Integrative Holistic Early Childhood Education (IH ECE) in Indonesia amidst the COVID 19 Pandemic

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Abstract
Integrative holistic services for children in Indonesia have become a priority in Early Childhood Education (ECE). However, the COVID 19 pandemic has hindered its implementation, especially in how the teachers ought to accommodate the services of health and nutrition, parenting, and protection. The shifting school delivery from direct teaching to virtual classrooms was not anticipated. To maintain and increase the teachers' competence in implementing integrative holistic services, around 60 teachers in Kendal Regency, Indonesia, received six online workshops and seminars. The purpose of the research is to investigate the implementation of IH ECE by the teachers as well as to find its barriers during the pandemic. The descriptive qualitative research was employed by having three online focus group discussions (FGD) with 17 teachers from 17 different subdistricts. The additional individual interviews, documents, and literature were also conducted to strengthen the findings. The data reduction and triangulation were applied to the analysis. The research found that the teachers’ competence in ICT had improved on online teaching practices by encouraging parents’ involvement at home. They attempted to apply STEAM learning was included in both online and limited face-to-face. For protection and health service, the teachers are committed to implementing evidence-based first aid treatment for children. However, the parenting and nutrition services could not be optimum due to the physical distancing policy. It is suggested that the implementation of IH ECE amidst the pandemic requires more collaboration between the government institutions and society.

Keywords: Integrative Holistic ECE, Indonesian Early Childhood Education, Parenting, PAUD HI

INTRODUCTION
Early Childhood Education (ECE) plays an important role in developing the aspects of cognitive, affective, and psychomotor of children. The Indonesian government has a strong commitment to ECE. Rule no 20 in 2003 on Indonesian National System states that Early Childhood Education (ECE) is coaching for children under six years of age so that they can develop physically and spiritually before entering formal education. Further, Indonesian Presidential Decree No 60 in 2013 on the Development of Early Childhood Education, it is stated that the government has the objectives to fulfill the essential needs of children as a whole according to their age group; to protect the children from violence, neglect, mistreatment or exploitation; to harmonize and integrate child services; and to form commitment from parents, families, communities, government and central and local governments in implementing holistic, integrated early childhood education.

In 2019, the Minister of Coordinating Ministry for Human Development and Cultural Affairs released Minister Decree No 1 in 2019 on sub-task force on integrative holistic early childhood development: education division; health and children nutrition division; and young children protection and welfare. It is followed by the Indonesian government encourages the implementation of fifty schools for integrative holistic services of early childhood education in each regency (Supanji, 2021). As a province with a large population in Indonesia, the gross enrolment ratio of children in Central Java ranging from 3 to 6 years old in early childhood education was 43.46% (KemenPPA, 2020). Among 35 regencies in Central Java, Kendal has the highest number of female migrant workers (Pujangga, 2017), meaning that early childhood teachers in Kendal have significant roles in educating the children.

Indonesian early childhood education has been struggling with disadvantaged circumstances (Solekhah, 2019). In addition, the school closure policy due to the Covid-19 pandemic is not anticipated by any educational institutions, especially by early childhood educators. All partners in education must be aware...
that the paradigm and approach of education have shifted, and they require openness and flexibility in obtaining new skills with the advancement of technology (Istrate & Bîrsanu, 2020).

Before the pandemic, Integrative holistic services ran well because the program was successfully planned and implemented (Hidayati, 2017). However, at the beginning of school closures, both early childhood teachers and parents have difficulties with technological barriers to educating children at home (Solekhah, 2020). To accommodate better online learning, UNICEF suggests the government increase the teacher’s capacity in digital learning programs and create digital learning guidance (UNICEF, 2020). Nevertheless, holistic, integrative services are important to be implemented, and building the teachers’ capacities is a prerequisite to succeeding in IH ECE.

