Journal Homepage: -www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/20961
DOI URL: http://dx.doi.org/10.21474/IJAR01/20961

RESEARCH ARTICLE

REVIEWING CHILD DEVELOPMENT DURING PANDEMIC

Deepa Sikand Kauts and Amritpal Kaur

Manuscript Info

Manuscript History
Received: 27 March 2025
Final Accepted: 30 April 2025
Published:May 2025

Key words:-
Child Development, Cognitive Development, Socio-emotional Development, Psychomotor Development, Impact of 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 impacton 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 had an 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". Furthermore, research on the effects of past pandemics and health-related crises, such as SARS and H1N1, has shown a link between increased levels of anxiety, depression, and post-traumatic stress in school-aged children, adolescents, and young adults who were directly impacted. The research highlights that the pandemic had lasting adverse effects on multiple generations, particularly influencing children's developmental processes.So, these necessities need to know the impact of another pandemic, whichhit 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 studythe disruption caused by the Covid-19 pandemic on the typical trajectories of child development, especially concerning skills in three domains i.e., Cognitive, Affective (Socio-emotional), and Psychomotor, where, the cognitive domain involves intellectual abilities, the affective domain pertains to emotional growth and related skills, while the psychomotor domain covers physical and motor abilities. The study, to know the impact, is done through the review of studies taken from the following databases: Google Scholar, JSTOR, and ResearchGate.

Introduction:-

Child development refers to the development of various characteristics such as physical, cognitive, linguistic, and socio-emotional development,which begins from the prenatal stage and continues throughout the postnatal stage. 'Child development is a fundamental component that includes a special and distinctive process that aids the child's

Corresponding Author:-Deepa Sikand Kauts

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 diverse contexts, 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 greatly influenced individuals' lives. Amid 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 the viral outbreak and 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, preventive quarantine, social exclusion, and the heightened stress experienced by the 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 eventuallyresult in a long-term decline in cognitive abilities, mental and physical well-being, and workforce productivity(Araujo et al., 2020).In this regard, a different study emphasizes that'the more unfavorable 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-term and long-term developmental delays.

COVID-19 Impact on Child Development

Based on research examining the possible effects 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, whichimpactthe growth and development of the child in all aspects.

CognitiveDevelopment

The term 'Cognition'relates to 'mental functions including memory, thought processes, reasoning, spatial understanding, problem-solving, language, and perception' (Richland etal., 2016). Development is the process of gradual,sequential, foreseeable changes starting from conception and lasting throughout life. Thus, cognitive development signifies 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 examining the impact of the COVID-19 pandemic on early child cognitive growth observed a decrease 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 prospective influence 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 subsequently leads to a variety of cognitive impairments (Araujo et al., 2020).
2. Social distancing and school closures have heightened mental health issues among children and adolescents, who are more vulnerable to such problems compared to adults(Jessica Deighton etal., 2019).
3. The pandemic has also resulted in lower academic growth in math (Thompson, 2020) and languageand arts (Darmiyanti etal., 2021).
4. This has also increased the risk of developmental disorders. This is evident in cases where a child under the age of 13 is responsible for taking careof minor siblings (without adult supervision)hasresulted in adversities such as "selective mutism, and speech delay" (Araujo et al., 2020; Cauchemez et al., 2009).
5. Because of limited social interaction during the COVID-19 pandemic, young children have been deprived of experiential learning, peer interactions, and the development of essential cognitive abilities(Amit Bansal, 2021).
6. The discomfort caused by the pandemic not only increases stressbutalsocausedproblemswith attention and cognitive functioning in adolescents, compounding the possibility of academic difficulties (Frolli etal, 2021).

7. As highlighted in an additional study regarding 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 etal., 2021).
8. The pandemic has caused pre-schoolers to struggle with attention and concentration(Yildirum, 2021).
9. Furthermore, according to a study concerning the educational aftermath of COVID-19, 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 notonly 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, 2008) 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 exploreand learn”. It can also be defined as the developmental process through which children start initiating activities, maintain and trust relationship-building with both adults and peers; to recognize and communicate emotions suitably; and to develop independence, actively explore their surroundings, and make responsible choices(Ashdown & Bernard, 2012). To summarize,socio-emotional development demonstrates how a child adjusts, understands, acts,makes adjustments, and maintains healthy relationships in life.

According to Julia Dillmann etal. (2022),Parents’ stress during the pandemic brought major changes to “Early Social-Emotional Child Development”. As a result of financial, social, and emotional constraints, parents suffer, resulting in long-term stress that causes 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” (Brooksetal, 2019). In another case, it is observed that many toddlers and children in early childhood in Chile experienced a certain change in emotions and behavior. Compared to the period before the pandemic, the majority of caregivers noted that 78.9% of children were ‘more affectionate’, 65.1% were ‘more restless’, and 54.1% were ‘more frustrated’ (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 perceived shifts 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 commonly noticedsymptomswerestrugglein concentration(76.6%), increasedboredom (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 ina lack of social interactions; in addition to this, students also failed to connect with their friends, whichultimatelyresulted 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 etal., 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 etal., 2022).
3. An analysis of 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(Aguila-Fairas etal., 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 etal., 2021).

6. Risky behavioral problems among children and adolescents, such as“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 etal.,2021).

This leads to the conclusionthat the pandemic results in prolonged effects on socio-emotional development, such as reduced social interaction, emotional instability (feelings of irritability, fearfulness, clinginess, mood swings, etc.),reduced motivation, andsocial skills.

