Reviewing Child Development During Pandemic

by Jana Publication & Research

Submission date: 31-May-2025 01:13PM (UTC+0700)
Submission ID: 2664977003
File name: IJAR-51985.docx (62.44K)
Word count: 3658
Character count: 22525

Reviewing Child Development During Pandemic

ABSTRACT

Child development is the foundational and unique aspect, leading to transformations in various abilities. There are several factors, like genetics, nutrition, environment, etc., which put an impact on the process of development. Apart from these, certain extraneous factors like rising terrorist activities, wars, and pandemics also greatly impact the development of a child. Several pandemics or epidemics have adverse effect on the development of children, such as "The development of children who were exposed to the Asian influenza pandemic in 1957, while in utero, was hampered with evidence of poor cognitive development". The adversities of such effects can also be observed where "The 1918 Spanish flu has resulted in lower educational attainment for those individuals whose mothers had potential in-utero exposure". Moreover, other studies on the impact of various pandemics or health-related disasters (SARS, H1N1) depict a correlation between the enhanced level of anxiety, depression, and post-traumatic stress level in school-aged children, adolescents, and young adults who were directly affected (Ko, Yen, Yen, & Yang, 2006; Main, Zhou, Ma, Luecken, Liu, 2011; Sprang & Silman, 2013). These studies highlight that the pandemic had a long-term negative impact on the generations, in the development process of a child. So, these necessities need to know the impact of another pandemic, which hit the ground in 2020, on child development. Child development is multidimensional as it deals with physical, cognitive, linguistic, and socio-emotional development. But the focus of this paper is to study the impact of the Covid-19 pandemic on Child Development, especially concerning skills in three domains i.e., Cognitive, Affective (Socio-emotional), and Psychomotor, where, the cognitive domain includes mental skills, the affective domain includes the skills associated with emotional development, and the psychomotor domain encompasses the physical skills. The study, to know the impact is done through the review of studies taken from the following databases Google Scholar, JSTOR, and ResearchGate.

KEYWORDS: Child Development, Cognitive Development, Socio-emotional Development,

INTRODUCTION

Child development refers to the development of various characteristics such as physical, cognitive, linguistic, and socio-emotional development, which begins from the pre-natal stage and continues throughout the post-natal stage. 'Child development is a fundamental component that includes a special and distinctive process that aids the child's societal integration. Thus, development is associated with slow and ongoing changes in motor, psychosocial, cognitive, and language capacities, as well as the progressive acquisition of more advanced and complicated activities' (Souza & Veríssimo, 2015). This definition highlights the multidimensional aspect of development. Development in these areas

occurs in a variety of settings, including home, school, and society/community, and these factors further led to other factors like nutrition, childcare, and the role of parents that have an impact on overall growth and development (Manas, 2019). Along with these some of the extraneous factors such as rising terrorist activities, war situations, and pandemics around the globe have a significant impact on the life of individuals. In the midst of this chaos and ongoing wars, another crisis occurs, disrupting everyone's lives once more, and that is the era of the Covid-19 pandemic. Aside from these, studies reveal that not only the pandemic but also the measures adopted to limit the threat, such as social restrictions, shutdowns, and school closures function as a major risk factor in growth and development.

Some studies also suggest that the pandemic may raise the risks in child development because of illness, protective quarantine, social isolation, and the heightened stress level of parents and caregivers. These types of conditions not only gave rise to 'adverse childhood experiences' but, may also have the ability to generate 'stress', which will increase the potential losses for the development of the brain, individual, and overall collective health. This may also result in long-term deterioration of cognition, mental and physical health, and adult working capacity in the future (Araujo et al., 2020). In this regard, a different study emphasizes that 'The more unfavourable the experiences, the greater the chance of developmental delays and health issues in adulthood, such as cognitive impairment, substance addiction, depression, and non-communicable diseases' (Natalie Claypool & Arelis Moore, 2021). This led to the conclusion that the Covid-19 pandemic could cause both short terms and long terms developmental delays.

