

Art. #2424, 12 pages, <https://doi.org/10.15700/saje.v43ns1a2424>

A worldwide review of the impact of COVID-19 disruptions on learner development and resilience

Macalane Junel Malindi  and Johnnie Hay 

School of Psycho-Social Education, Faculty of Education, COMBER Research Focus Area, North-West University, Vanderbijlpark, South Africa
macalane.malindi@nwu.ac.za

The COVID-19 pandemic necessitated school closures and movement restrictions that disrupted holistic development and adaptive coping in learners worldwide. Adaptive coping is also referred to as resilience. Holistic development covers the biophysiological, psychological, social, spiritual and educational domains of child development. Several researchers have explored the impact of developmental risks caused by school closures and movement restrictions on learner development. With this article we aim to present a synthesis of these reviewed papers. We reviewed 81 peer-reviewed papers that were published globally from 2020 to 2023. The focus of these papers was on biophysical, psychological, social, religious and academic development in learners. We did not develop a priori themes to guide us; instead, themes emerged from the articles that were reviewed. The findings show that although the lockdown restrictions were aimed at preventing the spread of the virus and saving lives, the imposed restrictions affected the development of learners in biophysiological, psychological, social, educational and religious domains. Furthermore, the findings show that the impact of the lockdown necessitated multisystemic interventions on different levels to enable learners to overcome backlogs and promote resilience.

Keywords: at-risk learners; collaboration; COVID-19 pandemic; externalising problems; holistic development; internalising problems; multisystemic support; psychological distress; resilience; social deprivation

Introduction and Background

The coronavirus disease (COVID-19) pandemic, which was caused by the severe acute respiratory syndrome coronavirus 2 ([SARS-CoV-2] El Zowalaty & Järhult, 2020), forced governments to implement confinement or the so-called hard lockdown to limit the spread of the virus. The concomitant closure of schools contributed to much confusion, anxiety and fear among at-risk learners with limited social support systems and had a negative impact on their holistic development. The challenging circumstances created by the COVID-19 pandemic required learners, including those with barriers to learning and development, to cope resiliently. Learners experiencing intrinsic and extrinsic barriers to learning were at a greater risk, since they typically require high levels of multisystemic support to learn, develop and cope resiliently. According to Theron and Donald (2013:54), resilience or adaptive coping is a product of "... reciprocal transactions between children (who 'navigate' and/or 'negotiate') and their ecologies (which 'provide')." In other words, in addition to children's personal strengths, they require active socioecological support systems such as families, schools, peers and community services to cope with risk and adversity (Ungar, 2011). During the lockdown, multisystemic support for learning, learner development and resilience were disrupted since learners were initially learning remotely. Teachers and education support service staff were working remotely too; therefore, the growth and development of learners were at risk of poor outcomes.

The phenomena of growth and development in children have been topics of research for centuries. Several educational and developmental theories were developed to make it possible for one to understand the growth and development of children. Well-known theorists such as, Sigmund Freud, Erik Erikson, Ivan Pavlov, BF Skinner, JB Watson, Albert Bandura, Jean Piaget, Lev Vygotsky and Urie Bronfenbrenner (see Paris, Ricardo & Rymond, 2019) developed comprehensive theories, covering several domains of child development. Nsamenang (1992) put forward his well-known social ontogenesis theory that attempted to conceptualise child development in the western part of Africa. These scholars were not oblivious to variables – be they intrinsic, extrinsic or a combination thereof – that typically impair or promote normative, holistic development in children (Malindi & Koen, 2021). Although it is accepted that theories on child development have limitations, they do enable an understanding of the phenomenon of child development better, especially within their social contexts.

Social ecologies that consist of schools, families and safe communities in which services are accessible, play a prominent role in enabling resilience and holistic development in learners (Malindi & Machenjedge, 2012; Theron & Engelbrecht, 2012; Theron, Liebenberg & Malindi, 2014). This strengthens the view that the healthy development and resilience of children depend on the personal strengths and socio-ecological resources of these children (Ungar, 2011). Therefore, learners who grow up within social ecologies that do not enhance resilience and normative development are at risk of poor developmental outcomes.

There is, furthermore, consensus among researchers that children have the right to dream and aspire to self-actualise (Kaufman, 2023; Mathiyazhagan & Wang, 2021) and schools provide opportunities for children to interact with peers and teachers and work towards achieving their dreams. The social interaction that occurs in schools is important in enabling holistic development in children (Mathiyazhagan & Wang, 2021; Su, Rao, Sun

& Zhang, 2021). Therefore, the restrictions that were imposed to contain the spread of the COVID-19 virus prevented social interaction among learners and teachers and led to the phenomenon of social deprivation.

According to Świgost (2017), the phenomenon of social deprivation is context-specific and highly diversified. Social deprivation is, thus, a contested phenomenon that is understood differently in different contexts. Following a systematic review of the literature on social deprivation, Świgost (2017:132) concurs with Townsend's definition of social deprivation, namely: "Social deprivation refers to an individual's ability to fully participate in community life."

The above definition broadly captures and simplifies the phenomenon of social deprivation; however, we emphasise that it is, rather, an individual's or a group's "[in]ability to fully participate in community life" that brings about social deprivation. The hard lockdown restrictions implemented to contain the spread of the COVID-19 virus limited social interaction among all and prevented people from participating in community life. A real risk of social deprivation and poor developmental outcomes for learners thus existed.

The question that arises is how reduced social interaction, which occurs through play, rendered learners vulnerable to poor developmental outcomes. Several studies show that elementary school children learn and develop optimally through play, and this often occurs in various social contexts in schools. For example, play potentiates motor competence that is integral to learners' holistic development (Estevan & Barnett, 2018). Fundamental social and motor skills are acquired especially through cooperative play and physical activity. Participation in physical activity promotes holistic development in learners of all ages (Bolger, Bolger, O'Neill, Coughlan, O'Brien, Lacey, Burns & Bardid, 2021). Orben, Tomova and Blakemore (2020) note that adolescence is a time characterised by an increased need for peer interaction that promotes holistic development. This implies that any restrictions that take away opportunities for social interaction among adolescents bring about social deprivation, which renders them more vulnerable to poor developmental outcomes. The limited play and social interaction opportunities with peers that pandemics typically bring about (Watts & Pattnaik, 2022), interrupt social interaction, which has been found to be pivotal to holistic development, leading to deprivation on a social level.

Social deprivation is not the only risk to normative development. In this regard, parental attributes, such as educational attainment, parenting styles and the home environment, may also have an

impact on early childhood development (Xi & Wang, 2022). There is evidence that what happens during the formative years (age 3 to 6) may influence development in later life (Dhamija & Sen, 2021; Singh, Vig & Chawla, 2020). Learners in the formative years are seen to be at risk if they are exposed to overwhelming events such as pandemics that may have a negative impact on their lives.

