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The COVID-19 restrictions, child services and the well-being of children in South Africa

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Abstract

Covid-19 posed little danger to children. Nevertheless, the South African government imposed lockdown measures that impeded children's education, play and food. Schools were closed, feeding schemes were halted and organised sports were banned. In this study of South African children's experience during the 2020–22 pandemic, we use the capabilities approach, particularly Nussbaum's ten capabilities, to assess how the lockdown measures affected their development. The one-dimensional nature of the government response was evident in its focus on physical health and safeguarding adults and the health system, at the expense of children's well-being. Children were masked and their voices were not heard. Despite being far less at risk of illness or death than adults, children and young people were disproportionately affected by government regulations. Children from low-income environments were particularly severely affected.

Keywords: Covid-19, Children, Government regulations, Capabilities, Nussbaum

Introduction

In many countries worldwide, Covid-19 lockdown regulations severely disrupted services to children and young people. Far fewer children than adults died because of Covid-19—only 0.4% of total deaths, according to UNICEF (2023a). Yet, governments imposed restrictions (through national lockdowns and social distancing) that deprived children of facilities and services essential for their development and long-term benefit. Subsequently, the lockdown measures affected their learning, play, food and well-being (Clarke et al., 2021; Goldfeld et al., 2022). It has been pointed out that society will bear the brunt in years to come (Mushonga & Makwara, 2023).

Access to education, play and care (including food) are children's rights in the UN Convention on the Rights of the Child (United Nations, 1988). The Covid-19 lockdown measures disrupted children's education, affecting nearly 1.6 billion pupils in over 200 countries (Pokhrel & Chhetri, 2021), and about 460 million school-going children were cut off from schooling (UNICEF, 2021). Typical COVID-19 measures were locking down cities, restricting travel, extending national school holidays, closing schools, halting sports activities, enforcing 'social distancing', mandating the wearing of masks and

preventing large gatherings. Schools further limited children's mobility, play and food. An estimated 39 billion school meals were lost in 2020 (Borkowski et al., 2021). For the first time in 20 years there has been an increase in global poverty (Nguyen et al., 2021). Children's physical activity was heavily curtailed, despite medical advice to stay active to ward off disease (Chen et al., 2020). Governments subjected children to the same restrictions as adults, ignoring their different needs and seldom taking steps to mitigate the harmful effects.

Most studies that looked at the African continent have been undertaken focusing on the impacts of COVID-19 on vulnerable groups, primarily in southern Africa. These studies have considered the impacts on women, informal settlements, street vendors and the poor (Chitiga et al., 2022; Mushonga & Makwara, 2023; Smit, 2021). Structural inequalities in cities have been exposed by these studies. However, the impacts of COVID-19 on young people and children, especially in South Africa has remained underexplored mainly because the infection rate among this age group was lower. While the impact of COVID-19 restrictions have focused largely on education, especially through the digital divide and school closures (Green, 2020; Goldfield et al., 2022), limited studies have explored the nexus of the impacts of the restrictions on children, and their most important rights and needs: food, play/leisure and education. None have looked at what adaptations resulted as a consequences of this and hence at children's capabilities to adapt during the pandemic.

This paper mobilises the capabilities approach in exploring the nature and extent of the pandemic on children and young people (up to the age of 24), particularly their access to food, play/leisure and education. We use the capabilities approach to critically assess the implications of the South African government's Covid-19 lockdown regulations for children and young people. The approach was designed to study adult capabilities, but a substantial body of work has applied it to children (Biggeri & Mehrotra, 2011; Hart, 2012; Wright, 2012). In the light of this approach, Covid-19 regulations represent environmental elements that constricted conversion factors, ignored children's agency and treated children as though they were adults. We point to the one-dimensional nature of the regulations, designed to protect the health of adults while ignoring the vital importance of education, play and food for children (Jamieson & van Blerk, 2022).

Following this introduction, the literature review is presented focusing on the capabilities approach and nexus to children. The second section focuses on the methods and approach adopted in developing the paper. Third, the results and discussion are presented. COVID-19 pandemic situation and responses in South Africa are analysed together with the impacts on children focusing on food, play/leisure and education. Lastly, the conclusion is presented wrapping up the paper.

The capabilities approach as a framework to analyse the impact of the COVID-19 pandemic on young people

The capabilities approach

Amartya Sen's capabilities approach links human participation, well-being and freedom with ethics and the economy. Development thinking long regarded access to commodities as development. For example, intra-country development comparisons used only

GDP per capita. Sen challenged the focus on material aspects by introducing two core concepts: functionings and capabilities.

Functionings are ‘the various things a person may value doing or being’ (Sen, 1999a, p. 87). A child’s ability to read and write is an example of a functioning. Capabilities are ‘the various combinations of functionings (doings and beings) that the person can achieve’. A capability reflects ‘the person’s freedom to lead one type of life or another [...] to choose from possible livings’ (Sen, 1999a, p. 40). For Sen, a set of functionings leads to an overall capability to live a life one values. In the case of children, these relate to basic needs and rights including being healthy, learning and playing and should contribute to an adulthood valued by the individual. A child’s experiences provide a basis for developing capabilities. Sen (1999a) links capabilities with the notion of freedom. Building on Sen’s work, Nussbaum (2000) identified ten basic capabilities: life; bodily health; bodily integrity; senses, imagination and thought; emotion; practical reason; affiliation; other species; play; and control over one’s environment (see Table 1). She viewed these as universal capabilities or thresholds for people to flourish. She saw them as interrelated,

