The psychological impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape

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Plagiarism Declaration

I declare that this thesis, titled "*The psychological impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape*" is my own work. It has not been submitted before for any degree or examination in any other university, and all the resources I have used or quoted have been indicated and acknowledged as complete references.

O.Nodo

Olwethu Nodo — 17 April 2023 Date

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Abstract

Due to various mitigation strategies implemented to contain the spread of COVID-19, nearly 1.2 billion school children had their education put on hold. In addition, the widespread nature of the COVID-19 pandemic came with numerous psychological challenges, including stress, anxiety, and depression. The aim of this study was to investigate the psychological impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape Province of South Africa. The study was a quantitative study that used six self-reporting questionnaires: demographic questionnaire, Fear of COVID-19 Scale (FCV-19S), Generalized Anxiety Disorder 7-Item (GAD-7) Scale, Patient health questionnaire (PHQ-9), The Multidimensional Scale of Perceived Social Support (MSPSS), and Connor-Davidson Resilience Scale (CDRISC-10). Ethical clearance was obtained from the Humanities and Social Sciences Research Ethics Committee (HSSREC). Participants included adolescent learners between the ages of 13 and 19 years (*N*=260), who were attending public schools in the Eastern Cape Province. A multiple regression analysis was used to determine the association between protective factors (i.e., social support and resilience) with psychological outcomes (i.e., anxiety and depression). The results of the study found that adolescents were impacted by the COVID-19 pandemic on a psychological level, which included experiencing fear of COVID-19, and experiencing anxiety and depression. Findings also show a significant relationship between psychological outcomes and protective factors.

Keywords: adolescents, anxiety, COVID-19, depression, Eastern Cape, fear of COVID-19, social support

List of Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	African National Congress
ASD	Acute Stress Disorder
CAPS	Curriculum and Assessment Policy Statement
CD-RISC-10	Connor-Davidson Resilience Scale
COVID-19	Coronavirus Disease 2019
DBE	Department of Basic Education
FCV-19S	Fear of COVID-19 Scale
FRAK	Fostering Resilience in Adolescent at Risk
GAD-7	Generalized Anxiety Disorder 7
HIN1	Novel Influenza
HIV	Human Immunodeficiency Virus
HSSREC	Humanities and Social Sciences Research Ethics Committee
ICC	Intraclass Correlation Coefficient
M	Mean
MDE	Major Depressive Episode
MSPSS	Multidimensional Scale of Perceived Social Support
NCS	National Curriculum Statement
OBE	Outcomes-Based Education
OECD	Organization for Economic Co-operation and Development
PHQ-9	Patient Health Questionnaire
PTSD	Post-Traumatic Stress Disorder
SADAG	South African Depression and Anxiety Group
SD	Standard Deviation

SARS	Severe Acute Respiratory Syndrome
SPSS	Statistical Software Package for the Social Sciences
SRG	Stress-related growth
STB	Suicidal thoughts and behaviour
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America
UWC	University of The Western Cape
WHO	World Health Organization

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Chapter One: Introduction

Background

The Corona Virus Disease (COVID-19) is caused by the severe acute respiratory syndrome (SARS) and spread to nearly every country in the world after it first emerged in China in December 2019 (Teslya et al., 2020). Soon after its emergence, COVID-19 was declared a pandemic by the World Health Organization (WHO).

According to Turk et al. (2020) the chief strategies for reducing the spread of COVID-19 included frequently washing hands and/or the regular use of hand sanitizer, wearing masks, and avoiding crowds and close contact with individuals. Teslya et al. (2020) also confirms that, as a form of prevention, many countries implemented social distancing as a measure to 'flatten the curve' of the ongoing pandemic, which meant that a person must be at least a meter and a half away from the next person. The decision to close schools arose from the data collected related to influenza outbreaks that indicated that children and adolescents were highly susceptible and are one of the primary sources of community-wide transmission (Charlotte et al., 2014). This resulted in nearly 1.2 billion school children having their education put on hold due to these COVID-19 mitigation strategies (UNESCO, 2020).

Studies conducted before the outbreak of the COVID-19 pandemic suggest that learners are a population that normally experience a greater psychological impact from a pandemic, with depression and anxiety rated to be the most common psychological impacts (Wang et al., 2022). Therefore, while these COVID-19 regulations helped to flatten the curve of the virus, they resulted in many mental issues, especially for adolescents (Zhu et al., 2020). The WHO (2020) indicated that school closures have negative impacts on children's and adolescents' physical, education, and mental health.

International research provides evidence that pandemics have an extremely negative impact on mental health, with children and adolescents being more at risk because of their

limited understanding of the event (Cowie & Myers, 2020). Psychological reactions to COVID-19 vary from panic behaviour or collective hysteria to pervasive feelings of hopelessness and desperation, which are associated with negative outcomes such as suicidal behaviour (Teslya et al., 2020). Among adolescents, anxiety and depression were found to be more prevalent and this was associated with contraction of the COVID-19 virus and the consequences thereof. Post-traumatic stress disorder (PTSD) was also found to be prevalent among adolescents who have been directly or indirectly affected by the COVID-19 pandemic (Teslya et al., 2020).

A study conducted in the Netherlands (Luijten et al., 2021) found that governmental regulations regarding lockdown resulted in mental and or social health problems for children and adolescents. Another study conducted in India (Saurabh et al., 2020) investigated a cohort of quarantined adolescents during the COVID-19 outbreak and found that most adolescents were non-compliant with the quarantine rules and regulations. Related to this, the quarantined adolescents were found to be experiencing greater psychological distress than the non-quarantined adolescents. Helplessness, fear, anxiety, and depression were found to be the most common feelings among the adolescents who were quarantined (Saurabh et al., 2020).

In South Africa, schools were shut down in March 2020 as part of the national lockdown to prevent the spread of COVID-19 (Magome, 2020). South African learners returned to school after months of not attending face to face classes, with a phased reopening process that started with grade 7 and 12 learners and, a month later, grade 6 and 11 students followed. Returning learners were required to produce indemnity forms signed by their parents or guardians granting them permission to resume classes (Magome, 2020). The decision to reopen schools came with numerous benefits, including enabling students to commence their studies allowing them to progress to the next level. In addition, the reopening of schools came with essential services, such as access to nutrition (e.g., food), child welfare

(e.g., preventing violence against children), and enabled children to develop their social and psychological well-being (Lee, 2020).

Aim of the Study

The primary aim of this study was to investigate the psychological impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape Province of South Africa.

Objectives

The objectives of this study were:

- to assess the psychological impact of the pandemic in terms of depression, fear, and anxiety, amongst adolescent learners; and
- to investigate the role of protective factors, namely social support, and resilience, on psychological outcomes.

Problem Statement and Rationale for the Study

"The COVID-19 pandemic is regarded as an acute, large-scale and uncontrollable stressor that has significant effects on individuals' mental health" (Zhang et al., 2020, p. 747). According to Zhou et al. (2020), depression and anxiety amongst adolescents have been found to be prevalent due to the COVID-19 pandemic. While there has been an increase in international research related to adolescent mental health during the COVID-19 pandemic, more research needs to be conducted in the South African context, especially in relation to the mental health impact of the pandemic on adolescents and the role of protective factors on mental health outcomes. Furthermore, there is no known literature exploring the psychological impact of the COVID-19 pandemic on adolescent learners attending schools in the Eastern Cape, South Africa.

Chapter Two: Literature Review

This chapter provides a review of the literature related to the mental health and the psychological impact of the COVID-19 pandemic on adolescents. The chapter further discusses studies that were published before and during the COVID-19 pandemic that report on social support, resilience, mental health, and the psychological impact of the pandemic. In addition, this chapter provides background information regarding the South African Education system.

South African Education Background

According to Giliomee (2009), during the apartheid system, the curriculum that was used to educate Black South Africans was referred to as *Bantu* education. This education system encouraged racial segregation and discrimination against Black people in South Africa. Black people were required to attend government schools and teaching took place in the student's native tongue, but the syllabus did include English and Afrikaans lessons. Phillips (1999) states that the type of education that was received by Black people was aimed at training them for manual labour and menial jobs that were seen to be suitable for Black people. Furthermore, this education system was intended to inculcate the belief and notion that Black people were meant to be subservient to white people in South Africa.

In an attempt to move away from the *Bantu* education system of apartheid, a new education system referred to as Outcomes-Based Education (OBE) was introduced and continued from 1994 until 2011. This marked a new historical era for school education in South Africa (Mouton et al., 2012). OBE is a method of teaching not just a curriculum and is mostly based on assessments that operate through the setting up of standards. Simply, the OBE method set parameters that gave guidance to learners and the general public regarding the knowledge, attitudes, skills, qualities, and values that are expected from them as capable

citizens and professionals (Bohlmann & Pretorius, 2002). Mouton et al. (2012) state that, from the onset, OBE was not well received, and the method had several shortcomings and implementation problems. Educators also thought that the method was problematic and, as a result, OBE was removed and the curriculum that was used, called the National Curriculum Statement (NCS), was revised.

The Curriculum and Assessment Policy Statement (CAPS) was introduced in 2012 and was not considered a new curriculum but rather a revision of NCS. CAPS is a document used to provide guidance to teachers regarding the learning, assessing, and teaching processes that must be followed in South Africa, both in primary schools and high schools (Maharajh et al., 2016). In simple terms, CAPS is an adjustment of *what* is being taught (i.e., the curriculum) and not *how* the curriculum is being taught. The way in which the content is written is in content format rather than outcome format, which enables traditional teaching methods rather than the OBE method (Maharajh et al., 2016).