Globokar (2018) notes that other factors that may influence child development are digital media, since media often have an impact on the emotional, social, and moral development of children. Poor living conditions may expose some to social deprivation (Świgost, 2017). Mohan and Bhat (2022) point out that children's socio-economic status may influence their development. There is evidence that the COVID-19 pandemic laid bare social inequalities in communities (Sayed, Singh, Bulgrin, Henry, Williams, Metcalfe, Pesambili & Mindano, 2021; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2022) and imperilled development in at-risk learners. Learners living with disabilities are among those learners who are at risk of poor developmental outcomes. These learners often subsist on the periphery of society where multiple risks to holistic development abound (Shrivastava, Shrivastava & Ramasamy, 2016).

Theron et al. (2014) advise that when schooling experiences are responsive to learners' needs, they serve as a resilience pathway for at-risk learners. An education system should enable learners to fully develop so that they can demonstrate socio-emotional competence in social contexts (Kwong, Lam, Li, Chung, Cheung & Leung, 2018). However, this is not always the case for learners. For example, Khan (2018) decries the fact that the education system of Pakistan is less responsive to the social, ethical, cultural, intellectual, emotional and physical well-being of learners, which has led to learners not developing the academic skills they should have acquired.

Cultural practices and food insecurity have been found to be among the factors that have an impact on child development (Kumar, Madeghe, Osok-Waudo, Wambua & Amugune, 2018). This is indicative of the physical context in which children develop. It should be noted that children depend on their physical environments to develop, and this implies that the quality of physical structures and facilities built around children has a bearing on their cognitive, emotional, social and physical development and behaviour (Ismail, Badayai & Rubini, 2017). Children of parents who experienced mental distress during the COVID-19 pandemic exhibited externalising and internalising problems, whereas children who engaged in enriching activities with their parents showed strong executive functioning and social competence

(Hendry, Gibson, Davies, McGillion & Gonzalez-Gomez, 2023). According to Nunes, Faraco, Vieira and Rubin (2013) externalising behaviour involves aggression and delinquency while internalising behaviour involves social withdrawal and anxiety and/or depression.

It is evident that learners whose development was negatively influenced by confinement during the pandemic were at risk of poor developmental outcomes. It is worth noting that during this confinement, learners were unable to fully benefit from education support services. Therefore, multisystemic support is required to overcome the backlogs in their development. In this regard, it is important for practitioners to have a full picture of the backlogs in holistic learner development resulting from the lockdown. With the above-mentioned in mind, we undertook a systematic review to answer the following questions:

- What was or is the impact of the COVID-19 disruptions on child development?
- How can education support services be used to shield learners against future disasters and pandemics?

Theoretical Framework

According to Saad, De Medeiros and Mosini (2017:1), the biopsychosocial model represents “a modern humanistic and holistic view of the human being in health sciences.” This model was originally proposed by George Engel, an American psychiatrist who advised that healthcare practitioners should include the biological, psychological, and social domains of health when exploring the aetiology of ill health (Saad et al.,

2017:1). It was Winiarski who proposed that the spiritual domain be added (Hay & Joubert, 2021:20). Recently, Hay and Joubert extended the biopsychosocial model by adding the educational dimension to the biopsychosocial model (Hay & Joubert, 2021:20). Therefore, the extended model covers the biological, psychological, social, spiritual and educational domains of health. This implies that the development of children and their wellness should be viewed holistically. Furthermore, exploring the impact of the COVID-19 pandemic on learner development should include all domains of wellness.

Methodology

We conducted a review of studies, sampled from all over the world, that sought to explore the impact of the COVID-19 pandemic disruptions on the holistic development of learners. These studies were sourced from the databases of EBSCOhost and Google Scholar. A total of 81 studies were located and reviewed; however, 67 of them qualified for inclusion and 14 were discarded since they did not meet the inclusion criteria. Five articles focused on biophysiological development and how it was influenced by the COVID-19 pandemic. A total of 22 studies explored the impact of the pandemic on psychological development and 23 studies focused on the social development domain. Lastly, 14 studies explored the impact of COVID-19 on educational development and three focused on religious development. Figure 1 depicts the number of articles that were usable in each domain of development.

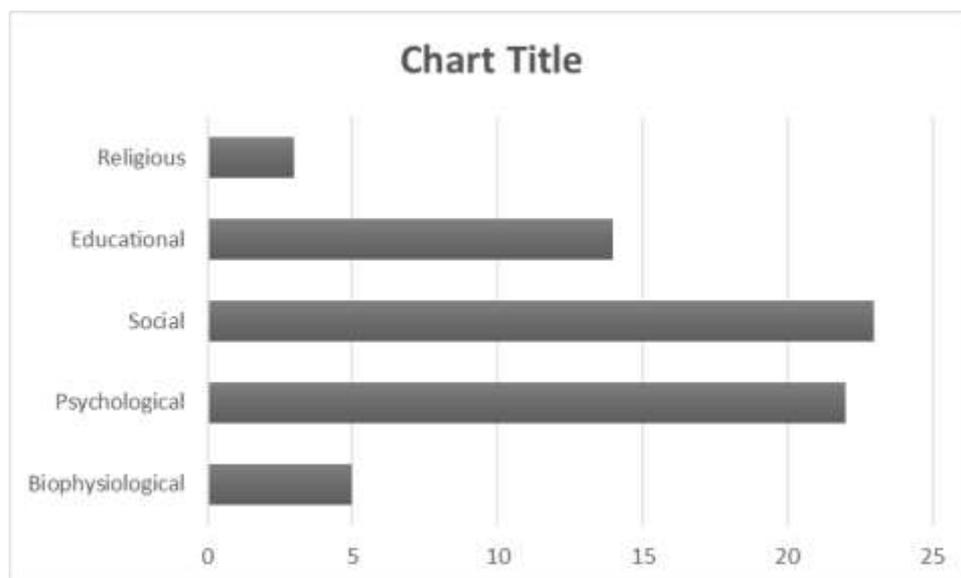


Figure 1 Summary of articles reviewed

Concepts such as “COVID-19” and “holistic development” were used as the main constructs to search for suitable articles, and they were related to

the biological, psychological, social, spiritual, and educational domains of development. Only peer-reviewed articles on studies conducted from

2020 to 2023 were included in the sample. In these studies, various methods had been used to generate data. In this review we did not develop a priori themes, instead the themes emerged from the peer-reviewed articles sampled.

Findings

The sampled articles were carefully read, and it was noticed that the development of learners had been affected in the biophysiological, psychological, social, educational, and religious domains. Researchers suggest that learners' holistic development has been affected by the restrictions that had been imposed to curb the spread of the COVID-19 virus.

Biophysiological Development

The studies reviewed show that the impact of COVID-19 infection on adults and children varied. For example, adults with comorbidities were found to be more at risk of complications that could lead to death, while children were found to be in a better position, as they had fewer comorbidities and thus presented with mild symptoms compared to adults (Filippatos, Tasi & Michos, 2022; Handberg, Werlauff, Højberg & Knudsen, 2021). However, children did not have to contract the COVID-19 virus to be at risk of poor developmental outcomes. Instead, they suffered vicarious risk, as the pandemic disrupted their social ecologies and created food insecurity.

