

## MODULE C: BACKGROUND INFORMATION

### MENTAL-EMOTIONAL HEALTH

Mental-emotional health and physical health affect each other. People with physical health problems often experience anxiety or depression that affects their recovery and overall well-being. According to Health Canada (“Mental Health – Mental Illness”), mental health factors can increase the risk of developing physical problems such as

- diabetes
- heart disease
- weight gain or weight loss
- gastrointestinal problems
- reductions in immune system efficiency
- blood biochemical imbalances

This lesson defines mental health and discusses how exercise and other healthy lifestyle practices can positively affect mental health. Students learn about ways to help themselves or to seek help when dealing with their feelings and emotions from day to day.



#### Background Information

As indicated by Health Canada (“Mental Health – Mental Illness”), most people will likely experience feelings of isolation, loneliness, sadness, stress, or disconnection from things during their lifetime. These feelings are often short-term, normal reactions to difficult situations, such as the death of a loved one, the loss of a job, a romantic breakup, or a sudden change of circumstances. Learning to cope or deal with these “ups and downs” or the good and bad times is part of life.

#### What Is Mental or Emotional Health?

Mental wellness, or good mental health, “is feeling, thinking, and interacting in ways that help you enjoy life and deal effectively with difficult situations” (Manitoba Healthy Schools).

Good mental health, more recently referred to as mental wellness, is not just the absence of mental health problems. Although different cultures have differing expectations for health, many of the following characteristics are likely to be present in individuals with good mental health in many cultures:

#### DEFINITION

##### **mental-emotional health**

The state or balance of a person’s thoughts, feelings, and actions. Mental-emotional health relates to how people look at themselves, their lives, and the other people in their lives, how they evaluate their challenges and problems, and how they explore choices. This includes handling stress, relating to other people, and making decisions.

- sense of well-being and satisfaction
- ability to enjoy life, to laugh, and to have fun
- ability to deal with life's stresses and to bounce back from adversity
- participation in life to the fullest extent possible, through meaningful activities and positive relationships
- capacity to change, grow, and experience a range of feelings, as life's circumstances change
- sense of balance in own life between solitude and sociability, work and play, sleep and wakefulness, rest and exercise, and so on
- self-care that attends to the needs of the whole person – mind, body, spirit, creativity, intellectual development, health, and so on
- ability to care for others
- self-confidence and good self-esteem

### Why Is Mental-Emotional Health Important?

Our minds are not separate entities from the rest of us. When we are distressed, our physical health is also affected negatively, and our spirits decline. Many physical conditions are actually rooted in a state of mind (psychosomatic illness), or in a history of stress that has never been balanced. Hence it is important to take care of the body, mind, and spirit.

"Mens sana in corpore sano (a healthy mind in a healthy body)"  
—Juvenal (Roman poet)

### What Is Mental Illness?

Mental illness, by definition, is quite different from everyday feelings and reactions to difficult situations. People who suffer from a mental illness may experience a serious disturbance in thinking, mood, or behaviour, which may have an impact on their ability to function effectively over a long period of time. Mental illness may affect people's ability to cope with the simplest aspects of everyday life. Many people need help in regaining balance in their lives.

#### DEFINITION

##### **healthy lifestyle practices**

Any behaviour that has an effect on a person's health and well-being. (The level or amount of the behaviour engaged in will determine the degree of the positive effect.)

## Effect of Exercise on Mental Health

As a result of exercise, the body releases different chemicals that affect the brain. One group of chemicals is called *endorphins*. During exercise, the release of the beta-endorphin by the pituitary gland increases and produces an analgesic effect on the body as well as a feeling of elation or euphoria.

In his article “Exercise is a State of Mind,” Miller states that “for several decades we’ve known about one effect of exercise on the brain, the ‘endorphin high’ that makes us feel good during and right after exercise” (48). He goes on to say that more recent scientists have discovered some longer-lasting effects of exercise on the brain, such as

- decreased anxiety
- reduced depression
- improved ability to cope with stress
- raised self-esteem
- improved mood
- improved sleep
- increased cognition (mental functions such as the ability to think, reason, and remember)

With exercise, several biological changes occur that make nerve cells more active or increase the ability of neurons to communicate with one another. The way this works is that the exercise fuels the body with blood, which carries energy and oxygen to the brain, which in turn tells the body to produce more proteins called neurotrophic factors or growth factors. These substances stimulate nerve cells to grow and connect with one another (neuroplasticity) or to develop new nerve cells (neurogenesis).

