physical activity is restricted or reduced. As energy requirements decrease, older people may need more protein-rich foods in their diet, for example eggs, pulses, dairy foods and lean meat.

Key term

Cartilage – the soft tissue that protects the surfaces of the bone.

It is also important that older people's diets include foods containing vitamins and minerals. Minerals such as zinc, calcium, magnesium and sodium are found in dairy products, meat, eggs, fish, bread, cereals, fruit and vegetables. However absorption of food, including minerals and vitamins, becomes less efficient in older people, meaning that some people can experience malnourishment even though they continue to eat the same diet that was adequate in early adulthood.

Vitamin D is important for good health and essential for absorbing calcium from food. It is largely obtained from sunlight so older people who are housebound, or in residential care, may be at risk of vitamin D deficiency leading to disorders such as osteoporosis and bone fractures. To prevent osteoporosis, some older people are prescribed vitamin D and calcium supplements. Older people may also lack vitamin C, iron and fibre in their diet. Vitamin C is essential for several body functions, including wound healing and forming and maintaining healthy tissues. Many older people do not eat enough fresh fruit and vegetables which provide vitamin C. Some older people find buying fresh fruit and vegetables difficult or expensive, and also have difficulty in preparing and eating them.

Iron absorption may be reduced in older people and, along with a low dietary intake, this can increase the risk of iron deficiency anaemia. Dairy Council research has shown that 30 per cent of older people have an iron intake below the recommended level for the general population. Water helps with digesting food and absorbing nutrients. In older age, people may lose their sense of thirst and, as a result, become dehydrated. This has been highlighted as a particular problem in hospitals where patients do not request drinks.

Theory into practice

Research the food groups essential for maintaining a healthy diet in older age. Make a list of the sources of food containing them and what can happen if older people don't have enough of these food groups in their diet. Produce a leaflet about food groups and the sources of minerals and vitamins that support a balanced diet to offer to older people at your local day care centre.

Dementia

Dementia is more likely to occur in older people. According to the Alzheimer's Society, more than 5 per cent of people over the age of 65 and as many as 20 per cent of people over the age of 80 are affected by dementia. However, the majority of people who live to extreme old age will never develop dementia.

Dementia is a brain disorder that seriously affects a person's ability to carry out daily tasks and activities. A person with dementia is likely to experience problems with understanding what is happening around them, communicating, reasoning, finding their way and remembering recent events. There are different kinds of dementia – two major types are Alzheimer's disease, and **vascular dementia**.

Key term

Vascular dementia – symptoms include problems with language, memory and thought processes caused by problems in the blood supply to the brain, for example through stroke.

Link

You looked at the deterioration in intellectual abilities, particularly in relation to dementia, earlier in this unit. See pages xx-xx.

Alzheimer's disease

Alzheimer's disease is the commonest form of dementia. The onset of Alzheimer's disease is usually slow, initially involving parts of the brain controlling thought, memory and language. Individuals with Alzheimer's disease have trouble with short-term memory and recalling the names of people they know. The symptoms gradually worsen. For example, an individual may not recognise family members and may begin to lose the ability to carry out particular tasks, like speaking, reading or writing. As the condition progresses, the ability to carry out simple everyday tasks, like brushing teeth or combing hair may be forgotten. Alzheimer's disease usually begins after the age of 60 and the risk of developing it rises as a person gets older. There is a higher risk of getting Alzheimer's disease if a family member has had the condition. At present, there is no treatment to cure or prevent the disease, but some medications may delay its progress for a limited time.

Research

Research some of the major health problems that you expect older people to have and prepare notes for a class discussion. Historically, many older people have been negatively stereotyped as suffering from disease and dementia. Do you think this is still the case? Provide examples from your research to back up your discussion.

Theory into practice

Working in small groups, research the physical changes associated with ageing. Choose one condition and produce an information leaflet that could be given to care workers about it. Remember to add references to your leaflet.

Effects of illnesses that are common in ageing

Each of the conditions common in ageing brings its own symptoms, but each one can have wider effects on holistic development. Having a chronic condition in addition to the usual physical and psychological changes during the ageing process can worsen stress or depression for many older people (see Table 1.15). Depression affects an individual's mood and can lead to lack of energy, low motivation, interrupted sleep patterns, changes to appetite and headaches. Additionally, physical aches and pains, such as those associated with conditions like arthritis, can worsen.