The Gini-coefficient measure of inequality rose from 0.61 in 1996 to 0.63 in 2015, identifying an increase in the rates of inequality in South Africa, making South Africa one of the countries with the highest levels of inequality in the world (Amnesty International, 2020). In the past two decades, South Africa has had some success in increasing access to education for people of all levels and race, however access to education does not mean access to good quality education for all in South Africa. As a result, the education system continues to mirror the country's socio-economic inequalities (Amnesty International, 2020).

A 2015 survey conducted by the Organization for Economic Co-operation and Development (OECD) ranked South Africa 75th out of 76 countries that were judged by their general education system. An international survey done in 2017 with fifty countries participating in a reading and literacy test, found that 97% of grade four children in South Africa (between the ages of 8 and 9 years old) achieved the lowest scores. Furthermore, the

study found that 78% of the students were unable to read for understanding. The 2018 grade twelve results indicated that the top 200 high schools in South Africa (i.e., 3% of schools) had more learners with distinctions (80%+) in Mathematics compared to the remaining 6,600 schools (i.e., 97%) (Amnesty International, 2020).

According to Pillay (2021), there are inequalities that exist in the quality of schooling and distribution of resources in South African schools (e.g., textbooks, school infrastructure, and stationery). Education and facilities are vastly different in private schools in comparison to rural and other schools attended by predominantly Black African children, with these schools being generally under-resourced. This is largely due to the history of apartheid. However, the failure of the democratic government in prioritising the development of schools and bridge the gap of inequality in schools cannot be disregarded (Pillay, 2021).

Pillay (2021) further states that, when schools closed due to the COVID-19 pandemic, learning was disrupted. However, very quickly, most private and historically white schools were able to begin teaching and learning using online platforms. Students in these schools generally come from middle- to high-income earning homes and, therefore, they had access to computers, smartphones, and tablets, which enabled them to continue their studies online. However, the historically Black and government schools had to put their education on hold and wait for the schools to reopen for them to continue learning (Pillay, 2021). This is a further example of the high levels of inequality in South African schools.

The Mental Health Impact of the COVID-19 Pandemic

According to Khan et al. (2020) mental health is understood as the state of wellbeing whereby a person perceives their abilities to deal with normal life stressors and work competencies in contributing to their community and is supported by the following six psychological elements: (i) personal growth, (ii) meaning in life, (iii) environmental mastery, (iv) autonomy, (v) healthy relationships with others, and (vi) self-acceptance.

Due to the COVID-19 pandemic, mental health and emotional issues were reported to be among the highest public health concerns globally. This was related to the fear of being infected with COVID-19 or death due to the virus. Some studies indicate that quarantine, self-isolation, social distancing, economic discord, and misinformation (mostly through social media) were some of the main contributing factors to emotional or mental health issues. This included fear, loneliness, feelings of helplessness, unusual sadness, and nervousness (Khan et al., 2020).

During any infectious disease outbreak, the population's psychological response to the situation is vital in shaping the spread of the disease, as well as the emotional distress and psychological disorders during and after the outbreak of the disease (Cullen et al., 2020). The impact of infectious disease outbreaks, such as the severe acute respiratory syndrome (SARS) and the novel influenza (HIN1) epidemic on public mental health has been reported in numerous studies (Liang et al., 2020). For example, Liang et al. (2020) indicate that these types of outbreaks result in the public experiencing psychological problems like, anxiety, depression, PTSD, and psychological distress. Similarly, Cullen et al. (2020) state that some of the psychological reactions experienced during the COVID-19 pandemic include maladaptive behaviours, emotional distress, and defensive responses. Minimal resources were provided to manage or attenuate the pandemic's effects on mental health and wellbeing. This reaction can be understood when it occurs during the acute phase of an outbreak, however it is important that health systems do not overlook the psychological and psychiatric impacts during any phase of the pandemic management (Cullen et al., 2020).

The COVID-19 pandemic was predicted to be catastrophic to African countries and it was expected to have a significant impact on economic and health systems (The Lancet Global Health, 2020). According to Naidu (2020), in South Africa, the COVID-19 pandemic represented a threat to a community that is already affected by several collective traumas.

Naidu (2020) adds that it is not realistic to look at mental health in South Africa without also looking at the socio historical context of the country. The South African population suffers from the "protean sequelae of prolonged, repeated trauma" (Naidu, 2020, p. 559) which results in complex PTSD. There are high levels of trauma exposure, with a lifetime exposure to at least one potentially traumatic event reported for 73.8% of the general adult South African population (Atwoli et al., 2013). Therefore, trauma associated with the COVID-19 pandemic would exacerbate existing mental health conditions (Naidu, 2020).

In response to the COVID-19 pandemic, many countries including South Africa declared a national state of disaster and implemented a national lockdown, which came with severely restricted outdoor social movements, traveling, and social gatherings (Mbunge, 2020). Naidu (2020) indicates that, while South African people tried to follow the rules and regulations set by the government, cracks appeared due to undeniable fear, helplessness, and uncertainty (Venkatesh & Edirappuli, 2020).

While the social restrictions mentioned were just and necessary, they came with psychological consequences (Stanton et al., 2020). Recent literature provides evidence that prolonged isolation and social distancing results in loneliness (Luchetti et al., 2020), which is defined as a psychological state characterised by a perceived discrepancy between the individual's desired and achieved levels of social interaction (de Jong Gierveld et al., 2006). Semo and Frissa (2020) indicate that studies conducted in first world countries, such as Australia, the United Kingdom, and the United States of America (USA), found evidence of high levels of loneliness during the COVID-19 pandemic. However, there is comparatively less documented research regarding the mental health impact of the COVID-19 pandemic in developing countries (Semo & Frissa, 2020). Due to a general lack of resources and poverty, many people in developing countries do not have access to online and digital platforms that

are typically used in high-income countries to maintain social connections, thus aggravating the individual's sense of isolation and social disconnection (Semo & Frissa, 2020).

A study conducted by Ma et al. (2021) designed to assess the effects of the COVID-19 pandemic on mental health and the effectiveness and attitudes towards online education among Chinese children aged 7–15 years old, found that 20.7% of the children experienced psychological issues related to the COVID-19 pandemic. Such symptoms were found to be more common in boarding schools and middle school learners as opposed to day school and primary school learners (Ma et al., 2021).

Saddik et al. (2021) conducted a study with children and adults in the United Arab Emirates aimed at understanding the psychological impact of the COVID-19 pandemic on the general population. They found that 71% of the general population had experienced or were experiencing generalized anxiety disorder (GAD), with young people (59.8%) and females (51.7%) reporting the highest level of GAD. The study also found that intentions to get vaccinated and smoking were associated with higher levels of anxiety in the general population. Furthermore, parents who had severe anxiety were more likely to report emotional problems in their children, compared to parents with no anxiety disorder. In addition, emotional problems were reported to be more prevalent in children in lower and higher secondary education (Saddik et al., 2021).

A systematic review exploring the impact of the COVID-19 pandemic on mental health in the general population of countries like China, Spain, Italy, Iran, the USA, Turkey, Nepal, and Denmark found high rates of anxiety between 6.33% and 50.9%, and depression rates were found to be between 14.6% and 48.3% (Xiong et al., 2020). Results for PTSD were between 7% and 53.8%. In addition, psychological distress was found to be between 34.43% and 38% and stress was between 8.1% and 81.9% (Xiong et al., 2020).

The Mental Health Impact of the COVID-19 Pandemic on Adolescent Learners

The WHO (2020) states that an adolescence is anyone between the ages of 10 and 19 years old. The stage of adolescence is divided into three stages: (i) early adolescents, which is generally between the ages of 11 to 13 years old; (ii) middle adolescence, which is approximately between the age of 14 to 17 years old; and (iii) late adolescence, which is approximately between the age of 17 and 19 years old (Katsantonis et al., 2022). For this study, the focus was on the middle and late adolescence stages.

The developmental stage of adolescence is a time of transitioning from childhood and maturing towards being an adult. This stage on its own makes adolescents particularly vulnerable during the time of a pandemic (Guessoum et al., 2020). Studies on adolescent's mental health during the COVID-19 pandemic indicate a risk of depression and anxiety and PTSD, with an estimate that is twice as high for PTSD among female adolescents (Guessoum et al., 2020).

A systemic review aimed to review published reports on the association of school closures during social lockdown with health behaviours and mental health and well-being in children and adolescents aged 10 to 19 years old (Viner et al., 2022). The study found a total of 16 817 articles and 36 studies met the studies inclusion criteria and it found that, from the first wave of the COVID-19 pandemic, mental health symptoms and health behaviours among children and adolescents were impacted by short-term school closures as part of social lockdown. Furthermore, the associations between school closure and health outcomes and behaviours could not be separated from broader lockdown measures (Viner et al., 2022).

A survey conducted during the COVID-19 outbreak with 8 079 Chinese adolescents reported a prevalence of 43% for depression symptoms, 37% anxiety, and 31% for a combination of depression and anxiety (Zhou et al., 2020). Another study conducted in China with 584 participants (n = 223 males and n = 361 females), approximately two weeks after

the outbreak of the COVID-19 pandemic, examined the factors that influence mental health problems amidst young people (Liang et al. 2020). Results indicated that 40.4% of the participants reported having psychological problems, with 14.4% stating they were experiencing PTSD symptoms (Liang et al. 2020).

Schools closed worldwide due to the COVID-19 pandemic, even though normal school routines are considered important coping mechanisms for young people with mental health issues (Lee, 2020). For children and adolescents, time frames of not going to school are linked to decreased levels of physical activity, more screen time, irregular sleep patterns, and less appropriate diets (Wang et al., 2020).

