

Essential facts about

Covid-19

The disease,
the responses and
an uncertain future

For South African Learners,
Teachers and
the General Public



Commissioned by the Academy of Science of South Africa (ASSAf)



The **Academy of Science of South Africa** (ASSAf)

was inaugurated in May 1996. It was formed in response to the need for an Academy of Science consonant with the dawn of democracy in South Africa:

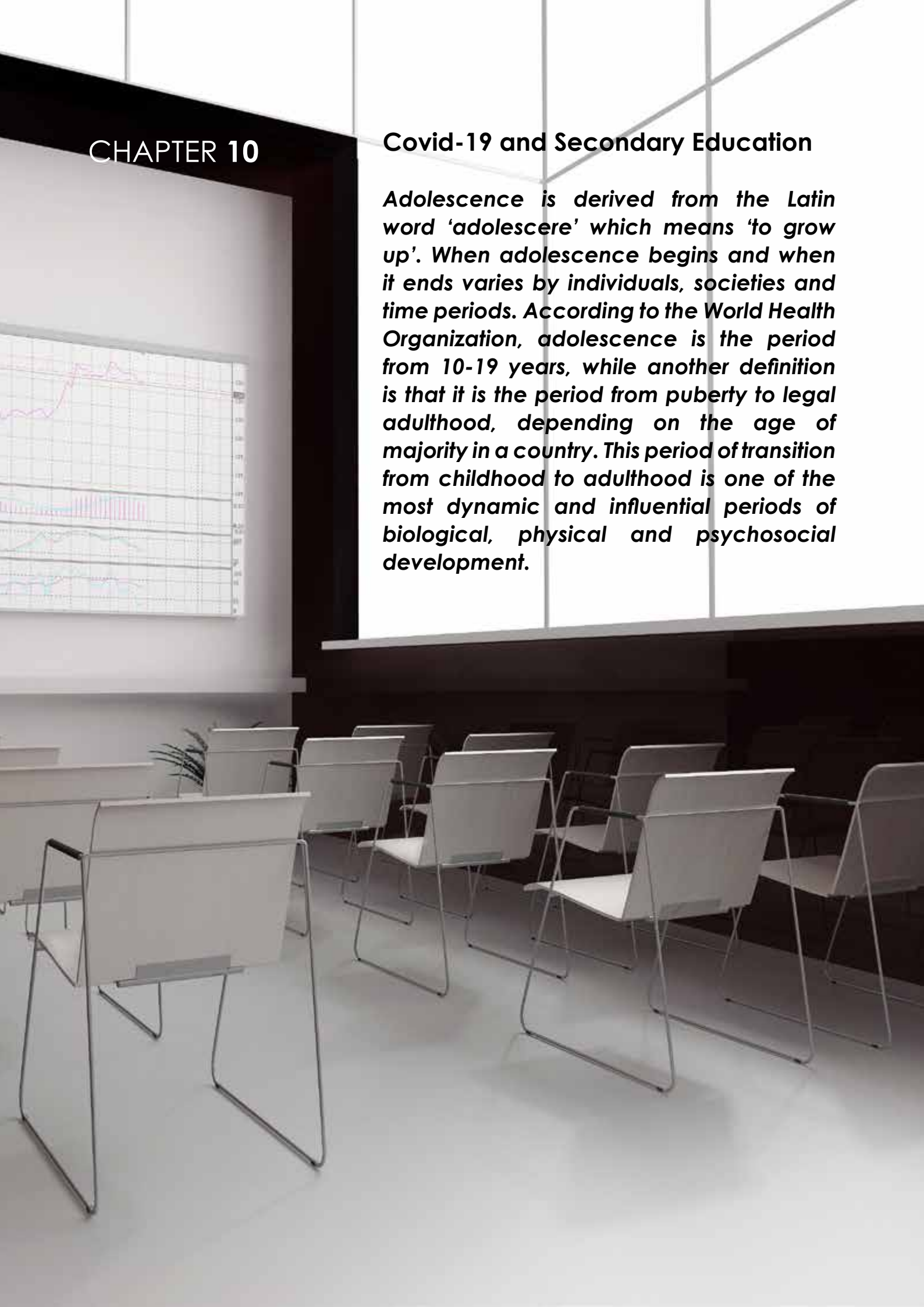
activist in its mission of using science and scholarship for the **benefit of society**, with a mandate encompassing all scholarly disciplines that use an **open-minded** and **evidence-based** approach to build **knowledge**. ASSAf thus adopted in its name the term 'science' in the singular as reflecting a common way of enquiring rather than an aggregation of different disciplines. Its Members are elected on the basis of a combination of two principal criteria, **academic excellence** and **significant contributions to society**.