Covid-19 impact on Child Development

According to the study on the potential impact of the Covid-19 pandemic on child growth and development: "Social and economic reconfigurations, the fear of contagion, illness caused by COVID-19, isolated family life, school closures, the lack of support networks for other adults, the loss of loved ones, the difficulty of combining working from home with full-time childcare, financial challenges, increased exposure to vulnerabilities (such as domestic violence, drug use, and mental illness in family members) can result in toxic stress", (Araujo et.al. 2020). These conditions elevate the stress level and lead to adverse childhood experiences, which impact the growth and development of the child in all aspects.

Cognitive Development

The term 'Cognition' refers to capabilities including memory, thinking and reasoning, spatial processing, problem-solving, language, and perception (Richland et al., 2016). Development is the pattern of progressive, orderly/sequential, and predictable changes that begin at conception and continue throughout life. Thus, cognitive development refers to the gradual transformations in the aforementioned capabilities. Studies also highlight those cognitive abilities and skills such as academic achievement in math, science, reading, and other subjects that are part of the school curriculum have been affected due to the onset of the pandemic (Werner & Woessmann, 2021). In addition, a study on the Covid-19 pandemic and early child cognitive development found that there is a decline in cognitive performance due to the onset of the pandemic, particularly among infants who were born after mid-2020 (Deoni, 2022). The following is the effect of Covid-19 on cognitive development:

1. The potential impact of the pandemic on growth and development highlights that, the Covid-19 pandemic has resulted in differential brain structural and functional development among children, which later leads to a variety of cognitive impairments (Araujo et al., 2020).
2. Social distancing and school closures increase mental health problems in children and adolescents, who are at higher risk of developing mental health problems than adults (Jessica Deighton et al., 2019).
3. The pandemic has also resulted in lower academic growth in math (Thompson, 2020) and language, and arts (Darmiyanti et al., 2021).
4. This has also increased the risk of developmental disorders. This is evident in cases where a child under the age of 5 is responsible for taking care of younger siblings (without assistance from adults) has resulted in adversities such as selective mutism, and speech delay (Araujo et al., 2020; Gauchemez et al., 2009).
5. Due to the lack of social interaction during Covid-19 young children are missing out on learning by doing, peer-to-peer learning, and developing critical cognitive skills (Amit Bansal, 2021).
6. The discomfort caused by the pandemic not only increases stress but also caused problems with attention and cognitive functioning in adolescents, compounding the possibility of academic difficulties (Frolli et al, 2021).
7. According to another study on the impact of the Covid-19 pandemic on language and social development "the school from the home policy implemented during the COVID-19 pandemic has affected young children's receptive skills and reading aspects" (Darmiyanti et al., 2021).
8. The pandemic has caused pre-schoolers to struggle with attention and concentration (Yildirum, 2021).
9. Furthermore, according to a study on the legacy of Covid-19 in education, children are "missing development of basic skills such as reading, writing, and counting skills" (Werner & Woessmann, 2021).

According to the studies, the pandemic has caused not developmental delays and impairments but also a delay in basic skills such as reading, writing, and arithmetic. Aside from this, lower academic performance in math, languages, and arts can also be observed.

Socio-Emotional Development

Growth in social and emotional aspects is referred to as socio-emotional development (Thompson, 2012). Social development is defined by the Center on the Social Emotional Foundations for Early Learning (CSEFEL) defines as "the developing capacity of the child from birth to 5 years of age, to form close and secure adult and peer relationships; experience, regulate, and express emotions in social and culturally appropriate ways; and explore and learn" (Center on the Social Emotional Foundations for Early Learning, 2008). It can also be defined as the process by which children learn to initiate, maintain and trust relationship-building with adults and peers; to understand and express emotions appropriately; and to become independent, explore and engage with the environment and make liable decisions (Ashdown & Bernard 2012). To summarize socio-emotional development demonstrate how a child adjusts, understands, acts, makes an adjustment, and maintains healthy relationships in life.