Studies report on the impact of remote learning that took place during the COVID-19 pandemic and how it affected billions of learners. For example, findings from a literature review conducted by Spiteri (2021) point out the impact of the COVID-19 pandemic on the wellbeing and mental health of children and adolescents coming from different socio-economic backgrounds, highlighting how quarantine, lockdown, social distancing, social media, and all measures taken to prevent the spread of infection negatively affected children's and adolescents' mental health and wellbeing.

A link between epidemics and increased suicide rates has also been found in research, however there is no known data suggesting an increase on adolescents' suicide during the COVID-19 pandemic (Guessoum et al., 2020). It is important to note, however, that stressful life events are a risk factor for adolescent suicidality (Guessoum et al., 2020). Increased addictive disorders among adolescents due to the COVID-19 pandemic and other related disasters have been raised in research, with some authors suggesting that adolescents are likely to engage in high risk-behaviours, such as drug abuse and risky sexual relationships, as coping mechanisms (Chiappini et al., 2020). However, there is little current literature available on the topic.

For adolescents, COVID-19 related deaths may have been their first lived experience with death (Guessoum et al., 2020). Related to this, COVID-19 regulations came with restrictions in hospital visitations, primarily in the COVID-19 units, followed by immediate casketing and, therefore, deprivation of funeral rites. This may have led to an increase in adolescents' traumatic experiences. For example, Nader and Salloum (2011) argue that traumatic events (which the COVID-19 pandemic is) are associated with a longer period of grief for adolescents.

A study conducted by Govender et al. (2020) found that, due to the nationwide school closures, child nutrition was affected. In South Africa, there are government sponsored school nutrition programmes (e.g., feeding schemes) and immediately closing schools restricts access to these programmes, which many children depend on. As a result, the government decided to increase household funding through a child support grant with an additional R300 per child and R500 per caregiver each month (Govender et al., 2020).

Research conducted by Gittings et al. (2021) exploring the experiences of adolescents and young people during the COVID-19 lockdown in South Africa, indicates that most participants were concerned about immediate needs (e.g., food). Majority of the participants expressed not having food and experiencing hunger, describing empty cupboards and refrigerators. Furthermore, some participants indicated that they were experiencing anxiety, frustration, and uncertainty of their futures because of COVID-19.

While research indicates that the COVID-19 pandemic and school closure led to students' distress and mental health problems, there is a chance that these disruptions may have also prompted growth (Waters, et al., 2021). Waters et al. (2021), for example, investigated stress-related growth (SRG) in a sample of students returning to school after a period of COVID-19 remote learning. Using a correlation analysis, they found that teaching

positive education before the COVID-19 pandemic had positive correlations with the way in which students coped during remote learning and with SRG when returning to school.

The Role of Protective Factors

Protective factors can be defined as traits at the psychological, biological, familial, or community level that are associated with a lower likelihood of problem outcomes or that reduce the negative impact of a risk factor on problem outcomes (Wlodarczyk et al., 2017). According to Titcombe-Parekh et al. (2018), protective factors limit the possible chances of negative outcomes and act as a shield that protects individuals and families from mental health challenges. Furthermore, protective factors help people function better at school, home, communities, and in various other social settings. Social support and resilience have been identified as two salient protective factors (Ozbay, 2007).

Social Support

According to Hou et al. (2019), social support is defined as a person's cognisance of their involvement in a social group in which the people involved in that group mutually support one another. Social support includes visible physical support, such as material assistance and social networks, as well as physical emotional support, such as the experience of being understood, accepted, and respected. Liu et al. (2021) state that social support is generally beneficial in alleviating individual psychological pressure, inhibiting negative emotions, providing positive emotional experience, and promoting mental health. Liu et al. (2021) go on to argue that social support, as a protective factor for adolescent mental health, is highly valued and, as an important coping resource, social support can improve an adolescent's self-evaluation, assisting them in forming a good self-image, and promoting their self-esteem.

Social support is also considered one of the most important external resources in buffering the negative effects of stressors, with some studies indicating the positive effect of social support on resilience (Liu et al., 2021).

According to Ozbay et al. (2007), social support is integral when it comes to the maintenance of mental and physical health. It appears that high qualities of positive social support can improve resilience to stress, decrease the functional consequences of trauma-induced disorders such as PTSD, helps protect against developing trauma-related psychopathology, and can reduce medical morbidity and mortality. Furthermore, social support has been shown to be a protective factor in the negative effects of distress on mental and physical health (Szkody et al., 2021).

Higher levels of social support from their families and schools has been reported to help young people develop resilience from negative mental health outcomes, such as anxiety and depression (Layman et al., 2023). A study investigating the relationship between parental and school-level social support and perceptions of COVID-19 related emotional impact on mental health among adolescents found that, the adolescents who reported experiencing higher levels of COVID-19 related distress had greater levels of anxiety, anger, and depression (Layman et al., 2023). Furthermore, parental and school-level social support were associated with better mental health outcomes (Layman et al., 2023).

Meng Qi et al. (2020) conducted a study with Chinese adolescents and found that the prevalence of depression and anxiety symptoms was high, however social support was found to be a protective factor for the mental health of these adolescents. Results of this study provided evidence to support application strategies to increase social support for adolescents during the COVID-19 pandemic. Meng Qi et al. (2020) reported that social workers and psychologists must take the initiative to provide psychological help and target individual adolescents affected by depression and anxiety. In addition, they argue that there must be

action taken to encourage other types of social support to promote the mental health of adolescents affected by the outbreak of the COVID-19 pandemic (Meng Qi et al., 2020).

A similar study conducted by Wright and Wachs (2022) in the USA examined the moderating effect of perceived social support from friends in the association between self-isolation practices during the COVID-19 pandemic and adolescents' mental health. The study gathered questionnaires on perceived social support from friends, depression, subjective health complaints, and self-harm (Wright & Wachs, 2022). The findings of the study indicated that during the COVID-19, self-isolation practices were related to perceived social support from friends. The study found higher perceived social support from friends aided against the negative effects of mental health outcomes for adolescents (Wright & Wachs, 2022).

Research during past pandemics (e.g., HIV and AIDS, H1N1, SARS, and Ebola) found an association between social support and lower rates of mental health problems (Szkody et al., 2021). However, the COVID-19 pandemic and its mitigation strategies (e.g., social distancing and lock down) limited the availability and accessibility of social support. While the COVID-19 rules and regulations helped in flattening the curve, these rules and regulation also resulted in negative psychological consequences (Szkody et al., 2021).

For example, a study exploring the relationship between psychological distress and social support in relation to changes in alcohol consumption surrounding university closure due to COVID-19, found that alcohol consumption increased as the time of university closure progressed (Lechner et al., 2020). Furthermore, depression and anxiety were also found to be prevalent d. This suggests that higher psychological distress was associated with higher alcohol consumption levels. In addition, those experiencing higher symptoms of depression and anxiety were found to consume more alcohol in comparison to those with fewer symptoms (Lechner et al., 2020). Social support demonstrated a significant negative effect

and the findings from this study indicate that those with more social support consumed less alcohol overall.

Resilience

Resilience is defined as a person's ability to handle significant difficulties and the ability to recover from those difficulties quickly (Sominsky et al., 2020). There is evidence confirming that some people are more psychologically resilient to adversity than others, and that patterns of vulnerability and/or resilience differ (Sominsky et al., 2020). Liu et al. (2021) state that resilience can maintain well-being in the face of adversity and that resilience has been accepted as a personality trait that can help individuals adapt to negative stressors and maintain psychological functioning. Literature has shown a negative correlation between psychological resilience and psychological distress. This correlation has been demonstrated in relation to specific occurrences of adversities, such as natural disasters, like the 2005 Hurricane Katrina (Osofsky & Osofsky, 2013) and the 2010 Haiti Earthquake (Blanc et al., 2016).

Self-esteem is deemed to be an internal protective factor for resilience, and it has been widely studied in adolescent populations. Moreover, some findings indicate that resilience can play a crucial role in promoting self-esteem (Liu et al., 2021), while other studies indicate that resilience can positively affect life satisfaction and psychological distress through the mediation effects of self-esteem (Liu et al., 2021). Thus, high self-esteem is regarded as a protective factor for resilience, while at the same time is seen as a promoting factor for self-esteem. Therefore, it can be concluded that there is a mutual relationship between resilience and self-esteem.

According to Christian (2020), resilience exists both at the community and individual level. To overcome stress and other side effects that come with the COVID-19 pandemic and to recover to normal levels of functioning, it is important for societal ecosystems to have a

certain level of shared resilience. This shared resilience is integral in facing the challenges of the COVID-19 pandemic together, not only as a nation but also on a global scale, where all countries play an important supporting role through coordinating cross-border collaborations. Lazzarino et al. (2014) state that populations with lower socio-economic status are more susceptible to stress-related negative outcomes. Therefore, they may benefit more from the short- and long-term resilience enhancing strategies that happen at the societal level, such as guaranteed access to online education and information and sustainable economic and health infrastructure, thereby enabling communities to organise themselves and act locally.

Zhang et al. (2020) found that adolescents with positive coping strategies had better mental health outcomes during the COVID-19 pandemic and resilience was found to be one of the factors influencing adolescents' psychological outcomes. Specifically, high levels of resilience were found to provide protection from various mental health conditions.

A study with participants (N = 680) from South China aimed to explore the mediating mechanisms of social support and psychological resilience in the relationship between envy and depression (Xiang et al., 2020). The average age of participants was 19.16±2.39 years, and the age range was from 17 to 26 years old. The results of this study found that envy was positively correlated with depression. At the same time, the results showed that there was a significant negative correlation between envy and psychological resilience. Moreover, social support and psychological resilience played a significant mediating role between envy and depression. The results also showed that envy indirectly positively affects an individual's depression trend by negatively affecting psychological resilience, through negatively influencing social support (Xiang et al., 2020).