To enhance the teachers’ competencies in holistic, integrative services, around 60 teachers in early childhood schools were given online seminars and workshops consisting on smart media use, children and women protection against violence, stunting prevention and balanced nutrition, loose parts media, and STEAM learning, first aid for children, and natural disaster mitigation. The duration was 56 hours between September 2020 and August 2021 through Zoom meetings and discussions of WhatsApp groups, followed by the tests. Despite the higher obtained score, it is important to investigate whether the teachers have applied the knowledge and skills of holistic, integrative early childhood education in their schools. During the pandemic, online learning ran from March 2020 to September 2021. The migration of online learning to limited face-to-face learning (Pembelajaran Tatap Muka Terbatas), with only 50% of students attending the school, occurred in October 2021. The research question is, "How have the teachers implemented integrative holistic during the Covid-19 pandemic, and what are the barriers?"

**LITERATURE REVIEW**

Integrative Holistic Early Childhood Education is comprehensive early childhood care that includes nutrition and health services, education and care, and protection, to optimize all aspects of child development carried out in an integrated manner by various stakeholders at the community, local and central government levels (Nur, 2019). Integrative holistic early childhood education needs involvement from other institutions such as the schools, Indonesian education department, Indonesian health department, social department, Indonesian Population and family information network (BKKBN), Population and Civil Registration Agency (Dinas Kependudukan dan Pencatatan Sipil), Police, Posyandu, public figures, and parents (PAUD&Dikmas, 2015b).

Generally, there are five services in integrative holistic early childhood education. They are education services, health and nutrition service, parenting service, and welfare service. Education service is a basic service for children to develop religious and moral values, motoric abilities, cognitive abilities, language, socio-emotional aspects, and arts (PAUD&Dikmas, 2015b). Learning in ECE must be done through fun games that focus on the students’ needs and development. Early childhood students’ could develop their potential if the learning gives them an opportunity for direct experiences (Suarta & Rahayu, 2018). It should be student-centered and engage students to actively participate in learning by using various learning media and learning resources. Learning should be done in a scientific approach by encouraging students to observe, ask, gather information, evaluate, and communicate (PAUD&Dikmas, 2015a).

Health and Nutrition service includes regular measurement of students’ growth, balance nutrition dietary, personal hygiene training, first aid, and parents’ contribution to healthy food at school (PAUD&Dikmas, 2015b). The growth measurements include the growth of students’ height, weight, and head circumference. The head parts (hair, eyes, ears, mouth, nose, and teeth), skin, nails, hands, and feet are also checked regularly (PAUD&Dikmas, 2015a). The developmental measurements include social-emotional abilities (such as independence, ability to focus on learning, and self-control), language skills, physical abilities, cognition, eyesight, and hearing abilities. The measurement is then reported to the parents to do the follow-up when it is necessary.
Parenting service is implemented by the school and cooperates with parents to socialise school programs, discuss the students’ growth and development, recommend balance nutrition for students, and other activities (PAUD&Dikmas, 2015b). The service is linked to health and nutritional service in which teachers have demanded to educate the parents to improve their parenting abilities at home. The success of the parenting service highly depends on the parents’ increased competencies.

Protection service includes a safe and enjoyable learning environment, promoting an anti-bullying program, promoting pro-social behaviours, preventing self-protection, and treating students’ accidents (PAUD&Dikmas, 2015b). The service needs the teachers’ capability in setting the schools’ infrastructure. It also requires not only the first aid kits but also the skills to treat the children’s injuries. The anti-bullying programs and pro-social behaviours should be in line with the parenting service.

Welfare service assists the students to have identities and their welfare. It includes assistance in applying for birth certificates, the preparation of healthy food for students, the service for students with disabilities, and rewards for the students (PAUD&Dikmas, 2015b). This service is highly recommended in the schools which are located in remote areas due to the limited access to public facilities and the low level of parents’ education.

The current problems of early childhood are due to the lack of parenting skills. The parenting competencies are influenced by the parent’s level of education, psychological aspects, and health knowledge (Kiling-Bunga, Margiani, & Kiling, 2020). The factors of stunting are also due to imbalanced nutrition during pregnancy, exclusive breastfeeding of less than 6 months, too early meal feeding, abusive parenting, and non-hygiene behaviors (Erik et al., 2020). Besides, not many Indonesian parents consider sex education in early childhood important to protect their children (Chairilsyah, 2019).