According to Julia Dillmann et al. (2022), Parents' stress during the Covid-19 Pandemic had a great impact on "Early Social-Emotional Child Development". As a result of financial, social, and emotional constraints parents suffers resulting in long-term stress that cause not only cognitive but also emotional burdens. Furthermore, "disconnection from loved ones, the loss of freedom, uncertainty about disease status, and boredom can, on occasion, produce dramatic effects" (Samantha K Brooks et al., 2019). In another case, it is observed that a large proportion of toddlers and pre-schoolers in Chile experienced certain a change in emotions and behavior. When compared to the pre-pandemic times most caregivers reported that 78.9% of children 'were more affectionate', 65.1% of children were 'more restless', and 54.1% of children were 'more frustrated' (Nicolas Aguila-Fairas et al., 2021). And according to another study conducted in Italy and Spain, by Orgiles et al. (2020) 85.7% of the parents observed changes in their emotions and behaviour, and most of these changes were observed during the quarantine (a measure adopted to curb the flow of Covid-19). The most frequently observed symptoms were difficulty in concentration (76.6%), increased boredom (52%), irritability (39%), enhanced restlessness (38.8%), the feeling of nervousness (38%), and feelings of loneliness (31.3%), apart from these, uneasiness (30.4%), and worries (30.1%) also got enhanced. According to the studies, parental well-being and child development are strongly connected to each other, and COVID-19 has created an environment in which negative consequences can be seen not only in parent-child relationships but also in child development (Dillmann et al., 2022). Apart from this, "reduced freedom of movement may also disrupt emotional and psychological well-being among children" (Werner & Woessmann, 2021). Furthermore, the school from the home method adopted during Covid-19 lacked a feasible learning atmosphere and resulted in a lack of social interaction; in addition to this, students also failed to engage with their friends, which ultimately, resulted in poor learning outcomes" (Darmiyanti et al., 2021). The following is the effect of Covid-19 on socio-emotional development:

1. Adolescents experienced increased stress as a result of restrictive measures due to fear of infection, frustration, and boredom. Fear and boredom were heightened during this phase as a result of the lack of face-to-face contact with classmates and friends, as well as the loss of relatives (Bozzola et al., 2022).
2. In addition to the effects mentioned above, another study found that the pandemic also results in increased clinginess, under-stimulation, sadness, and anxiousness (Dillmann et al., 2022).
3. A study on the Immediate psychological effect of the Covid-19 pandemic pointed out that Children and young adults are particularly vulnerable to developing anxiety symptoms (Orgiles et al., 2020).
4. Another factor influencing socio-emotional development, particularly among adolescents is a low mood or signs of depression (Nicolas Aguila-Fairas et al., 2021).
5. Apart from this, social isolation adopted as a measure in many homes, has amplified the harmful experiences resulting in psychological aggression and increasing toxic stress among children (Huang et al., 2021).
6. Risky behavioral problems among children and adolescents (e.g.,

substance abuse, suicide, relationship problems, academic issues, and absenteeism from work) have been observed in the study conducted by Meharali et al., (2021).

7. Lack of motivation and social skills emerged as another effect of Covid-19 on socio-emotional development, because of insufficient peer-to-peer interaction while delivering instructions through online mode (Chaturvedi et al., 2021).

This leads to the conclusion that the pandemic has long-term effects on socio-emotional development such as reduced social interaction, emotional instability (feelings of irritability, fearfulness, clinginess, mood swings, etc.), reduced motivation, and social skills.