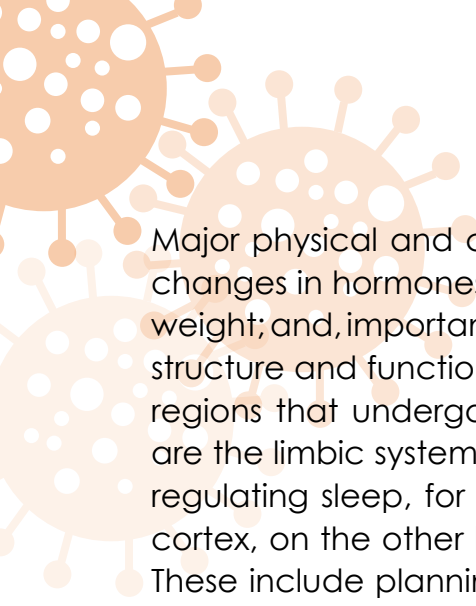
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CHAPTER 10

Covid-19 and Secondary Education

Adolescence is derived from the Latin word 'adolescere' which means 'to grow up'. When adolescence begins and when it ends varies by individuals, societies and time periods. According to the World Health Organization, adolescence is the period from 10-19 years, while another definition is that it is the period from puberty to legal adulthood, depending on the age of majority in a country. This period of transition from childhood to adulthood is one of the most dynamic and influential periods of biological, physical and psychosocial development.





Major physical and cognitive changes take place during adolescence, including changes in hormones and sex organs; rapid physical growth in terms of height and weight; and, importantly, there are significant changes in brain organisation and in the structure and function of thinking, reasoning and information processing. Two brain regions that undergo significant changes and development during adolescence are the limbic system and the pre-frontal cortex. The limbic system is responsible for regulating sleep, for emotion processing and for pleasure seeking. The pre-frontal cortex, on the other hand, is responsible for what are called 'executive functions'. These include planning for the future and impulse control. Importantly, pre-frontal cortex changes take place later in adolescence than those in the limbic system, sometimes tipping people into taking risks that they cannot yet process. As they develop, adolescents develop improved abilities to think abstractly, to manage emotions and to reason in more effective ways.

Coronavirus disease (Covid-19) has affected adolescents directly and indirectly. Beyond the possibility of becoming infected or ill, the mental and socio-emotional well-being of many people has been negatively affected by the pandemic, including adolescents. This is the time when patterns of behaviour that either offer protection or pose harm to one's health and well-being (in the short- and long-term) are established. At the same time, interventions that can support adolescent health and well-being can be especially beneficial during this period, and their absence can come at a cost. Not all experiences of adolescents during crises like this pandemic increase their psychological distress or have negative effects on their health and well-being. In important ways, adolescence is also a time of adaptation and learning, with many experiences (even difficult ones) actually fostering resilience. Some level of adversity that is not extreme or prolonged, and occurs in the presence of supportive others, can build resilience and be part of the learning process that enables adolescents to better manage their emotions, thoughts and behaviours.

For many young people living in South Africa, finding employment is already a difficult process.

Understanding how adolescents' daily lives have been affected by the pandemic, can guide support and assistance necessary to maintain and promote health and well-being. What are some of the major developmental tasks of adolescence? How has Covid-19 impacted on these? For teachers, understanding the reality of what learners are going through at this time, and how a normally tumultuous period of life is being exacerbated by Covid-19, may guide teachers to a deeper level of patience and understanding. It may also help for teachers to recall when they or their children were adolescents, what their experiences were, and what would have been helpful from their teachers at that time.