The Indonesian government relies on early childhood education to develop the physical, mental, and emotional aspects of young learners. It is believed that early childhood education could improve human resources. However, the low commitment between the stakeholders and the low awareness of the parents, and the low quality of cadres hinder the implementation of integrative holistic community-based family and toddler empowerment (Wijayanti, 2018). Therefore, the teachers in early childhood education should increase their competencies to increase the awareness of the family members, especially parents, as well as to develop and adapt the integrative services in their schools during the pandemic.

**METHODOLOGY**

The research is descriptive and qualitative. The data was employed on October 2021 by having three online focus group discussions (FGD) with 17 early childhood education teachers who had finished 56 hours of online webinars and workshops from 17 different subdistricts in Kendal regency. The purposeful sampling was used based on the geographical areas to represent the various school conditions. Purposeful sampling was chosen to get richer information. FGD was conducted to gather similar understandings from different teachers. They took a turn in expressing their ideas and shared their experiences in implementing IH ECE. Clarifying and elaborating probes were done informally to have a contextual and engaging discussion (Mason, 2002) to collect additional information. Due to the pandemic, the FGD was conducted online mode via Zoom Meeting. The FGD was recorded and then transcribed, analysed by NVivo 12. To have a better understanding, individual communication via WhatsApp was also used.

The data reduction was then conducted by the selection, the simplification, and the abstraction of the notes and transcription. Some quotes were used to express the teachers’ explanations, and they were combined with the codes and used as the themes of the findings. Since the author’s interpretation could not be separated from qualitative research, the author put her interpretation in addition to the findings.
and discussion. As suggested by Creswell (2012) that triangulation was necessary to obtain the validity of qualitative research, the additional recent literature about early childhood education, government documents, and other relevant topics until the analysis reached saturation.

**RESULT AND DISCUSSION**

The research has shown some findings related to the implementation of holistic, integrative services, related to the increased capability in creating educational learning media, parents' engagement in learning at home, evidence-based treatment for first aid, and songs and roleplays for various learning purposes. However, the nutrition and health services were postponed due to the prolonged school closure policy.

**Education Service: Transformation of Learning Mode**

Online learning highly relies on internet speed and technological devices, the ability to afford the up-to-date devices, the digital competencies, as well as the compatibility of learning modes (Adedoyin & Soykan, 2020). The paradigm shift of teaching from face-to-face to online learning has tremendous impacts on how the teachers deliver the materials. WhatsApp could be used to communicate more contextually among students in virtual and real environments because of its practicality in ease of use, sharing options, and convenience. (Alubthane & Ibrahim, 2021). During the pandemic, the teachers had been trying to provide online services according to their capacity. During the seminar and workshop on smart media use, they practised using PowerPoint to explain the learning materials, insert the pictures, and record their voice. The teachers said that it was hard for the first time, but they got more accustomed to making virtual learning materials, especially educational content creators.

Another ability was to record and edit their videos by using the android application. “I am trying to be a wise and content creator despite the amateur skill”. Before the pandemic, the teachers tend to demonstrate the learning materials directly to the class. Nowadays, teachers are more confident in recording their videos by using their mobile phones. Some of them also purchased tripods or ring light tripods to improve their appearance on the video. If it was necessary, they used KineMaster and other editing video applications to edit their videos. They admitted that the result was amateur, but it was appreciated by the parents as long as it was entertaining and engaged the students to be active in learning at home.

The student’s engagement in learning WhatsApp groups included the photos of their learning activities, the recorded songs, and the results of their experiments. The documentation was a part of learning portfolios because it was easier to collect and assess. Since early childhood education encouraged plays, there was no test as an assessment of learning. The focus was more on the ability of students to express their language, their socio-emotional development, and their engagement in doing learning activities at home.