Limited movement and a lack of play opportunities had a negative impact on the biophysiological development of learners (Watts & Pattnaik, 2022). The restrictions forced learners into sedentary lifestyles, and their eating and sleeping patterns changed too (Al-Balushi & Essa, 2020; Oliveira, Martins & Carvalho, 2022). Nevertheless, boys were found to be more active than girls and engaged in some form of play despite limited opportunities for leisure and playing (Oliveira et al., 2022). It is important to note that extracurricular activities were halted, and learners were confined to their homes, which had a substantial impact on their physical movement.

Psychological Development

Several studies note that learners experienced psychological difficulties during the hard lockdown of the COVID-19 pandemic (Amorós-Reche, Belzunegui-Pastor, Hurtado & Espada, 2022; Orgilés, Francisco, Delvecchio, Espada, Mazzeschi, Pedro & Morales, 2022). For example, researchers maintain that the lockdown restrictions had a negative impact on the socio-emotional well-being and cognitive development of children (Santa-Cruz, Espinoza, Donoso, Rosas & Badillo, 2022; Watts & Pattnaik, 2022; Wilson Fadji, De la Rosa, Counted, De Kock, Bronkhorst, Joynt, Tesfai, Nyamaruze,

Govender & Cowden, 2023). Other researchers discovered an increase in symptoms of depression, anxiety, loneliness, fear, anger and irregular sleep patterns and a decreased capacity to cope resiliently in children (Chakraborty, Chatterjee, Bhattacharyya & Neogi, 2021; Duan, Shao, Wang, Huang, Miao, Yang & Zhu, 2020; Ghosh, Dubey, Chatterjee & Dubey, 2020; Maree, 2022; Śniadach, Szymkowiak, Osip & Waszkiewicz, 2021).

In addition to fear and anxiety, Ahmed, Mostafa, Elbeh, Gomaa and Soliman (2022) note that there is a correlation between COVID-19 and the prevalence of affective disorders, pervasive developmental problems, and oppositional defiant difficulties among children. Another study suggests that the fear of becoming ill or dying had a negative impact on learners' psychological development (Durgun, 2021).

It has been established that children flourish when they experience stability in their lives. The COVID-19 lockdown brought about much uncertainty among children, households, and teachers (Simó-Pinatella, Goei, Carvalho & Nelen, 2022). Children with special educational needs were not spared. For example, parents and teachers found it difficult to manage children living with intellectual and developmental disabilities who exhibited challenging behaviour while they were in their homes (Simó-Pinatella et al., 2022).

Another study reports that children with autism spectrum disorder exhibited changes in behaviour and emotion management during confinement (Amorim, Catarino, Miragaia, Ferreras, Viana & Guardiano, 2020), while another shows that these children were challenged to make adjustments to new routines, sleeping patterns and sensory issues (Obst, Roesler, Fato & Goff, 2022). During the lockdown, it was mandatory to wear masks. Research shows that for children, wearing masks had a negative impact on their ability to make emotion-relevant judgements in face-to-face interactions (Chester, Plate, Powell, Rodriguez, Wagner & Waller, 2023; Gori, Schiatti & Amadeo, 2021).

Movement restrictions led to children becoming too attached to digital games and their smartphones (Şenol, Şenol & Can Yaşar, 2023; Serra, Scalzo, Giuffrè, Ferrara & Corsello, 2021), and this influenced their social and emotional development. One study shows that learners had a reduced quality of life and poor mental health up to 1 year after the COVID-19 pandemic, and another found that young people experienced post-traumatic stress disorder (Claudet, Marchand-Tonel, Kelly-Irving, Gaudron, Raynaud, Delpierre & Bréhin, 2022; Vallejo-Slocker, Sanz, García-Vera, Fresneda & Valle, 2022). Many young people experienced boredom and an increased need for stimulation (Wijaya, Bunga & Kiling, 2022).

Social Development

During the lockdown, social interaction was reduced to the bare minimum, extracurricular activities were stopped, and social distancing was encouraged; therefore, peer interaction and the socialisation process, psychological functioning, health and well-being of learners were negatively affected (Al-Balushi & Essa, 2020; Cameron & Tenenbaum, 2021). Some studies show that because of limited social interaction among learners, they could not learn basic life skills and presented with behaviour such as acting out, tantrums, aggression, seeking negative attention, lying and disrespect (Watts & Pattnaik, 2022). Interpersonal communication was limited, and this too delayed socialisation in learners (Watts & Pattnaik, 2022).

It has also been found that play is an important pedagogical tool that potentiates learning and socio-emotional development in learners and enabled transition back to school (O'Keeffe & McNally, 2021). In a related study, researchers used remote digital play among learners during the pandemic to enhance social competence (Luo, Berson, Berson & Han, 2022).

Other researchers note that the COVID-19 pandemic has magnified social inequalities in communities (Bozkurt, Karakaya, Turk, Karakaya & Castellanos-Reyes, 2022; Rajmil, Hjern, Boran, Gunnlaugsson, De Camargo & Raman, 2021; Shi, Cahyani & Tiatri, 2022; Spaul & Van der Berg, 2020). There is evidence too that the lockdown restrictions were accompanied by acts of child abuse, commercial sexual exploitation of children, maltreatment, domestic violence and a lack of social support and food, which usually have a negative impact on holistic development (Adebiyi, Roman, Chinyakata & Balogun, 2021; Murewanhema, Gwinji, Gwanzura, Chitungo, Eghtessadi, Musuka & Dzinamarira, 2023; Rajmil et al., 2021; Sserwanja, Kawuki & Kim, 2021; Wong, Wai, Wang, Lee, Li, Kwok, Wong & Choi, 2021).

Furthermore, research shows that there was a relationship between parents' mental health symptoms and the general mental health of their children (Bai, Liu, Zhang, Fu, Huang, Hu & Guo, 2022; Köhler-Dauner, Clemens, Lange, Ziegenhain & Fegert, 2021; Russell, Tomkunas, Hutchison, Tambling & Horton, 2022). Parents who actively mediated messages about COVID-19 to their children enabled reduced emotional difficulties in their children and supported them to cope resiliently (Morelli, Graziano, Chirumbolo, Baiocco, Longobardi, Trumello, Babore & Cattelino, 2022; Prime, Wade & Browne, 2020). Moreover, the mental health of children has been found to be related to the geographical location of their households, family size, parents' academic

qualifications and socio-economic status (Sama, Kaur, Thind, Verma, Kaur & Singh, 2021).

Some young people experienced challenges such as social inequalities in relation to health or well-being, poor housing infrastructure, quality of parenting, access to formal and informal support, disrupted education and fewer employment opportunities, which made it difficult for them to transition into adulthood (Roberts, Mannay, Rees, Bayfield, Corliss, Diaz & Vaughan, 2021). The transition process of learners with special needs was negatively affected, as their independence and social and emotional skills acquisition had been disrupted (Wythe, 2022). From all this, it is evident that COVID-19-related confinement and limited opportunities for social interaction negatively influenced the social development of learners (Hagihara, Yamamoto, Meng, Sakata, Wang, Watanabe & Moriguchi, 2022).

