

Promoting child's growth and development in childcare centers



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ABSTRACT

Introduction: Childcare centers are a type of daycare that is increasingly used by families all over the world. Indonesia is experiencing a similar trend. Childcare centers have essential roles in supporting child's growth and development in the center. This study aims to explore how childcare centers support the healthy growth and development of young children.

Methods: A qualitative research approach using a case study design was used for exploring the perspectives of two childcare managers and eight teachers in two public and two private childcare centers in Yogyakarta, Indonesia. Semi-structured interviews of one hour each, audiotaped recorded with the participants' consent, were used to collect the data. Content analysis was used to generate findings from the data. Findings from the public and private centers were compared and contrasted to generate the study's overall findings.

Results: The findings identified that childcare centers in Yogyakarta, Indonesia, actively promote child growth and development by providing high-quality environments and services. The environment is safe, homelike, has high standards of cleanliness and sanitation, and provides appropriate toys and equipment. Services include nutrition, supervision, and health checks. Linking centers to the community was an essential strategy for improving the funds and resources needed to promote child growth and development.

Conclusion: This study suggests that providing training for childcare workers, refining the curriculum, and developing stimulating activities for children in the center are needed.

Keywords: Childcare center, Children, Development, Growth.

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INTRODUCTION

Childcare centers are one particular type of daycare that provides care for children in institutional settings.¹ Childcare centers are increasingly used by families all over the world. Literature in western countries notes that since the 1970s, the use of non-parental childcare has increased dramatically.² Indonesia, as a developing country, is experiencing a similar trend. In 2002, there were 1,789 childcare centers and around 15,308 children enrolled in childcare facilities.³ This trend is primarily attributed to increasing female involvement in the workforce. Mothers stay homeless frequently with their families because of economical requirements.^{1,4}

Childcare settings have a significant influence on the growth and development of infants and young children. The characteristics of childcare, such as structural processes, the environment and the human elements, play an essential role in improving children's welfare.⁵ Childcare

centers with good quality care can provide an environment that supports the child's growth and development through age-appropriate planned activities and positive reinforcement.⁵ Accredited childcare centers should have a good quality of care and staff who have undertaken formal child development training, advanced education and emergency training.⁶ Well-trained caregivers can help children to be creative and confident.⁷

In the Indonesian context, children are divided into childcare classes in the childcare centers based on their age groups. Childcare workers, often called caregivers, provide care and education for children within these centers. Indonesian childcare centers have several levels of caregivers. There are teachers, teachers' assistants and childminders. A teacher has a minimum qualification of Diploma Two in Early Childhood Education Teaching. A teacher's assistant has a minimum qualification of senior high school plus a Certificate in Early Childhood Education

Training from an accredited institution. A childminder has a minimum qualification of senior high school.³ Caregivers in childcare centers are more likely to have better education and training in child development than staff in other childcare settings such as family daycare. This is an essential distinction because competent caregivers have been shown to play an essential role in promoting children's growth and development.⁵

Childcare centers should have staff with relevant qualifications to assure the promotion of growth and development. Accredited childcare centers can contribute to the Government of Indonesia's commitment to implement 'A World Fit for Children,' as outlined in the National Program for Indonesian Children 2015 (*Indonesia's Education for All National Plan for Action 2003–2015*, 2003). This Program envisions healthy, intelligent and energetic Indonesian children contributing to their community and the wider society. Moreover, accredited care

may reduce the number of children with growth and developmental delays.³

In Western countries, it has been well documented that caregivers, as contributors in early childhood education settings, play an essential role in promoting children's growth and development.^{6,8,9} However, there are no Indonesian studies about the promotion of child growth and development in childcare centers. Therefore, this study will fill this gap in the research. This study aims to explore the promotion of healthy growth and development of infants and young children in childcare centers in Yogyakarta, Indonesia