Despite the shift in learning delivery, the teachers highly recommended the parents limit their screen time exposure to the children. They believed that mobile phones were tools of learning and should not dominate learning at home. Since the teachers could not conduct normal learning, parents were encouraged to play with their children outside. They explained to the parents that everything clean and safe could be used for the games, and they should not depend on factory-made toys.

The teachers also expressed that being wise was important in the digital era. The community standard guidelines of social media should be followed to avoid conflict and the violation of electronic information and transaction. Despite the different opinions of being narcissists, the teachers agreed that privacy was an important aspect to consider before posting on social media. Rather than using social media as a diary, they preferred to use it as a school promotion platform.
Government policy plays an important role in succeeding in learning from home (Salehudin, Zulherman, Arifin, & Napitupulu, 2021). The important factors that influence the success of online learning are the convenience of the delivery, the student’s readiness and characteristics, and other prior elements in teaching (Van Wart, Ni, Medina, Canelon, Kordrostami, Zhang, and Liu 2020). In this case, the teachers and students had been more accustomed to the online learning mode, although the engagement was not optimum.

**Evidence-based First Aid and Safe Environment as Health and Protection Service**

Providing the first aid kit is mandatory at schools. Not only that, the teachers’ skills to give first aid is vitally important to respond the accident or injuries at school. The teachers admitted that they previously used non-evidence-based treatment as a remedy, especially remedies for burns. “I followed what my mom used to do to treat wounds. Now, I know that it was wrong”. Treatments and remedies are influenced by cultural beliefs, and their practices have been embraced by the people for generations (Widayanti, Green, Heydon, & Norris, 2019). Despite the lack of knowledge, it is more common to ask family members about treating burns rather than searching for reliable information (Yosephine, 2021). The misinformation about treating a burn with flour also could be found on social media (Anwar, 2019).

Using toothpaste, cooking oil, or flour as a remedy for a burn is potentially harmful because it could cause infection (Bennett et al., 2019; the Washington State of Health, 2016; www.aad.org, n.d.). Instead, cooling the burn using tap water, covering it using a non-stick bandage, taking a pain reliever, and protecting the burn from the sun is highly suggested. Many Indonesian women, especially housewives, have limited knowledge in treating wounds, burned skins, and fainting (Fitriana & Yulistiani, 2020). Therefore, first aid workshops increased the knowledge and capacities in treating injuries.

The teachers also shared their experiences that before the pandemic, they were panicking and did not know what to do when they found students suffering from ankle or knee sprain. “I was so nervous that the parents would get angry”. The method of Rest, Ice, Compression, and Elevation (RICE) was new for the teachers. The steps that include resting the injured area, applying an ice pack, wrapping the injuries with a medical bandage, and raising it above the heart (www.webmd.com, 2021) would be a beneficial skill for the teachers when the children could go to school again.

Related to health and protection services, the teachers agreed that any injuries should be prevented. Therefore, making sure the infrastructure was a priority to minimize the possibility of injuries. The safety aspects should be monitored inside and outside school buildings, including playgrounds. Keeping away the harmful objects or products such as sharp objects, cleaning liquids, and other materials. Disseminating the evidence-based remedies with the parents would also be useful to avoid misinformation. The teacher shared first aid steps with the parents so that they could apply them at home if the injuries happened at home. The information was helpful.

**Parenting Service is A Priority**

“Educating parents should be done before educating the students”. Early childhood education via online learning was more focusing on educating parents through WhatsApp groups. The parenting program during the pandemic was delivered online by the teachers. It was undeniable that some parents complained about the additional duties, especially when their children were not cooperative. Some teachers shared their experiences when the parents sent the videos of their children crying. If these problems occurred, the teacher could only give them time to calm down. Balancing the duties of raising children with personal life and work during the pandemic is stressful for parents. The lack of support from parents could cause child psychological symptoms (Spinelli, Lionetti, Pastore, & Fasolo, 2020). Home visits were also conducted to know the condition of the students and their families. In these activities, the teachers could provide consultation if the parents experienced difficulties in educating their children.
The other teachers also stated that many children were living with their grandparents because the parents worked and did not have enough time to teach their children. "We don’t want to blame the grandparents, but it needs the patience to deal with children". The finding was relevant to the previous research that Asian adults who take care of both children and elderly people are emotionally exhausted, and it is suggested to do self-care (Jang, Song, Baek, & Zippay, 2021). Grandparents are agreed to take care of grandchildren due to the norms in the society, the financial support, and the need for companionship (Ingersoll-Dayton, Punpuing, Tangchonlatip, & Yakas, 2018). However, the grandparents and parents should treat their young family members better.