The hippocampus, a seahorse-shaped region in the temporal lobe of the brain, is involved in regulating mood and storing memories. Studies have shown that “exercise caused an increase in the production of neuropeptide Y (NPY) in the hippocampus . . . [and] induced an increase in brain-derived neurotrophic factor (BDNF) in the same region. These two proteins – NPY and BDNF – are important prerequisites for nerve growth and survival” (Miller 49). These proteins can be thought of as the “fertilizers” for the brain. BDNF is a natural substance that enhances cognition by boosting the ability of neurons to communicate with one another.

## STRESS & BODY IMAGE

### Background Information

#### Dealing with Stressful Situations

Stress can be defined as the body's normal physiological response to situations or stimuli perceived as "dangerous" to the body (Stressfocus.com). The ways in which people react to stress can vary greatly.

Healthy lifestyle choices have a positive impact on our ability to cope with stress and to manage day-to-day activities. Everyone can learn skills to cope with stress that contribute to optimal mental health. Making healthy behaviour choices and seeking support when needed helps us lead a balanced life.

Think about the following situations for you personally.

- Situations That Make Me Angry
- Situations That Make Me Frustrated
- Situations That Make Me Worry
- Situations That Make Me Happy
- Situations That Take a Lot of Time
- Situations That Take Money



### Background Information

#### Stress Can Be Positive or Negative

A certain level of stress is not a bad thing and can in certain situations contribute to optimum performance. If a person is under too little stress, it will be difficult to become self-motivated to perform well. Too little stress can express itself in feelings of boredom and not being challenged. An optimum level of stress can bring benefits of alertness and activation.

Excessive levels of stress, in sport for example, can hamper performance and enjoyment. These excessive levels of stress occur when

- what is asked of us is beyond our perceived abilities
- too much is asked of us in too short a space of time
- unnecessary obstacles are put in the way of achieving our goals

In sport performance, negative stress

- gets in the way of good judgement and fine motor control
- causes competition to be seen as a threat, not a challenge
- damages the positive frame of mind needed for high-quality competition by
  - promoting negative thinking
  - damaging self-confidence
  - narrowing attention
  - disrupting flow
- consumes mental energy (e.g., in worry) that could be devoted to focusing on effective technique

Very often stress can be caused by negative thinking. We are more likely to do well if we take a positive perspective, seeing a new situation as an opportunity to exhibit skills at a higher level, than if we approach or interpret a new or difficult situation by saying, "I'm in trouble."

## **Exercise and Stress**

Many people use exercise as their primary stress-management strategy. Regular exercise can remove by-products of the stress response or help release emotions. Bouts of physical activity allow muscles to release their stored energy and to return to resting state, which reduces tension. The endorphin hormone is released as a result of exercising, which is known to affect mood and promote a sense of elation or joy.

## **Background Information**

### **What Is Body Image?**

Our body image begins to form at an early age and can be influenced by our parents, caregivers, peers, and life experiences. We often think of body image in terms of physical appearance, attractiveness, and beauty. Our body image relates to how we feel about our bodies and what we think our bodies look like to others. In some cases, our perspectives may not be objective.

Remember that every body is different. We all have different genetics, which influence our facial features, body shape, height, and weight. Even if everyone ate the same things and did the same amount of exercise, we still would not all look the same.

The ideal body weight is the weight that allows us to feel strong and energetic and lets us lead a healthy life. Someone with a healthy body has the energy, for example, to spend time with friends, participate in sports, and concentrate on school or work. Encourage students to avoid comparing their bodies with those of their friends or the people shown in advertisements and on television. Students don't need to rely on charts, formulas, or tables to dictate what the right body weight is for them. Instead, they need to eat balanced meals full of nutritious foods and participate in moderate to vigorous exercise regularly.