METHODS

A qualitative approach with a case study design was used in this study. Reasons for choosing the case study approach were that researcher sought to understand and explore the contextual conditions related to complex social phenomena in two different cases. This approach would allow the researcher to investigate the topic by following a set of pre-specified procedures, it would facilitate the identification of shared meanings of the phenomenon as represented in childcare workers' stories as well as in the researcher's interpretation of them, and it was the most practical approach given the limited time available for data collection. The case study approach sought to understand and explore the contextual conditions related to complex social phenomena in two different cases.¹⁰ This approach would allow the researcher to investigate the topic by following a set of pre-specified procedures, it would facilitate the identification of shared meanings of the phenomenon as represented in childcare workers' stories as well as in her interpretation of them, and it was the most practical approach given the limited time available for data collection.

The application of a case study as a methodology allows the researcher, by whatever methods, to choose a single case or multiple cases to study.¹¹ Cases can be an individual, an institution, a group, a family, a community or any other social unit. This study consisted of two government childcare centers (Case 1) and two private childcare centers (Case 2) and included groups of childcare workers within these

centers in Yogyakarta, Indonesia. The researcher interviewed five childcare workers within each case to get their opinion or perspective about promoting healthy child growth and development in childcare centers in Indonesia.

The two cases represent differences in features such as the physical setting, historical background, and social, economic, cultural and political backgrounds.¹¹ Each participant interviewed for the study will bring different understandings and meanings to their case.

The participants in this study were accessed using convenience sampling techniques. This approach is also referred to as 'case-based samples,' allowing the researcher to choose participants who will most benefit the study.¹² The researcher selected participants who could inform an understanding of the research problem. The participants were ten caregivers who were working as caregivers in childcare centers in Yogyakarta, Indonesia. The inclusion criteria for recruitment to the study were:

- The participants are caregivers who are working in childcare centers in Yogyakarta, Indonesia.
- The participants are full-time workers in childcare centers.
- The participants have been working for at least one year in childcare centers.

In this study, there were 10 participants, five from government childcare centers and five from private childcare centers. Two participants were the manager of the childcare centers, and eight were teachers or caregivers in the centers.

Ethics approval was obtained from the ethics committee review board with approval number:187/EP-FKIK-UMY/IV/2015. Data was collected using semi-structured in-depth interviews; responses from participants were audiotaped and recorded. Content analysis was used to make sense of the verbatim, including to code, generate categories, and understand the data's broader meaning. Researchers also use personal notes to aid the analysis. The study's rigor was assured by applying the credibility, dependability, confirmability and transferability principal through out the study processes. In this study, the two cases (the government

childcare centers and the private child care centers) were analyzed together. After the researcher generated the main themes and sub-themes in the government childcare centers and the private child care centers, she compared the themes and sub-themes between each case. The researcher identified the similarities and differences in the data from each case. Lastly, after comparing and contrasting all data, the researcher wrote the essence of the most critical meaning of the data from the two cases together. The identified themes and sub-themes in the final report (this thesis) elaborated the comparison of the data from participants in the government child care centers and participants in the private child care centers.

RESULTS

Based on the interview data, four themes and one subtheme were identified. In [table 1](#), participants' characteristics were summarised. Participants in the Gov childcare centers were much older and had longer work experience than the participants in the private childcare centers. In terms of training, none of the childcare workers in the private centers has a formal education as a childcare worker (CCW).

The two sets of data (for Case 1 and Case 2) were analyzed collectively. This resulted in some themes and sub-themes pertaining more to a particular case than to the other. Four themes and ten sub-themes emerged from the analysis. These were:

Theme 1: Knowledge of growth and development

Sub-theme 1: Growth and development.

Sub-theme 2: Age-appropriate growth and development.

Theme 2: High-quality environment

Sub-theme 1: Cleanliness and sanitation.

Sub-theme 2: Appropriate toys and equipment.

Sub-theme 3: Safety.

Sub-theme 4: Homelike environment.

