

Knowledge about Child Growth and Development among Mothers and Community: A Qualitative Study in Wonosobo

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ABSTRACT

Background: Optimal growth and development will produce qualified human resources. Achieving optimal growth and development requires support from various sectors, including parents, the community, and the government. This study aimed to determine the knowledge and awareness of mothers and the community regarding child growth and development in Wonosobo Regency, Central Java.

Method: This qualitative study was conducted in Wonosobo, Central Java, in 2019. Data were collected using FGD with mothers of under-two children and cadres (two groups) and interviews with health workers and related stakeholders (10 informants). The data collected was then analyzed using thematic analysis.

Result: The results showed that several themes related to child growth and development were identified, namely knowledge about child growth, development, stunting, and children's growth and development problems (signs, causes, and prevention). Mothers and the community have the proper knowledge about child growth and development. However, there is still a low awareness of when a child needs special attention due to growth and development problems in mothers' groups. Within the mothers' group, the knowledge of growth and development mostly comes from their prior experience. Meanwhile, most of the community's knowledge about child growth and development has been in line with health indicators. Bringing existing programs closer to the mothers could be an effort to increase knowledge and awareness about child growth and development.

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INTRODUCTION

Child growth and development refers to continuous changes from infancy to adulthood, enabling children to comprehend and engage with their surroundings. The process of growth and development may be observed in several areas, such as physical growth, motor development, communication abilities, and social and emotional advancements.(1) Several factors, such as nutrition, parental care, and societal support for caregiving, impact children's growth and development.(2) Lack of cognitive stimulation, stunting, iodine deficiency, and anemia caused by iron shortage are significant factors that hinder the achievement of optimal development of children.(3,4)

Wonosobo Regency has those four risk factors. This regency is characterized by a high incidence of iodine deficiency disorders (IDD) (13% UIE) and a significant prevalence of anaemia among school children (37.9%). The coverage of services for under-five children in Wonosobo Regency in 2019 was 90.9%, slightly lower than the Central Java coverage (93.9%).(5) Furthermore, this area was designated one of the 100 priority districts/cities for eliminating stunting in 2019. Stunting is

a form of malnutrition that adversely affects the growth and development of children. Stunted children are more likely to experience delays in motor development and have worse cognitive scores compared to non-stunted children.(6) Stunted children show a shorter stature than their age in terms of growth.

Impaired child growth and development are associated with cognitive function, educational achievement, heightened likelihood of children developing chronic diseases in adulthood, and intergenerational growth deficits.(7) The first 1000 days of a child's life are critical for optimal growth and development. Hence, throughout the first 1,000 days, children must have sufficient nutrition and stimulation.(8)

Early detection of a child's growth and development problems increases the likelihood of receiving treatment, leading to optimal growth and development. It is necessary to periodically monitor the growth and development of children to ensure that they reach their maximum potential in terms of growth and development. The government implements many initiatives to monitor children's growth and development regularly, including establishing integrated health posts

(*posyandu*) and toddler family development programs (*Bina Keluarga Balita/BKB*). Nevertheless, healthcare professionals, mothers (as the primary caretakers), and the community must possess knowledge regarding child growth and development and the capacity to identify potential issues at the earliest feasible stage. Previous studies have indicated that mothers had average knowledge regarding child growth and development and supplemental feeding for children.⁽⁹⁾ Even in regions with a high rate of child growth and stunting cases, the capacity of caretakers to identify and address issues related to child growth and development remains inadequate.⁽¹⁰⁾

The objective of this study is to obtain information related to the knowledge among mothers and the community about growth, development, and stunting. Additionally, this study wants to know how mothers and the community know the signs, causes, and prevention of growth and developmental problems in children. The findings of this research are expected to enhance the quality of child growth and development in Wonosobo Regency, which is recognized as one of the priority areas for addressing the issue of stunting prevalence in Indonesia.

METHOD

Study setting

The study was conducted in Kaliwiro District, Wonosobo Regency, Central Java, from October to November 2019. According to data from the Wonosobo Regency Health Office in 2019, the Kaliwiro District had the third-highest stunting rate (23.66%). The districts with higher stunting rates were Kejajar District (42.45%) and Kertek District (27.76%). Kaliwiro District was chosen as the study location because it has never received any intervention to address stunting, apart from the routine government health program. Contrary to Kejajar and Kertek's sub-districts, identified as the stunting locus in 2019, they have received various specific and sensitive interventions.