Social development may be severely affected by chronic conditions. The effects of illness on mobility can restrict a person's social life as they may have difficulty getting out and meeting people. This will reduce their circle of friends causing further emotional stress. The decline of senses or neural capacity can also impact on friendships as they depend upon communicating with others. Individuals may be unable to hear or see sufficiently well to take part in interests and hobbies they used to enjoy, such as reading or going to the cinema. This can reduce motivation and increase isolation.

Illness brings with it a number of physical changes that have been discussed in relation to each of the conditions in section C1: The physical changes of ageing. Many of the conditions will result in losing mobility caused either by neurological problems or because of pain, stiffness of the joints or a reduction in stamina. This can be a vicious circle, as a lack of exercise or even movement can result in the onset or worsening of

conditions such as heart disease. A reduction in sensory awareness and neurological illness bring, with it an additional problem of dizziness or difficulty in moving that results an increase in falls in older people, often causing fractures.

A common problem in ageing is incontinence, which is a loss of bladder control. It can happen because of weakness of muscles, enlarged prostate (common in older men) or neurological illness such as Alzheimer's. Whether it is temporary or chronic, it is unpleasant for the individual and can lead to embarrassment and emotional distress.

Many older people experience insomnia or disorders which can disrupt sleep patterns and cause fatigue, stress and anxiety. This can have an adverse effect on their attention span and ability to carry out everyday tasks.

Depression

► **Table 1.15** Some of the effects of depression

Physical	Psychological
Difficulty falling or staying asleep, oversleeping, or daytime sleepiness.	Fixation on death, suicidal thoughts or suicide attempts.
Increased use of alcohol or other drugs.	Loss of self-worth, worries about being a burden, feeling of being worthless, self-loathing.
Weight loss or loss of appetite.	Social withdrawal and isolation, not wanting to be with friends, leave the house or take part in activities.
Fatigue.	Sadness.
Giving up or losing interest in hobbies and other pastimes.	

C2 The psychological changes of ageing

The majority of people over state retirement age experience reasonable health, a satisfactory social life and a reasonable standard of living. A minority of older people experience poor health, poverty and isolation. It is important to guard against the stereotype that old age is always a story of decline and isolation.

Old age is like any other life stage, whether or not you lead a happy and fulfilled life depends on a large range of individual issues.

Effects on confidence and self-esteem

Confidence and self-esteem are not fixed and people experience rises and falls in both during their lifespan. An individual's confidence and self-esteem may increase with older age, as they feel that their life is more settled and they may well have achieved many of their life goals. For example, they may have reached a certain level in their job, own their house, and have raised a family – maybe they have grandchildren, and are enjoying a fulfilling retirement. Conversely, older age can mean loss of confidence as the physical effects of ageing make daily tasks difficult or impossible. Older people can feel marginalised by a society that places great emphasis on material possessions and position in life. If an older person had a high status job, they may feel less worthy now they no longer have that function. For some older people, their only income may be their state pension and they may be struggling to cope financially.

Effects of social change

How roles change

The majority of older people enjoy effective social networks with only one person in five experiencing a degree of isolation. For many people retirement provides more opportunity for contact with grandchildren and other relatives. Older people are more likely to vote than any other age group, suggesting involvement in politics and community issues. Conversely, an individual may have viewed themselves as the 'head of the family', the provider and the decision maker, and find it difficult to adjust to their children maturing and taking over many of these functions.

Death of a partner

Loss, grief and bereavement can result in a range of changes, including change of status and result in anxiety and depression. The death of a spouse or partner will bring grief but also a sense of loss which impacts on a person's sense of safety and security. When a partner dies, there is also a loss of intimacy which can cause an additional sense of deep pain and despair. The loss of long-term relationships is particularly difficult as people may have a self-concept as a couple and have lost a sense of who they are as an individual. Being alone will impact negatively on self-image and self-esteem which may result on not wanting to live on alone.

Death of friends

Losing friends is a source of grief and stress and losing social support networks can lead to a sense of isolation and of not being useful. It can also bring a sense of one's own mortality which can lead to depression.

Increase in leisure time

For many people, retirement provides freedom. Retired people may be seen as 'time rich' and free from work stress. But, for some people, retirement may result in losses of income, of purpose, of interest in life and contact with work colleagues. More free time may, however, enable many older people to engage in physical leisure activities such as walking and activity holidays. Gardening is very popular among people aged 50 to 70. Free time may enable many older people to engage in enjoyable social and mental activities such as taking new college courses, maybe through the U3A (University of the Third Age) or Future Learn (free online courses) or they may decide to develop ICT skills. National Statistics Online (2006) reported that 51 per cent of people between 60 and 69 participated in some form of learning.