Theme 3: High-quality services

Sub-theme 1: Nutrition.

Sub-theme 2: Supervision for safety.

Sub-theme 3: Health checks.

Theme 4: Networking

Sub-theme 1: Government and community

Sub-theme 2: Funds and Resources

Table 1. Case 1: Demographic data of the respondents in government and private childcare centers.

No	Categories	Government	Private
1	Number of respondents	5	5
2	Range of age	27 - 49 years old	25 - 35 years old
3	Work experience in Child Care Centers	2 - 18 years	2 - 12 years
4	Level of education	- Junior High School: 1 CCW - Senior High School: 0 CCW - Diploma one (D1): 1 CCW - Diploma two (D2): 1 CCW - Bachelor degree (S1): 2 CCW	- Junior High School: 0 CCW - Senior High School: 1 CCW - Diploma one (D1): 0 CCW - Diploma two (D2): 2 CCW - Bachelor degree (S1): 2 CCW
5	Training/ Education as Child Care Workers from accredited institutions	Yes, all of the CCW	None of the CCW

Theme 1 Knowledge of growth and development

Child care workers in both cases articulated that knowledge of child growth and development was necessary for promoting child growth and development in child care centers; they needed to know about child growth and development to help them promote it in child care centers. Furthermore, child care workers mentioned that the growth and development of children in child care centers could be promoted by providing a high-quality environment, high-quality services and links to the community. Sub-themes identified to describe in detail the meaning of the child care workers' knowledge of the promotion of growth and development of children in the child care centers were 'growth and development' and 'age appropriate growth and development.'

Participants said that growth was a quantitative process; it could be counted and measured. Participants stated that their understanding of growth helped them promote child growth in child care centers. Ani's statement below is an example of this finding:

...growth and development are important. Growth is about weight and height, gaining weight and increasing height...it is a process where the children develop quantitatively. It is all about size. (Participant 1)

On the other hand, child care workers described development as a qualitative process where children developmentally. Participants stated this process was related to increasing mental capacity, which

enabled children to be "smarter." Child care workers in the government child care centers mentioned that development was related to cognitive, emotional and language development. For example, Putri (Case 1) stated that:

...babies by the age of two months should be able to follow an object with their eyes, and by the age of 18 months, they should be able to walk properly. (Participant 4)

Endah (Case 1) supported this finding, saying:

Development is about children's cognitive, emotion and language...it is mental changes...they develop their body functions. (Participant 2)

Growth and development mentioned previously by participants were followed by an explanation that children should be able to reach their growth and development tasks according to their age. Most government and private child care center participants gave examples, stating that when children get older, their weight and height should increase and their "smartness." For example, Sri (Case 2) stated:

... Children's growth and development is related to their age...emm...They should be bigger and smarter when they get older... (Participant 7).

Theme 2 High-quality environment

participants raised the environment as a factor that influenced child growth and development. This environment is needed to facilitate children's learning and play. The theme is divided into four sub-themes to give a clear understanding of

the environmental effect as a factor. The sub-themes are 'cleanliness and sanitation, 'appropriate toys and equipment, 'safety and a 'homelike environment.'

Participants claimed that if the environment is clean, it will support children's good health and affect their optimal growth and development. Ani (Case 1) supported this finding when she stated:

...environment...like clean classroom and toilet...if all of the areas is clean, children will be healthy and grow... (Participant 1)

Good sanitation (good rubbish management, a routine room cleaning schedule and clean water) and ventilation (good air circulation to keep clean air in the room) contributed to the cleanliness of the environment. This finding was supported by Endah (Case 1), who stated:

...I think sanitation is important too [to keep the environment clean]...rubbish need to be managed in the right place, it helps the room to be always clean... cleaning the room every day is good too... (Participant 2)

Participants in private child care centers appeared to realize that complete equipment for children might help them learn; they saw it as essential to facilitate children's learning and play. Participants stated that appropriate age toys and games might help children to develop according to their age. As Siti (Case 2) stated:

...we sure...we need equipment [white board, stationery, toys]to support us... to teach children...to play with... (Participant 8)

Sri (Case 2), for example, stated:

We use toys...toys can stimulate children to grow...it can promote their growth and development...we have toys for babies and older children...we have dolls, puzzles, legos... (Participant 7)

Safety of the center is also essential; participants in the private child care centers (Case 2) said that the environment should be child friendly; a convenient place for children that could facilitate them to learn and play. Participants from the government child care centers (Case 1) gave examples of creating a safe environment for children, such as putting mattresses down to protect children from injury and ensuring there are no sharp materials. Participants in private child care centers (Case 2) also raised concerns that centers should be located in a physically safe environment.

Participants saw the child care centers as a second home for children whose parents dropped them off early in the morning before they went to work. Participants in Case 2 stressed their belief that children might feel the child care centers were their second home because the centers tried to make the environment as homelike as possible. Sri (Case 2) claimed that her child care center had several rooms designed like part of a house; there was a dining room, a bedroom, a kitchen and a playing area. Children did activities in these rooms at home; they had breakfast or lunch in the dining room and had a nap together in the bedroom. Furthermore, Sri said that children did not need to wear a uniform; they could wear clothes they liked.

Theme 3 High-quality services

Participants in both the government (Case 1) and private (Case 2) child care centers mentioned providing high-quality services as of great importance in helping to promote child growth and development. Participants claimed that high-quality services were delivered to children in child care centers. Most participants mentioned that providing 'nutrition' and 'supervision for safety' for children and 'health checks' was part of high-quality services in child care centers.

Participants explained that good nutrition means that a child eats three

times a day, and they eat vegetables and fruit and drink milk. Participants referred to the Indonesian proverb "*empat sehat lima sempurna*," which means four essential nutrients - rice, fish/meat/chicken, vegetables and fruit - and milk as the fifth component of good nutrition. This "*empat sehat lima sempurna*" was recognized as the perfect nutrition for children to grow and develop healthily. Endah (Case 1) supported this finding with the statement:

Children eat nutritious food "4 sehat 5 sempurna", they eat rice, fish or chicken or meat, vegetables, fruit and drink milk. Eating good nutrition can promote their growth and development. (Participant 2)

Participants also said that children were easily hurt when they were playing and that supervising children when they were playing might decrease the incidence of injury. Most participants agreed that children needed to be supervised to prevent them from getting injured during play.

The child care workers mentioned that they collaborated with the primary health clinic and had the clinic doctors or nurses visit the centers every month to do universal check-ups on the children. The check-ups included checking the children's growth and development. Participants in the government child care centers (Case 1) said that doctors or nurses would check the children's weight and height, do a physical examination and sometimes provide immunization. As Endah (Case 1) explained:

...the best thing is we have doctors and nurses from the local primary health care come and see us every month...it is important...they check child health and development...make sure that the children are healthy... (Participant 2)

Regarding providing health checks for children in child care centers, most of the government child care centers (Case 1) participants considered the nurses' role important. Putri (Case 1) stated that it would be beneficial if the child care centers had a nurse who could assist them in taking care of the children. Putri said nurses could provide health services in childcare centers by "giving health education for staff." However, the involvement of

nurses in Indonesian child care centers is still minimal. Child care workers in the government child care centers (Case 1) further explained that nurses only came into the child care centers once a month to do health checks. These workers (Case 1) also mentioned that nurses or other health professionals in child care centers could support them in promoting child growth and development.

Theme 4 Networking

Participants in government (Case 1) and private (Case 2) child care centers stated that they needed to build partnerships and collaboration with communities to strengthen their efforts to help children reach their optimum growth and development. They saw linking to the community as necessary and argued that child care centers could benefit from having a good relationship with the community. They said the community provided many resources that child care centers could use to enhance children's wellbeing in child care centers.