Educational Development

Several studies examined the impact of school closures on the academic or educational development of learners. The findings show that education systems experienced a loss of human resources as well as resource constraints relating to the acquisition of equipment needed for online learning and data (Süt & Öznaçar, 2021). In impoverished contexts, poor infrastructure impeded online learning, while learners in more affluent areas coped with and adapted more efficiently to online learning (Onyema, Eucheria, Obafemi, Sen, Atonye, Sharma & Alsayed, 2020; Shi et al., 2022; Tadesse & Muluye, 2020). Other studies show that learners' satisfaction levels dropped when face-to-face teaching and learning were halted and that some experienced severe academic learning loss (Chaturvedi, Vishwakarma & Singh, 2021; Watts & Pattnaik, 2022).

Learners living with disabilities who typically require high levels of support were hit hard by limited face-to-face teaching and learning. Teachers mentioned that these learners did not have access to learning material, personal assistants, academic support, and financial resources (Taneja-Johansson, Singal, Mergia & Side, 2022). Some learners living with disabilities were found to be at risk of dropping out of school, as their parents feared for their safety and their teachers were not able to accommodate their learning needs (Makuyana, 2022). Children with special needs experienced academic, social and language development difficulties and had problems with using technology, taking part in online classes and concentrating (Yüksel, Çoban & Yazıcı, 2021). Many parents indicated that they had difficulties in academically supporting their children with special educational needs at home (O'Connor Bones, Bates Finlay & Campbell, 2022).

Parents in rural contexts – where resources are often limited – were negatively affected by the school closures as well. For example, a study by Wilson Fadji et al. (2023) shows that these parents found it difficult to support their children, as they had to juggle their work commitments and tutoring. On the positive side, there is evidence that the need to learn through technology prepared some learners for the digital world (Maree, 2022). Although teachers in other contexts were less prepared to engage in technology-enhanced learning, it made their work easier in the context of the COVID-19 pandemic (Pareek & Soni, 2020). Teachers kept constant contact with learners in contexts where it was possible and provided them with attention and learning activities (Simó-Pinatella et al., 2022).

Religious Development

Research shows that religiosity and faith served as protective resources that enabled resilience during the COVID-19 pandemic (Imran, Zhai & Iqbal, 2022). Specifically, variables such as positive religious ways of coping, religiousness and having faith were found to be potent in enabling coping ability (Imran et al., 2022). In one study, parents reported that spirituality and religiosity enabled them and their children to cope with the lockdown and their fear of dying (Pompele, Ghetta, Veronese, Bucuță & Testoni, 2022). During the lockdown, priority was given to the physical and mental health of children but not their spiritual health and well-being, and this had a severe impact on children's spiritual well-being (Heland-Kurzak & Holmes, 2021). Even though places of worship had been closed, it was religiosity and having faith that enabled many parents and children to cope resiliently in the context of COVID-19.

Discussion

The findings of this review show that the COVID-19 pandemic was an intense and overwhelming experience for learners. The pandemic challenged learners to cope resiliently in the context wherein their social ecologies had been rendered less effective to support their well-being. Usually, schools and families are microsystemic strongholds for learners (Theron & Engelbrecht, 2012), and these microsystemic strongholds often interact to ensure that learning and development occur optimally. However, in the context of the pandemic, these systems could not interact meaningfully to enhance learner development.

The reviewed studies show that social deprivation (Świgost, 2017) became an important issue to contend with during the pandemic. Learners were confined to their homes and could not socially interact with peers, and this mostly led to social deprivation. It should be remembered that much learning occurs through and during social interaction. Researchers such as Ungar (2011)

argue that a child's social ecology is crucial to his or her well-being and resilience. It is also evident that learners experienced a sense of loss during the lockdown. Loss is characterised by mental anguish resulting in a grief reaction (Abi-Hashem, 1999), with indicators such as crying, fear and anxiety. Parents and teachers are often oblivious to children's experiences of grief and loss and sometimes forget that children lack the vocabulary to verbalise their feelings.

High-intensity and overwhelming events, such as pandemics, have been found to cause learners to experience powerlessness and childhood traumatic grief (Cohen & Mannarino, 2011). Interest in how children cope during pandemics and natural disasters has grown (Masten, 2014). This review shows that learners experienced psychological difficulties that included depression, fear, anxiety, irregular sleep patterns and internalising and externalising behaviour (Chakraborty et al., 2021; Duan et al., 2020; Ghosh et al., 2020; Maree, 2022; Śniadach et al., 2021). This calls for psychosocial interventions aimed at dealing with the psychological impact of the pandemic. The lockdown encouraged learners to live sedentary lives that were detrimental to physical development as well (Al-Balushi & Essa, 2020; Oliveira et al., 2022). Schools should now intentionally use extracurricular activities to encourage social interaction and active lifestyles.

Although some learners studied through the online mode of curriculum delivery, a substantial percentage did not have the capacity to obtain the equipment needed, due to persistent inequalities (Sayed et al., 2021; UNESCO, 2022). Teachers and parents were ill-prepared to use technology at the level required of them (Wilson Fadji et al., 2023). It is, however, important to note that online learning enabled many learners to become acquainted with the digital world (Maree, 2022). This helped to establish the new thrust that technology should continue to have in teaching, learning and assessment without replacing the teacher.

Learners with special educational needs were in a difficult position during the lockdown (O'Connor Bones et al., 2022). Efforts should consciously be made to help them overcome the backlogs in their development in future. School-based support teams should be proactive in seeking to collaborate with multiple stakeholders in their contexts to make support accessible to learners with special educational needs. While formal resources and forms of support, such as psychosocial support, will always be important in learner support practices, non-formal support should be mobilised to supplement formal support mechanisms. Since the reviewed studies show that having faith and adhering to a religion enable coping ability (Imran et al., 2022), pastoral care

provided by churches should be made readily accessible to learners.

Ungar (2011) encourages researchers to examine how children's ecologies enable them to cope with risk and adversity. The reviewed studies show that social and physical ecologies were weakened. School-based support was predominantly unavailable during the hard lockdown, and schools and districts had inadequate plans on how to render these services. Families were probably the only easily accessible active support systems for children. Children of parents who were battling with psychological distress showed signs of poor adjustment (Hendry et al., 2023). Moreover, parents in rural areas could not effectively cope with both their work and providing academic support to their children (Wilson Fadji et al., 2023). There is evidence, though, that parents who communicated empowering messages to their children during the pandemic encouraged their resilience (Hendry et al., 2023).

Limitations of the Study

The study shows how the COVID-19 pandemic impacted development in the biophysiological, psychological, social, educational, and religious domains. The study was not without limitations, though. For example, more articles that focused on psychological and social domains were found. Very few articles focused on the biophysiological and religious domains. It is possible that more studies were published after the review had been completed.

Conclusion

The aim of the review was to understand how holistic development in learners had been affected by the COVID-19 lockdown. Studies from all over the world were reviewed. Following this review, it is worth noting that individuals and communities showed resilience in the context of the pandemic in unexpected ways. They were facing an illness that was seemingly without a cure, and while they took measures to mitigate the impact of the disease, a vaccine had to be developed to end the pandemic. The world was in the grip of fear, anxiety, and uncertainty, as the pandemic was an existential threat to all.