## Background Information

### How Big Is the Body Image Problem?

Poor body image increases the risk for extreme body/weight control behaviours. Researchers have found that increased preoccupation with appearance and body dissatisfaction put people at greater risk for engaging in dangerous practices to control weight and size (e.g., extreme dieting and exercise compulsion). These behaviours can lead to more harmful behaviours that can put an individual at risk for developing disordered eating or an eating disorder.

#### CANADIAN STATISTICS ON EATING DISORDERS

- A recent study showed that 27% of Ontario girls 12 to 18 years old are engaged in disordered food and weight behaviour (Jones, et al).
- Eating disorders are now the third most common chronic illness in adolescent girls (Adolescent Medicine Committee).
- Health Canada found that almost one in every two girls and almost one in every five boys in Grade 10 either was on a diet or wanted to lose weight (King, Boyce, and King, Chapter 7).

### How Do Positive and Negative Body Image Differ?

We have a positive body image when we have a realistic perception of our bodies and enjoy them just as they are. Positive body image involves understanding that healthy, attractive bodies come in many shapes and sizes, and that physical appearance says very little about our character or value as a person. Having a healthy body image means that we keep our assessment of our bodies separate from our sense of self-esteem, and it ensures that we don't spend an unreasonable amount of time worrying about food, weight, and calories. The adoption of an active healthy lifestyle has a positive impact on our attitudes towards our bodies.

Negative body image can cause more serious disorders such as body dysmorphic disorder and muscle dysmorphia:

- **Body dysmorphic disorder (BDD)** is an over-preoccupation with an "imagined" physical defect in appearance (that is, an individual thinks there is a problem with an aspect of his or her body that others don't see). The most common focus of preoccupation is the nose, skin, or hair, but other body parts can also be the focus. This disorder can cause stress for the individuals who have this problem, as well as for family and friends around them. In addition to spending a lot of time obsessing about a feature of their body or body parts, individuals with BDD experience anxiety and/or depression, and they may avoid social situations. People have been known to try plastic surgery to "fix" the problem but end up worse off because the underlying reason for the preoccupation is not treated.
- **Muscle dysmorphia** (sometimes referred to as **bigorexia**) is the over-preoccupation with the perception or feeling that one's muscles are too small or too weak. In an attempt to avoid this self-perception, individuals with this disorder often spend unrealistic amounts of time working out in the gym, and yet they don't feel "good enough." Muscle dysmorphia occurs most often in men but has been known to occur in women as well.

With the right supports, both disorders are treatable.

## What Are Some Factors That Affect Body Image?\*

Body image, whether negative or positive, is shaped by a variety of factors:

- Body image is influenced by standards set by society and the culture that surrounds us. As well, comments from family, friends, and others about our bodies, their bodies, and other people's bodies, both positive and negative, affect body image.
- Self-esteem has an impact on how we view our bodies and is related to how we evaluate our own physical abilities, job skills, interpersonal abilities, family role, and body image.
- Low self-esteem may develop if "ideal" body standards are not met and may result in size misperceptions, faulty beliefs about body shape, and negative feelings about one's own body.

### POSITIVE AND NEGATIVE BODY IMAGE\*

- People with positive body image exhibit
  - self-confidence, energy, vitality, and positive self-appraisal
  - feelings of attractiveness and beauty
  - trust and respect for their bodies
  - freedom of expression with their bodies, not dependent on weight
- People with negative body image describe
  - dissatisfaction with their physical appearance
  - a belief that their appearance is being scrutinized and evaluated by others
  - excessive emphasis on physical appearance in how they evaluate themselves
  - distressing preoccupation with their bodies
  - feelings of shame and/or embarrassment

\* Source: Sheena's Place. "Body Image." *Education and Outreach*. <[www.sheenasplace.org/index.php?page=body\\_image](http://www.sheenasplace.org/index.php?page=body_image)>. Adapted with permission.