Psycho-Motor Development

According to Rigal (2006), motor skills encompass certain functions such as the living organism's self-generated movements. 'These include not only voluntarily performed motor actions, but also the coordination of physical, cognitive, and affective factors, which continues to improve throughout lifetime' (Sáez-Sánchez et al., 2021). Thus, psychomotor development is an important and complex process, in which social as well as cognitive development leads to physical changes (Sáez-Sánchez et al., 2021). In addition, psychomotor activities include gross and fine motion activities (Yudanto et al, 2022). According to a study by Getchell et al., (2022), "the consequences of the COVID-19 pandemic on motor development have a profound impact on infants and children of all ages and this may have a lasting impact on many distinct aspects of development in the years to come". The pandemic's impact on psychomotor development is as follows:

1. The Covid-19 pandemic has resulted in a decrease in physical activities due to school closures, and stay-at-home restrictions.
2. According to a study on the physical activities of children and adolescents during the pandemic, "the pandemic caused adolescents to be more inactive due to the cancellation and replacements of organized team sports and activities" (Rossi et al., 2021).
3. According to research, the phenomenon of social isolation and lack of interaction during the pandemic may result in fine motor and communication delays, particularly in children under the age of 1 year old. (Huang et al., 2021).
4. For 12-24 months or more, opportunities for movement experiences in the form of physical education, sporting activities, and unstructured play were reduced, which further hampered motor development (Getchell et al., 2022).
5. Students who studied face-to-face developed better psychomotor skills than those who were exposed to an online mode of education (Eroğlu et al., 2022).
6. According to a systematic review of the impact of the covid-19 pandemic, the inability to launch practices associated with the subject of physical education has resulted in reduced motor development (Cachon-Zagalaz, 2020).

This implies that the pandemic has resulted in a reduction in psycho-motor development due to the reduced availability of physical activities as a result of the online system of education in the majority of countries, furthering the delays in psychomotor skills.

CONCLUSION

According to the studies pandemics or endemics have long-term and multigenerational consequences. Similarly, a review of the studies on the impact of the Covid-19 pandemic highlights the undeniable impact on social and emotional, cognitive, and psychomotor aspects of neurodevelopment during the course of child development. The consequences include cognitive impairment, mental health issues, and a reduction in math and language abilities. Furthermore, studies show that the measures designed to mitigate the spread of the pandemic have increased psychological distress (stress, being scared, and an increase in irritability, feeling depression, sadness, and anger). Aside from that, a significant setback to socio-emotional aspects is seen due to the absence of peer learning and peer communication and the lack of socialization opportunities (Watts & Pattnaik, 2022). Furthermore, teachers and parents have reported difficulties in the acquisition of physical, motor, and practical skills due to the lack of practice facilities for physical activities, and fine motor skills as a result of school closures (Meyer et al., 2022).

These studies further, necessities the need for psychologists, counsellors, educationists, and policymakers to develop such strategies which can mitigate the aftermath of the Covid-19 pandemic, such as increased dropout, and low attendance (Mthalane et al, 2021).

REFERENCES

Ashdown D. M., & Bernard M. E. (2012). Can explicit instruction in social and emotional learning skills benefit the social-emotional development, well-being, and academic achievement of young children? *Early Childhood Education Journal*, *39*(6), 397-405. http://doi.org/10.1007/s10643-011-0481

Araujo, L. A, Veloso, C. F., Souza, M. C., Azevedo, J. M. C., & Tarro, G. (2021). The potential impact of the COVID-19 pandemic on child growth and development: a systematic review. *Journal de Pediatria*, *94*(4), 369-377. http://doi.org 10.101 6/j.jped.2020.08.008

Aguliar-Farias, N., Toledo-Vargas, M., Miranda-Marquez, S., Ryan, A. C., Martino-Fuentealba, P., Cristi-Montero, C., Rodriguez-Rodriguez, F., Guarda-Saavedra, P., Cruz, B.D. P., & Okely, A. D. (2021). Associations between movem ent behaviours and emotional changes in toddlers and preschoolers during early stages of Covid-19 pandemic in Chile. http://doi.org.10.3389/fped .2021.667362