Financial concerns

Some people over the age of 65 own their own property, have paid their mortgage in full and have sufficient income to live comfortably in their old age. However, there are many who rent, either local authority or privately owned property. For some, paying the rent, including rising rents, or maintaining their own property will cause financial concerns. Some people may have a private pension but others may only have a state pension. Paying household bills, especially with rising costs for heating and other utilities, can be a source of stress for many older people.

Effects of culture, religion and beliefs

Some people can maintain a happy and positive outlook on life despite having serious physical health problems. Other people may appear to be depressed or withdrawn despite being relatively fortunate in terms of physical health. The way in which people react to changes in later life depends on their attitudes and beliefs, which are influenced by social issues such as culture and religion.



- Older people, especially those with limited incomes and living alone, may worry about whether they have enough money to pay their household bills

Traditionally, family members have been responsible for caring for older people, providing care within an extended family environment. However, in contemporary society, care of older people is more often provided by the welfare state, or private or voluntary organisations. Sheltered housing facilities enable older people to keep a sense of independence while providing individuals with the care and supervision necessary to stay safe. While care of older people in Britain often focuses on the importance of empowerment and independence, some Asian cultures place greater emphasis on respect and family care for older people. Older people's view of death is also based on the values of their culture. In Britain, it is common to view death as a loss, something to be feared, as opposed to a tranquil and natural transition.

Although the Equality Act 2010 is intended to prevent ageism in society, it is a common form of discrimination in Britain, and negative stereotypes about older people are often portrayed. This type of discrimination can have a negative impact on the care and wellbeing of older people.

Social disengagement theory

Disengagement means to withdraw from involvement. In 1961, psychologists Cumming and Henry proposed that older people naturally withdraw from social involvement as they get older. They concluded that older people have restricted opportunities to interact with others (see Table 1.16). Cumming (1963) further argued that older people experience reduced social contact and become increasingly 'individual' and less concerned with others' expectations. She concluded that it is appropriate and healthy behaviour and that disengagement is a natural part of ageing.

The theory of disengagement was widely accepted in the past. For example, Bromley (1974) argued that 'although some individuals fight the process all the way, disengagement of some sort is bound to come, simply because old people have neither the physical nor the mental resources they had when they were young.'

► **Table 1.16** Issues that limit social interaction

Problem	Explanation
Illhealth	Poor mobility or problems with hearing or vision may make interaction with other people more difficult.
Geographical mobility	Moving to areas away from friends and relatives in retirement. Family members may move away from older people in order to seek better housing or employment.
Retirement	Retiring from work may mean less contact with people.
Illhealth of friends and relatives	Friends or relatives may visit or contact less frequently if they have poor mobility or other disabilities.

However, there is little statistical evidence to support this view. The majority of older people remain socially active and involved with family and friends. Many older people become even more involved with close family as they age. It may be that many older people choose to spend their time with people they feel close to, rather than seeking to make new friends. If people only interact with close friends, does this mean that they are disengaged?

In 1966, Bromley argued that older people needed to disengage but remain 'active' in order to prevent disengagement from going too far. He argued that providing facilities for older people was not enough and that they should be shown how to use them and encouraged not to have negative attitudes or fixed habits. Bromley felt that it was important to remain mentally active, maintain an interest in life and enjoy the company of others.

While many researchers today do not agree with disengagement theory, it is important to remember that when Cummings and Henry first proposed the theory in 1961 there was no internet, no mobile phones or text messaging. Many older people had no access to a car and many would not even have had a phone in their home. Technology helps older people to keep in contact with a wider circle of family and friends.

Activity theory

Activity theory was proposed as an explanation to ageing by Robert Havighurst in the 1960s. His ten year study of older people showed that, rather than an inevitable decline in interest in life and isolation, older people tend to adjust to the ageing process. His theory is based on the assumption that social and psychological needs of older people remain the same.

He recognised that this may involve adjusting to changes in health and/or mobility but theorised that older people's needs can be satisfied by taking on new roles following retirement such as charity work, joining social groups or learning a new skill. Research supports his theory. Many older people look forward to retirement, viewing this part of their lifespan as an opportunity to pursue new hobbies and interests and to meet new friends. When people remain physically and socially active, their overall satisfaction and wellbeing is increased. This is important for reducing the risk of illness and increasing longevity.