Participants said this financial support helped child care centers to develop their resources. Moreover, participants from government child care centers (Case 1) explained that they would not survive if they depended only on the centers' money. It was because government child care centers charged cheap institutional fees. Child care workers in Case 1 said they found it was worth talking to communities about where the centers were, who they were and what they were doing. This strategy led to much support from communities to help promote child growth and development. As Roro (Case 1) stated:

It is good to speak to the communities... we found it helpful, we can get lots of resources that can help us to promote children's growth and development in child care centers...we need that to support our programs... (Participant 5)

Participants in private child care centers (Case 2) reported the same thing. Even though private child care centers charged more expensive fees than government child care centers, participants stated that they still needed support from the community to provide good quality care. As well as financial support, participants

in the government (Case 1) and private (Case 2) child care centers said they got other resources from communities, including volunteers to work in the centers and donations of books, stationery and toys. The majority of the participants stated that volunteers could support the staff. Child care workers and volunteers collaborated to take care of the children in the centers. Sometimes, if the centers had skillful volunteers, such as students taking a diploma of kindergarten education, these volunteers could share knowledge on how to promote child growth and development.

DISCUSSION

All themes and sub-themes identified in this study represent the meanings of child care workers' perspectives about promoting children's growth and development in child care centers in Yogyakarta, Indonesia. However, some sub-themes, such as nutrition and health checks, were articulated more frequently by child care workers in Case 1, while others, such as age-appropriate toys and equipment and a homelike environment, pertained more to child care workers in Case 2.

Findings in this study are the following literature indicating that the caregivers' knowledge of growth and development is essential to promote child growth and development. Falenchuk and colleagues stated that the knowledge of growth and development is essential for everyone working with children.⁷ Furthermore, they argued that information on normal child development helps all who work with and care for children to detect physical and mental development problems. It was evident in this study. Knowledge of child growth and development is essential for providing quality educational experiences for children. Early childhood caregivers should have realistic expectations regarding child growth and development and a solid understanding of what children need to know and do as they grow and develop.⁸ Understanding infant growth and development patterns and concepts are necessary for parents and caregivers to create a nurturing and caring environment that will stimulate young children's learning.⁷

Vermeer and colleagues' research also supports this finding.⁶ They argued that child development theory has come to be regarded as essential underpinning knowledge for social work when looking after children. Practitioners are enjoined to acquire a more in-depth knowledge of child development, and social workers are required to engage more meaningfully with the child development literature and use it critically and reflexively in their practice. Additionally, research in child development suggests that information and skill-building about health, hygiene, nutrition, and growth and development for caregivers is one strategy for promoting child development and preventing the loss of developmental potential while in care.^{5,7}

This study found that child care workers in both Case 1 and Case 2 understood that they needed to provide a high-quality environment to facilitate children's learning and play to promote child growth and development. Child care workers described cleanliness and sanitation, appropriate toys and equipment, safety and a homelike environment as characteristics of a high-quality environment in child care centers. This finding is in accordance with a study done by Henderson et al., who stated that a child-friendly environment should be free from environmental hazards.¹³ Children are more vulnerable than adults, and protecting them from environmental hazards can be achieved through cleanliness. A clean environment will present less danger to children and support child growth and development than an unclean environment. Safety is an essential characteristic of a high-quality child care environment was in accordance with a study done by Copeland et al.¹⁴ However, the child care workers from Case 1 and Case 2 did not consider other factors that the research identified, such as the caregiver-to-child ratio, developmentally appropriate programs, individual needs, culturally appropriate practice, family education and support, staff training and development, and program accreditation.¹⁴