A study conducted by Ye et al., (2020) investigated the association of COVID-19 related stressful experiences with acute stress disorder (ASD) and the possible psychological mechanisms of the association among college students. Using an online survey during the

initial stage of the COVID-19 outbreak in China, this study collected data from 7,800 college students (*n* = 61.53% female, with a mean age of 20.54 years). The study used various scales to measure stressful experiences, resilience, coping, social support, and ASD symptoms. The results of this study found that the relationship between COVID-19 related stressful experiences and ASD could be mediated by resilience, adaptive coping strategies, and social support (Ye et al., 2020).

Another study conducted in China by Zhu et al. (2022), aimed to: i) increase the understanding of the role of resilience and risk factors for adolescent adjustment during the COVID-19 pandemic; and ii) investigate personal resilience, and peer and teacher-student relationships as protective factors against mental health difficulties. Personal resilience and teacher-student relationships were found to promote better mental health and served as protectors against negative effects of mental health (Zhu et al., 2022).

Stein et al. (2023) conducted a study among Latinx youth examining COVID-19 stressors, family resilience, coping, and their internalising symptoms. They found that stress, due to COVID-19, was associated with anxiety and depressive symptoms. However, COVID-19 stress was related to higher levels of depressive and anxiety symptoms only for youth who engaged in low and medium levels of problem-focused coping. Furthermore, higher levels of family resilience were associated with lower depressive symptoms.

Cheong et al. (2023) investigated the intrapersonal characteristics as well as peer and family processes as potential risk and protective factors for the mental health of Chinese adolescents during the COVID-19 pandemic. The study found that the participants in the study were experiencing various COVID-19 related stress. In addition, the findings suggest that personal resilience and the quality of peer relationships predicted positive mental health and less mental health difficulties.

Conclusion

The importance of the role played by protective factors and psychological outcomes has been highlighted in this chapter. While the COVID-19 rules and regulation aided in reducing the spread of the virus, these rules and regulations also resulted in negative mental health impacts for adolescents and the general population.

Chapter Three: Methodology

Research Setting

This study was conducted in the Eastern Cape Province of South Africa, which is home to approximately 6.6 million people, which is around 13% of the South African population. It is the second largest province by land mass, with 169,580 square kilometres (Diniso et al., 2021). The Eastern Cape Province is a rural and poverty-stricken province, with high levels of unemployment (Westaway, 2012). Around 73% of people living in Eastern Cape are Black African people, with the majority living in rural areas (Shahaboonin et al., 2023).

When the African National Congress (ANC) government took power in 1994, unfortunately it inherited a racially divided and highly discriminatory education system (Mayer et al., 2023). South African researchers (Hendricks & Sayo, 2022; Taylor et al., 2003) acknowledge the important role played by reading materials for improving writing and literacy skills for children. However, due to poverty, many homes in the Eastern Cape do not have many materials for children to read, except for a Bible (Hendricks & Sayo, 2022). In rural areas, community libraries are scarce and, nationally, many schools still have no libraries (Gunuza, 2019).

Research Design

This study utilised a quantitative cross-sectional survey research design. According to (Setia, 2016), cross-sectional studies are appropriate for estimating the prevalence of a disease or behaviour in a population. Furthermore, cross-sectional surveys collect data to make inferences about the targeted population (Setia, 2016).

Participants and Sampling

The participants for this research study were adolescent learners, aged between 16 to 19 years old, attending government and/or public schools in the Eastern Cape Province of South Africa. Furthermore, the study used convenience sampling.

The study recruited a convenience sample of 300 participants, and the sample size represents a 95% confidence interval and a 5% margin of error. A rule of thumb for multivariate research is that ten participants are needed per study variable (Wai, 2019). Therefore, this sample size is sufficient for analytic purposes.

Table 1

Demographic Information

Demographic split	N	%
Nationality		
South African	260,0	100%
Grade		
Grade 10	68,0	26.2%
Grade 11	86,0	33.1%
Grade 12	106,0	40.8%
Gender		
Male	98,0	37.7%
Female	162,0	62.3%
Racial Group		
Black/African	251,0	96.5%
Coloured	8,0	3.1%

White	1,0	0.4%
Home Language		
isiXhosa	242,0	93.1%
isiZulu	3,0	1.1%
English	2,0	0.7%
Sesotho	4,0	1.5%
Other	9,0	3.4%
Age		
16 years	83,0	31.9%
17 years	95,0	36.5%
18 years	61,0	23.5%
19 years	21,0	8.1%

Table 1 above provides a description of the participants demographic information. All participants were South African. Out of 260 participants, 68 were in Grade 10, 86 were in Grade 11, and 106 were in Grade 12. Most of the participants were female (i.e., 62.3%). Furthermore, 96.5% of participants identified as Black, 3.1% identified as coloured, and 0.4% identified as white. Most of the participants were isiXhosa speaking. However, two participants indicated their home language as English, four participants indicated Sesotho as their home language, three participants indicated Zulu as their home language, and nine participants indicated other.

Instruments

Participants completed seven self-report instruments, which included:

- The Socio-Demographic Questionnaire (Appendix A);

- Fear of COVID-19 Scale (FCV-19S; Appendix B) (Ahorsu et al., 2020);
- Generalized Anxiety Disorder 7-Item Scale (GAD-7; Appendix C) (Dear et al., 2011);
- Patient Health Questionnaire (PHQ-9; Appendix D) (Nandakumar, 2018);
- Multidimensional Scale of Perceived Social Support (MSPSS; Appendix E) (Zimet et al., 1988); and
- The Connor-Davidson Resilience Scale (CD-RISC-10; Appendix F) (Connor & Davidson, 2003).

The instruments mentioned above have been made public and have been used with multiple populations, including adolescents. Additional information about the instruments follows.

Socio-Demographic Questionnaire

The Socio-Demographic Questionnaire (Appendix A) forms the first part of the survey and pertains to the demographic information of participants. Demographic variables included age, gender, grade, school, and location or town.

Fear of COVID-19 Scale (FCV-19S)

The FCV-19S measures the level of fear of COVID-19, and participants are expected to indicate their level of agreement with statements using a five-item Likert type scale (Ahorsu et al., 2020). The FCV-19S (Appendix B) consists of seven items, and each item is rated from "strongly disagree" to "strongly agree", with scores ranging from 7 to 35. Furthermore, the scores are categorised into low (7–21) and high scores (22–35), where higher scores reflect greater fear of COVID-19 (Rahman et al., 2020). The FCV-19S has demonstrated an appropriate internal consistency reliability, with the developers reporting a Cronbach's alpha of .82 (Ahorsu et al., 2020).

According to Ahorsu et al. (2020), the FCV-19S has vigorous psychometric properties, and the scale is valid and reliable for assessing fear of the COVID-19. Classical test theory and the Rasch model were used to evaluate the psychometric properties, such as the test-retest reliability (*ICC* = .72), and reliability values, such as the internal consistency (α = .82), and they were found to be acceptable. Furthermore, the psychometric properties of the FCV-19S were evaluated through a study conducted in South Africa (Pretorius et al., 2021). The scale exhibited sound psychometric properties, with significant item-total correlations (.68 to .77) and a Cronbach's alpha of .91 (Pretorius et al., 2021).

Generalized Anxiety Disorder 7-Item Scale (GAD-7)

The GAD-7 (Appendix C) is a seven-item instrument used to measure anxiety. Participants rate how often they have been bothered by different problems and answers are rated from 0–3, where 0 indicates "not at all", 1 indicated for "several days", 2 indicates for "over half a day", and 3 indicates "nearly every day" (Dear et al., 2011).

Johnson et al. (2019) stat that the psychometric properties of the GAD-7 have been examined in a heterogeneous sample of different diagnosis, and the scale was found to have a good internal consistency and convergent validity, but poor specificity and a high false positive rate for specific anxiety disorder. In addition, Johnson et al. (2019) state that the Cronbach's alpha of this scale was above 0.82, both at intake and post-treatment.

Patient Health Questionnaire (PHQ-9)

The PHQ-9 (Appendix D) is a depression scale with nine items. Participants are required to tick a rating scale of 0 to 3, which indicates how often they have been bothered by the problems presented in the questionnaire over the past two weeks (Nandakumar, 2018). This scale is among the most validated tools in mental health, and it can be a useful and powerful tool in assisting clinicians in diagnosing depression and monitoring treatment response (Nandakumar, 2018). According to Kroenke (2001), the validity of this scale was

established in studies including eight primary care and seven obstetrical clinics. PHQ-9 scores were found to be ≥ 10, with a sensitivity of 88% and a specificity of 88 for major depression.

A study that explored the reliability and validity of the PHQ-9 and PHQ-2 in patients with infertility found that the mean total for the PHQ-9 and the PHQ-2 scores were 8.47 ± 6.17 and 2.42 ± 1.86. The Cronbach's alpha for PHQ-9 were 0.85 and the Cronbach's alpha for the PHQ-2 was 0.76. This, therefore, indicates that these scales have a good internal consistency (Maroufizadeh et al., 2019).

Multidimensional Scale of Perceived Social Support (MSPSS)

The MSPSS (Appendix E) was designed to measure perceptions of support from three sources; namely, family, a significant other, and friends (Zimet et al., 2011). The scale has twelve items in total, with four items in each subsection. Zimet et al. (2011) state that the MSPSS has good internal reliability across subject groups, and strong factorial validity. In addition, strong support was found for the validity of the family and their significant others.