One theory is that older people need to engage in telling their life story, reminiscing or reviewing their life to help create self-esteem and confidence. Coleman (1994) argued that some types of reminiscence therapy can be useful for helping individuals cope with the effects of ageing, but that there are wide differences in individual needs.



PAUSE POINT

Close the book and outline reasons why people in older adulthood may be more at risk of falls in their home.

Hint

Consider the conditions that can impact on mobility, the senses and on brain function.

Extend

Explain how injury caused by falls may impact on emotional and social development in older age.

Case study

Retirement

Margery is 65 years of age and about to retire from her job in advertising. She enjoys her job and has many friends at work.

Margery plans to take up painting when she retires. She has already booked herself a painting holiday. She has also been asked by a friend to help out at her local charity shop.

Check your knowledge

- 1 Justify how Margery's plans when she retires may impact on her health and wellbeing with reference to Activity theory.

C3 The societal effects of an ageing population

Health and Social care provision for older people

Older people place more demand on health and social care provision than any other group in society. This increases with age. Often health and social services are required to work closely together to meet the holistic needs of older people. For example, people receiving end of life care may require professionals to work together to monitor and provide medication, psychological support and personal care.

Health care

Health professionals provide a range of different services. These can be thought of as primary or secondary care. The first point of call for older people is usually the primary care services such as their GP surgery, pharmacy or dentist. Those with conditions such as osteoporosis or mental health problems may be referred to specialist secondary health professionals or units to monitor and support their on-going needs. Acute care is health care that meets immediate needs, such as a broken hip, cancer treatment or specialist health care for chronic conditions. Acute care may be short term for many but, for older people, hospital stays may be extended as they require a longer period for recovery and recuperation.

Social care

Social care services essentially exist to help and support people in need of practical help and/or personal care due to disability or illness. The type of services provided could include having a carer or support worker (**enabler**) to help around the home with practical tasks and personal care. There could also be structural changes to homes which could support an individual to live more independently. Although technically available to everyone, there has to be practical and financial assessment of physical, intellectual, emotional and social needs and abilities to assess how much support can be provided. After completing the assessment, the local authority will decide how much of the care and support services they will provide. Social care

services can take different forms, for example help to live at home, day centres, sheltered accommodation, respite care or residential care. Charities and private organisations can also be involved with delivering social care services.

Community equipment

One important aim of health and social care services is to enable people to stay in their own home and keep their independence. Community equipment services, based in each geographical area, do just that by providing support aids for daily living. These may range from large equipment that can be used by family or carers to move people or walking frames to 'kettle tippers' that take the weight of a kettle to enable a person to make a cup of tea for themselves.

Financial support and entitlements

Many older people will have the advantage of an occupational pension as well as a state pension. Others may have to rely on their state pension only. Older people can claim pension credit to top up their pension to a minimum level and, depending on circumstances, may also claim housing benefit and council tax reduction. For people retiring after 5 April 2016, the minimum pension will increase to meet the minimum level necessary for all pensioners who have made sufficient contributions. Other financial benefits for over 60s include free NHS prescriptions, eye tests and eye care. Concessionary travel fares are available at pensionable age, as well as winter fuel payments, and, for those on low income, cold weather payments. By the age of 75, free television licences and other discounts can make for a comfortable old age, as long as people remain active and lead a healthy lifestyle. Unfortunately, for many older people, retirement years can mean relying on health and social care services for support.

Since the Griffiths report, Community Care, an Agenda for Action, and the introduction of The NHS Care in The Community Act in 1990, there has been a move away from institutional care towards independent living. Griffiths was particularly concerned about long-term and continuing care of vulnerable groups within the community, including older people. The report focused on the different types of provision between health and social care services, and the way in which these services could work together in partnership to take responsibility for care in the community.

Social care services can take different forms, for example help to live at home, support for going out in the community, accessing day centres, sheltered accommodation, or even a place in a residential or nursing home. The majority of older people remain in their own home in the community, where they may be supported by friends, family and health and social services.

Some older people choose to move to sheltered housing where they can call for assistance if and when needed. Day Care Centres provide a social setting where people can meet and some NHS providers offer day care to assist with physiotherapy and other health needs. A small proportion of older people choose residential care where 24-hour support is available.