Most of the studies that were reviewed reported little on positive adjustment in the context of the risk that made poor adaptation outcomes likely. However, it is important to note that most of these studies were undertaken early during the pandemic. Risks and threats were a priority then. It is also possible that future studies that will look at adaptive processes more specifically in later years will provide more compelling evidence of an assortment of coping mechanisms – be they typical or atypical – used by individuals and groups to mitigate the impact of risk during the pandemic.

It should also be noted that many children were too young to cognitively appraise the situation and develop a course of action. They depended on their parents and caregivers to do this on their behalf. Some lived with disabilities, and others with autism. They too depended on their caregivers to assess the situation and keep them from harm. The COVID-19 pandemic made communities aware of the importance of self-care and technology. What the reviewed studies made clear was that inequalities prevented some from coping resiliently with school during the pandemic. This magnifies the need for technology to be made accessible to all. It is also not clear what future pandemics will demand of communities. Communities will have to remain vigilant to be able to prepare better for the next overwhelming adversity.

Furthermore, research opportunities were identified following this review. Researchers are challenged to investigate ways in which the research enterprise can incorporate alternative methodologies. Some of the studies that were reviewed used technology to generate data, since contact research was not advised or allowed at the time. This poses a new challenge regarding research ethics and how research could stay relevant despite the prohibition of contact research. Researchers who work with impoverished communities will have to find suitable ways of generating data if technology is not available.

While many parents and caregivers did not have experience in teaching, they seemingly did their best to support learners who studied from home. It should be noted that some of them lost their income and jobs during the pandemic. Further research can, therefore, focus on how parents and caregivers coped resiliently under those circumstances. Some had children who required high levels of support as learners with special needs and it would be interesting to know what enabled them to cope resiliently. Multisystemic interventions and collaboration among multiple stakeholders became more important than ever during the pandemic. Multistakeholder collaboration is key to ensuring the holistic development of learners. Perhaps some services should become mobile and locate deserving recipients, especially those in rural contexts. Most of the reviewed studies adopted the approach that uses adults as representatives to study children indirectly. We call for child-friendly and less intrusive methodologies that may enable researchers to study children directly and enter their life worlds.

Engel's (1978) model was helpful in enhancing our understanding of wellness and risks of poor developmental outcomes in learners in the context of the COVID-19 pandemic. The model was extended to include the spiritual and

educational domains. It is, therefore, about holistic development in learners since it covers the biological, psychological, social, educational, and religious domains of development. The review shows that these facets of wellness and development were affected by the pandemic and learners had various ways of coping resiliently. Practitioners in the field of mental health should develop interventions that focus on all these domains.

Authors' Contributions

Both authors contributed equally to the publication. Both drafted and reviewed the final manuscript.

Notes

- i. Published under a Creative Commons Attribution Licence.
- ii. DATES: Received: 20 April 2023; Revised: 21 September 2023; Accepted: 28 November 2023; Published: 31 December 2023.

References

- Abi-Hashem N 1999. Grief, loss, and bereavement: An overview. *Journal of Psychology and Christianity*, 18(4):309–329.
- Adebiyi BO, Roman NV, Chinyakata R & Balogun TV 2021. The negative impacts of COVID-19 containment measures on South African families - Overview and recommendations. *The Open Public Health Journal*, 14:233–238. <https://doi.org/10.2174/1874944502114010233>
- Ahmed GK, Mostafa S, Elbeh K, Gomaa HM & Soliman S 2022. Effect of COVID-19 infection on psychological aspects of pre-schooler children: A cross-sectional study. *Middle East Current Psychiatry*, 29:42. <https://doi.org/10.1186/s43045-022-00207-y>
- Al-Balushi B & Essa MM 2020. The impact of COVID-19 on children: Parent's perspective. *International Journal of Nutrition, Pharmacology, Neurological Diseases*, 10(3):164–165. https://doi.org/10.4103/ijnpnd.ijnpnd_55_20
- Amorim R, Catarino S, Miragaia P, Ferreras C, Viana V & Guardiano M 2020. The impact of COVID-19 on children with autism spectrum disorder. *Revista de Neurología*, 71:285–291. <https://doi.org/10.33588/rn.7108.2020381>
- Amorós-Reche V, Belzunegui-Pastor À, Hurtado G & Espada JP 2022. Emotional problems in Spanish children and adolescents during the COVID-19 pandemic: A systematic review. *Clínica y Salud*, 33(1):19–28. <https://doi.org/10.5093/clysa2022a2>
- Bai Y, Liu X, Zhang B, Fu M, Huang N, Hu Q & Guo J 2022. Associations of youth mental health, parental psychological distress, and family relationships during the COVID-19 outbreak in China. *BMC Psychiatry*, 22:275. <https://doi.org/10.1186/s12888-022-03938-8>
- Bolger LE, Bolger LA, O'Neill C, Coughlan E, O'Brien W, Lacey S, Burns C & Bardid F 2021. Global levels of fundamental motor skills in children: A systematic review. *Journal of Sports Sciences*, 39(7):717–753. <https://doi.org/10.1080/02640414.2020.1841405>
- Bozkurt A, Karakaya K, Turk M, Karakaya Ö & Castellanos-Reyes D 2022. The impact of COVID-19 on education: A meta-narrative review. *TechTrends*, 66:883–896. <https://doi.org/10.1007/s11528-022-00759-0>
- Cameron L & Tenenbaum HR 2021. Lessons from developmental science to mitigate the effects of the COVID-19 restrictions on social development. *Group Processes & Intergroup Relations*, 24(2):231–236. <https://doi.org/10.1177/1368430220984236>
- Chakraborty K, Chatterjee M, Bhattacharyya R & Neogi R 2021. Psychological impact of 'lockdown' on behaviour of children during COVID-19 pandemic: An online survey. *Journal of Indian Association for Child & Adolescent Mental Health*, 17(2):72–86. <https://doi.org/10.1177/0973134220210205>
- Chaturvedi K, Vishwakarma DK & Singh N 2021. COVID-19 and its impact on education, social life and mental health of students: A survey. *Children and Youth Services Review*, 121:105866. <https://doi.org/10.1016/j.chilyouth.2020.105866>
- Chester M, Plate RC, Powell T, Rodriguez Y, Wagner NJ & Waller R 2023. The COVID-19 pandemic, mask-wearing, and emotion recognition during late-childhood. *Social Development*, 32(1):315–328. <https://doi.org/10.1111/sode.12631>
- Claudet I, Marchand-Tonel C, Kelly-Irving M, Gaudron CZ, Raynaud JP, Delpierre C & Bréhin C 2022. The psychological effects of COVID-19-related containment in children: The E-COCCON French study. *Archives de Pédiatrie*, 29(3):188–193. <https://doi.org/10.1016/j.arcped.2022.01.011>
- Cohen JA & Mannarino AP 2011. Supporting children with traumatic grief: What educators need to know. *School Psychology International*, 32(2):117–131. <https://doi.org/10.1177/0143034311400827>
- Dhamija G & Sen G 2021. Lasting impact of early life interventions: Evidence from India's integrated child development services. *The Journal of Development Studies*, 57(1):106–138. <https://doi.org/10.1080/00220388.2020.1762861>
- Duan L, Shao X, Wang Y, Huang Y, Miao J, Yang X & Zhu G 2020. An investigation of mental health status of children and adolescents in China during the outbreak of COVID-19. *Journal of Affective Disorders*, 275:112–118. <https://doi.org/10.1016/j.jad.2020.06.029>
- Durgun Ö 2021. A study in the children's health-oriented health policies after COVID-19 pandemic period in Turkey [Special issue]. *Duzce Medical Journal*, 23(1):94–105. <https://doi.org/10.18678/dtfd.861559>
- El Zowalaty ME & Järhult JD 2020. From SARS to COVID-19: A previously unknown SARS-related coronavirus (SARS-CoV-2) of pandemic potential infecting humans - Call for a One Health approach. *One Health*, 9:100124. <https://doi.org/10.1016/j.onehlt.2020.100124>
- Engel GL 1978. The biopsychosocial model and the education of health professionals. *Annals of the New York Academy of Sciences*, 310(1):169–181. <https://doi.org/10.1111/j.1749-6632.1978.tb22070.x>
- Estevan I & Barnett LM 2018. Considerations related to the definition, measurement and analysis of