A study was conducted, that assessed the internal consistency, reliability, and measurement invariance of the MSPSS in samples of undergraduate men (Osman et al., 2014). This study found that the composite scale reliability and coefficient omega methods provided adequate estimates of internal consistency and reliability for the original MSPSS total and subscale scores (Osman et al., 2014). Another study examined the psychometric properties of the MSPSS, and it also found that the internal consistency of the scale was good, with a Cronbach's alpha of 0.91 (Wongpakaran et al., 2011). Furthermore, the internal consistency reliability was determined by calculation of the Cronbach's coefficient, and the intraclass correlation coefficient (ICC) was used for test-retest reliability (Wongpakaran et al., 2011).

Connor-Davidson Resilience Scale (CD-RISC-10)

The CD-RISC-10 (Appendix F) is a ten-item scale that measures resilience. According to Connor and Davidson (2003), respondents are required to rate items on a five-point Likert scale that ranges from 0 ("not at all true") to 4 ("true nearly all the time"). Cheng, et al. (2020) conducted a study aimed at evaluating the psychometric properties of the CDRISC-10 and concluded that this scale is stable and valid for application with different samples in resilience studies.

A study that assessed the psychometric properties of the Korean version of the CD-RISC-10 found that the exploratory factor analysis indicated that a single-factor model was consistent with the original design of the 10-item CD-RISC. Furthermore, the scale was found to have a good internal consistency, and the Cronbach's alpha was found to be equal to 0.95 (Shin et al., 2018).

Data Collection Procedure

A hard copy survey consisting of the abovementioned six self-reporting questionnaires was distributed to adolescent learners. The nature of the questions found in the survey were explained to all participants as means of preparing participants and to limit any potential distress. The survey took approximately fifteen minutes to complete, and participants were asked to complete the survey during their free time during school hours. On day one, participants were given the Information Sheet (Appendix G), the Parental/Guardian Permission Form (Appendix H), and the Assent Form (Appendix I) to take home to their parents or guardians.

On the subsequent day, the survey questionnaires were distributed to participants to complete and return on the same day. As the researcher, I was available if the participants required clarity or had questions. The questionnaires were in English, as this is the medium of instruction in South African schools and, therefore, translations were deemed unnecessary.

However, participants were able to indicate to the researcher if they preferred the questionnaire in another language.

All the COVID-19 regulation protocols were adhered to, and participants were expected to sanitise their hands before and after they completed the questionnaire. Social distancing and wearing of masks were strictly observed during the data collection process.

Data Analysis

This study used the Statistical Software Package for the Social Sciences (IBM SPSS Statistics 27) to capture and analyse the data gathered from the survey. Descriptive statistics was used to summarise collected data and a multiple regression analysis was used to determine the association of protective factors (i.e., social support and resilience), with psychological outcomes (i.e., anxiety and depression). Finally, intercorrelations analysis was used to determine whether there were any mutual relationships between fear of the COVID-19 pandemic, anxiety and depression, and social support and resilience.

Reliability and Validity

According to Golafshani (2003), reliability is the ability of the results to be consistent over a period of time, and a research instrument is considered reliable if the results of the study can be reproduced under a similar methodology. The scales that were used in this study have sound psychometric properties, as discussed previously. Furthermore, detailed information has been provided on how this study was conducted, which allows for the study to be replicated. In addition, the researcher assessed the psychometric properties of the instruments in the study (i.e., Cronbach's alpha), thereby promoting the reliability of the study.

Ethical Considerations

Ethical clearance for this study was obtained from the Humanities and Social Sciences Research Ethics Committee (HSSREC; Reference: HS21/7/51) (Appendix J). Once ethical approval was granted, permission to conduct the study was obtained from the Department of Basic Education (DBE) (Appendix K), school principals (Appendix L), parents/guardians (Appendix M), and then prospective participants (Appendix I).

The Information Sheet (Appendix G) and the consent and assent forms (Appendix H and I) explained the purpose of the study, as well as the rights of participants during the study. The consent and assent forms stated that participation in the study is voluntary, and participants are free to withdraw from the process at any stage without any penalties. To ensure anonymity, the surveys were marked in numbers and participants were not asked to provide their names and surnames. In addition, all information provided by the participants was treated confidentially.

The study presented no physical harm to the participants. However, the study did have the potential to results in participants experiencing distress when answering the questionnaire. Learners participating in the study were requested and encouraged to inform me if they experience any emotional distress due to completing the survey and a note was included at the end of the questionnaire stating that learners are to contact the researcher if they experience any distress related to completing the survey.

The researcher also provided the learners, parents or guardians, and the school principals with the contact details of the South African Depression and Anxiety Group (SADAG) and Lifeline, and it was emphasised that free telephonic counselling services are offered by SADAG.

Chapter Four: Results

The primary aim of this study was to investigate the psychological impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape Province of South Africa and to determine the associations between fear of COVID-19, anxiety, depression, social support, and resilience.

Descriptive Statistics

Table 2 below reports the intercorrelations between fear of COVID-19, psychological outcomes (i.e., anxiety and depression), and protective factors (i.e., social support and resilience), and includes the means (*M*), standard deviations (*SD*), and reliabilities (i.e., coefficient alpha). Multiple guidelines are recommended for establishing sufficient evidence of reliability and validity. However, a minimum reliability threshold of 0.70 is recommended (Frost et al., 2007), while a reliability of ≥ .80 is considered very good (Danner, 2016).

Table 2

Descriptive Statistics, Intercorrelations, and Reliabilities of Scales

	1	2	3	4	5
1. Anxiety	—				
2. Depression	.733**	—			
3. Fear of COVID-19	.167**	.141*	—		
4. Resilience	-.058	-.079	.101	—	
5. Social support	-.095	-.155*	.239**	.389**	—
Mean (*M*)	9.52	11.5	21.19	26.84	4.80
Standard Deviation (*SD*)	5.26	6.37	5.82	7.98	1.27

Alpha	.80	.81	.83	.83	.88

** $p < 01$

An asterisk (*) is used to flag the levels of significance. If the *P*-value is less than 0.01, it is flagged by two asterisks (Visch et al., 2023).

Reliability

The internal consistency of all instruments used in this study was measured using Cronbach's alpha coefficient, which is presented in Table 2 above. The reliability values of all the instruments indicates an acceptable minimum threshold of 0.70. Furthermore, many of the reliability values were found to be more than 0.80, which is regarded to be very good. Therefore, the instruments used in this study are reliable, as the reliability values are similar to those mentioned in existing literature (Johnson et al., 2019; Maroufizadeh et al., 2019; Pretorius et al., 2021; Shin et al., 2018; Wongpakaran et al., 2011).

Intercorrelations

Table 2 presents information about the intercorrelations between the psychological outcomes (i.e., anxiety and depression) and protective factors (i.e., resilience and social support).

Resilience was negatively correlated with anxiety ($r = -.058$, $p < .01$) and depression ($r = -.079$, $p < .01$), which means that low levels of resilience were associated with high levels of anxiety and depression.

Social support was negatively related to anxiety ($r = -.096$, $p < .01$) and depression ($r = -.155^{*}$, $p < .01$) which means that lower levels of social support were associated with higher levels of psychological distress.

Fear of COVID-19 was positively related to anxiety ($r = .167^{**}$, $p < .01$) and depression ($r = .141^{*}$, $p < .01$), which means that high scores on fear of COVID-19 were associated with high scores on depression and anxiety.

Prevalence of Anxiety and Depression During COVID-19

The mean score reported for anxiety in the current study ($M = 9.52$, $SD = 5.26$) is lower than the mean scores reported in previous international studies. For example, a study conducted by Hung et al. (2021) in China, who report $M = 7.71$ and $SD = 7.76$. Another study conducted in China by Tang et al. (2021) reported $M = 5.18$ and a $SD = 7.89$. In addition, a South African study (Pretorius & Padmanabhanunni, 2021) conducted during the COVID-19 pandemic reported that $M = 48.1$ and $SD = 10.5$.

The scoring items for the GAD-7 ranges from 0 to 21 (Titov et al., 2011). Minimal anxiety is indicated by a score between 0 and 4, while a score of 5–9 indicates mild anxiety, 10–14 indicates moderate anxiety, and 15–21 indicates severe anxiety (Titov et al., 2011). More than a quarter of the sample in the current study (33.5%) reported experiencing mild anxiety. Slightly more than a quarter (27.7%) reported experiencing moderate anxiety, while 20.8 % suffered from severe anxiety.

The mean depression score of the current sample ($M = 11.5$, $SD = 6.37$) was substantially lower than those reported in a South African study during the COVID-19 pandemic ($M = 27.5$, $SD = 13.4$) (Pretorius & Padmanabhanunni 2021). A study conducted in China during the COVID-19 pandemic reported $M = 5.54$ and $SD = 3.96$ (Zhou et al., 2022). While a study undertaken in Italy reported $M = 32.94$ and $SD = 13.2$, which are higher than those of this study (Mazza et al., 2020).

The PHQ-9 has scores that range from 1 to 27. Minimal depression is presented by 5–9, which indicates mild depression; 10–14, which indicates moderate depression; 15–19, which indicates moderately severe depression; and 20–27, which indicates severe depression

(Nandakumar, 2018). In the current study, less than a quarter of the sample (11%) reported severe symptoms of depression, less than a quarter of the sample (21.9%) reported moderate to severe depression, and more than a quarter (26.5%) and almost a quarter (24.2%) reported moderate and mild depression respectively. Only, 15.4% of the sample reported minimal or no depression.

Chapter Five: Discussion

This chapter discusses the results of the study in relation to existing literature. The study had two main objectives. This included assessing the psychological impact of the COVID-19 pandemic in relation to depression, fear, and anxiety among adolescent learners, and investigating the role of protective factors (i.e., social support and resilience) on psychological outcomes.

Psychological Impact of the COVID-19 Pandemic: Anxiety

This study found that a significant proportion of adolescent learners in the sample experienced heightened levels of anxiety in the moderate to severe range. This corresponds to the findings of existing research that have reported an increase in the prevalence of anxiety among school-going and university students.