Table 1 Nussbaum’s ten capabilities

Capability	Practical implication
Life	Being able to live a complete and satisfying life into old age. Not having life cut short or being made such that it hardly seems worth living Not everyone has a good life. People scrape by in humdrum and dismal situations. They may be regularly threatened and may have their life cut short unnecessarily
Bodily health	Living with good health and not in a state where ill health seriously affects the quality of life. Having access to medical help as needed. To have good food and exercise in ways that sustain health
Bodily integrity	Being able to go where you want to go. Being free from attack and abuse of any kind. Being able to satisfy healthy bodily needs
Senses, imagination and thought	Being able to use all of one’s senses. Being free to imagine, think and reason. Having the education that enables this to be done in a civilised, human way. Having access to cultural experiences, literature, art and so on and being able to produce one’s own expressive work. Having freedom of expression, including political and religious
Emotion	Being able to become attached to other things and people outside of ourselves, loving and caring for them. Experiencing grief, longing, gratitude and justified anger. Not being subject to fear and anxiety or blighted by trauma or neglect
Practical reason	Being able to consider and develop an understanding of good and evil and to think critically about the world and one’s own place in it. Being able to live with one’s conscience
Affiliation	Being able to associate with others, living with them and acting for them. Showing concern for people in general and interacting with others. Having sympathy and compassion, acting to help people. Seeking justice and making things right. Protecting others and the rights of people, including freedom of speech and freedom from fear
Other species	Being able to live with the full range of creatures and plants that inhabit the world around us. To be able to enjoy nature and appreciate its beauty
Play	Being able to laugh, play games and generally have fun. Not having one’s enjoyment and recreation criticised or prevented
Control over one’s environment	Being able to participate in political activities, making free choices and joining with others to promote political views. Being able to own property and goods on the same basis that others do so. Being able to seek and accept work, and to be treated reasonably at work. Being free from unwarranted search and seizure

Source: Nussbaum, 2000, p. 17

emphasised that each one is important, and opposed attempts to trade them off against one another.

We view Covid-19 regulations as constraining the functionings and capabilities of children. We used ideas from Sen's broader approach to capabilities and the list of capabilities provided by Nussbaum. Sen's ideas helped us to understand the complex process of developing capabilities, and Nussbaum's list helped us to assess specific rather than just general consequences of the Covid-19 restrictions for children. We link the capabilities approach to the nexus approach, focusing on learning, leisure and play and food.

The capabilities approach and children

Children do not have the same freedoms as adults. They co-develop their capabilities along with other children and with the help and example of adults. Below, we highlight five important aspects of using the capabilities approach with children: children's agency, not viewing them as adults or as being irrational, understanding the complexities of developing into adults, why child capabilities are more important than rights, and the importance of conversion factors for developing capabilities.

First, the capabilities approach emphasises children's agency, a focus that distinguishes this approach from other theories on children (Ballet et al., 2011). Generally, policies and programmes do not consult children but exclude them from decision-making (Biggeri & Saniti, 2012). Agency, for children, as for adults, means being able to act autonomously, make choices and decide what one values. It means seeing children not just as passive and irrational bystanders in their development or simple recipients of freedoms but as active participants. Comim et al., (2011, p. 7) say children 'would probably define the meaning of being an active actor or citizen differently' from adults.

Second, the capabilities approach does not view children as small adults but also not as immature or irrational (Comim et al., 2011). Children are not expected to perform all the functionings of adults. Therefore, learning is important for developing capabilities. Children are also different from adults in food needs, power relationships and the nature of deprivation (Zara et al., 2022). Health research (Shonkoff & Garner, 2012) and capabilities research (Biggeri & Saniti, 2012) both point to the life-long importance of developing capabilities as a child. For example, a consequence of failure to achieve the bodily health capability is stunting. Not having sufficient nutritious food hampers learning and physical development (partly because hunger and malnutrition inhibit play) and this has long-term implications for adulthood.

Third, according to Comim et al., (2011, p. 3), the capabilities approach recognises that children develop into adults through 'social interaction and receptiveness within the household and broader environments' and not only through education. The school system helps children to build social relationships. Sen (1999b, p. 4) says the 'capabilities that adults enjoy are deeply conditional on their experience as children', and Wright (2012) says children's development of capabilities co-depends on other aspects of their lives. Failure to develop capabilities can result in inter-generational, irreversible transfer of poverty (Biggeri & Mehrotra, 2011).

Fourth, the capabilities approach values children's rights, but the emphasis is on freedoms rather than rights. Acknowledging that children have agency reminds us that they can also exercise choice. Rights-based approaches under-emphasise this (Ballet et al.,

2011). The emphasis on access to education does not consider children’s choices and their need to convert ‘their educational “resources” into ways of being and doing they have reason to value’ (Hart, 2012). It also does not consider the social value of education.

Lastly, the capabilities approach stresses the importance of what it calls ‘conversion factors’ for converting resources into functionings and capabilities. These factors may be personal (sex, skills, talents) or physical (climate, physical infrastructure), social (public policies, rules, power) and cultural (traditions, religion). For example, Comim et al. (2011) note that mothers are an important social conversion factor enabling children to develop functionings and capabilities. Conversion factors can be the child itself, the family, community, state or region, and commodities and resources, as Ballet et al’s (2011) framework shows (see Fig. 1).

In this paper, we view the Covid-19 regulations as constraints that obstructed the conversion factors that are essential for a child to develop functionings and capabilities. The government constricted the social and physical environment, reduced access to commodities and was deaf to children’s voices.