- perceived motor competence. *Sports Medicine*, 48:2685–2694. <https://doi.org/10.1007/s40279-018-0940-2>
- Filippatos F, Tatsi EB & Michos A 2022. Post-COVID-19 syndrome in children (Review). *Experimental and Therapeutic Medicine*, 24(4):609. <https://doi.org/10.3892/etm.2022.11547>
- Ghosh R, Dubey MJ, Chatterjee S & Dubey S 2020. Impact of COVID-19 on children: Special focus on the psychosocial aspect. *Minerva Pediatrica*, 72(3):226–235. <https://doi.org/10.23736/s0026-4946.20.05887-9>
- Globokar R 2018. Impact of digital media on emotional, social and moral development of children. *Nova Pristnost*, 16(3):545–560. <https://doi.org/10.31192/np.16.3.8>
- Gori M, Schiatti L & Amadeo MB 2021. Masking emotions: Face masks impair how we read emotions. *Frontiers in Psychology*, 12:669432. <https://doi.org/10.3389/fpsyg.2021.669432>
- Hagihara H, Yamamoto N, Meng X, Sakata C, Wang J, Watanabe R & Moriguchi Y 2022. COVID-19 school and kindergarten closure relates to children's social relationships: A longitudinal study in Japan. *Scientific Reports*, 12:814. <https://doi.org/10.1038/s41598-022-04944-2>
- Handberg C, Werlauff U, Højberg AL & Knudsen LF 2021. Impact of the COVID-19 pandemic on biopsychosocial health and quality of life among Danish children and adults with neuromuscular diseases (NMD) — Patient reported outcomes from a national survey. *PLoS ONE*, 16(6):e0253715. <https://doi.org/10.1371/journal.pone.0253715>
- Hay J & Joubert C 2021. Theoretical perspectives underpinning psychosocial educational support services. In J Hay, M Malindi & T Makhalemele (eds). *Reconceptualising educational support services in South Africa*. Durbanville, South Africa: AOSIS Publishing. <https://doi.org/10.4102/aosis.2021.BK208>
- Heland-Kurzak K & Holmes S 2021. Investigating the impact of covid-19 socialisation restrictions on children's spiritual well-being: Case studies from Poland and the UK. *International Journal of Children's Spirituality*, 26(4):177–198. <https://doi.org/10.1080/1364436X.2021.1971164>
- Hendry A, Gibson SP, Davies C, McGillion M & Gonzalez-Gomez N 2023. Towards a dimensional model of risk and protective factors influencing children's early cognitive, social, and emotional development during the COVID-19 pandemic [Special issue]. *Infancy*, 28(1):158–186. <https://doi.org/10.1111/inf.12495>
- Imran MH, Zhai Z & Iqbal M 2022. The role of religious coping to overcome mental distress and anxiety during the COVID-19 pandemic: An integrative review. *Analysis of Social Issues and Public Policy*, 22(3):817–835. <https://doi.org/10.1111/asap.12327>
- Ismail KH, Badayai ARA & Rubini K 2017. Children development and well-being: A review of environmental stressors in children physical environment [Special issue]. *e-BANGI Journal of Social Sciences and Humanities*, 12(3):1–10.
- Kaufman SB 2023. Self-actualizing people in the 21st century: Integration with contemporary theory and research on personality and well-being. *Journal of Humanistic Psychology*, 63(1):51–83. <https://doi.org/10.1177/0022167818809187>
- Khan MA 2018. The status of early childhood education in Pakistan: Inside stories. *Contemporary Issues in Early Childhood*, 19(3):310–317. <https://doi.org/10.1177/1463949118757049>
- Köhler-Dauner K, Clemens V, Lange S, Ziegenhain U & Fegert JM 2021. Mothers' daily perceived stress influences their children's mental health during SARS-CoV-2-pandemic—an online survey. *Child and Adolescent Psychiatry and Mental Health*, 15:31. <https://doi.org/10.1186/s13034-021-00385-3>
- Kumar M, Madeghe B, Osok-Waudu J, Wambua GN & Amugune BK 2018. Shifting parental roles, caregiving practices and the face of child development in low resource informal settlements of Nairobi: Experiences of community health workers and school teachers. *Annals of General Psychiatry*, 17:50. <https://doi.org/10.1186/s12991-018-0219-x>
- Kwong E, Lam CB, Li X, Chung KKH, Cheung RYM & Leung C 2018. Fit in but stand out: A qualitative study of parents' and teachers' perspectives on socioemotional competence of children. *Early Childhood Research Quarterly*, 44:275–287. <https://doi.org/10.1016/j.ecresq.2018.02.018>
- Luo W, Berson IR, Berson MJ & Han S 2022. Young Chinese children's remote peer interactions and social competence development during the COVID-19 pandemic. *Journal of Research on Technology in Education*, 54(Suppl. 1):S48–S64. <https://doi.org/10.1080/15391523.2021.1906361>
- Makuyana T 2022. Towards interventions on school dropouts for disabled learners amidst and post-COVID-19 pandemic. *African Journal of Disability*, 11:a1009. <https://doi.org/10.4102/ajod.v11i0.1009>
- Malindi MJ & Koen MP 2021. Support for at-risk learners in South African schools. In J Hay, M Malindi & T Makhalemele (eds). *Reconceptualising educational support services in South Africa*. Durbanville, South Africa: AOSIS Publishing. <https://doi.org/10.4102/aosis.2021.BK208>
- Malindi MJ & Machenjewe N 2012. The role of school engagement in strengthening resilience among street children. *South African Journal of Psychology*, 42(1):71–81. Available at https://www.researchgate.net/profile/Macalane-Malindi/publication/258184841_The_Role_of_School_Engagement_in_Strengthening_Resilience_among_Male_Street_Children/links/540748250cf23d9765a8444b/The-Role-of-School-Engagement-in-Strengthening-Resilience-among-Male-Street-Children.pdf. Accessed 31 October 2023.
- Maree JG 2022. Managing the Covid-19 pandemic in South African schools: Turning challenge into opportunity. *South African Journal of Psychology*, 52(2):249–261. <https://doi.org/10.1177/00812463211058398>
- Masten AS 2014. Global perspectives on resilience in children and youth. *Child Development*, 85(1):6–20. <https://doi.org/10.1111/cdev.12205>
- Mathiyazhagan S & Wang Z 2021. N'KaNa – my dream: Community action towards the holistic child development in India. *Children and Youth Services Review*, 122:105924.