All services for older people aim to provide respect and choice for service users as part of their policy on quality assurance. Many day and residential services provide a range of social and leisure activities for service users. Older people should always have a choice as to how active they wish to be. Quality services will never attempt to force older people to be active and engaged but they will provide opportunities for individuals to maintain the continuity of their lives and remain as active as they wish.

The total population of the UK aged 65 or over has increased from 4.5 million in 1951 to 8.7 million in 2011 and is forecast to increase to 16.6 million in 2051.

Key term

Enabler – someone who delivers person-centred care in a domiciliary (home) setting, which encourages independence.



PAUSE POINT

Close the book. Note down different types of health and social care services that should be available for older people.

Hint

List the main types, eg health service, **social care** services. Then break them down further, eg home care, residential care.

Extend

Explain the importance of professionals working together to meet the needs of individuals with complex needs.

Economic effects of an ageing population

The Office for National Statistics predicts that the population of the UK will rise from 64.6 million in 2014 to 74.3 million by 2039. According to research by The King's Fund, the average life expectancy in 2012 was 79.2 years for men and 83.3 years for women.

Figures from 2012 identified that people over 65 made up 16 per cent of the population. The report also revealed a wide regional variation in the percentage of older people in the population. For example, in Tower Hamlets in the East End of London, people over 65 years of age make up about 6 per cent of the population. This is compared to 25 per cent of the population over the age 65 living in Dorset, a predominately rural county. Approximately 30 per cent of people aged over 85 will potentially require support from health and social care services. However, meeting increased demand for care services has been made more difficult by government funding to local councils for care being reduced. This could lead to less local authority funding to support older people to live in their own homes resulting in an increase in the number of older people needing residential care.

Reflect

In 2012/2013, 20 per cent of people over 85 years old accessed NHS services compared with just 4 per cent of people under the age of 65. Why do you think this is the case?

Statistics from 2012/2013 identified that people over the age of 85 were more likely to access mental health services. General hospital admissions for people over the age of 85 were more than twice as likely to be emergency admissions (65 per cent), than for people in the 0–64 age group (32 per cent). Home-based services were mostly accessed by older people, who often required adaptations to their homes, for example, installation of stair lifts and wet rooms. These adaptations are very expensive so often the individual may be asked to pay for at least part of the cost. Additional costs may be incurred for other resources and equipment required to ensure that older people can live independently and maintain a good quality of life. Recent research by Age UK identified that, due to an increasing ageing population and government cuts to welfare, there are about two million older people with identified care needs who cannot afford to access social care, health and support.

Reflect

People are living longer and, as the state pension age rises, they may need to work for longer.

What can local and national government do to support people to stay healthy in their later life?

Assessment practice 1.3

C1

C2

C3

Alice is a retired health visitor and was widowed just before she retired. Alice has always had fairly good health but losing her husband and also two of her close friends has affected her deeply.

After retiring, Alice enjoyed theatre trips and holidays with friends, joined a local book group and walked with the local rambling group. She also regularly went to yoga and Pilates sessions. She became involved as a volunteer for an Age UK befriending scheme, visiting vulnerable older people in their homes. Alice's children, Jessica and Matt, visit regularly, although they both live more than 100 miles away.

However, Alice's osteoarthritis gradually prevented her from taking part in the befriending scheme and going out with the rambling group. Recently, she had a bad fall in the shower and broke her hip. Since the fall, Alice has lost confidence and become increasingly housebound and very forgetful. Alice has lost her appetite and is eating just cake and biscuits. Her physical and psychological health have suffered and she will only see her children and a few close friends.

Alice's children have arranged for a care worker to help with her daily living tasks such as personal care and food preparation.

1. Explain, giving two examples, how osteoporosis may have affected Alice's emotional development. (4 marks)

2. Identify two services that could support Alice's health and care needs. (2 marks)

3. Evaluate possible explanations for Alice's development with reference to theories of ageing. (10 marks)

Plan

- How much time do I have to complete this task?
- Do I need clarification of Alice's situation?
- Are there any areas I may struggle with in this task?

Do

- Have I spent time planning out my approach to the task?

Review

- I can identify how this task relates to future experiences, for example in the workplace.
- I realise where I still have knowledge gaps and how to resolve them.