To avoid the negative effects, teachers urged applying the limited face-to-face learning (Pembelajaran Tatap Muka Terbatas or PTMT) by having vaccine shots and strict health protocol. The teachers were happy because, in October 2021, the early childhood schools from playgroups and kindergartens were allowed to meet again at schools (Ma’sum, 2021). This policy could minimise the stress on the parents and give the children opportunities to learn directly from teachers. During the PTMT, some of the teachers also reminded the parents that it was normal if their children might be reluctant to go to school due to the irregular attendance policy. Although it might be annoying if some children performed slower than others, it could not justify that they were left behind. Being emphatic with the children was the key to guiding them to reverse the normal school. Regular meetings (Kelompok Pertemuan Orang Tua) between parents and teachers to discuss parenting issues were needed, and it could be optimum if they could have face-to-face discussions.

**Limited STEAM approaches as Education and Protection Service**

Incorporating high-quality education at home was challenging, especially when the parents were not supposed to be the ‘teachers’ at home. It was previously discussed that the teachers became the content creators of learning materials as well as the assistants of parents in learning at home. As students’ worksheets were not recommended in early childhood education, Science, Technology, Engineering, Arts, and Mathematics or STEAM was done contextually based on the teachers’ instructions and the ability of the parents to implement the learning objectives.

The teachers encouraged the parents to use local materials at home or in the surroundings as learning media as an attempt to implement loose parts in the topics about nature. Loose parts are learning media consisting of manufactured and natural materials so that children can explore, experiment, and play creatively and imaginatively, supported by adults’ open-ended stimulation (Gull, Bogunovich, Goldstein, & Rosengarten, 2019). For instance, the parents were encouraged to let their children play in the garden or beach near their houses to collect leaves, flowers, stones, shells, or other materials they found to create alphabets or imaginative toys. Another example is the cooking utensils at home were used as musical instruments for the students to play at home. It was expected that the children could develop their creativity in composing sounds or developing simple objects.

Guided activities, such as assisting parents in making fruit juice or baking, were expected to develop the children’s ability to recognise not only the ingredients and the steps but also technologies at home, and the measurements were related to engineering and maths. Although the students might be able to provide the product of their experiments, the success of STEAM was highly dependent on the way parents stimulate their children.

If the parents only focused on the product rather than the process, it was more likely the children would be passive. Learning is successful if it incorporates multiple disciplines at the same time and promotes learning experiences that allow children to explore, question, research, discover, and exercise innovative building skills (DeJarnette, 2018, cited Colker and Simon, 2014). Therefore, the adequate infrastructure and the cooperation of teachers, parents, and schools could increase students’ motivation to succeed in STEAM learning (Sesti, 2021).
Huang and Dietel (2011, as cited in Spyropoulou, Wallace, Vassilakis, & Poulopoulos, 2020) note that an effective STEAM needs specific learning aims, leadership qualities, competent teachers, relevancy between the school program and the school curriculum, and the assessment. During the pandemic, the school curriculum and the assessment used the emergency curriculum that did not force the students to attain a certain level of competencies. However, the negative prolonged school closures should be minimised by increasing the quality of teaching.

After the school reopened in October 2021, the teachers tried to catch up with the learning loss. In protection services, for example, a teacher taught disaster mitigation by using songs and role-plays. The objectives were to introduce the natural phenomenon surroundings and the steps to mitigate natural disasters such as floods and earthquakes. Sex education was also taught, especially the body parts that were not allowed to be touched. Songs and dances enabled the students could learn how to protect themselves in fun and entertaining ways. The performance, the interpretation, and the reproduction of songs involving body movement, memorization, and self-regulation could pedagogically enhance the children's personal and social development (de la Fuente & Gillanders, 2021). Sex education that included gender introduction, introductory to self-identity, opposite-sex relationships, and the introduction of reproductive organs (Astuti, Sugiyatno, & Aminah, 2017), was rarely taught at home. Therefore, the school was the right place to teach it.