Bansal, A. (2021 May 13). *Explained: Impact of Covid-19 on cognitive skill development*. India Today. https://www.indiatoday.in/education-today/featurephilia/story/explained-impact-of-covid-19-on-cognitive-skill-development-1802229-2021-05-13

Bozzola, E., Caffarelli, C., Santamaria, F., & Corsello, G. (2022). The year 2021 in C OVID-19 pandemic in children. *Italian Journal of Pediatrics*, *48*(161). http://doi.org.10.11 86/s13052-022-01360-0

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin G. J., (2020). The psycholo gical impact of quarantine and how to reduce it: rapid review of the evidence. *The Lacent*, 395(10227), 912-920. https://doi.org.10.10 16/S0140-6736(20)30460-8

Cachon-Zagalaz, J., Sanchez-Zafra, M., Sanabrias-Moreno, D., Gonzalez-Valero, G. ara-Sanchez, A. J., & Zagalaz-Sanchez, M. L. (2020). Systemantic review of literature

about the effects of the Covid-19 pandemic on the lives of school children. Sec. Educational Psychology. https://doi.org/10.3389/fpsyg.2020.5 69348

Cauchemez, S., Ferguson, N. M., Wachtel, C., Tegnell, Anders., Saour, G., Ducan, B., & Nicoll, A. (2009). Closure of schools during an influenza pandemic. The Lancet Infectious Disease, 9(8), 473-481. https://doi.org/10.1016%2FS1473-3099(09)70176-8

Center on the Social Emotional Foundations for Early Learning. (2008). Definition of Social Emotional Development. http://csefel.vanderbilt.edu/resources/trainings/1.2.pdf

Chaturvedi, K., Vishwakarma, D. K., & Singh, N. (2021). COVID-19 and its impact on education, social life and mental health of students: A survey. *Child Youth Serv. Rev*. https://doi.org/10.1016/j.childyouth.2020 .105866

Claypool, N., Moore de Peralta A. (2021). The influence of adverse childhood experiences (ACEs), including the COVID-19 pandemic, and toxic stress on development and health outcomes of Latinx children in the USA: A Review of the literature. *Int J Child Maltreat*, *4*(3), 257-278. https://doi.org/10.1007/s42448-021-0008 0-y

Clemente-González, M. (2016). Proyecto de investigación basado en la relación abuelos-nietos y fomento de identidad. 131-144. *Propuestas de Intervención en Educación Infantil*.

Darmiyanti, A., Supriadi, O., & Nurlaeli, A. (2021). The impact of Covid-19 pandemic on language and social development for early childhood children age 4-6 years in Karawang district. *Indonesian Journal of Early Childhood Education Studies*, *10*(1). https://doi.org.10.15294/ijeces.v10i1.4 6582

Deighton J., Lereya S.T., Casey P., Patalay P., Humphrey N., & Wolpert M. (2019). Prevalence of mental health problems in schools: Poverty and other risk factors among 28 000 adolescents in England. *Br J Psychiatry, 215*(3). 565-567. https://doi.org/10.11 92%2Fbjp.2019.19

Deoni, S. CL., Beauchemin, J., Volpe, A., D'Sa, V., & The Ressonance Consortium. (2021). The COVID-19 Pandemic and Early Child Cognitive Development: A comparison of development in children born during the Pandemic and historical references. https://doi.org/10.1101/20210 8.10.21261846

Dillmann, J. Sensoy, O., & Schwarzer, G. (2022). Parental perceived stress and its consequences on early social-emotional child development during Covid-19 pandemic. *Journal of Early Childhood Research*. https://doi.org/10.1177/147671 8X221083 423.