Participants and Recruitment

Informants for in-depth interviews and Focus Group Discussions (FGD) are selected systematically, starting at the district level, then moving to the sub-district level, and lastly to the village level. A total of 10 informants were interviewed, while the FGD was divided into two groups, each including eight participants. The district-level interviews involved informants from the Wonosobo Regency Health Office (Head of the Nutrition Section and Malnutrition Prevention Team), the Toddler

Family Development Program Team (*Bina Keluarga Balita/BKB*) from the National Population and Family Planning Agency (*Badan Kependudukan dan Keluarga Berencana Nasional/BKKBN*), and the Head of Social Affairs and the holder of the Family Hope Program (*Program Keluarga Harapan/PKH*) from the Wonosobo Regency Social Service. The interviews conducted at the Kaliwiro sub-district level involved informants from the Public Health Centre Nutritionist, the Head of the Sub-district Economic and Development Section, the village assistant officer of the Kaliwiro Sub-district Family Hope Program, the Chairman of the family welfare program (*Pemberdayaan dan Kesejahteraan Keluarga/PKK*) of Kaliwiro District, and the Coordinator of the Sub-district Family Planning Field Officer (*Petugas Lapangan Keluarga Berencana/PLKB*). Data collection at the village level involved interviews with the Village Head, the family welfare program secretary, and the Integrated Health Post cadres coordinator. The FGD was conducted with two distinct groups: the group of cadres and the group of mothers with children under two years old who were indicated to be stunted and or having developmental problems.

The data were collected using interviews and FGD guidelines. The in-depth interviews and FGD cover several points, such as knowledge and understanding of stunting, growth, and development; the signs of a healthy child; signs of a child with growth and development disorders; and informant knowledge on the causes and prevention of growth and development problems in children. The information was collected using a recording device after gaining consent from the informant. The interview duration ranged from 45 to 60 minutes, whereas the FGD lasted between 60 and 90 minutes. The data was collected by a research team that had undergone briefings and obtained equalization of perceptions beforehand. The informant and FGD participants have acquired knowledge of the aim and objectives of the research and have given informed consent to participate as an informant.

Data Analysis

The results of the interviews and FGD are recorded, transcribed, and then grouped into a matrix. They are then coded and analyzed. The interviews presented several themes, including 1) Knowledge of growth, development, and stunting among mothers and the community, 2) Knowledge of Signs of Growth and Developmental Problems, 3) Knowledge of Causes of Growth and Developmental Problems, 4) Knowledge of How to Prevent Growth and Developmental Problems.

Ethical Approval

This research obtained ethical approval from the health research and development agency, the Ministry of Health of the Republic of Indonesia, with the reference number LB.02.01/2/KE.045/2019.

RESULT AND DISCUSSION

Knowledge of Growth, Development, and Stunting

The findings from the FGD conducted with the mothers group indicate that they already have basic knowledge regarding child growth and development. Meanwhile, informants from the cadres and the health worker group possess more information regarding child growth and development than the mother group informants. Growth relates to enhancing physical characteristics, namely the height and weight increase. Development refers to improving children's cognitive capacities within a specific age range, including developing verbal skills, comprehension of instructions, and motor development. Therefore, the child's growth is optimal when the child's height, weight, and development align with the age range.

"Both brain development, psychomotor development, typically influences children's development, and with other developmental processes." (T, nutritionist)

These results show that mothers and the community correctly understand the definition of growth and development. However, cadres and health workers have more detailed knowledge about growth because they often receive socialization about growth and development. Therefore, a study stated that increasing maternal knowledge about growth and development can effectively increase early childhood development and improve parenting skills in low-, middle- and high-income countries.(11)

The findings of the FGD revealed that, according to the cadres' knowledge, stunting is one of the growth problems that impact children whose height is unsuitable for their age. This issue is mainly caused by malnutrition and is not influenced by inherited characteristics that cannot be resolved. The village assistant informant also knows that stunting is a condition in children whose height growth does not meet the guidelines established by the World Health Organisation (WHO).

"Stunting is a condition when children experience impaired growth that is not appropriate for their age. For instance, the height of a child, who is 2 years old, is not similar to other children of the same age." (HS, Village Assistance Officer)

The FGD revealed that only a limited number of informants have a sufficient understanding of stunting. The term "stunting" describes a physical condition like being a "midget", "dwarf", or "child with a small stature".

"Stunting refers to a condition where there is an unhealthy condition. Insufficient height is stunted" (Under two years' mothers, FGD)

"People in the village called it as dwarfism." (H, Cadre)

Most mothers with children under two years old reported that they were unaware of stunting and had no knowledge of stunting. They believe that stunting is solely attributed to genetic reasons. A similar result was found in the research, which found that hereditary factors cause stunting and cannot be changed.(12) The understanding that a child's height is only determined by inheritance is a misconception resulting from a lack of knowledge and awareness of the detrimental effects of stunting.(13) Genetic factors contribute to stunting, although their influence is limited to just 5%, while the remaining impact is attributed to modifiable environmental variables.(14)

Knowledge of Signs of Growth and Developmental Problems

The study findings indicate that mothers consider a child to have growth problems if there are severe abnormalities in the child's physical appearance. There are several signs, such as a drastic loss in weight, an enlarged stomach, a dull face, and unhealthy skin. Mothers typically become aware of their children's growth and development issues when they compare them to children of the same age. Hence, the informant suggests that engaging in *posyandu* and *BKB* activities is highly beneficial in enhancing parental awareness and monitoring the growth and development of children. These activities enable early-age monitoring of children's growth and development.