Methods

Approach and design

This paper draws upon the result of a large-scale research project (which ran 2022–2024), whose main aims were to understand how young people adapted during the COVID-19 pandemic and to assess the wider impact of such processes of adaptations in South Africa, Brazil and the UK (England). It was jointly funded by the ESRC, the NRF and FAPESP, gathering researchers from 5 Universities: UCL and the University of Birmingham, in the UK; UFS and University of Fort Hare in South Africa; and, the University of São Paulo, in Brazil. Data used in this paper are part of the first two stages of the research which included a global and national mapping exercise. We extensively reviewed government regulations during Covid-19, media reports from this period and

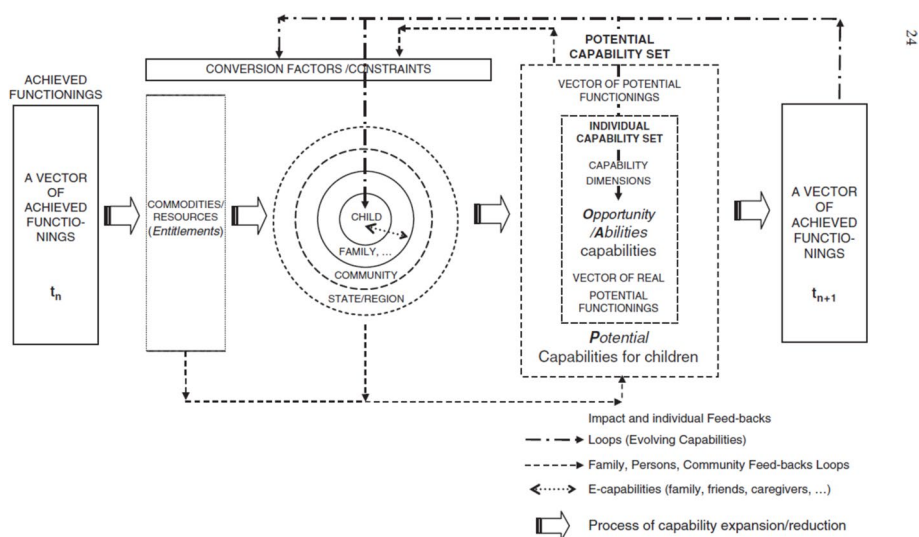


Fig. 1 The capability approach framework and evolving capabilities applied to children. Source: Ballet et al., 2011, p. 27

the emerging literature on the consequences of Covid-19 regulations for children in South Africa. Our paper acknowledges intersectionality, emphasising historical and current inequalities in race, age, gender and socio-economic status. We considered various levels of decision-making (national, provincial, local, and community). At the same time, this paper is based on a desktop review and does not include responses from children.

The *nexus* approach

We used the *nexus* approach to analyse the links between the consequences of lockdown measures and education, play and food. The *nexus* approach developed in the 1980s and its main value lies in integrating systems, ensuring stakeholder engagement and understanding development pathways (Estoque, 2023). Although rooted in systems theory and widely used in natural resource management, it has increasingly been used in wider contexts. For example, *nexus* approaches are common in policy research (Kraftl et al., 2019). It helps to create efficiencies and consequently minimises trade-offs (note that Nussbaum does not consider developing trade-offs for her capabilities at all). Furthermore, it helps to understand externalities (unintended consequences) across sectors and the complexities of large programmes like the Sustainable Development Goals (Cairns et al., 2017). It also provides a framework for interdisciplinary research to prevent silo-thinking (Mohtar & Daher, 2019). Although the call for interdisciplinary thinking is not new, *nexus* approaches call for ‘attention to the interlinkages across resource insecurities at various scales’ (Zara et al., 2022, p. 718).

Nexus thinking has also been criticised. These criticisms include fears that it supports technocratic approaches, overemphasises an anthropocentric approach, portrays a colonial orientation to sustainability, could become top-down by ignoring local concerns and is without theoretical depth (Cairns & Krzywoszynska, 2016; Foden et al., 2019; Leck et al., 2015). In this paper, we counter some of the criticism by linking the *nexus* approach regarding food, learning and play/leisure not as a technical relationship but as rooted in the capabilities approach. With this, we emphasise the agency of children, the complex interrelationships of these three factors in developing capabilities and the long-term implications of negative conversion factors like government regulations. The capabilities approach also helps counter the technocratic nature of the *nexus* approach.

South Africa’s children during the Covid-19 lockdown

The pre-Covid-19 context

South Africa is a middle-income country that became a democracy in 1994. It has a population of about 60 million, with 38 million people younger than 35, and 17 million younger than 14 (Stats, 2021). It is a unitary state with federal tendencies. In addition to a national parliament and government, it has nine provincial governments and 257 local governments. The provincial governments have a small tax base but substantial political power. The ruling party, the African National Congress (ANC) controls most provincial governments. The Western Cape (at various periods) and KwaZulu-Natal (1994–1999; 2024-) are exceptions. Although the three spheres of government are independent, the concept of ‘cooperative governance’ requires them to collaborate. Educational operations are a provincial function, but the national government develops education policies. Each school has a governing body that appoints

staff, with the approval of the provincial department of education, and decides on language and discipline.

Since 1994, the democratic government has prioritised addressing the inequalities created under apartheid. However, progress has been slow (Francis & Webster, 2019). South Africa remains one of the most unequal countries in the world, with a Gini coefficient (based on per capita expenditure) of 0.67. These inequalities affect children across income, race and region (Jamieson & van Blerk, 2022; Marais et al., 2023). Life expectancy is ten years higher for whites than for blacks. The health system operates along private–public divides, with race entrenched in these inequalities (Bredenkamp et al., 2021; Nwosu & Oyenubi, 2021). The private sector health system caters for the 16% of the population who can afford medical aid and the public sector caters for the rest. The private sector has adequate infrastructure and world-class skills. In contrast, poor management, corruption and staff shortages are common in the public sector (De Villiers, 2021). During the Covid-19 pandemic both the private and public healthcare systems became overburdened with Covid-19 patients.