Egan, S.M., Pope, J., Moloney, M., Hoyne, C., & Beatty, C. (2021). Missing Early Education and Care During the Pandemic: The Socio-Emotional Impact of the COVID-19 Crisis on Young Children. Early Child Educ J, *49*(5), 925-934. https://doi.org/10.1007/s10643-021-01193-2

Eroğlu, E., Kolcu, G., & Kolcu, M. I. B. (2022). The effect of distance education conducted during the Covid-19 pandemic period on the psychomotor skill development of a dental school students. *BioMed Research International*. https://doi.org/10.1155/2022/6194200

Ferrari, E., Palandri, L., Lucacccioni, L., Talucci, G., Passini, E., Trevisani, V., & Righi, E. (2022). The Kids Are Alright (?). Infants' Development and COVID-19 Pan

demic: A Cross-Sectional Study. *Internati onal Journal of Public Health*. https://doi. org/10.3389/ijph.2022.1604804

Frolli, A., Ricci, M. C., Carmine, F. D. Lombardi, A., Bosco, A., Saviano, E., & Franzese, L. (2021). The Impact of COVID-19 on cognitive development and executive functioning in adolescents: A first exploratory investigation. http://doi. org/10.33 90/brainsci11091222

Getchell, N., Tortella, P., Fumagalli, G. F., & Saakslahti, A. (2022). Promoting motor development in children in the Covid-19 era: Science and applications. https://doi.o rg/10.338 9/fpubh.2022.988085

Huang, P., Zhou, F., Guo, Y., Yuan, S., Lin, S., Lu, J., Tu, S., Lu, M., Shen, S., Guedeney, A., Xia, H., & Qui, X. (2021). Association between the Covid-19 pandemic and infant neurodevelopment: A comparison before and during Covid-19. https://doi.org/10.3389/fped.2021.662165

Kelly, E. (2011). The scourge of Asian flu in utero exposure to pandemic influenza and the development of a cohort of British children. Journal of Human Resource,46, 669–694. https://doi.org/10.1353/jhr.2011. 0004

Ko, C. H., Yen, C. F., Yen, J. Y., Yang M. J. (2006). Psychosocial impact among the public of the severe acute respiratory syndrome epidemic in Taiwan. *Psychiatry Clin Neurosci*, *60*(4), 397-403. https://doi .org/10.1111/j.1440-1819.2006. 01522.x.

Main, A., Zhou, Q., Ma, Y., Luecken, L. J., & Liu, X. (2011). Relations of SARS-related stressors and coping to Chinese college students' psychological adjustment during the 2003 Beijing SARS epidemic. *Journal of Counseling Psychology, 58*(3), 410-423. https://doi.org /10.1037/a0023632

Manas, G. M. (2020). A study on childh ood development in early stage. https://www.Researchgate.net/publication /344789123_A_STUDY_ON_CHILDHO OD_DEVELOPMENT_IN_EARLY_STA GE

Meherali, S., Punjani, N., Louie-Poon, S., Abdul, R. K., Das, J. K., Salam, R. A., & Lassi, Z. S. Mental Health of Children and Adolescents Amidst COVID-19 and Past Pandemics: A Rapid Systematic Review. Int J Environ Res Public Health, *18*(7), 3432. https://doi.org/10.3390/ijerph18073 432

Meyer, A., Stosch, C., Klatt, A.R., & Streichert, T. (2022). The impact of COVID-19 on medical students' practical skills and hygiene behavior regarding venipuncture: A case control study. *BMC Med Educ*, 22, 558. https://doi.org/10.118 6/s12909-022-03601-6

Mthalane, P. P., Agbenyegah, A. T., & Dlamini, B. I. (2021). Reflection on student drop-out against the backdrop of Covid-19 in the South African educational context among marginalized groups of students. African Sociological Review, 25(1), 194-217. https://www.jstor.org/stable/10.2307 / 48630986

Orgiles, M., Morales, A., Delvecchio, E., Mazzeschi, C., & Espada, J. P. (2020). Immediate psychological effects of the Co vid-19 quarantine in youth from Italy and Spain. http://doi.org/10.3389/fpsyg.2020.5 79038