Planning for the future

The last three years of secondary school are acutely focussed on the future—on getting the necessary assistance and guidance from teachers that will contribute to keeping learners in school at an incredibly stressful time, to achieve the marks that will allow young people to complete schooling successfully, to secure entry to tertiary education or training that is of interest to them, and, eventually, to secure a well-paid job.

Covid-19 has made everything more complicated

On the one hand, schooling has been massively interrupted. For those in Grade 12, writing final exams is stressful enough. Months of school closures, limiting opportunities to keep abreast and consolidate learning, has caused anxiety and worries. Will I have to leave school because of financial pressures on my family or repeat a Grade because I can't catch up? Will my marks be sufficiently good for my future plans?

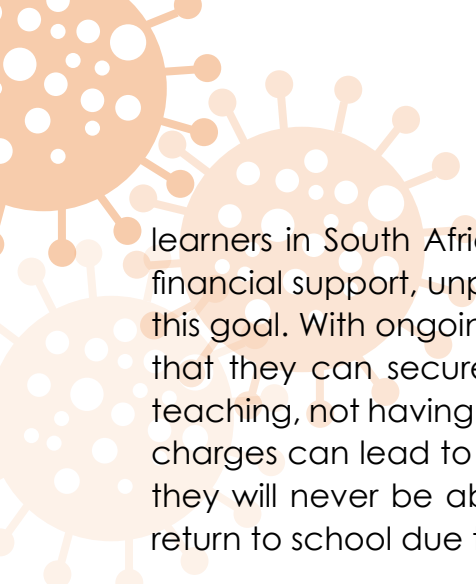
Where is life heading?

It is clear that the economic impacts of Covid-19 are going to be felt for a long time. For many young people living in South Africa, finding employment is already a difficult process. After Covid-19, it may be even more difficult. Will I graduate from secondary school, get into a degree or training programme, find a job, be able to help my family?

School completion

For adolescents in Grade 10-12, a key life task is completing sufficient schooling and securing results that can open up avenues for bettering their lives. For many





learners in South Africa, falling behind in school work, repeating a grade, lack of financial support, unplanned pregnancy and other stresses can severely challenge this goal. With ongoing homework support from teachers and family, learners hope that they can secure good marks in the final years of school. Missing months of teaching, not having a smart phone or computer and not being able to afford data charges can lead to falling behind on key steps in learning, and many feeling that they will never be able to catch up the work. Some may, in fact, not be able to return to school due to social and economic hardships.

Developing agency

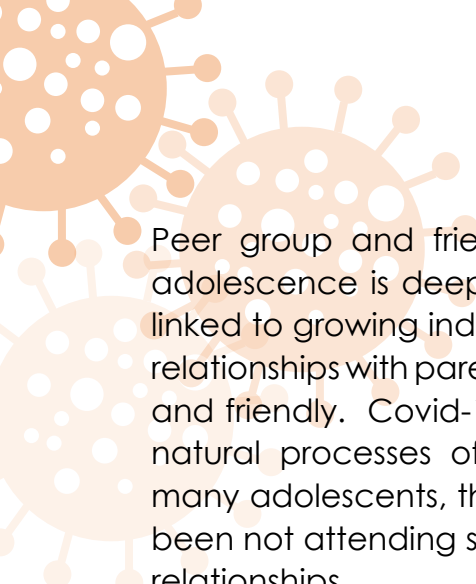
A key developmental task of adolescence is developing a sense of agency in the world, a conviction that, with hard work and commitment, one can achieve a measure of control over one's future. With prolonged school closure, worries about potential future closures, absentee teachers due to illness or high risk for becoming infected, there is a strong likelihood that many learners may become discouraged by what appears to be the many things outside of their control. This may result in a sense of hopelessness, which challenges young people's developing sense of agency and a belief in their own capacity to determine their own future.