- <https://doi.org/10.1016/j.childyouth.2021.105924>
 Mohan M & Bhat JS 2022. Influence du statut socio-économique sur le développement du jeu chez les enfants – une étude mère enfant basée sur l'interaction dyadique [Influence of socio-economic status on play development in toddlers – a mother child dyadic interaction based study]. *Neuropsychiatrie de l'Enfance et de l'Adolescence*, 70(2):68–74.
<https://doi.org/10.1016/j.neurenf.2021.11.005>
- Morelli M, Graziano F, Chirumbolo A, Baiocco R, Longobardi E, Trumello C, Babore A & Cattelino E 2022. Parental mediation of COVID-19 news and children's emotion regulation during lockdown. *Journal of Child and Family Studies*, 31:1522–1534. <https://doi.org/10.1007/s10826-022-02266-5>
- Murewanhema G, Gwinji PT, Gwanzura C, Chitungo I, Eghtessadi R, Musuka G & Dzinamarira T 2023. Commercial sexual exploitation of children in Zimbabwe: A threat to human and social development. *Child Abuse Review*, 32(2):e2794. <https://doi.org/10.1002/car.2794>
- Nsameng BA 1992. Perceptions of parenting among the Nso of Cameroon. In BS Hewlett (ed). *Father-child relations: Cultural and biosocial contexts*. New York, NY: Aldine de Gruyter.
- Nunes SAN, Faraco AMX, Vieira ML & Rubin KH 2013. Externalizing and internalizing problems: Contributions of attachment and parental practices. *Psicologia: Reflexão e Crítica*, 26(3):617–625. <https://doi.org/10.1590/S0102-79722013000300022>
- Obst B, Roesler M, Fato P & Goff C 2022. Supporting children on the autism spectrum as they experience the challenges of COVID-19. *NASN School Nurse*, 37(5):240–244. <https://doi.org/10.1177/1942602X221089047>
- O'Connor Bones U, Bates J, Finlay J & Campbell A 2022. Parental involvement during COVID-19: Experiences from the special school. *European Journal of Special Needs Education*, 37(6):936–949. <https://doi.org/10.1080/08856257.2021.1967297>
- O'Keeffe C & McNally S 2021. 'Uncharted territory': Teachers' perspectives on play in early childhood classrooms in Ireland during the pandemic. *European Early Childhood Education Research Journal*, 29(1):79–95. <https://doi.org/10.1080/1350293X.2021.1872668>
- Oliveira VH, Martins PC & Carvalho GS 2022. Children's daily activities and well-being during the COVID-19 lockdown: Associations with child and family characteristics. *Current Psychology*. <https://doi.org/10.1007/s12144-022-02759-y>
- Onyema EM, Eucheria NC, Obafemi FA, Sen S, Atonye FG, Sharma A & Alsayed AO 2020. Impact of Coronavirus pandemic on education. *Journal of Education and Practice*, 11(13):108–121. <https://doi.org/10.7176/JEP/11-13-12>
- Orben A, Tomova L & Blakemore SJ 2020. The effects of social deprivation on adolescent development and mental health. *The Lancet Child & Adolescent Health*, 4(8):634–640. [https://doi.org/10.1016/S2352-4642\(20\)30186-3](https://doi.org/10.1016/S2352-4642(20)30186-3)
- Orgilés M, Francisco R, Delvecchio E, Espada JP, Mazzeschi C, Pedro M & Morales A 2022. Psychological symptoms in Italian, Spanish and Portuguese youth during the COVID-19 health crisis: A longitudinal study. *Child Psychiatry & Human Development*, 53:853–862. <https://doi.org/10.1007/s10578-021-01211-9>
- Pareek T & Soni K 2020. A comprehensive study on COVID-19 pandemic: An impact on school education in India. *Amity Journal of Management*, 8(2):49–57. Available at https://www.amity.edu/gwalior/ajm/pdf/ajm_v8n2_3.pdf. Accessed 31 October 2023.
- Paris J, Ricardo A & Rymond D 2019. *Child growth and development*. Santa Clarita, CA: College of the Canyons.
- Pompele S, Ghetta V, Veronese S, Bucuță MD & Testoni I 2022. Spirituality and children's coping with representation of death during the COVID-19 pandemic: Qualitative research with parents. *Pastoral Psychology*, 71:257–273. <https://doi.org/10.1007/s11089-021-00995-w>
- Prime H, Wade M & Browne DT 2020. Risk and resilience in family well-being during the COVID-19 pandemic. *American Psychologist*, 75(5):631–643. <https://doi.org/10.1037/amp0000660>
- Rajmil L, Hjern A, Boran P, Gunnlaugsson G, De Camargo OK & Raman S 2021. Impact of lockdown and school closure on children's health and well-being during the first wave of COVID-19: A narrative review. *BMJ Paediatrics Open*, 5(1):e001043. <https://doi.org/10.1136/bmjpo-2021-001043>
- Roberts L, Mannay D, Rees A, Bayfield H, Corliss C, Diaz C & Vaughan R 2021. 'It's been a massive struggle': Exploring the experiences of young people leaving care during COVID-19. *Young*, 29(Suppl. 4):S81–S99. <https://doi.org/10.1177/11033088211025949>
- Russell BS, Tomkunas AJ, Hutchison M, Tambling RR & Horton AL 2022. The protective role of parent resilience on mental health and the parent-child relationship during COVID-19. *Child Psychiatry & Human Development*, 53:183–196. <https://doi.org/10.1007/s10578-021-01243-1>
- Saad M, De Medeiros R & Mosini AC 2017. Are we ready for a true biopsychosocial-spiritual model? The many meanings of "spiritual". *Medicines*, 4(4):79. <https://doi.org/10.3390/medicines4040079>
- Sama BK, Kaur P, Thind PS, Verma MK, Kaur M & Singh DD 2021. Implications of COVID-19-induced nationwide lockdown on children's behaviour in Punjab, India. *Child: Care, Health and Development*, 47(1):128–135. <https://doi.org/10.1111/cch.12816>
- Santa-Cruz C, Espinoza V, Donoso J, Rosas R & Badillo D 2022. How did the pandemic affect the socio-emotional well-being of Chilean schoolchildren? A longitudinal study. *School Psychology*, 37(1):85–96. <https://doi.org/10.1037/spq0000493>
- Sayed Y, Singh M, Bulgrin E, Henry M, Williams D, Metcalfe M, Pesambili J & Mindano G 2021. Teacher support, preparedness and resilience during times of crises and uncertainty: COVID-19 and education in the Global South. *Journal of Education*, 84:125–154. <https://doi.org/10.17159/2520-9868/i84a07>
- Şenol Y, Şenol FB & Can Yaşar MC 2023. Digital game addiction of preschool children in the Covid-19 pandemic: Social emotional development and