Further reading and resources

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- Coleman, P. and O'Hanlon, A. (2004) *Ageing and Development (Texts in Developmental Psychology)*, London: Arnold
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- Senior, M. and Viveash, B. (1997) *Health and Illness (Skills-based Sociology)*, London: Palgrave Macmillian
- Shaffer, D. R. (2002) *Developmental Psychology Childhood and Adolescence*, 6th edition, Belmont Ca:Wadsworth
- Sugarman, L. (2001) *Life-Span Development Frameworks, Accounts and Strategies: Theories, Concepts and Interventions*, (2nd edition), Hove: Psychology Press Ltd.

Websites

www.ageuk.org.uk

Age UK is a charity for older people, providing information, help and support.

www.bhf.org.uk

The British Heart Foundation is a charity providing information about heart disease and research.

Child Poverty Action Group: www.cpag.org.uk

Child Poverty Action Group is a charity producing research and support for children and families living in poverty.

www.communitycare.co.uk

Specialist website involved in all aspects of social care.

www.dh.gov.uk

Government department responsible for research, develops policies and guidelines to ensure the quality of care of health and social care users.

www.guardian.co.uk/society

Social care reports and research.

www.jrf.org.uk

The Joseph Rowntree Foundation is a charity supporting a wide range of research and development projects in housing, poverty and social care.

www.kingsfund.org.uk

Kings Fund is a health charity that undertakes research for health and social care policies and practices.

www.nhs.uk

Access to NHS services and information on many diseases and conditions.

www.nursingtimes.net

A useful source for NHS and health care news.

www.ons.gov.uk

Produces statistics on a wide range of topics, including health and social care.

THINK ▶ FUTURE



Lucy Smith, Health care assistant

I've been a qualified healthcare assistant for six years. My role is to support other health professionals in the individual care of patients. Much of my work involves helping people with their personal care such as bathing, feeding, toileting and supporting mobility. An important part of my job is to reposition people who are immobile to reduce the risk of bed sores. I also monitor patients' condition when they are admitted and during their hospital stay by taking their respiration, pulse, weight and height.

I recognise how distressing it must be for individuals to suddenly rely on others for their care. I always ensure that patients' dignity and privacy is maintained at all times. In this way, I can help them to maintain their confidence and self-esteem. It is important that I build good relationships with patients, treating each person as an individual. The whole person has to be considered not just their health problem: for instance, culture, religion and values can all impact on an individual's care needs and recovery.

Most people I support are in the later life stage. In this age group, there is a higher risk of conditions that require hospital care such as heart diseases, cancers and osteoarthritis. An increasing number of patients have dementia. I recently attended dementia training so that I can better understand how it might affect them at each stage of the disease and support their needs.

I have to be very well organised and pay attention to detail, especially around making and keeping meticulous records. For example, it is essential that records are kept about patients' food and fluid intake, toileting records and when they have been repositioned to make sure that care plans are followed. I have to make sure that all information is passed to other professionals following correct procedures so that confidentiality is maintained.

Working with other professionals and people using services requires a high level of communication skills. I attend meetings with patients, their families and other professionals such as social workers to discuss patients' needs, progress and develop care plans in preparation for their discharge.

Focusing your skills

Understanding development through all life stages

The knowledge and understanding in this unit will be invaluable to your career in health and social care or further training. To succeed in this unit, you need to understand development through the life stages, the factors that can impact on them and effects of ageing.

Investigating these topics will help you in your examination and your future career. If you can do some voluntary work, you will be able to talk to experienced professionals. While they must observe confidentiality and cannot discuss individual people in their care, they will be able to share their observations of

development and how this can be affected, for instance, by life events, chronic illness or ageing.

It could also be helpful to talk to people in your extended family. For example, you could observe any younger relatives at play so that you really get to understand what the milestones mean in practice. You could note down what you see and then research how they are developing. You might speak to a parent, aunt or uncle in middle adulthood and ask what physical changes they have experienced and how it may have affected them. It would be particularly useful to speak to people in later adulthood. You could discuss how they adapted to changes such as retirement, changes in mobility or the onset of disease.

Getting ready for assessment

This section has been written to help you to do your best when you take the assessment test. Read through it carefully and ask your tutor if there is anything you are still not sure about.

About the examination

The examination will last 1 hour and 30 minutes and there are a maximum of 90 marks available. There will be short-answer questions and long-answer questions.

- Short answer questions are worth 1 to 6 marks.
- Long answer questions are worth 10 to 12 marks.

Remember, all the questions are compulsory and you should attempt to answer each one.

Preparing for the examination

You should start to plan your revision well in advance.