School education is distributed over 12 years, from Grades 1 to 12. Pre-Grade 1 education (Grade R) is not a legal requirement and is often absent in deprived areas. There are about 13 million pupils in school, with 440,000 teachers. School attendance steadily increased from 92 to 95% between 2002 and 2018, with a substantial increase in children attending school a year before Grade 1 (May et al., 2020). A further 42,000 early childhood development (ECD) centres operate across the country (Department of Basic Education, 2022). Of the 13 million pupils, 725,000 wrote the Grade 12 exam in 2022. Just over 80% passed. The post-school education system has substantially more students attending universities (1.1 million) than in the technical and vocational systems (0.5 million).

Pass rates and access to university vary, with fee-paying schools (for those who can afford to contribute to their children's education) doing much better than non-fee-paying schools. Language and mathematics outcomes remain poor despite increased Grade 12 pass rates over the past 20 years. South Africa has the worst mathematics outcome of all middle-income countries participating in a global survey (TIMSS SA, 2023). Dropout, particularly between Grades 10 and 12, is a concern: only about 55% of pupils who enrol for Grade 1 eventually pass Grade 12.

Before the Covid-19 pandemic, the unemployment rate stood at 29%, with women's unemployment being 4% higher than men's, and young people having an unemployment rate of well over 50%. More than six out of ten (62,1%) children aged 0–17 were multidimensionally poor in 2019 (Stats 2021). About 68.3% of black children have multidimensional forms of poverty, compared to 11.5% of white children. About 26.5% of children in South Africa are not provided with their daily nutritional needs and are deprived in more than three other areas (health, housing, protection, education, information, and water and sanitation) (Stats, 2021). Stunting levels for children under five are estimated at 27% (May et al., 2020), but large geographic differences exist, with the highest levels being in rural areas and urban informal settlements (Marais et al., 2023). However, child hunger decreased between 2002 and 2018 (May et al., 2020), and levels of stunting are lower than 30 years ago, thanks largely to the child support grant.

Table 2 Overview of waves, peaks and drivers

Wave	Dates	Peak month	Daily cases at the peak	Daily deaths at the peak	Peak daily deaths as % of peak daily cases	Covid-19 deaths as % of total cases	Daily cases per million pop	Daily deaths per million pop
Wave 1	03/20–11/20	Aug 2020	14 000	572	4.1	2.2	235 000	9.6
Wave 2	12/20–04/21	Feb 2021	23 000	844	3.7	3.4	370 000	14.2
Wave 3	05/21–10/21	July 2021	26 000	633	2.4	3.2	446 000	10.6
Wave 4	11/21–04/22	Dec 2021	38 000	448	1.2	2.6	637 000	7.5
Wave 5	05/22–07/22	June 2022	14 000	114	0.8	2.5	221 000	1.9

For a country starting from such a low base, the lockdown was bound to do massive socio-economic damage, not least to the country’s children.

The state of the COVID-19 disaster in South Africa

South Africa’s first official case of Covid-19 was recorded on 5 March 2020. The government implemented a ‘state of disaster’ on 15 March, and imposed a ‘lockdown’. As South Africa is a unitary state, the national government often dominates procedures, as the other spheres have limited powers to implement their regulations (although they can request permission from the national government). The country experienced five Covid-19 waves¹ until 13 July 2022 (see Table 2). About 103,000 people died because of Covid-19 (excluding Covid-19 deaths not accounted for in the official statistics). South Africa, in the main, followed WHO guidelines in attempting to manage the virus.

The 103,000 deaths amounted to about 0.17 per million of the country’s population. Vaccines became available during Wave 3. Vaccines and herd immunity slowed the number of deaths, despite the cases per million being very high during Waves 3 and 4. Research shows that the deaths in South Africa were related to poor knowledge and understanding of the virus, complacency and vaccination hesitancy (Al Hasan et al., 2022; Cooper et al., 2021). Just over 22 million people were vaccinated. Children 19 or younger constitute nearly 15% of the South African population. This age group accounted for 12.5% of laboratory confirmed cases, but only 0.7% of COVID-19 associated in-hospital deaths (as of 4 December 2021) (National Institute for Communicable Diseases, 2022).²

¹ In South Africa, a COVID-19 wave was defined as the period from when the COVID-19 weekly incidence was equal to or greater than 30 cases per 100,000 persons to when the weekly incidence was equal to or below 30 cases per 100,000 persons (Centre for Respiratory Diseases and Meningitis, NICD-NHLS, 2021, p. 3).

² The official statistics are an undercount. Excess deaths provide a better account. Between 7 February 2020 and 13 July 2022, South Africa had about 325,000 excess deaths (an average of 11,600 per month). If we subtract the 103,000 who died from Covid-19, the number of deaths still exceeds the official number of Covid-19 deaths. Although not all excess deaths are directly attributed to Covid-19, the official statistics are inadequate.