STEAM learning is beneficial for increasing creativity, the ability to solve problems, the ability to think critically, and the ability to make a scientific inquiry (Wahyuningsih et al., 2020). However, a conducive learning environment is required so that science, technology, engineering, art, and mathematics at school, after school, and out of school could develop the 21st-century skills, such as higher-order thinking skills, critical thinking, creativity, innovation, communication, and collaboration (DeJarnette, 2018; Spyropoulou et al., 2020). In the context of early childhood education, it needs cooperation between the school, the teachers, the parents, and the people surrounding to achieve a conducive learning atmosphere.

**Postponed Child Growth Assessment and Nutrition Service**

Assessing children's growth was conducted regularly before the pandemic. It included children's weights, heights, head circumference, teeth, and personal hygienes. Balanced nutrition program such as promoting healthy food, preparing food together, and exchanging food was common at school. However, those activities had been postponed for more than one and a half years. The measurement was done by the parents, and the report depends on the parents' responsiveness.

The teachers regretted the absence of the services. Before the pandemic, these activities were fun and educational because they could invite the nutritionists, doctors, or midwives to motivate the parents and the students. Nowadays, the teachers can only socialize on the importance of healthy lifestyles. The good examples of parents were more powerful. The parents who did not take it seriously would not bring any improvement to their children.

After the limited face-to-face learning (PTMT), the measurement could be reimplemented at school by collaborating with the health workers such as doctors of primary health centres (Puskesmas) or village midwives (Bidan Desa). The medicine for threadworms and Vitamin A could also be given to the students to prevent vitamin A and nutrient deficiency. Nevertheless, the balanced nutrition service was limited to providing additional food only. The limited school period hindered the discussion about food and nutrition. During the pandemic, the number of children with stunting in Kendal increased from 8.3% in 2020 to 9.5% in 2021 (Jatengprov, 2021). This percentage was ironic as stunting at the national level decreased from 1.6% per year, although it was below the target (Widyawati, 2021).
Stunting is a chronic and prolonged nutritional problem that causes a child to fail to grow normally (P2PTM Kemenkes RI, 2018). Many people assume that the height of their children is due to genetics. Therefore, many of them do not prevent stunting. Genetics is the least influential factor in children's growth compared to parenting behaviours, dietary habits, and hygienes. Stunting on infants could be prevented by breastfeeding up to two years old, sanitation, and access to clean water, clean and healthy environment food. The teachers believed that although the students of early childhood were older than 1000 days, the socialisation about stunting and healthy food program was necessary to be introduced to the parents.

CONCLUSION
The integrative holistic services in early childhood education (IH ECE) have been modified due to the pandemic in which the schools provided online services to the students and the parents. The adaptability to technology, creativity, cooperation, as well as problem-solving skills was employed in the efforts to deal with school closures. The online seminars and workshops that had been received enabled them to apply their skills in teaching and bring commitments to tackle the barriers, although the success could not solely rely on the teachers and the schools.

Support from teachers, principals, school committees, parents, and the education department is needed to succeed in integrative holistic services during the pandemic (Oktaviani & Dimyati, 2021). As the Indonesian government commits to succeed in integrative holistic early childhood education, the delivery of services should be expanded beyond the cooperation between the existing partners (parents, teachers, and health workers), but also other parties such as the department of women’s empowerment and child protection (DP3A), police department, and society to provide better services on protection, nutrition, education, and welfare.

The finding of this research is limited to the context of early childhood education in Kendal, especially for those who attended the seminars and workshops. Therefore, the result of this research could not be generalised. For further research, it is suggested to investigate the parents’ awareness of supporting IH ECE, as well as the commitment of the local governments to implementing it.

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