Richland, L. E., Frausel, R., & Begolli, K. N. (2016). Cognitive development. https://www.researchgate.net/ publication /341119328_Cognitive_Development/citat ions

Richter, A., & Robling, P. (2013). Multige nerational effects of the 1918-19 influenza

pandemic in Sweden. https://www.semanticscholar.org/paper/Multigenerational-effects-of-the-1918-19-influenza-Richter-Robling/dd986254628f4fbee481dcf7915e9c5139f7c8ac

Rigal, R. (2006). Motor education and psychomotor education in preschool and primary. Barcelona.

Rossi, L., Behme, N., & Breuer, C. (2021). Physical Activity of Children and Adolescents during the COVID-19 Pandemic-A Scoping Review. *International journal of environmental research and public health*, *18*(21), 11440. https://doi.org/10.3390/ijerph182111440

Sáez-Sánchez, M. B., Gil-Madrona, P., & Martínez-López, M. (2021). Psychomotor development and its link with motivation to learn and academic performance in early childhood education. https://doi.org/10.4438/1988-592X-RE-2021-392-483

Souza, J., & Veríssimo, M. (2015). Child development: Analysis of a new concept. *Rev. Latino-Am. Enfermagem*, *23*(6). https: doi.org/10.1590/0104-1169.0462.26 54

Sprang, G., & Silman, M. (2013). Posttraumatic stress disorder in parents and youth after health-related disasters. *Disaster Medicine and Public Health Preparedness, 7*(1), 105-110. https://doi.org/10.1017/dmp.2013.22

Thompson, C. (2020, December 1). Study: Students falling behind in math during pandemic. *PHYS ORG*.

Thompson, R., & Virmani, E.A. (2012). Socioemotional Development. https://doi.org/10.1016/B978-0-12-3750 00-6.00339-6

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. https://doi.org/10.1007/s10643-022-01405-3

Werner, K., & Woessmann, L. (2021). *The Legacy of COVID-19 in Education*. CESIfo Working Paper No. 9358. Doi: 10.2139/ssrn.3945280

Yıldırım, B. (2021). Preschool Education in Turkey During the Covid-19 Pandemic: A Phenomenological Study. *Early Childhood Education Journal*, *49*, 947-963. https://doi.org/10.1007/s10643-021-01153-w

Yomoda, K., & Kurita, S. (2021). Influence of social distancing during the Covid-19 pandemic on physical activity in children: A scopic review of the literature. *Journal of Exercise Science and Fitness*, 19(*3*), 195-203. https://doi.org/10.1016/j.jesf.2021.04 .002.

Yudanto, Y., Sujarwo, S., Sumardianta, R., & Wijaya, R. G. (2022). Psychomotor Learning and the Achievement of Physical and Motor Development of Kindergarten Students during the COVID-19 Pandemic. *Conference on Interdisciplinary Approach in Sports in conjunction with the 4th Yogyakarta International Seminar on Health, Physical Education, and Sport Science*, *43*. https://dx.doi.org/10.2991/ahsr.k.220106.041

Reviewing Child Development During Pandemic

ORIGINALITY REPORT

25%	20%	15%	14%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.frontiersin.org Internet Source	2%
2	Submitted to University of Suffolk Student Paper	1%
3	www.scielo.br Internet Source	1%
4	Submitted to Zionsville Community School District Student Paper	1%
5	www.researchgate.net Internet Source	1%
6	tron.uttaradit.doae.go.th Internet Source	1%
7	Submitted to University of Reading Student Paper	1%
8	Submitted to Curtin University of Technology Student Paper	1%
9	Submitted to South African College of Applied Psychology Student Paper	1%
10	Submitted to Anglia Ruskin University Student Paper	1%
11	Submitted to Australian Catholic University Student Paper	1%
12	Submitted to Macquarie University Student Paper	