Table 3 Lockdown alert levels across Covid-19 waves in South Africa

Wave	Wave dates	Hard lockdown	Alert level				
			5	4	3	2	1
Before the alert levels		26/03/2020–30/04/2020					
Wave 1	02/20–11/20			1 May–31 May	1 Jun–17 Aug A	18 Aug–20 Sept	21 Sept–29 Dec
Wave 2	12/20–04/21				29 Dec 2020–28 Feb		1 Mar–30 April
Wave 3	05/21–10/21		28 Jun–25 Jul	16 Jun–27 Jun AND 26 Jul–12 Sept	31 May–15 Jun and 13 Sept–30 Sept		1 May–30 May and 1 Oct–31 Oct
Wave 4	11/21–04/22						1 Nov–30 April 2022
Wave 5	05/22+						1 May–22 June 2011
Covid-19 regulations abandoned	State of disaster lifted 5 April 2022 All remaining regulations lifted 22 June 2022						
Main reason for alert levels			High Covid-19 spread with low health system readiness	Moderate to high Covid-19 spread with low to moderate health system readiness	Covid-19 spread with moderate health system readiness	Covid-19 spread with high health system readiness	Covid-19 spread with high health system readiness

The lockdown regulations

By declaring a state of disaster, the government hoped to curb the spread of the virus (Du Plessis et al., 2022). The Disaster Management Act gave the Minister of Cooperative Governance and Traditional Affairs decision-making powers to implement regulations.³ The first phase was called a ‘hard’ lockdown and was initially planned for 21 days. The government extended it to the end of April 2020 and then switched to a system of five Covid-19 alert levels (see Table 3). Several criteria guided this risk-adjusted approach through the alert levels: the level of infections and transmission rate, the capacity of health facilities, the extent of implementation of public health interventions, and the economic and social impact of the restrictions. Little attention was paid to the rights of children and young people. The alert level determined the restrictions applied.

The government’s hard lockdown regulations were as follows, and the South African army was deployed to enforce them:

- South Africans had to stay home (remote work was promoted).
- A person could leave home only under strict conditions (for example, for medical care, to buy food or medicine or to collect a social grant).
- Only people in essential jobs were allowed to go to work.
- Strict travel restrictions, border closures and curfews were imposed.

³ The government was challenged in court for some regulations.

- Schools and universities were closed (but no remote teaching plan was in place).
- The sale of alcohol and cigarettes was prohibited.
- Large gatherings were banned (this included weddings and funerals).
- ‘Social distancing’ (maintaining a distance of at least one metre from other people) was enforced.
- Initially NGOs were prohibited from providing food (up to the end of May 2020).

In addition to these regulations, the National Department of Health made it mandatory in public places to wear face masks or cloths and disinfect surfaces with sanitiser.

Social support was introduced for people who lost their jobs. Overall, the South African government provided social support to the value of R500 billion (US\$2,879,935,450) (Mazenda et al., 2022). The Department of Social Development initiated the Social Relief of Distress grant, R350 per month (US\$ 18.5 at the time of writing, September 2023). It also temporarily increased the child support grant and provided food parcels.

The regulations and the education sector

The government closed down the entire education system in March 2020. The system was partially re-opened as of July 2020. Although the original decision to close schools resulted from the government declaring South Africa a ‘state of disaster’, the educational regulations came from the Ministers of Basic Education and Higher Education. Table 4 shows the planned and amended school dates.

After the partial opening of schools in July 2020, school governing bodies had a variety of options: daily and weekly rotation, bi-weekly rotation, platooning or shifts, normal daily attendance, or a combination of any or all of these. Weekly rotation was a common choice to reduce the number of children in the classes. The rotation meant that children attended school for one week and stayed home for one week (working alone and having contact with teachers via social media).

Although Table 4 shows that 2020 had 156 school days and 2021 had 192 school days, UNICEF (2023b) estimates that South African children lost about 54% of learning time and are about one year behind schedule. There is evidence of a rapid decline in children attending ECD centres, dropping from more than 90% in 2018 to only 33% in 2020 (Tomlinson et al., 2022). In addition to depriving children of school days, several regulations disproportionately affected them: wearing masks (making language learning extremely difficult if not impossible, particularly at the lower grades, and singing lessons impossible), not being able to play at school (because of ‘social distancing’) and not being able to participate in sport (sport was banned from Wave 1 to 27 March 2021).

While most teachers in the formal system are paid by the government even when they are absent from the school for prolonged periods, private entrepreneurs manage most of the 42 000 ECD centres. The regulations forced these ECD centres to close. This sector went to court in June 2020 for the right to remain open (Ally et al., 2022). The court decision favoured the ECD centres, but allowed only those with adequate safety measures to reopen. This decision reinforced inequalities as many ECD centres in the deprived areas were obliged to remain closed.

Table 4 Planned and amended school dates

Year	2020					2021					2022				
Waves	1	1	1, 2	2	2, 3	3	3, 4	4	4, 5						
Alert levels	5, 4	4	3	3, 1	1	3, 4	1	1	1						
School term	2	3	4	1	2	3	4	1	2						
Planned	15 Jan–29 Mar	31 Mar–12 Jun	7 Jul–18 Sep	29 Sep–2 Dec	15 Feb–23 Apr	3 May–9 July	26 July–1 Oct	11 Oct–15 Sep	12 Jan–17 Mar	5 Apr–24 June					
Amended	15 Jan–18 Mar	1 June–24 July	24 Aug–23 Oct	2 Nov–15 Dec	As planned										
Primary	18 Mar–15 Apr closed	Partial opening, started 8 June–23 July	Partial opening	Partial opening	Partial/rotation programme	As planned	Contact classes closed 30 June to 26 July. Grades R to 7 returned to normal and daily attendance timetabling model from 2 August 2021	Full-time return							
Secondary/high		Partial opening, started 8 June–23 July	Opened 3 Aug	Full return		Winter school permitted for Grades 11 and 12	Full-time return								
Approx. 156 days schooling. (In practice, the days available in terms 3 and 4 were on a rotational basis—one week at school and one week at home.) Approx. 192 days schooling. (In practice, the days available in terms 3 and 4 were on a rotational basis—one week at school and one week at home.) Approx. 202 days schooling															