- Identify the themes and topics in the unit that you feel confident about and those you are less sure about.
- Draw up a timetable for revision of each topic and regularly review your progress.
- Summarise what you have learned on cue cards.
- Recap each topic using your cue cards shortly before the examination.
- Use at least one practice paper so that you are familiar with the layout.

To help plan your revision, it is very useful to know what type of learner you are. Which of the following sounds like it would be most helpful to you?

Type of learner	Visual learner	Auditory learner	Kinaesthetic learner
What it means	Need to see something or picture it, to learn it.	Need to hear something to learn it.	Learn better when physical activity is involved – learn by doing.
How it can help prepare for the test	<ul style="list-style-type: none"> • Colour code information on your notes. • Make short flash cards (so you can picture the notes). • Use diagrams, mind-maps and flowcharts. • Use post-it notes to leave visible reminders for yourself. 	<ul style="list-style-type: none"> • Read information aloud, then repeat it in your own words. • Use word games or mnemonics to help. • Use different ways of saying things – different stresses or voices for different things. • Record short revision notes to listen to on your phone or computer. 	<ul style="list-style-type: none"> • Revise your notes while walking – use different locations for different subjects. • Try and connect actions with particular parts of a sequence you need to learn. • Record your notes and listen to them while doing chores, exercising etc – associate the tasks with the learning.

- **Remember! Take regular breaks** – short bursts of 30–40 minutes are more effective than long hours. Most people’s concentration lapses after an hour, so you need breaks.
- **Allow yourself rest** – don’t fill all your time with revision. You could schedule one evening off a week.
- **Take care of yourself** – stay healthy, rest and eat properly. This will help you to perform at your best. The less stressed you are, the easier you will find it to learn.

Sitting the examination

All the questions will relate to members of one family. In the first half of the paper, you will be given information about the individuals, such as their age, relationships, lifestyle, their environment, life events and information about their growth and development.

In the second half of the exam paper, you will be given an extended case study relating to one member of the family. This information will contain more detail about the individual so it would be helpful to underline or circle key information that may influence their growth and development.

Short-answer questions will enable you to demonstrate your knowledge and understanding of:

- the key features of human growth and areas of development across the life stages
- factors and life events that may impact on human growth and development
- the effects of ageing.

Short answer questions are awarded between 1 and 6 marks.

Long-answer questions will require you to analyse, evaluate and make connections between factors, life events, theories and models that help to explain human growth and development. Long-answer questions are awarded 10 or 12 marks.

In both types of question, your answers should demonstrate a thorough knowledge of the topic and relate directly to the stage of development, context or situation described in the case study. Specialist language should be used consistently and fluently. Longer answers must be focused, well structured and have a supported conclusion. Answers should be balanced and show different viewpoints.

Most questions contain **command words**. Understanding what these words mean will help you understand what the question is asking you to do. The following are command words that you may come across in your examination.

Command word	Definition – what it is asking you to do
Describe	Give a full account of all the information, including all the relevant details of any features, of a topic.
Discuss	Write about the topic in detail, taking into account different ideas and opinions and their importance.
Evaluate	Bring all the relevant information you have on a topic together and make a judgement on it (for example on its success or importance, advantages or disadvantages). Your judgement should be clearly supported by the information you have gathered.
Explain	Make an idea, situation or problem clear to your reader, giving reasons to support your opinions.
Identify	State the key fact(s), features or purpose about a topic of subject.
Justify	Give reasons for the point your answer is making, so that your reader can tell what you are thinking. These reasons should clearly support the argument you are making.
Outline	Provide a brief summary or overview of a feature or topic.
To what extent	Assess the evidence and present your argument clearly, coming to a conclusion about the level, importance or extent of something, and exploring factors that may impact on the extent.
Which	Specify which one out of a set of known items.

Remember the number of marks can relate to the number of answers you may be expected to give – if a question asks for two examples, do not only give one! Similarly, do not offer more information than the question needs – giving four examples will not gain you extra marks.

Planning your time is an important part of succeeding on a test. Work out what you need to answer and then organise your time. You should spend more time on long-answer questions. Set yourself a timetable for working through the test and then stick to it – do not spend ages on a short 1-2 mark question and then find you only have a few minutes for a longer 10 to 12 mark question. The space provided on your answer sheet will indicate the length of answer that is expected.

You have 90 minutes and there are 90 marks. This means that you must allow only one minute per mark. For example, for a 6 mark answer, after reading the case study, and the question you have less than 6 minutes to write your answer.