Excitement and impatience

Adolescents are on the cusp of an independent life and, for many, the desire to leave home and explore the world, develop new relationships and have new experiences is a profoundly exciting prospect. At the same time, many adolescents are impatient and want all these things to happen now and not to wait. Covid-19 has interrupted much of this, put it on hold, and put up what, at times, feels like insurmountable obstacles in the way of these plans. Many adolescents are feeling increasingly stuck and are impatient to 'start their lives'.

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Separation from parents and caregivers. The developmental task of becoming less dependent on parents and caregivers is another key task of adolescence. Covid-19 has stopped this process in its tracks. Far from 2020 being a year when adolescents progressed along a path of independence, strict lockdown imposed exactly the opposite. Many adolescents have been forced to be with parents and family 24/7. Adolescents are biologically and emotionally geared to connect with the world beyond their families. These restrictions on their movement and changes to their routines with friends, school and extracurricular activities limit their ability to make decisions about their life, and the challenges happening around them can lead to feelings of powerlessness and frustration.



Peer group and friendship. Perhaps the single most important activity during adolescence is deepening friendships and exploring peer relationships. These are linked to growing independence from parents and caregivers, and the intimacy of relationships with parents and family now becomes focussed on peers—both romantic and friendly. Covid-19 and South Africa's 5 months of lockdown have interrupted natural processes of developing or strengthening these peer relationships. For many adolescents, the most difficult parts of lockdown and social distancing have been not attending school and not being able to see their friends to deepen these relationships.

Risk taking

Adolescence is also a time of risk taking, in both good and bad ways. Risk taking is linked to exploration and innovation, developing a sense of agency in the world and developing a sense of one's own limits. Testing limits through risk taking contributes to the development of a deeper sense of what we are able to cope with, complete, or avoid later in our lives. Covid-19 and lockdown have upended these completely normal processes. The isolation of lockdown, the uncertainty about when it will end or when it will be reinstated, coupled with the deep sense of urgency within many young people to reconnect with friends and their peer group and to build further peer networks, may result in many adolescents taking added risks and, thereby, putting themselves and others at risk of Covid-19 transmission.





Self and other

A prevailing myth about adolescence is that it is a time of 'narcissism'—that adolescents are only interested in themselves and have little regard for others. This is far from the truth. Adolescents are actually highly focussed on others—largely their friends, peer group and nascent romantic relationships. They are profoundly focussed on the 'other'. What might account for the myth? Developmentally, an important task of adolescence is that of developing a deeper sense of self, a sense of self separate from caregivers. Caregivers and families often experience this as a rejection. Additionally, one of the consequences of developing this self is an increasing tendency to compare ourselves with others. Sarah-Jayne Blakemore, an expert on the adolescent brain, describes how, together with a growing comparison of self with others, the realisation arises that others are doing similarly—and making judgements about us. This makes adolescents appear acutely self-aware and, at times, 'narcissistic'.

Focusing on oneself, taking some risks to push limits to understand the world better, separating from parents and caregivers in order to develop an independent identity, and beginning to take the leap outwards into the world are utterly normal features of adolescence. But Covid-19 has put adolescents in a double bind. They are being forced into lockdown with the very people they are supposed to 'separate' from. They are being isolated from their peer group and the context where they can explore friendships and intimacy. And, all the while, they know that they are less likely to become infected, ill or to die from the virus than others. Because adolescents can carry the virus and infect those who are vulnerable around them, adolescents have to change their behaviour in order to protect others. They are being asked to adopt a set of behaviours that are essentially almost entirely 'other focused', protecting others (mostly older adults) from something that will in all likelihood not seriously harm adolescents themselves. Finally, in the South African context, adolescents are frequently the primary caregivers of siblings or their own children and are very keen to protect their friends.

Risk taking is linked to exploration and innovation, developing a sense of agency in the world and developing a sense of one's own limits.