Compiled by authors from various sources

Table 5 Effects of regulations on children

Regulations	Learning	Play	Food
Schools closed	Learning inhibited	No organised sport	School feeding schemes prevented
Rotational policies at schools	Learning inhibited	No organised sport	School feeding schemes prevented
Schools sports banned		No organised sport	
Hard lockdown measures (schools closed)	Learning inhibited	No organised sport	School feeding schemes prevented
		No playing allowed outside the household's house or stand	Children affected by adults' loss of jobs and livelihoods
Social distancing	Peer learning more difficult	Play at school not possible	
Mask wearing	Learning more difficult, psychological problems	Play inhibited	
Mobility regulations	Practical work not possible (e.g. laboratory work in natural sciences), and most field trips not possible	Organised and competitive sports not possible	
Parks, beaches and dams closed under alert levels 4 and 5		Play outside the home environment inhibited	

Implications

Without any doubts, the pandemic regulations affected children's learning, play and food and health and well-being generally. We turn to those prior to applying Nussbaum's ten capabilities to explore the implications further. We show how the government focused on the health of adults to the detriment of children's needs. Table 5 provides a summary of the effects of the regulations.

Learning

Decisions about closing and opening schools seldom considered pupils' views, but the voices of teachers' unions were prominent. The decisions were taken by the National Department of Basic Education (often in consultation with the unions), with provincial departments having some input (Child & Rose, 2020). School governing bodies made final decisions based on the framework provided by the national department. Concerns for the teachers' health often dominated these discussions. The unions were often the first to call for school closures when Covid-19 infections increased (Busnesstech, 2021; Macupe, 2020). One media report even said school closures were a union victory (Child & Rose, 2020). The unions often referred to teachers' mental health problems (Macupe, 2020), yet made no reference to the mental health problems of children. A reason for the calls from unions was that the government could not provide teachers with personal protective equipment. There is little evidence that children's voices were heard in these decisions. They were largely seen as people for whom decisions could be made.

The loss of school days worsened education outcomes. Language and mathematics outcomes from the education system were already low before the Covid-19 pandemic, as mentioned earlier. The 2022 language outcomes were 40 to 70% worse than in 2019 (Hoadley & Galant, 2023; Van der Berg et al., 2022a, 2022b). This was not only because

of the loss of school days; the obligation for teachers and pupils to wear masks severely affected language development. For Grade 9 pupils in 2022, mathematics literacy was 95 to 106% behind the similar test in 2019 (these test results are from the Western Cape, where education outcomes are somewhat better than in the rest of the country) (Van der Berg et al., 2022a, 2022b). The inability of the government (except the Western Cape provincial government) to implement catch-up plans is worrying. It ignores the long-term implications.

School disruptions led to an increase in school dropouts. This is despite the already large number of dropouts before 2020. Out-of-school children aged 5 to 18 increased from 260,000 in 2019 to nearly 880,000 in 2020 (Stats, 2021). A study of adolescents in sub-Saharan Africa (Burkina Faso, Ethiopia, and Nigeria) revealed similar patterns with 72% of the respondents who had stopped attending school because of school closures (Wang et al., 2021). Shepherd and Mohohlwane (2022, p. 762) estimated that these dropouts and the learning loss have 'worn away at two decades of progress in basic education.' Dropouts also seem to be higher among disabled pupils (Makuyana, 2022).

Many schools and universities shifted their teaching online. Although this was a practical response, not all subjects are appropriate for online teaching and access to data and technology was uneven (Landa et al., 2021). Home schooling was really only possible for children in the middle and higher income suburbs, mainly due to the limited access to digital technologies and also lack of adequate space to study at home, especially for poor households where overcrowding is common (Mhlanga, 2021). There was little control over learning processes and the social aspects of learning were inhibited because play and leisure with peer groups was not possible. For the lower income groups, home schooling also meant that the school feeding scheme was interrupted.

A common response was a shift towards online learning. But online learning has limitations. Insufficient resources (such as computers and internet access) reinforced the digital divide (Jantjies, 2020). Some pupils did not have the skills to use computers and the internet. Facilitating online practical classes for medicine and engineering students was difficult. Large parts of the curriculum were impossible to teach online (Nkomo et al., 2023). And there were racial differences: 18.3% of white pupils accessed online learning compared to 5.3% of black pupils (Stats SA, 2021).

The closure of schools transferred the responsibility for learning to parents. However, Nkomo et al. (2023) highlighted that most parents did not have the skills to provide adequate learning and playing environments. Naicker and Richter (2022) also reported the lack of general child care, with working parents not having safe places to leave their children during working hours.

Consequences on young people has been dramatic. In 2022 it was estimated that 63.9% of the 15–24 age group were unemployed, compared with 43.5% in 2019, while the national unemployment rate was 34.5% (Stats, 2022). The increased youth unemployment figure may indicate that young people lack the skills to find employment. The increase in the number of young people with no jobs contributes to increasing poverty levels.

Play and leisure

School closure, rotational schooling and the lockdown constrained recreational and leisure opportunities and children's social interaction. Play was inhibited, and despite the potential of the home environment for play, many parents were unaware of the value of play for physical development and learning (Bipath & Muthivhi, 2022). Physical outdoor activities (sports or play) are important for developing social skills, gross motor skills (Hazlehurst et al., 2022) and learning. Nkomo et al. (2023) pointed to the need for age-appropriate fun and resources for play. This was not possible with pandemic restrictions. Under the adjusted alert levels 4 and 5, nobody could visit parks, beaches and dams (Nkomo et al., 2023). This was despite outdoor spaces being considered less risky and having low viral transmission.