- Negative body image may develop or be influenced by a history of abuse (physical or sexual), teasing by friends or family, life changes such as moving to a new school or city, and any physical changes that may be a result of puberty, medical problems, surgery, or sports injuries. Exposure to images of idealized versus normal bodies may also have a negative impact on body image.
- Experiencing problems with body image and body dissatisfaction place individuals at risk for the development of an eating disorder.
- Individuals with anorexia or bulimia nervosa often perceive themselves as being larger than they actually are, resulting in negative body image and an increase in dieting behaviour.
- An increase in dieting behaviour is associated with depression, decreased self-confidence, increased feelings of anxiety, feelings of unattractiveness, and persistent concern about weight. In other words, negative body image can be a significant mental health issue.
- People with negative body image may
  - engage in excessive body checking (weighing, measuring, and trying on clothing)
  - camouflage their size and shape with loose and bulky clothing
  - avoid social situations that trigger physical self-consciousness
  - avoid exposing their bodies (not wearing bathing suits or shorts)

## How Do Eating and Body Image Go Together?

There is a relationship between eating behaviours and body image. In general, eating disorders are examples of internal conflicts about food and/or body size and shape. They are more complicated, however, than just having a big appetite and unhealthy eating patterns.

The range of feelings and behaviours associated with eating and body image can be represented along a continuum (Gannett Health Services).

- Healthy eating behaviours, at one end of the continuum, are associated with feeling confident about body shape and size.
- Disordered eating behaviours, at the other end of the scale, are associated with a preoccupation with appearance and an attempt to change body size through a focus on diets.

Eating disorders include anorexia nervosa, bulimia nervosa, and binge eating disorder:

- **Anorexia nervosa** is characterized by fear of weight gain and severe restriction of food intake, which can result in significant weight loss.
- **Bulimia nervosa** involves an attempt to avoid weight gain or to manage weight through frequent compensation by purging.

## Anxiety and Depression

Anxiety and depression affect all people in one way or another. They are considered disorders only when these feelings are almost always there and when they significantly interfere with daily life. In *A Report on Mental Illnesses in Canada*, Health Canada reports the following:

- “Anxiety disorders affect 12% of the population, causing mild to severe impairment.
- For a variety of reasons, many individuals may not seek treatment for their anxiety; they may consider the symptoms mild or normal, or the symptoms themselves may interfere with help-seeking” (Chapter 4, Highlights).

It is important to remove the stigma of weakness associated with seeking help if one is feeling overwhelmed, anxious, or depressed. People who are experiencing anxious behaviour or any other mental health problem that is significantly interfering with daily living should feel that is not only OK, but also wise to seek medical advice, just as they would for physical injuries.



## **Background Information**

### **Anxiety Disorders**

Anxiety, or feeling anxious, describes a mood familiar to most of us, one that we may experience every day. Anxiety comes from a concern over lack of control over circumstances. In some cases being anxious and worrying over a problem may generate a solution. Normally, however, it will just result in negative thinking. When anxiety seems to come out of nowhere, is excessive, persists for many weeks without relief, or interferes with everyday life, it may not be an ordinary mood anymore. It may be an illness.

### *Signs and Symptoms*

People with an anxiety disorder may have a number of common physical symptoms, including the following (Canadian Psychiatric Association; Anxiety Disorders Association of Manitoba; AnxietyBC):

- shortness of breath
- shakiness
- muscle aches and tension
- tight chest
- racing heart
- choking sensations
- numbness or tingling
- feelings of unreality
- irritability
- insomnia
- restlessness
- sweating and nausea
- abdominal distress

Emotionally, people with an anxiety disorder may feel short-tempered and apprehensive, fearing that bad things are about to happen.

According to the Anxiety Disorders Association of Manitoba (ADAM), anxiety disorders are among the most common mental health problems. They can cause “significant personal and societal costs in terms of lost wages, decreased productivity, reduced quality of life and frequent use of health care services” (ADAM, *Major Anxiety Disorders*).

The different types of anxiety disorders include generalized anxiety disorder, panic disorder, specific phobias, social anxiety disorder, obsessive compulsive disorder, and post-traumatic stress disorder, which medical professionals would diagnose before providing treatment.

## *Causes*

As stated by ADAM, “research indicates that there is no single explanation for the cause of anxiety disorders but that several . . . factors may contribute to their origins” (*Major Anxiety Disorders*). The causes of anxiety may include the following (Manitoba Healthy Schools, “Anxiety”):

- inherited tendency
- shy temperament
- unpredictable lifestyle
- stressful experiences
- anxious parents

## REFERENCES



For information on anxiety disorders, refer to the following websites:

Anxiety Disorder Association of British Columbia (AnxietyBC). “Overview of Anxiety Disorders.” <[www.anxietybc.com/resources/introduction.php](http://www.anxietybc.com/resources/introduction.php)>.