Time of heightened worries

There is an intensity to the emotions and experiences of adolescence that are rarely felt again in one's life. First love, falling out with one's closest friend, and failing to achieve a cherished dream are often felt by adolescents as catastrophic. Linked to this are worries about loved ones, about parents or grandparents becoming ill and dying. Many adolescents in South Africa are cared for by elderly grandparents, or parents that are HIV+ or have co-morbidities such as diabetes and hypertension, making them more vulnerable to serious illness due to Covid-19.

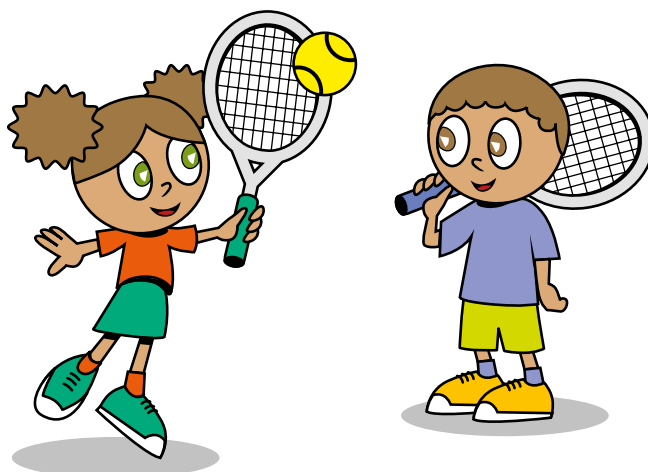
Recommendations and a way forward

One of the few bright spots in the pandemic is that it is global. And while, of course, some countries have been more affected than others, no one in the world is untouched. Know 100% that no one is alone in this. There are millions of adolescents around the world who are feeling anxious, concerned for the future, and feeling lonely and isolated. It is important for adolescents to reach out to their classmates and friends and tell them that they are thinking about them. Receiving a caring response from a friend is invaluable. Maintaining connection and engagement with others is possible and crucial to our well-being.

Routine in times of uncertainty helps us all and is vitally important. Routine creates a sense of normalcy amidst a world that has become increasingly confusing.

Physical activity and exercise

It is well established that exercise releases endorphins and is good for our mood. Exercise, and walk with your friends. This can be done safely and within the required regulations and is another way to maintain social connections.



Adolescent and youth led innovation

Adolescents are powerful health promoters. Engaging them in campaigns to encourage mask wearing, hand washing and social distancing is important for them and can make a meaningful contribution to societal change. Adolescents are important agents of change and can be the most effective message carriers among their peer groups but also within their households and communities.

For adolescents who are feeling despondent or 'stuck', recall all the things you have accomplished under difficult circumstances, how much your family and friends believe in you and wish you well, draw on your faith, and try to keep moving forward.

Lots of people are anxious and worrying now

You are not the only one worrying. Remember that the job of parents and educators during this time is to carry as much of the worry as they can. Their job is to let those in their care explore, learn, and create. Lots of people are thinking about you and let them do some of the worrying for you. If feelings of anxiety and worry are becoming overwhelming, it is important to find someone you trust to talk to and express those feelings and to ask for help.



Creativity

Adolescence is a time of exploration and deep creativity. Use this opportunity to explore this side of yourself. Draw, write, sing, dance and imagine. Creativity builds resilience.

Harnessing the power of social media

The most powerful agents in the promotion and protection of mental and physical health amongst adolescents are other adolescents. Harness the power of social media as a healthy way to connect with your peers who are sharing some of your feelings and experiences.

Patience and keeping learners in mind

A key job of teachers during this time is to be mindful of what the learners in your care are going through. Of course, you have concerns for your own health and for that of your family. But the learners in your classes have seen the world they know come to a standstill and, for many, the future has become increasingly uncertain. For some learners, teachers are their hope for the future and their passport out of sometimes difficult circumstances. Reach out to them, remind them that you are thinking of them, offer support in any way you can, and remember how difficult so much is for them right now. Be patient.



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The Parliament of South Africa passed the Academy of Science of South Africa Act (No 67 of 2001), which came into force on 15 May 2002. This made ASSAf the only academy of science in South Africa officially recognised by government and representing the country in the international community of science academies and elsewhere.

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