Young people's abilities to socially interact was severely impacted. In addition, Chimbindi et al. (2022) found higher levels of alcohol misuse and sexual abuse during the lockdown. The restrictions meant that many children who were supposed to be at school were at home without supervision as parents had to work (Child & Rose, 2020). There was evidence of higher levels of physical violence against and amongst children (Mahlangu et al., 2022; Naicker & Richter, 2022). Naiker and Richter (2022) reported behavioural concerns, such children being unable to show affection. All these consequences of the government's measures had consequences for children's desire and ability to play.

Food

Vulnerable children in South Africa rely on school to be fed. The National School Nutrition Programme provides food to children at schools. It aims to 'ensure that children have access to basic nutrition' so that they can learn. It acknowledges the relationship between food and learning. About nine million pupils lost their daily meals because schools were closed during the hard lockdown. The higher school dropout figures mentioned above may have resulted partly from the discontinuation of this programme. By mid-2022 feeding schemes had still not returned to the number of children reached before the outbreak of Covid-19 (Shepherd & Mohohlwane, 2022).

School feeding schemes were absent when schools re-opened after the initial hard lockdown in June 2020. It took a court order to force the Minister of Education to ensure that school feeding schemes continued under Covid-19 regulations (Nortier, 2020). Yet many children remained deprived of daily meals because they did not attend school daily if their school governing bodies used the bi-weekly attendance model (Cleary, 2020).

Access to food for children was also compromised by adults losing their jobs (Jamieson & van Blerk, 2022; Naicker & Richter, 2022; Van der Berg, Patel & Bridgman, 2022a, 2022b). Gelo and Dikgang (2022) found that respondents who lost their jobs during the Covid-19 pandemic became 5.4 times more likely to report child hunger in the past seven days. Tomlinson et al. (2022) showed how child food poverty increased between 2019 and 2020. Although researchers warn against possible stunting because of the lockdown measures, this has yet to be visible in the data.

Health and well-being

Although our focus is on the consequences of the lockdown restrictions for learning, play/leisure and food, health and well-being consequences for children cannot be omitted from this discussion. This section uses a broader literature base to identify possible wider consequences. Ghazy (2023) notes that standard child vaccinations have fallen behind because of prioritising Covid-19 vaccinations, and Green (2020) and Jensen and McKerrow (2021) noted a decline children's clinic and hospital attendance.

There is also evidence that the restrictions on learning, play/leisure and food have contributed to poorer mental health or well-being outcomes for children (Brooks et al., 2020). Global research points to higher tendencies of suicidal behaviour because of isolation (not learning and playing) and shows that economic uncertainty because of the lockdown restrictions increased people's anxiety (López-Bueno et al., 2021; Reger et al., 2020; Van Lancker & Parolin, 2020). Consequently, poorer mental health has been reported for children (Singh et al., 2020).

The interaction of not learning, not socialising, not playing and not having enough food or the right food contributes to poorer well-being outcomes and constrains the development of children's capabilities. The government restrictions focusing on reducing Covid-19 deaths did damage to children's health and well-being.

Effect of the Covid-19 restrictions on development of capabilities

We used Nussbaum's list of ten capabilities to explore how the restrictions might affect children's development of capabilities and have life-long implications. Table 6 shows our analysis of the possible effects.

First, the lives of young people have been impacted and changed by the COVID-19 pandemic, particularly those living in monetary poor conditions. Learning and skills gaps related to schools' closures and interruptions; employment prospects are some of the many factors that has affected their life trajectories. Additionally, access to food has been restricted and diminished affecting their food security overall. There is a strong likelihood of increase in stunting and obesity, affecting young people's ability to live a complete and satisfying life into old age.

Second and directly related to point 1 and the accumulation of restrictions affected their access to food and play/leisure, their bodily health has been dramatically impacted. This resulted from the reduction of the amount of (health) food, the lack of exercising, playing, and decreased access to medical services. Consequences will include a reduced likelihood of living with good health and avoiding illness.

Third, young people's bodily integrity was deeply challenged. Lockdown reduced access to food, restricted movement and increased physical violence against children. There is a high probability that many children and young people will grow up unhealthy because of deprivation of food at a critical age. Their mental health is also at risk due to anxiety and stress related to their experience of being prevented from going where they wanted to go, and fearful because of experiences of attack and abuse.

Fourth, the pandemic has major consequences on young people's senses, imagination, and thoughts. Access to education was severely reduced leading to a curtailment of learning to imagine, think, and reason. Additionally, experiences of culture,

Table 6 Effect of Covid-19 restrictions on development of children's capabilities

Nussbaum's capability	The Covid-19 restrictions and the effect on development of the capability, particularly for children from lower socio-economic environments
Life	<i>Food access and security affected.</i> Likelihood of increase in stunting and obesity, affecting ability to live a complete and satisfying life into old age
Bodily health	<i>Reduction in good food, exercise, play, and access to medical services.</i> Reduced likelihood of living with good health and avoiding illness
Bodily integrity	<i>Lockdown reduced access to food, restricted movement and increased physical violence against children.</i> Children could grow up unhealthy because of deprivation of food at a critical age, anxious because of the experience of being prevented from going where they wanted to go, and fearful because of experiences of attack and abuse
Senses, imagination and thought	<i>Access to education severely reduced.</i> Curtailment of learning to imagine, think and reason; loss of experiences of culture, literature, art; loss of opportunity to develop own expressive work; reduction in numeracy and literacy—overall, loss of the educational advantages that help a child develop confidence and agency
Emotion	<i>Restrictions caused children anxiety and fear, because of uncertainty and economic hardship and seeing caregivers anxious and afraid too.</i> Likelihood of not learning to become attached to other people but instead becoming detached, fearful, sad and angry
Practical reason	<i>Loss of basic freedoms, loss of social contacts, loss of education, and mask wearing turned children's world upside down.</i> They may struggle to develop an understanding of good and evil and to learn to think critically about the world and their own place in it (or, in reaction, some might develop an enhanced practical reason capability)
Affiliation	<i>Severe restriction of children's freedom to associate with others, particularly their peers.</i> Children may grow up less skilled in forming personal relationships; inhibited in showing concern for others and helping them; less likely to support people's rights, including freedom of speech and freedom from fear (or, in reaction, some might develop an enhanced affiliation capability)
Other species	<i>Travel restrictions and bans on visiting parks stopped children enjoying and learning about nature.</i> Children's capability to appreciate plants and animals and nature's beauty might be reduced (but might even be enhanced as a reaction after months of deprivation)
Play	<i>School closure restricted play and also sport, and for some children shortage of food inhibited play.</i> Inhibition of ability to laugh, play games and generally have fun, and possible serious mental health and physical development problems in the long term for young children who were prevented from playing
Control over one's environment	<i>Severe interruption of education.</i> Control over environment after school will be constrained for school leavers who may struggle to get jobs because of damage to their education