A national cross-sectional study among Chinese students reported that 54.34% of participants were experiencing anxiety symptoms during the COVID-19 pandemic (Xiao et al., 2022). Similarly, A cross-sectional study investigating anxiety symptoms in Italian, Spanish, and Portuguese children and adolescents found that a percentage of the sample who scored above the cut-off point for anxiety was higher in Spain (56%) in comparison to Italy (34.1%) and Portugal (26.5 %) (Orgilés Amorós et al., 2021). These high levels of anxiety were attributed to changes in family dynamics that were found to be related to the COVID-19 pandemic, such as being at home more and spending time with parents in non-mandatory confinement. In addition, anxiety symptoms were found to be more prevalent in children whose parents experienced higher levels of stress due to the COVID-19 pandemic (Orgilés Amorós et al., 2021).

A study undertaken in Malawi with adolescent learners found that 22% of the adolescents were experiencing anxiety (Mmanga et al., 2023). The study found that 28% of

adolescents in secondary education were experiencing anxiety symptoms in comparison to those in primary education (14%) (Mmanga et al., 2023). Anxiety amongst the sample was attributed to a lack of knowledge about the pandemic, as well as adolescents being at the age where they have not fully realised their potential contribution to the community or have not yet formed and/or maintained good social relationships (Mmanga et al., 2023).

It is probable that the high levels of anxiety among adolescents in the current study are due to the COVID-19 mitigation strategies implemented in South Africa (UNESCO, 2020). These COVID-19 prevention strategies led to the decrease in most of social and cultural practices through the introduction of social distancing and isolation (Hussain et al., 2022). These strategies prevented students from going to school in the first few months of the COVID-19 pandemic outbreak in South Africa and in many other countries worldwide (Mmanga et al., 2023).

Furthermore, uncertainty of the future and the disruption in daily lives and routines, as well as an increasing concern for the health and well-being of loved ones and family members during the COVID-19 pandemic, were associated with increases in generalised anxiety levels across the world (Delpino et al., 2022). This could account for the elevated levels of anxiety amongst the adolescents in the study.

Psychological Impact of the COVID-19 Pandemic: Depression

The current study found that more than half (83.6%) of the sample experienced depression, ranging from mild to severe depression. These findings are consistent with existing studies conducted during the COVID-19 pandemic.

An online survey conducted with Australian children and adolescents found that 20.4% of the sample were exhibiting a clinical range for depressive symptoms (Sicouri et al., 2023). In addition, cross-sectional studies conducted during the early stages of the COVID-19

pandemic provide evidence that the COVID-19 pandemic impacted the mental health of adolescents negatively (e.g., Stewart et al., 2022).

A study conducted in China reported that 43.7% of adolescents had depressive symptoms and this percentage was found to be greater when compared to pre-COVID-19 pandemic rates (Xie et al., 2020). Higher levels of anxiety were attributed to the COVID-19 restrictions that included social distancing and online learning (Xie et al., 2020). Similarly, a study conducted in England, found that 14% of adolescents met the clinical threshold cut-off levels for depression (Mansfield et al., 2021). A further study investigating the mental health status of the public during the outbreak of COVID-19 and the levels and related factors of depression and anxiety, found that 41% of the participants had depressive symptoms and 37.2% were found to have anxiety symptoms (Song et al., 2021).

A study conducted in Canada investigating the rates of mental health symptoms for clinical concern and substance use and assessing which COVID-19 related stressors were predictors of these symptoms, found that a high proportion of adolescents reported symptoms of clinical concern for depression, with a percentage of 51% (Craig et al., 2023). Another study that aimed to quantify the effect of the COVID-19 pandemic on adolescents' mental health outcomes based on electronic health records in Israel found an increase of 36% in depression levels during the COVID-19 period (Bilu et al., 2023).

The high levels of depression in the abovementioned studies were attributed to a fear of mortality and morbidity of loved ones or oneself. In addition, the high levels of depression were also attributed to changes in the rules and regulations that led to prolonged social isolation, loss of peer interactions and support during school closures, and loss of pleasure in activities. Decreased hope for the future and increased family stress due to the COVID-19 pandemic were also found to contribute to the heightened levels of depressive symptomology (Bilu et al., 2023; Craig et al., 2023).

Mass quarantines, school closures, exam cancellations, and social distancing were adopted as ways of reducing the spread of the COVID-19 pandemic. However, it is no surprise that adolescents were negatively affected by the COVID-19 pandemic and the strategies implemented to mitigate the spread of COVID-19 (Stewart et al., 2022). These measures were found to be extremely challenging for adolescents who are in a stage of development that is characterised by an increase in mental health difficulties, parental conflict, and a developmental need associated with social connection and acceptance from peers (Andrews et al., 2020).

Fear of COVID-19 and Psychological Outcomes

This study found that heightened levels of fear of COVID-19 were associated with higher levels of anxiety and depression. This finding corresponds with existing research.

A meta-analysis that aimed to assess the relationship between fear of COVID-19 and anxiety among the general population found that the relationship between fear of COVID-19 and anxiety had a high level of heterogeneity and that fear of COVID-19 is associated with mental health problems, including anxiety (Erbiçer et al., 2022).

Another study conducted with school learners in Saudi Arabia investigating the perceptions of risk, fear, mental health status, and coping strategies found that approximately 37.7% of the learners experienced some degree of anxiety due to fear of COVID-19 (Alsolais et al., 2021). The increased fear and anxiety levels were attributed to the fear of being isolated if one tested positive, as well as social isolation due to the COVID-19 restrictions (Alsolais et al., 2021). Similarly, Hyun et al. (2021) found that 19% of the population were experiencing anxiety and that COVID-19 related fear and the level of restrictions in daily life played a significant role in predicting and understanding the levels of anxiety that were experienced.

Limited information about the COVID-19 virus as well as knowledge about the virus may have been one of the major contributors to increased fear and, therefore, anxiety during the COVID-19 pandemic (Coelho et al., 2020). Fear of the unknown and multiple uncertainties appeared to increase the levels of fear, which is a component of anxiety (Metin et al., 2022). Adolescents have also indicated that they feared contracting the virus and did not want to die (Mmanga et al., 2023).

A cross-cultural study conducted with German and South African students compared the correlation of COVID-19 fear, well-being, and depression predictors (Holm-Hadulla et al., 2022). This study found that there was a direct connection between well-being and depression, but there was a mediated connection between fear of COVID-19 and depression (Holm-Hadulla et al., 2022). Furthermore, fear of COVID-19 was found to not only result in depression but also to other mental health issues (Holm-Hadulla et al., 2022). In addition, the study found higher levels of fear and depression in South African students, which was largely attributed to students coping in higher stress level environments that are caused by inequality, racism, economic pressure, and poverty (Holm-Hadulla et al., 2022).

A systematic review and meta-analysis of forty-nine studies aimed at synthesising empirical evidence to understand fear of COVID-19 and its association with mental health-related problems reported that there was an association between depression and fear of COVID-19 (Alimoradi et al., 2022).

A study that aimed to investigate the prevalence of depression and the associated COVID-19 related factors among South Korean adolescents found that 17.5% of the participants had depression (Lee et al., 2022). These findings were attributed to restrictions on daily life that were put forward by the government of South Korea and the rest of the world (Lee et al., 2022).

Studies have shown that COVID-19 may have contributed to fear and to the mental health challenges experienced by adolescents (Lee et al., 2022; Mmanga et al., 2023). This might be because adolescence is a psychological developmental stage and a transitional physical stage whereby social connection plays a pivotal role (Mmanga et al., 2023). Therefore, restrictions and regulations to contain the spread of COVID-19 resulted in adolescents experiencing fear, mood swings, over-eating, depression, and anxiety (Mmanga et al., 2023).

Protective Factors and Psychological Outcomes

Social Support

The current study found that lower levels of social support were associated with increased levels of adverse mental health outcomes. This findings supports the existing literature on the role of social support in mental health.

Social support is a very important protective factor for adolescents' mental health, and it is greatly valued. Social support includes visible physical support (e.g., material assistance and social networks), and physical emotional support (e.g., experiences of being understood, accepted, and respected) (Liu et al., 2021). Furthermore, social support is beneficial for relieving individual psychological pressure and negative emotions and encourages positive emotional experiences and promotes mental health (Liu et al., 2021). Prior to the pandemic, social support has been consistently identified as a protective factor in mental health and wellbeing. For example, research done during other pandemics (e.g., HIV and AIDS, H1N1 influenza, SARS, and Ebola) found that social support had an association with lower levels of mental health problems (Asante, 2012; Casale et al., 2015; Ozbay et al., 2007).

A study conducted in the United States, assessed the psychometric properties of social support, using the Interpersonal Support Evaluation Checklist, among people with severe

mental illness (Sally Rogers et al., 2004). The study found that self-esteem, mental illness, and quality of life were able to predict 38% of the variance in perceived social support (Sally Rogers et al., 2004). Furthermore, higher levels of the same forms of social support, such as social network support (e.g., parental and friendship social support), were found to result in lower levels of mental illness (Sally Rogers et al., 2004).

The relation between parental and friendship social support was studied among Dutch people, specifically with regards to emotional problems and mental health (Helsen et al., 2000). This study comprised a sample of adolescents between the ages of 12 and 14 (N = 2918) years and results report that parental and friendship support appear to be relatively independent support systems. The degree of perceived support changes as parental support decreases and friendship support increases during early adolescence (Helsen et al., 2000). However, parental support remains the best indicator of emotional problems and mental health during adolescence. In addition, the study found that participants that experienced higher levels of social support had lower levels or did not experience any emotional problems (Helsen et al., 2000).