Psycho-MotorDevelopment

According to Rigal (2006),motor skills encompass certain functions such as the living organism’sself-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 etal.,2021). Thus, psychomotor development is an important and complex process in which social as well as cognitive development leads to physical changes (Sáez-Sánchez etal., 2021). In addition, psychomotor activities include gross and fine motor activities (Yudanto et al, 2022). Based on the findings of 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. COVID-19 has contributed to decreased engagement in physical activitiesdue to school closures and stay-at-home restrictions.
2. According to a study focusing on the physical activity 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 reduced interaction and social isolation amid the pandemic might result in fine motor and communication delays, particularly in children under the age of 1 year old. (Huang etal., 2021).
4. For 12-24 months or more, opportunities for physical activity via PE classes, sports, and unstructured play decreased, further hamperingthe motor development(Getchell et al., 2022).
5. Students who studied face-to-face developed better psychomotor skills than those who were exposed to a digital learning format(Eroğlu etal., 2022).
6. According to a comprehensive analysis of the effects 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 areduction 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 thedelays in psychomotor skills.

Conclusion:-

According to the studies, pandemics or endemics have enduring and multi-generational effects.Similarly,a review of the studies on the outcomes resulting from the COVID-19pandemic 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 precautionary steps designed to mitigate the transmission 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 deprived opportunities for peer interaction and collaborative learning 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 crisis, including increased dropout and low attendance (Mthalane et al, 2021).

References:-

1. 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
2. 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.org10.101 6/j.jped.2020.08.008
3. 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 movement 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
4. 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
5. Bozzola, E., Caffarelli, C., Santamaria, F., & Corsello, G. (2022). The year 2021 in COVID-19 pandemic in children. Italian Journal of Pediatrics, 48(161). http://doi.org.10.11 86/s13052-022-01360-0
6. Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin G. J., (2020). The psychological impact of quarantine and how to reduce it: rapid review of theevidence. The Lacent, 395(10227), 912-920. https://doi.org.10.1016/S0140-6736(20)30460-8
7. 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.2020.569348
8. 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
9. Center on the Social Emotional Foundations for Early Learning. (2008). Definition of Social Emotional Development.http://csefel.vanderbilt.edu/resources/trainings/1.2.pdf
10. 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
11. 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
12. Clemente-González, M. (2016). Proyecto de investigaciónbasado en la relación abuelos-nietos y fomento de identidad. 131-144.Propuestas de Intervención en EducaciónInfantil.
13. Darmiyanti, A., Supriadi, O.,&Nurlaeli, A. (2021). The impact of Covid-19pandemic 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.v10i1.46582
14. 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.o rg/10.1192%2Fbjp.2019.19
15. 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/10.1101/202108.10.21261846
16. 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/10.1177/1476718X221083423.
17. 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

18. Eroğlu, E., Kolcu, G., &Kolcu, M. I. B. (2022). The effect of distance education conducted during the Covid-19 pandemicperiod on the psychomotor skill development of a dental school students. BioMed Research International. https://do i.org/10.1155/2022/6194200
19. Ferrari, E., Palandri, L., Lucacccioni, L., T alucci, G., Passini, E., Trevisani, V., & Ri ghi, E. (2022).The Kids Are Alright (?). Infants' Development and COVID-19 Pandemic: A Cross-Sectional Study.International Journal of Public Health. https://doi.org/10.3389/ijph.2022.1604804
20. 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/10.3390/brainsci11091222
21. 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/10.3389/fpubh.2022.988085
22. 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
23. 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
24. 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.
25. 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
26. Manas, G. M. (2020). A study on childhood development in early stage. https://www.Researchgate.net/publication/344789123_A_STUDY_ON_CHILDHOOD_DEVELOPMENT_IN_EARLY_STAGE
27. 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
28. 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/10.1186/s12909-022-03601-6
29. 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
30. Orgiles, M., Morales, A., Delvecchio, E., Mazzeschi, C., & Espada, J. P. (2020). Immediate psychological effectsof the Covid-19 quarantine in youth from Italy and Spain. http://doi.org/10.3389/fpsyg.2020.579038
31. Richland, L. E., Frausel, R., & Begolli, K. N. (2016). Cognitive development. https://www.researchgate.net/publication/341119328_Cognitive_Development/citations
32. Richter, A., & Robling, P. (2013). Multigenerational effects of the 1918-19 influenza pandemic in Sweden. https://www.semanticscholar.org/paper/Multigenerational-effe cts-of-the-1918-19-influenza-Richter-Robling/dd986254628f4fbee481dcf7915e9c5139f7c8ac
33. Rigal, R. (2006). Motor education and psychomotor education in preschool and primary. Barcelona.
34. 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
35. Sáez-Sánchez, M. B., Gil-Madrona, P., &Martínez-López, M. (2021). Psychomotor development and its link with motivationto learn and academic performance in early childhood education. https://doi.org/10.4438/1988-592X-RE-2021-392-483
36. Souza, J., &Veríssimo, M. (2015). Child development: Analysis of a new concept. Rev. Latino-Am. Enfermagem, 23(6). https: doi.org/10.1590/0104-1169.0462.2654
37. Sprang, G., & Silman, M. (2013). Posttraumatic stress disorder inparents and youthafterhealth-related disasters.Disaster Medicine and Public Health Preparedness, 7(1), 105-110. https://doi.org/10.1017/dmp.2013.22
38. Thompson, C. (2020, December 1). Study: Students falling behind in math during pandemic. PHYS ORG.
39. Thompson, R., & Virmani, E.A. (2012). Socioemotional Development. https://doi.org/10.1016/B978-0-12-375000-6.00339-6

40. 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
41. Werner, K., & Woessmann, L. (2021).The Legacy of COVID-19 in Education. CESI foWorking Paper No. 9358. Doi: 10.2139/ssrn.3945280
42. 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
43. 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.202 1.04.002.
44. 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.