Source: Based on Nussbaum's list of ten capabilities (2000)

literature, art were lost similarly to opportunities to develop their own expressive work. Immediate impacts are already observed with a reduction in numeracy and literacy and overall, a loss of the educational advantages that help a child develop confidence and agency.

Fifth, young people's emotions have been harmed. Restrictions caused children anxiety and fear, because of uncertainty and economic hardship and seeing caregivers anxious and afraid too. There is a strong likelihood of not learning to become attached to other people but instead becoming detached, fearful, sad and angry.

Sixth, a change in practical reasons need to be mentioned. This related to a loss of basic freedoms, social contacts, education, and mask wearing which turned children's world upside down. Young people may struggle to develop an understanding of good

and evil and to learn to think critically about the world and their own place in it; in reaction, some might also develop an enhanced practical reason capability.

Seventh, young people's affiliation has changed as a result of COVID-19. Severe restriction of children's freedom have impacted their ability to associate with others, particularly their peers. Children may grow up less skilled in forming personal relationships; additionally, they may suffer from inhibition in showing concern for others and helping them. In line with this first point, young people may be less likely to support people's rights, including freedom of speech and freedom from fear (or, in reaction, some might develop an enhanced affiliation capability).

Eighth, turning to the other species factors, it is clear that travel restrictions and bans on visiting parks stopped children enjoying and learning about nature. Children's capability to appreciate plants and animals and nature's beauty might be reduced (but might even be enhanced as a reaction after months of deprivation).

Ninth, young people abilities to play was dramatically affected. School closure restricted play and also sport, and for some children shortage of food inhibited play. Inhibition of ability to laugh, play games and generally have fun will more certainly lead to possible serious mental health and physical development problems in the long term for young children who were prevented from playing.

Finally, control over one's environment has major impact on children and young people everyday rights and needs from interrupting of education and be with others. Control over environment after school will be constrained for school leavers who may struggle to get jobs because of damage to their education.

Nussbaum's comprehensive list here helps to show how wide a range of consequences there could be for a child's development with some already known and others still hypothetical. The restrictions had repercussions in every area of life. The affected children may grow up lacking some capabilities, or with incompletely achieved capabilities. However, although the possible effects are overwhelmingly negative, a few children might even achieve enhanced capabilities in the areas of affiliation and practical reason, if they exercise agency in reaction against the way they were treated.

Conclusion

Overall, although children and young people had a very much lower risk than adults of becoming ill or dying because of Covid-19 infection, they were disproportionately affected by the government lockdown measures. The government focused on physical health, safeguarding adults and the health system. Thinking about children was a secondary concern. Their voices were not heard, their rights and needs were not addressed and accounted for.

When the government devised plans for children, it seldom considered the link between learning, play and food. It focused on providing learning opportunities, which in many cases were inadequate for pupils from deprived areas. Inattention to the link between learning, play and food meant that children who were deprived of food and exercise could not learn properly and their general well-being suffered. Sen's capabilities approach, and particularly Nussbaum's list of ten capabilities, gave us a framework for thinking about the many ways children can be helped to develop the capabilities that will make them healthy, happy and productive adults—or hindered.

The Covid-19 restrictions exacerbated the gross inequalities of South African society, which are often along racial lines, and worsened the plight of poor households and children. Already disadvantaged, they suffered more than the affluent because they started from a low base. Children from affluent families were far less affected.

As a whole, the restrictions worsened the country's already dire educational outcomes in literacy and mathematics. In years to come, South African society will reap the consequences of sacrificing children's well-being to safeguard adult lives.

Acknowledgements

This work is based on the research supported wholly by the National Research Foundation of South Africa (Grant Numbers: 149083). Dr Di Kilpert for editing services.

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Lochner Marais: conception, analysis and interpretation of results, manuscript preparation. Abraham Matamanda: conception, analysis and interpretation of results. Frances Gbadegehin: conception. John Ntema: data collection. Abongile Mgwelwe: data collection. Mischka Dunn: data collection. Verna Nel: data collection. Timothy M Lehobo: data collection. Lauren Andres: conception, data analysis and interpretation of results, manuscript preparation. Stuart Denoon-Stevens: conception, data analysis and interpretation of results, manuscript preparation.

Funding

This work is based on the research supported wholly by the National Research Foundation of South Africa (Grant Numbers: 149083).

Availability of data and materials

The data are available on request.

Declarations

Ethics approval and consent to participate

Ethics approval was obtained from the General/Human Research *Ethics Committee* at the University of the Free State. UFS-HSD2022/1018/22.

Consent for publication

"Not applicable."

Competing interest

None of the authors have a competing interests to declare.

Received: 29 April 2024 Accepted: 8 October 2024

Published online: 06 November 2024

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