Studies undertaken during the COVID-19 outbreak have confirmed the association between social support and mental health. A study that aimed to examine the association between COVID-19 and social support in Chinese medical students reported that students with low or medium levels of social support had a higher risk of experiencing anxiety than those with high levels of social support (Yin et al., 2021). This finding was attributed to one's levels of connection when it comes to family relationships and closeness as well as friendships (Yin et al., 2021).

A Turkish study reported that anxiety levels decreased significantly when perceived social support increased and vice versa (Özmete et al., 2020). Furthermore, perceived social support was found to be higher among the Turkish population due to Turkish society being

characterised by family members who are connected and support each other (Özmete et al., 2020).

Another study conducted in the USA assessed the effects of social support on depression risk during the COVID-19 pandemic and found that roughly 16% of the sample experienced elevated depressive symptoms (Choi et al., 2022). High levels of social support were associated with significantly reduced levels of depression and the study found that individuals reporting high levels of social support were at reduced risk for depression during the COVID-19 pandemic (Choi et al., 2022). Similarly, a study conducted with the youth of Germany found that social support was related to absence or lower levels of major depression (Torinomi, et al., 2022).

Resilience

Finally, the current study found that low levels of resilience were associated with higher levels of adverse mental health outcomes. Prior to the COVID-19 pandemic, multiple studies have reported on resilience and mental health in adolescents. For example, a study investigating the correlation between frequent psychiatric symptoms and resilience factors among adolescents found that higher resilience scores indicated lower scores on levels of depression, anxiety, stress, and obsessive-compulsive symptoms (Hjemdal et al., 2011). Similarly, a study exploring the relationship between resilience and mental health among the students at the State University found that those students who scored higher on resilience also scored lower on mental health problems (Bastaminia et al., 2016).

However, those with lower levels of resilience were found to be suffering from mental health problems (Bastaminia et al., 2016). Furthermore, a systematic review providing an overview of work on the clinical and epidemiological correlation of resilience and mental health in children and adolescents found that higher levels of resilience are related to fewer mental health problems (Mesman et al., 2021). The study concluded that resilience is a

multidimensional process that changes over time and, therefore, there is a need for longitudinal studies that assess resilience and psychopathology in children and adolescents prospectively (Mesman et al., 2021).

More recently, studies have focused on the relationship between COVID-19, mental health challenges, and resilience. For example, a study conducted in Spain analysed whether people with low resilience are at higher risk of mental health problems during the COVID-19 pandemic (Llistosella et al., 2022). Results found that participants with very low levels of resilience were at a five-fold risk of a major depressive episode (MDE) and at a four-fold risk for suicidal thoughts and behaviour (STB) (Llistosella et al., 2022). However, the study found no evidence of a higher risk for GAD. Furthermore, no higher risk was found for individuals with low resilience who were also exposed to COVID-19. Individuals with low resilience were found to be at higher risk of PTSD, but not for individuals who had contracted COVID-19. The study concluded that having low or very low resilience increases the risk of suffering a MDE, STB, and PTSD, but not GAD during the COVID-19 pandemic or in the population who had contracted COVID-19 (Llistosella et al., 2022).

Similarly, a Swiss study investigated resilience patterns and predictors of those patterns among adolescents during the COVID-19 (Janousch et al., 2022). The study found three groups: those with higher mental health issues and low protective factors (non-resilient), those with high mental health issues and high protective factors (resilient), and those with low mental health issues and high protective factors (untroubled). The study reported that the resilient group was found to be more stable with a 91% stability rate, while the untroubled group was found to be the least stable with a 69% stability rate (Janousch et al., 2022).

Conclusion

The current study found a significant relationship between protective factors and the psychological outcomes. Furthermore, fear of the COVID-19 pandemic was found to be prevalent among participants and more than half of the participants were found to be experiencing anxiety and depressive symptoms.

Chapter 6: Conclusion

Based on the findings of this study, and from existing literature, adolescents have been affected by the COVID-19 pandemic.

A significant relationship between protective factors and psychological outcomes was found and it was shown that lower levels of resilience and social support are associated with higher levels of anxiety and depression. While more than half of the population in this study was found to be experiencing depressive symptomology and anxiety, the levels of depression and anxiety were lower than those reported in previous literature. Furthermore, heightened levels of fear of COVID-19 were associated with higher levels of anxiety and depression, which corresponds with existing research undertaken during the COVID-19 outbreak. Finally, results from this study confirmed that protective factors played a significant role in protecting adolescent learners against adverse psychological outcomes.

In conclusion, the results from this study indicate that the COVID-19 pandemic has a psychological impact on adolescent's learners attending public schools in the Eastern Cape.

Limitations

Although the current study elicited useful findings, some limitations have been identified.

Firstly, the cross-sectional nature of this study limits the extent to which causal inferences can be made. Secondly, this study adopted self-reporting questionnaires, which are known to have numerous potential problems with error on the part of the respondent and they leave room for response bias and social desirability bias (McDonald, 2008). Thirdly, the study used convenience sampling, which increases levels of selection bias.

Recommendations

Social support and resilience were found to be potential protective factors for adolescents. Therefore, this study recommends the use of interventions that help enhance social support and resilience among adolescents. Interventions such as the Fostering Resilience in Adolescent at Risk (FRAK) (Llistosella et al., 2023) and peer support interventions have been found to enhance mental health among adolescents (South et al., 2014). These interventions are relatively easy to administer and can be adopted to suit the South African context.

The FRAK intervention is a multicomponent intervention based on social, emotional learning, mindfulness, and fostering protective factors (Llistosella et al., 2023). The intervention was developed using the ecological framework, empirical evidence, and relevant contextual information. Participants follow training sessions that consist of: (i) introducing resilience, (ii) self-esteem, (iii) emotional regulation strategies, (iv) social skills, (v) problem solving, (vi) community resources, and (vii) social and peer support (Llistosella et al., 2023).

Peer support interventions are a type of support given and received by people who share similar experiences or attribute (South et al., 2014). Peer support interventions can be informal between peers or could be a formalised process whereby peer supporters aim to promote health and build resilience to different stressors (South et al., 2014). In mental health services, peer support involves trained individuals who have also had their own experiences of mental distress. These individuals are trained to provide various forms of support to people who have similar experiences of mental distress (Marks et al., 2021). The current study also recommends the use of self-help books and mental health online courses to enhance resilience.

Future research could focus on measures that could be taken to support adolescents who are dealing with COVID-19 fear, depression, and anxiety. Furthermore, future research

could explore the specific cultural factors and contexts which foster resilience and coping to support adolescents with the short-term, medium-term, and long-term effects of COVID-19 (Holm-Hadulla et al., 2022). Lastly, group therapy and personal counselling sessions could be offered in schools to help adolescents cope with the COVID-19 pandemic related long-term challenges and to enhance their resilience levels.

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Appendix A: The Socio-Demographic Questionnaire

Demographic Questionnaire

Please answer the following questions:

1. What is your Nationality? _____
2. How old are you? _____
3. What grade are you doing? _____
4. Are you male or female? _____
5. What is your racial group? (Example: Black/African, Coloured, White, Indian etc)

   _____
6. What is your home language? (Example: IsiXhosa, IsiZulu, English, etc)

   _____

Appendix B: Fear of COVID-19 Scale (FCV-19S)

Fear of COVID-19 Scale

Instructions: Please respond to each item by ticking (√) one of the five (5) responses that reflects how you feel, think or act toward COVID-19.

Fear of COVID-19 Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am most afraid of Corona					
It makes me uncomfortable to think about Corona					
My hands become clammy when I think about Corona					
I am afraid of losing my life because of Corona					
When I watch news and stories about Corona on social media, I become nervous or anxious.					
I cannot sleep because I'm worrying about getting Corona.					
My heart races or palpitates when I think about getting Corona.					

Appendix C: Generalized Anxiety Disorder 7-Item (GAD-7) Scale

Generalized Anxiety Disorder 7-Item (GAD-7) Scale

Instructions: Please respond to each item by ticking (√) one of the four (4) responses that reflects how you have been bothered by the problem, over the last 2 weeks.

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at All	Several Days	Over Half the Days	Nearly Every Day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

Appendix D: Patient Health Questionnaire (PHQ-9)

Patient Health Questionnaire (PHQ-9)

Instructions: Please respond to each item by ticking (√) one of the four (4) responses that reflects how you have been bothered by the problem, over the last 2 weeks.

Over the last 2 weeks, how often have you been bothered by any of the following problems? (use "n" to indicate your answer)	Not at all	Several Days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

Appendix E: Multidimensional Scale of Perceived Social Support (MSPSS)

Instructions: The questionnaire is interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

	Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with whom I can share joys and sorrows. 1	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

Appendix F: Connor-Davidson Resilience Scale 10 (CD-RISC-10)

Please indicate how much you agree with the following statements as they apply to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt.

	Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)
1. I am able to adapt when changes occur.					
2. I can deal with whatever comes my way.					
3. I try to see the humorous side of things when I am faced with problems.					
4. Having to cope with stress can make me stronger.					
5. I tend to bounce back after illness, injury, or other hardships.					
6. I believe I can achieve my goals, even if there are obstacles.					
7. Under pressure, I stay focused and think clearly.					
8. I am not easily discouraged by failure.					
9. I think of myself as a strong person when dealing with life's challenges and difficulties.					
10. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.					

Appendix G: Information sheet

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 630581100

E-mail: 4116880@myuwc.ac.za

Project Title: The psychological Impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape.

What is this study about?