"While you may believe that your child is experiencing no issues in their growth and development, participating in a BKB can increase awareness of potential developmental problems, as it involves gathering children of the same age." (M, PLKB staff)

According to a mother of children under two years old, a child is considered healthy if they are rarely sick, can communicate and respond well, are energetic, and have no trouble eating. Despite their smaller body and shorter height, children exhibit an active movement that allows them to engage in activities without obstacles. Additionally, they do not encounter any difficulties in their

eating habits, thereby eliminating any concerns parents may have.

"At times, we, as cadres, recognize when a child has a growth and developmental problem or a nutrition problem. However, the parents respond by stating that despite their child's small size, he/she remains healthy. That is the most important thing, they said." (R, family welfare program secretary)

According to the cadre, if a child's weight is below the normal range and they have not been gaining weight for a while, it indicates the child may have growth problems. Meanwhile, children are considered to have developmental disorders when their level of intelligence does not align with their age-appropriate development, resulting in unresponsive behavior toward others. A child is regarded as experiencing developmental problems if they exhibit emotional issues, such as an inability to manage anger. Developmental disorders are also characterized by a lack of capacity in children to accomplish tasks that are typically within the range of their peers of the same age.

"If the child has no developmental issues, he will react to our instructions. For instance, if we request his assistance getting a spoon, he will comprehend and go to get the spoon. If he has a developmental problem, he might get confused." (HS, Village Assistance Officer)

Mothers generally believe that as long as their child does not feel discomfort, they do not have any growth and development problems. Extreme appearances indicate issues with growth in children. It indicates that mothers perceive their infants to have problems with growth when they observe significant physical signs. Parents believe that children grow normally as long as their height or weight is not severely below their age standard. The other study also showed that height is not associated with health. Consequently, height is not regarded as a significant indicator of malnutrition.(15)

Regarding the child's development, mothers commonly fail to determine whether they must become aware of their children's developmental delay. Typically, mothers assess their children's capabilities solely by comparing them to other children of the same age. Research conducted in Bangladesh revealed similar results, indicating that caregivers relied heavily on personal instincts and judgments, which were prevalent among the general population or compared to their peers.(15) This is due to caregivers' insufficient biomedical knowledge of children's development.(16)

Knowledge of Causes of Growth and Developmental Problems

Community informants attribute children's growth and development issues to several sources, such as economic factors. According to the informant, this nutritional problem can be caused by economic factors, such as difficulty in buying nutritious foodstuffs, and non-economic factors, such as parental awareness to provide healthy food for children. In addition, there is still an assumption that babies do not feel full if they are "only" breastfed after birth. Crying babies is a sign that the baby is hungry and should be fed solid food. This view is still held by the generation above parents, namely grandmothers. Dietary behaviors and nutritional status were significant indicators of developmental delay.(17)

"Baby has been fed with banana or rice even before six months." (Informant G, Social Service Officer)

Nevertheless, financial challenges are not the primary concern since even children from families with moderate or high socioeconomic status may encounter barriers to their growth and development. Due to its productive farming, the Kaliwiro region can easily fulfill the nutritional requirements of children from vegetable consumption. Parental awareness is considered a contributing element to growth and development problems. The challenge arises from the usual reluctance of children to consume vegetables, coupled with parents' need for more effort in devising innovative ways to offer healthful food options to their children. Snacking among children is also seen as a contributing cause of nutritional issues. Parents will permit their children to have snacks so they remain quiet and do not fuss.

"The children's weight is not increased because of poverty. They only give the children to eat with salt or sweet soy sauce. As long as the children want to eat, it does not matter what food they choose." (H, Economic and development staff, Kaliwiro)

"The first thing parents do to make their children less fussy is to give them snacks. It is the most important thing; the children are silent." (FGD of cadre)

Community informants often perceive that parents allocate less time to raising their children. Children are provided with nutrition that is inappropriate for their age, which can lead to health issues.