If you are writing an answer to a long-answer question, try and plan your answers before you start writing. Check that you have made each of your points and that you have given a valid argument that relates to the information in the case studies or any data provided.

If you finish early, use the time to re-read your answers and make any corrections – this could really help make your answers even better and could make a difference in your final mark.

Hints and tips for tests

- Revise all the key areas likely to be covered – draw up a checklist to make sure you do not forget anything!
- Arrive in good time so you are not in a panic.
- Read each case study and question carefully before you answer it to make sure you understand what you have to do.

- If you are stuck on a question, leave it until later – but remember to go back to it.
- Remember you cannot lose marks for a wrong answer, but you can't gain any marks for a blank space!

This is an example of a short-answer question

Emily, 42 has two children. Connor aged 13 and Sara aged 8.

Connor has been bullied at school.

Worked examples

Question: Explain one possible effect of bullying on Connor's emotional development and one possible effect on Connor's social development. (4 marks)

Learner answer:

1. Bullying could make Connor live in fear of what might happen so therefore it may result in him becoming depressed or even suicidal.
2. Bullying may affect Connor's ability to build new friendships because bullying may cause him to become socially isolated.

Questions often state the areas of development that you must explore in your answer. The learner has given one answer relating to emotional and one answer relating to social development. The reasons they give are realistic in Connor's situation. They have shown an understanding of the possible effect of bullying on the individual in the case study.

In **explain** questions, make sure that you have given reasons (explanations) for your answers. Use the words 'because' or 'therefore' to help you make sure you have given reasons.

This is an example of a long-answer question

Emily's brother Frank is 54 years old. Frank worked as a paint sprayer in a car factory for many years but, last year, was made redundant. Frank lives alone now as he divorced at the age of 48. Frank lives in a small flat in the city close to the motorway. Many of Frank's neighbours are now moving out of the area because of increasing vandalism.

Frank has respiratory problems and high cholesterol. He finds difficulty in walking any distance as he soon gets out of breath. After suffering chest pains, Frank visited his GP who diagnosed angina. This concerns Frank as his father had high cholesterol which led to a heart attack and his death at the age of 62.

Emily visits Frank regularly and has tried to encourage him to eat more healthily and to stop smoking. Frank argues that it is not worth cooking for one and relies on ready meals or takeaways. He promises to cut down his smoking but says it is difficult as he has smoked since he was a teenager.

Question: Evaluate possible explanations for Frank's health with reference to the Holmes–Rahe social adjustment rating scale and factors affecting human growth and development. (10 marks)

Learner answer:

Frank's respiratory problems could have been as a result of breathing in fumes when paint spraying at work, exacerbated by smoking. Respiratory problems are linked to the cardiovascular system so this is likely to have led to heart disease. As Frank's father suffered from high blood cholesterol and died from a heart attack, Frank may have a susceptibility to these conditions. Although susceptibility does not make it certain that Frank would suffer high cholesterol and develop heart disease, his smoking over many years and his recent poor diet increases the risk.

Frank's deteriorating health could be explained by the Holmes–Rahe social adjustment rating scale. This scale was based on a study of life events experienced by individuals. Each life event was given a score depending on the level of stress it caused. It was found that those who had high score were more likely to suffer illhealth. Frank has experienced a number of unpredictable life events, such as his divorce and redundancy, resulting in a level of stress which would have scored highly on the Holmes–Rahe scale. In addition, concerns about his health and living in an unsafe area will have increased his stress level further. Based on this study, Frank would be highly likely to suffer ill health.

Frank's deteriorating health can be explained by influences of nature and nurture. His genetic make-up means that he may have a susceptibility to high cholesterol and heart disease. However, he may not have developed these conditions without the influence of environmental factors, including those that are work and housing related, stress caused by life events and his life style.

You need to have a good grasp of factors, theories and models that may affect human growth and development so that you can make links to the most appropriate ones. This learner has explored a range of factors including environmental, life events, lifestyle and genetic susceptibility to disease.

Learners often show knowledge of theories but fail to make relevant links to the case study. This learner gives an overview of the Holmes–Rahe social adjustment rating scale and then links it directly to Frank's situation. This demonstrates their understanding in context. As the learner explores each factor, they give supported reasons for each point they make with clear links to the details about Frank in the case study.

In the final paragraph, the learner has referred back to the question 'possible explanations for Frank's health'. This has helped them to come to a balanced conclusion as to the likely influence of genetic susceptibility and environmental factors.