- parental guidance. *Current Psychology*.
<https://doi.org/10.1007/s12144-023-04323-8>
- Serra G, Scalzo LL, Giuffrè M, Ferrara P & Corsello G 2021. Smartphone use and addiction during the coronavirus disease 2019 (COVID-19) pandemic: Cohort study on 184 Italian children and adolescents. *Italian Journal of Pediatrics*, 47:150.
<https://doi.org/10.1186/s13052-021-01102-8>
- Shi LK, Cahyani PA & Tiatri S 2022. Impact of COVID-19 lockdown on mental health and education: A literature review. In *Proceedings of the 3rd Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2021)* (Vol. 655). Dordrecht, The Netherlands: Atlantis Press.
<https://doi.org/10.2991/assehr.k.220404.319>
- Shrivastava SR, Shrivastava PS & Ramasamy J 2016. Ensuring holistic development of disabled children in developing countries. *South African Family Practice*, 58(Suppl. 1):S29–S30.
<https://doi.org/10.1080/20786190.2014.978093>
- Simó-Pinatella D, Goei SL, Carvalho M & Nelen M 2022. Special education teachers' experiences of addressing challenging behaviour during the pandemic. *European Journal of Special Needs Education*, 37(6):907–920.
<https://doi.org/10.1080/08856257.2021.1963152>
- Singh S, Vig D & Chawla A 2020. Locale differentials in academic readiness of private school children. *Indian Journal of Positive Psychology Review*, 11(4):365–370.
- Śniadach J, Szymkowiak S, Osip P & Waszkiewicz N 2021. Increased depression and anxiety disorders during the COVID-19 pandemic in children and adolescents: A literature review. *Life*, 11(11):1188.
<https://doi.org/10.3390/life11111188>
- Spaull N & Van der Berg S 2020. Counting the cost: COVID-19 school closures in South Africa and its impact on children. *South African Journal of Childhood Education*, 10(1):a294.
<https://doi.org/10.4102/sajce.v10i1.924>
- Sserwanja Q, Kawuki J & Kim JH 2021. Increased child abuse in Uganda amidst COVID-19 pandemic. *Journal of Paediatrics and Child Health*, 57(2):188–191. <https://doi.org/10.1111/jpc.15289>
- Su Y, Rao N, Sun J & Zhang L 2021. Preschool quality and child development in China. *Early Childhood Research Quarterly*, 56:15–26.
<https://doi.org/10.1016/j.ecresq.2021.02.003>
- Süt HM & Öznaçar B 2021. Effects of COVID-19 period on educational systems and institutions [Special issue]. *International Journal of Curriculum and Instruction*, 13(1):537–551. Available at <https://ijci.globets.org/index.php/IJCI/article/view/554/257>. Accessed 31 October 2023.
- Świgost A 2017. Approaches towards social deprivation: Reviewing measurement methods. *Bulletin of Geography. Socio-economic Series*, 38:131–141.
- Tadesse S & Muluye W 2020. The impact of COVID-19 pandemic on education system in developing countries: A review. *Open Journal of Social Sciences*, 8:159–170.
<https://doi.org/10.4236/jss.2020.810011>
- Taneja-Johansson S, Singal N, Mergia AT & Side A 2022. Schooling children with disabilities during COVID-19: Perspectives of teachers and caregivers in Ethiopia. *Disability & Society*:1–21.
<https://doi.org/10.1080/09687599.2022.2156849>
- Theron L, Liebenberg L & Malindi M 2014. When schooling experiences are respectful of children's rights: A pathway to resilience. *School Psychology International*, 35(3):253–265.
<https://doi.org/10.1177/0142723713503254>
- Theron LC & Donald DR 2013. Educational psychology and resilience in developing contexts: A rejoinder to Toland and Carrigan (2011). *School Psychology International*, 34(1):51–56.
<https://doi.org/10.1177/0143034311425579>
- Theron LC & Engelbrecht P 2012. Caring teachers: Teacher-youth transactions to promote resilience. In M Ungar (ed). *The social ecology of resilience: A handbook of theory and practice*. New York, NY: Springer. https://doi.org/10.1007/978-1-4614-0586-3_21
- Ungar M 2011. The social ecology of resilience: Addressing contextual and cultural ambiguity of a nascent construct. *American Journal of Orthopsychiatry*, 81(1):1–17.
<https://doi.org/10.1111/j.1939-0025.2010.01067.x>
- United Nations Educational, Scientific and Cultural Organization 2022. *Culture in times of COVID-19: Resilience, recovery and revival*. Paris, France: Author. Available at <https://unesdoc.unesco.org/ark:/48223/pf00000381524>. Accessed 31 October 2023.
- Vallejo-Slocker L, Sanz J, García-Vera MP, Fresneda J & Valle MA 2022. Mental health, quality of life and coping strategies in vulnerable children during the COVID-19 pandemic. *Psicothema*, 34(2):249–258. <https://doi.org/10.7334/psicothema2021.467>
- Watts R & Pattnaik J 2022. Perspectives of parents and teachers on the impact of the COVID-19 pandemic on children's socio-emotional well-being. *Early Childhood Education Journal*, 51:1541–1552.
<https://doi.org/10.1007/s10643-022-01405-3>
- Wijaya RPC, Bunga BN & Kiling IY 2022. Socio-emotional struggles of young children during COVID-19 pandemic: Social isolation and increased use of technologies. *Journal of Early Childhood Research*, 20(1):113–127.
<https://doi.org/10.1177/1476718X211052789>
- Wilson Fadiji A, De la Rosa PA, Counted V, De Kock JH, Bronkhorst WLR, Joynt S, Tesfai A, Nyamaruze P, Govender K & Cowden RG 2023. Flourishing during the COVID-19 pandemic: A longitudinal study in South Africa. *Psychological Reports*, 0(0):1–24.
<https://doi.org/10.1177/00332941231161753>
- Wong JYH, Wai AKC, Wang MP, Lee JJ, Li M, Kwok JYY, Wong CKH & Choi AWM 2021. Impact of COVID-19 on child maltreatment: Income instability and parenting issues. *International Journal of Environmental Research and Public Health*, 18(4):1501.
<https://doi.org/10.3390/ijerph18041501>
- Wythe J 2022. An exploration into the implications of the Covid-19 restrictions on the transition from Early Years Education to Key Stage 1 for children with special educational needs and disability - a comparative study. *British Journal of Special Education*, 49(4):605–627.
<https://doi.org/10.1111/1467-8578.12430>

Xi C & Wang L 2022. How parental migration status affects early development of rural children: The indirect role of family socioeconomic status and home environment. *Early Education and Development*:1–19.
<https://doi.org/10.1080/10409289.2022.2119798>

Yüksel N, Çoban C & Yazıcı DN 2021. Examining the problems faced by students with special needs in the distance education process during the COVID-19 pandemic. *Educational Process: International Journal*, 10(4):20–34.
<https://doi.org/10.22521/edupij.2021.104.2>