"The child still has no teeth, but the parents give them solid food. Their stomach is currently unable to tolerate it. They are unable to consume solid food at this stage." (H, village assistance officer)

According to cadres, a significant obstacle to ensuring optimal growth and development in children is the need for parents' participation in *posyandu* activities. Parents who have completed basic immunization for their kids often assume they no longer need to attend the *posyandu*. Similarly, working parents tend to avoid bringing their children to the *posyandu*. It may be inferred that the mother viewed growth monitoring promotion (GMP) primarily as a vaccination centre rather than a facility for monitoring the growth of her children.(18) Research conducted in Ethiopia found similar results, indicating that mother awareness of GMP was lower than maternal awareness of vaccination. Concurrently, healthcare professionals possess a greater level of understanding regarding GMP.(19)

An informant, who is also a kindergarten teacher, said that language and motor skill delays are commonly observed in kindergarten-aged children.

"There is a child who already can use a pencil and stacking blocks. However, there are individuals who cannot still perform basic motor tasks." (R, Family Welfare Program Secretary)

That developmental delay is probably due to a lack of parental stimulation for children in the home. Many children in low- and middle-income countries (LMICs) need to receive the essential elements of nurturing care, such as responsive caregiving, early learning, safety and security, nutrition, and health, within the following 1000-day period.(20) Significantly, the optimal time to enhance early childhood development interventions occurs within the first three years of life, considering that parents provide stimulation, educational support, and sufficient health nutrition.(21)

Knowledge of How to Prevent Growth and Developmental Problems

Providing stimulation is one way to prevent developmental problems. One of the informants said a few parents actively encourage their children to attain developmental abilities beyond their age. While it is beneficial for parents to stimulate their children, it may also lead to excessive pressure when the stimulation is not age-appropriate. Children will be adversely affected by coercive stimulation. Parent's awareness of child development might enhance their capacity to encourage optimal development for their children.(11) Meanwhile,

the research results showed that, on one side, parents lack knowledge about their children's developmental stages, resulting in some parents failing to provide adequate stimulation while others provide overstimulation. Based on prior study findings, parents have limited awareness about physical and language milestones but tend to overestimate children's ability in cognition milestones.(22)

"Children require stimulation. However, it is not necessary to enforce it. For instance, a child aged three ought to possess the ability to read." (M, PLKB staff)

Enhancing their dietary intake is one way to promote the children's growth and development.

"The parents often allow the children who have no desire to eat. We strongly encourage mothers to provide nourishing meals to support the growth of their children." (H, Cadre)

From prior experience, the approach to conveying to parents that children have growth and development problems must be considered. Parents often feel uneasy and shamed after learning that their children are experiencing growth and development problems, leading them to stop visiting the *posyandu*. In several cases, children who did not gain weight for a while did not visit the *posyandu* for an extended period. Alternatively, they, who have been suggested to go to the PHC nutritionist because the cadre indicated a growth or developmental problem, did not come to the next *posyandu*. Fear, embarrassment, or confusion are likely the cause. The reason for the decision is possibly due to the stigma associated with mothers or parents whose children are visited by health workers or cadres due to their malnourishment, where the parents do not see that their child is in an illness condition.(23) The low educational level of parents hinders their capacity to support optimal cognitive development in their children.(24) Enhancing maternal knowledge and skills can optimize the growth and development of children, as mothers play a significant role in caregiving and stimulating their children.(25)

This research intends to assess the awareness and knowledge of mothers and the community on children's growth and development. The acquired information will be used in the next step as an initial basis for developing intervention materials for families with children under two years of age. Thus, informants representing community groups are derived from organizations and institutions that vary from the district to village levels and are associated with stunting prevention. This condition is a limitation of the research, as most of those interviewed have been exposed to information regarding child growth and

development, including stunting, from many sources. As a result, the information acquired from the interview is likely to be better compared to when the interviews performed with the lay people.

CONCLUSION

Knowledge and awareness of the mothers and the community are essential to encourage the children's growth and development. Mothers and the community have the proper knowledge about child growth and development. However, there is still a low awareness of deciding when a child needs special attention due to growth and development problems in mothers' groups. Within the mothers' group, the knowledge of growth and development mostly comes from their prior experience. Meanwhile, most of the community's knowledge about child growth and development has been in line with health indicators. The wrong information and perception about the causes of growth and development need to be corrected through community-based intervention in the future. The findings of this study could be used as the basis for developing health intervention materials. Health promotion intervention materials derive from government health programs about children's growth and development, which have been implemented but must be uniformly disseminated across the community. Bringing existing programs closer to the mothers could be an effort to increase knowledge and awareness about child growth and development. The target for this health promotion campaign is pregnant women preparing for their child's birth. It is a suitable time to communicate health-related information about their forthcoming child. Another target is the mothers of children under two years old because the initial two years provide a critical phase for children's growth and development. Previously trained cadres can serve as agents of change by disseminating health promotion information and mentoring families with children under two years of age. In addition, health promotion should be designed according to local characteristics so that health messages can be adequately conveyed.

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Conflict of Interest

The authors declare no conflict of interest.

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