		1 %
13	covid19dataportal.es Internet Source	1 %
14	www.medrxiv.org Internet Source	1 %
15	Submitted to California Southern University Student Paper	1 %
16	Submitted to London Metropolitan University Student Paper	1 %
17	Submitted to Southern New Hampshire University - Continuing Education Student Paper	1 %
18	mdpi-res.com Internet Source	1 %
19	collaborationsforgrowth.org Internet Source	1 %
20	Submitted to University of Witwatersrand Student Paper	<1 %
21	Francisco Villegas Lirola, Antonio Codina Sánchez. "Relevant Factors in the Schooling of Children with Autism Spectrum Disorder in Early Childhood Education", Brain Sciences, 2024 Publication	<1 %
22	Liubiana Arantes de Araújo, Cássio Frederico Veloso, Matheus de Campos Souza, João Marcos Coelho de Azevedo, Giulio Tarro. "The potential impact of the COVID-19 pandemic on child growth and development: a systematic review", Jornal de Pediatria, 2020 Publication	<1 %

23	Submitted to Liverpool John Moores University Student Paper	<1 %
24	www.journal.staihubbulwathan.id Internet Source	<1 %
25	Sandra Joseph, Reena Marwah. "Pandemic Perspectives - Praxis, Policy and Pedagogies", Routledge, 2024 Publication	<1 %
26	nationalcitizensinquiry.ca Internet Source	<1 %
27	srcd.onlinelibrary.wiley.com Internet Source	<1 %
28	dadun.unav.edu Internet Source	<1 %
29	Stefan Stieger, David Lewetz, Viren Swami. "Psychological Well-Being Under Conditions of Lockdown: An Experience Sampling Study in Austria During the COVID-19 Pandemic", PsyArXiv, 2020 Publication	<1 %
30	iojes.net Internet Source	<1 %
31	journal.unnes.ac.id Internet Source	<1 %
32	perpustakaan.poltekkes-malang.ac.id Internet Source	<1 %
33	qspace.library.queensu.ca Internet Source	<1 %
34	Linda Daniela, Anna Visvizi. "Remote Learning in Times of Pandemic - Issues, Implications and Best Practice", Routledge, 2021	<1 %

Publication

35	annalsofrscb.ro Internet Source	<1 %
36	ir.lib.uwo.ca Internet Source	<1 %
37	link.springer.com Internet Source	<1 %
38	Anna Friedmann, Katharina Richter, Tamara Fuschlberger, Friedrich Voigt et al. "Infant social development before versus during the COVID-19 pandemic and the mediating effect of maternal media use – an observational study from Germany", Acta Psychologica, 2025 Publication	<1 %
39	Katy Marsh-Davies, Cathy Burnett. "Teachers and Teaching Post-COVID - Seizing Opportunities for Change", Routledge, 2023 Publication	<1 %
40	Kenji Yomoda, Shohei Kurita. "Influence of social distancing during the COVID-19 pandemic on physical activity in children: A scoping review of the literature", Journal of Exercise Science & Fitness, 2021 Publication	<1 %
41	Mossler, Ron . "Child and Adolescent Development, Third Edition", UAGC, 2024 Publication	<1 %
42	Satyajit Chakrabarti, Soumik Gangopadhyay, Isita Lahiri, Soma Sur, Subrata Chattopadhyay, Rishi Raj Sharma. "Perspectives in Sustainable Management Practices", Routledge, 2023 Publication	<1 %

43	Suzanne M. Egan, Jennifer Pope. "Chapter 2 A Bioecological Systems Approach to Understanding the Impact of the COVID-19 Pandemic: Implications for the Education and Care of Young Children", Springer Science and Business Media LLC, 2022 Publication	<1 %
44	Submitted to Antelope High School Student Paper	<1 %
45	www.binasss.sa.cr Internet Source	<1 %

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		