Anxiety Disorders Association of Manitoba (ADAM). *Major Anxiety Disorders*. <[www.adam.mb.ca/about.asp](http://www.adam.mb.ca/about.asp)>.

Canadian Psychiatric Association. “Anxiety, Depression and Manic Depression.” *Public Education Materials*. <<http://publications.cpa-apc.org/browse/documents/17>>.

Manitoba Healthy Schools. “Anxiety.” *Mental Health*. <[www.gov.mb.ca/healthyschools/issues/anxiety.html](http://www.gov.mb.ca/healthyschools/issues/anxiety.html)>.

For website updates, please visit Websites to Support the Grades 11 and 12 Curriculum at <[www.edu.gov.mb.ca/k12/cur/physhlth/](http://www.edu.gov.mb.ca/k12/cur/physhlth/)>.

## **Depression**

Depression is a mental disorder that affects a person’s thoughts, moods, feelings, behaviour, and physical health. People once thought that depression was “all in the head” and that if one really tried, one could “snap out of it” or just “get over it.” Some people still respond to depression in this way. Health professionals now know that depression is not a weakness, and it is not something people can treat on their own. Depression is a medical disorder with a biological and chemical basis, and it may affect people of all ages or nationalities. Some mental health problems, such as bipolar depression or major depression, tend to run in families due to genetics or family interaction styles.

Sometimes depression is triggered by a stressful life event. At other times depression seems to occur spontaneously with no specific identifiable cause. Depression is much more than grieving or experiencing a bout of sadness.

Depression may occur only once in a person’s life, or it could occur sporadically throughout life, with periods when the person would not feel depressed. It may also be a chronic condition, which may require ongoing treatment over a lifetime. With proper treatment, most people with serious depression improve within weeks, and can return to normal daily activities.

## *Signs and Symptoms*

The two main symptoms associated with depression are lack of interest in normal daily living, even in the activities that are enjoyable, and feeling miserable or “down in the dumps.” A depressed person shows feelings of sadness and helplessness, or may cry often.

A health professional would also look for other signs and symptoms lasting at least two weeks, such as changes in sleep patterns, concentration, weight or eating patterns, demeanour (more irritable), self-esteem, and desire to live. Physical complaints, such as gastrointestinal problems (indigestion, constipation, or diarrhoea), headache, and backache may also be signs.

Different age groups may react differently to depression. Sometimes it is confusing to determine what the actual problem is because the behaviour is a cover-up for the real problem. For example, children may pretend to be sick, worry about being bullied, not do well in school, or act out to cover up their feelings of sadness. Older people may focus more on complaining about the physical symptoms of depression than on what situations or emotions are causing them to feel that way.

The primary types of depression include major depression, dysthymia, adjustment disorders, bipolar disorder, and seasonal affective disorder (Mayo Clinic). These types of depression have similarities and differences. It is important that people who suffer from depression obtain proper diagnosis from a medical professional rather than attempting self-diagnosis.

### REFERENCES



For additional information on the signs and symptoms of depression and definitions of the primary types of depression, refer to the following websites:

Canadian Mental Health Association. *Mental Health and High School*.  
<[www.cmha.ca/highschool/](http://www.cmha.ca/highschool/)>.

Finding Optimism: Health in Response to Mental Health. “Things to Say to Someone with Depression.” *Healthy Mind*. <[www.findingoptimism.com/healthy-mind/ways-to-build-up-someone-with-depression/](http://www.findingoptimism.com/healthy-mind/ways-to-build-up-someone-with-depression/)>.

Health Canada. “Chapter 2: Mood Disorders.” *A Report on Mental Illnesses in Canada*. Ottawa, ON: Health Canada, 2002. Available on the Public Health Agency of Canada website at <[www.phac-aspc.gc.ca/publicat/miic-mmacc/index.html](http://www.phac-aspc.gc.ca/publicat/miic-mmacc/index.html)>.

Mayo Clinic. *Depression*.  
<[www.mayoclinic.com/health/depression/DS00175/DSECTION=2](http://www.mayoclinic.com/health/depression/DS00175/DSECTION=2)>.

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