In this study, participants articulated that nutrition, supervision and safety, and health checks (sub-themes of high-quality services) were factors defining high-quality services in child care centers. More child care workers in the government child care

centers (Case 1) than in the private child care centers saw providing good nutrition as an essential factor in children's healthy growth and development. This focus could be related to the fact that many Indonesian children struggle to get nutritious food to support their growth and development. This finding is supported by Natale et al., who stated that while early childhood nutrition is considered an essential factor for child health and development, poverty and food insecurity can affect young children's development and learning potential.¹⁵ Also mentioned nutrition as a strategy for fostering the developmental potential of 200 million children in developing countries.^{16,17} The other reasons that the government childcare workers value nutrition more than those in private child care centers may be because they have special programs run by the local government called "*program gizi tambahan*." These programs apply only to government childcare centers. Furthermore, the government child care centers receive financial support from the local government to provide good nutrition for children in their care.

The study participants' consideration of supervision for safety as essential for ensuring child growth and development in child care centers in Indonesia may have been because many parents do not always supervise their children appropriately. Commonly, Indonesian parents have more than two children in their family (Indonesian National Bureau of Family Planning, 2008). Furthermore, the ratio between child care workers and children is still high in Indonesian child care centers, ranging from five to ten children per caregiver. Therefore, supervision mentioned by child care workers is seen as an essential service they provide to support child growth and development. This finding was in accordance with guidance from the National Childcare Accreditation Council (NCAC) (2003), which stated that supervision is one of the most crucial caregiving strategies and skills that staff/caregivers are required to develop and master. Being aware of the environment and its potential risks, the weather conditions, the time of day, managing small and large groups of children, and an understanding of child development,

including theories about how children play, is crucial for maximizing children's safety and ability to play free from harm or injury.⁸

Child care workers in the government child care centers also saw health checks as essential for providing good nutrition. In Indonesia, many children do not receive growth and development checks. Parents only bring their children to the clinic or hospital if they are sick. Health monitoring is one of the main strategies for supervising and promoting child growth and development, citing a regular health check program as necessary for detecting growth and development problems as soon as possible. It enables early interventions to be taken to avoid potential developmental losses.^{3,18}

However, participants stated that the involvement of nurses from the local Primary Health Care services in child care centers was minimal. Participants claimed that nurses and doctors only come to do health checks once every month. Furthermore, most participants articulated that it would be valuable to have a nurse in the centers because nurses can provide health services and health education for child care workers. Hayden and Macdonald's (2010) research supports this finding. They, too, found that nurses' involvement in child care settings is essential in providing health services for children.

The majority of participants in Case 1 and Case 2 mentioned that linking to the community was important for child care centers to gain financial support and resources to support the centers' promotion of child growth and development. Findings in this study are in accordance with other studies that also found that child care centers can be the most effective settings to begin collaboration with the community through active networking. Active networking is mentioned as a critical factor for improving health promotion programs in early childhood settings.^{9,19}

Qualitative studies elicit data from a small sample size, such as in this study. However, the findings may not represent the more significant population of child care workers in child care centers in Yogyakarta, Indonesia. Nevertheless,

qualitative study samples are believed to be sufficient;¹⁰ to understand how child care centers in Yogyakarta, Indonesia, promote the growth and development of the children in their care.

CONCLUSION

This study has Child care centers, and local governments should collaborate to provide regular training for child care workers so that their knowledge of child growth and development can be updated and improved. Collaboration with communities and other government agents and improving nurses' involvement, particularly in providing health checks and health education, are essential to enhance the capability of the childcare centers to promote healthy child growth and development. Future research could focus on measuring the outcomes or the growth and development of children in childcare centers and trialing interventions to improve the quality of the childcare center to promote child growth and development.

CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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ETHICS APPROVAL

Ethics approval for this study was obtained from the Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta ethics committee review board with approval number:187/EP-FKIK-UMY/IV/2015.

AUTHOR CONTRIBUTION

Ferika Indarwati: Conceptualization, Methodology, Investigation, Validation, Formal analysis, Writing - Original Draft, Writing - Review and Editing. Gesta Firmansyah: Literature search, data acquisition, manuscript preparation. Andri Putriasi: Literature search, data

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