This research project is being supervised by Prof. Anita Padmanabhanunni and conducted by Olwethu Nodo, an MA Research Psychology student at the University of the Western Cape. This study is about the psychological impacts of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape. This project is a quantitative research and uses six self-reporting questionnaires that will have to be completed by adolescent learners attending public schools in the Eastern Cape Province. The study is aimed at investigating the psychological impacts of the COVID-19 pandemic on these participants.

What will I be asked to do if I agree to participate?

If you agree to participate in this project, you will be required to complete six questionnaires: a demographic questionnaire, Fear of COVID-19 Scale (FCV-19S), Generalized Anxiety Disorder 7-Item (GAD-7) Scale, Patient health questionnaire (PHQ-9), The Multidimensional Scale of Perceived Social Support (MSPSS) and Connor-Davidson Resilience Scale (CDRISC-10).

Would my participation in this study be kept confidential?

To ensure your anonymity, your name will not be on the survey questionnaires, a code will be placed on the survey questionnaires using an identification key, the researcher will be able to link your survey to your identity, and only the researcher will have access to the identification key. To ensure your confidentiality, pseudonyms will be used in all reports. If a report or article about this research project is written, your identity will be protected.

What are the risks of this research?

The research possesses no physical risks. The survey asks questions about the impact of COVID-19. It is possible that some of these questions may be upsetting. Hence, if you do feel distressed after completing the survey, please let the researcher know. Thereafter, the researcher will undertake the following:

- liaise with their supervisor who is a registered Counselling Psychologist regarding best practice to support you.
- alert the school principal that you experienced distress and may need support and request that the school principal alert your parent/guardian.
- alert the school psychologist, if one is available, that you experienced distress.
- explain to you that free telephonic counselling is available to you from the South African Depression and Anxiety Group (SADAG) and Lifeline. The contact details of SADAG and Lifeline that will be provided are:
    - SADAG: phone number: 0800567567 or 0800456789
    - Lifeline, phone number: 0800150150 or 0800012322.
- Provide the parent/guardian with the contact details for SADAG and Lifeline which will be included in the parental/guardian consent form that they will need to complete for you to participate in the study.
- The researcher will follow-up with the school principal to ascertain if you were able to access support.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the psychological impacts of the COVID-19 pandemic on learners in South Africa. We hope that, in the future, other people might benefit from this study through improved understanding of these psychological impacts of the COVID-19 Pandemic.

Do I have to be in this research, and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. Furthermore, you have every right to alert the researcher if you wish to complete the survey in another language.

What if I have questions?

This research is being conducted by Olwethu Nodo at the University of the Western Cape. If you have any questions about the research study itself, please contact Olwethu Nodo, address: 50 Crawford Street, North End, Gqebera 6001. Cell number: 0630581100, email address: 4116880@myuwc.ac.za, Should you have any questions regarding this study and

your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Prof. Anita Padmanabhanunni
Head of Department (Psychology)
University of the Western Cape
Private Bag X17 Bellville 7535
Email: apadmana@uwc.ac.za

Prof. A. Rhoda
Dean of the Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17 Bellville 7535
Email: chs-deansoffice@uwc.ac.za

This research proposal has been approved by the University of the Western Cape's Humanities and Social Sciences Research Ethics Committee.

Humanities and Social Sciences Research Ethics Committee
University of the Western Cape
Research Development
Email: research-ethics@uwc.ac.za
Tel: 021 959 411

Appendix H: Parental /guardian permission form

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 630581100

E-mail: 4116880@myuwc.ac.za

Title of Research Project: The psychological Impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape.

The study has been described to me in a language that I understand. My questions about the study have been answered. I understand what my child's participation will involve and I allow my child to participate of my own choice and free will. Furthermore, I understand that participation in the research is not a course requirement. I understand that my child's identity will not be disclosed to anyone. I understand that my child may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits. I understand that my child has the right to alert the researcher if they wish to complete the survey in another language.

Guardian's name…….

Guardian's signature…….…….

Date……

Appendix I: Assent Form

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 630581100

E-mail: 4116880@myuwc.ac.za

Title of Research Project: The psychological Impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape.

The study has been described to me in a language that I understand. My questions about the study have been answered. I understand what my participation will involve, and I agree to participate of my own choice and free will. Furthermore, I understand that participation in the research is not a course requirement. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits. I understand that I have the right to alert the researcher if I wish to complete the survey in another language.

Participant's name…….……

Participant's signature…….
Date……

Appendix J: HSSREC Ethical Clearance

02 October 2021

Ms O Nodo

Psychology

Faculty of Community and Health Sciences
HSSREC Reference Number: HS21/7/51

The psychological impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape

Approval Period: 20 October 2021 – 20 October 2024

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology, and amendments to the ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report by 30 November each year for the duration of the project.

For permission to conduct research using student and/or staff data or to distribute research surveys/questionnaires please apply via:
https://sites.google.com/uwc.ac.za/permissionresearch/home

The permission letter must then be submitted to HSSREC for record keeping purposes.

The Committee must be informed of any serious adverse events and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Director: Research Development
University of the Western Cape
Private Bag X 17

Bellville 7535
Republic of South Africa
Tel: +27 21 959 4111

NHREC Registration Number: *HSSREC-130416-049*
Email: research-ethics@uwc.ac

Appendix K: Letter to the Department of Basic Education

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 630581100

E-mail: 4116880@myuwc.ac.za

To whom it may concern,

Re: Request to recruit adolescent learners attending public schools in the Eastern Cape Province.

I am a MA Research Psychology student in the Psychology Department at the University of the Western Cape (UWC), I am supervised by Prof. Anita Padmanabhanunni. As part of my degree requirements, I am undertaking a research project focusing on the psychological impacts of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape. The project has received ethical clearance from UWC, and I attached the ethical clearance letter.

The participants will be required to complete a survey which consists of six self-reporting questionnaires: a demographic questionnaire, Fear of COVID-19 Scale (FCV-19S), Generalized Anxiety Disorder 7-Item (GAD-7) Scale, Patient health questionnaire (PHQ-9),

The Multidimensional Scale of Perceived Social Support (MSPSS) and Connor-Davidson Resilience Scale (CD-RISC-10). The survey will take 15 minutes to complete. Consent will be obtained from the participants legal guardian/parent as well as the school principals. All information that is shared in the questionnaire will be kept confidential. The survey is anonymous and will not contain any information that may personally identify the participants.

I kindly request consent to recruit adolescent learners attending public schools in the Eastern Cape Province.

If you require any further information on the project, please feel free to contact me.

Sincerely,

Olwethu Nodo

Appendix L: Letter to the School Principal

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 630581100

E-mail: 4116880@myuwc.ac.za

To whom it may concern,

Re: Request to recruit adolescent learners attending public schools in the Eastern Cape Province.

I am a MA Research Psychology student in the Psychology Department at the University of the Western Cape (UWC), I am supervised by Prof. Anita Padmanabhanunni. As part of my degree requirements, I am undertaking a research project focusing on the psychological impacts of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape. The project has received ethical clearance from UWC, and I attached the ethical clearance letter.

The participants will be required to complete a survey which consists of six self-reporting questionnaires: a demographic questionnaire, Fear of COVID-19 Scale (FCV-19S), Generalized Anxiety Disorder 7-Item (GAD-7) Scale, Patient health questionnaire (PHQ-9),

The Multidimensional Scale of Perceived Social Support (MSPSS) and Connor-Davidson. Resilience Scale (CD-RISC-10). The survey will take 15 minutes to complete. Consent has been obtained from the department of basic education and will also be obtained from the participant's legal guardian/parent.

All information that is shared in the questionnaire will be kept confidential. The survey is anonymous and will not contain any information that may personally identify the participants.

I kindly request consent to recruit adolescent learners attending in the school.

If you require any further information on the project, please feel free to contact me.

Sincerely,

Olwethu Nodo

Appendix M: Letter to Guardian's/Parents

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 630581100

E-mail: 4116880@myuwc.ac.za

To whom it may concern,

Re: Request to recruit adolescent learners attending public schools in the Eastern Cape Province.

I am a MA Research Psychology student in the Psychology Department at the University of the Western Cape (UWC), I am supervised by Prof. Anita Padmanabhanunni. As part of my degree requirements, I am undertaking a research project focusing on the psychological impacts of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape. The project has received ethical clearance from UWC, and I attached the ethical clearance letter.

The participants will be required to complete a survey which consists of six self- reporting questionnaires: a demographic questionnaire, Fear of COVID-19 Scale (FCV-19S), Generalized Anxiety Disorder 7-Item (GAD-7) Scale, Patient health questionnaire (PHQ-9), The Multidimensional Scale of Perceived Social Support (MSPSS) and Connor-Davidson Resilience Scale (CD-RISC-10). The survey will take 15 minutes to complete. Consent has been obtained from the department of basic Education and the school principal.

All information that is shared in the questionnaire will be kept confidential. The survey is anonymous and will not contain any information that may personally identify the participants.

kindly request consent to recruit your child to participate in this study.

If you require any further information on the project, please feel free to contact me.

Sincerely,

Olwethu Nodo

Appendix N: Confirmation of Editorial Review

CONFIRMATION OF EDITORIAL REVIEW

15 May 2023

Natalie Donaldson
6 Melville Road, Plumstead, Cape Town, 7800
Email: natalied@sacap.edu.za
Tel.: 071 593 3690

To whom it may concern,

This is to confirm that Olwethu Nodo's mini thesis, titled "*The psychological impact of the COVID-19 pandemic on adolescent learners attending public schools in the Eastern Cape*", underwent a full editorial review that was concluded on 15 May 2023. This included, proofreading, editing, checking referencing, and formatting the thesis according to APA 7 guidelines.

Should you have any questions or concerns, please feel free to contact me at natalied@sacap.edu.za.

Kind regards,

Natalie Donaldson