Volume 6 Number 2 (2025)
May – October 2025
Page: 401-410

E-ISSN: 2716-0750
P-ISSN: 2715-7997
DOI: 10.37680/amalee.v6i2.6898

Amalee
Indonesian Journal of Community Research and Engagement

The Use of the Maternal and Child Health (KIA) Book as a Medium to Improve Mothers' Knowledge and Skills in Toddler Development Stimulation: A Community Service in Wage Village, Sidoarjo

Uke Maharani Dewi[1*], Hinda Novianti[2], Annif Munjidah[3], Elly Dwi Masita[4], Choirotussanijjah[5]

[1.2] S1 Midwifery Program, Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia
[3] Midwifery Professional Education Program, Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia
[4] DIII Midwifery Program, Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia
[5] S1 Medical Education Programs, Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia
* Correspondence e-mail; uke@unusa.ac.id

Article history Submitted: 2025/02/05; Revised: 2025/10/13; Accepted: 2025/10/18

Abstract

The main obstacle in toddler development monitoring is the limited knowledge of mothers regarding stimulation and early detection. Previous community services in several regions generally focused on counseling at *posyandu* or health facilities. However, these efforts often emphasized knowledge transfer only, without sufficient emphasis on hands-on practice or continuous assistance, resulting in limited impact on mothers' actual skills. This gap highlights the need for community-based programs that increase knowledge and strengthen practical skills through direct mentoring. This community service was implemented in Wage Village, Sidoarjo Regency, involving 24 mothers of toddlers. The intervention consisted of training sessions using lectures, demonstrations, and guided practice with the Maternal and Child Health (KIA) book as the primary tool. Pre-test and post-test evaluations were conducted using questionnaires on knowledge and skills. The results showed a significant increase, with 83.3% of mothers reaching the high category in knowledge and 91.7% in skills after the training. These findings indicate that practice-based training with intensive assistance effectively empowers mothers. Continuous mentoring at *posyandu* is recommended for future programs to ensure sustainability and broader community impact.

Keywords Detection; Development; Family; Stimulation; Toddler

.

1. INTRODUCTION

The toddler period, particularly ages 12–59 months, is considered a golden age during which brain development occurs rapidly. At this stage, stimulation and early detection are crucial to prevent growth and developmental disorders. More than 250 million toddlers in low- and middle-income countries are at risk of not reaching their optimal developmental potential due to a lack of stimulation, inadequate nutrition, and limited access to health services WHO, 2020). UNICEF (2021) also emphasized that growth and development monitoring is one of the key interventions in the global Nurturing Care for Early Childhood Development strategy (UNICEF, 2018).

In Indonesia, the government has established health service standards for toddlers aged 12–59 months, which include: weighing at least 8 times per year, measuring length/height at least twice per year, developmental monitoring at least twice per year, providing vitamin A capsules according to age, and administering booster immunizations (Kementerian Kesehatan RI, 2019). To support implementation, the Stimulation, Detection, and Early Intervention of Child Development (SDIDTK) program is carried out through health service networks, one of which is the *posyandu* (integrated health post) for toddlers (Kementerian Kesehatan RI, 2022). The *posyandu* also plays a role in providing health education related to developmental stimulation (Kementerian Kesehatan RI, 2023a). However, nationwide coverage of child growth and development monitoring remains suboptimal. The 2024 Indonesian Nutrition Status Survey (SSGI) recorded a national stunting prevalence of 19.8%, although it decreased from 21.5% in 2023. The government targets a further reduction to 14.2% by 2029 (Kementerian Kesehatan RI, 2025). This indicates that the quality of growth and development monitoring still needs to be improved as part of the stunting reduction acceleration strategy.

A similar condition is evident at the local level. In East Java, the coverage of toddlers served by SDIDTK in 2023 reached 95.4%, and in Sidoarjo Regency specifically, it was recorded at 95.77% (Dinas Kesehatan Provinsi Jawa Timur, 2024). However, this figure does not fully reflect the quality of developmental monitoring, as field surveys show that some villages still have high stunting prevalence. For example, stunting prevalence in Sidoarjo Regency was recorded at 16.1% in 2022, with inter-regional variation: Gedangan Village reached 29% and Waru Subdistrict reached around 19% (Dinas Kesehatan Provinsi Jawa Timur, 2024). Although administrative coverage is high, disparities between villages indicate that developmental monitoring in practice is not yet evenly distributed.

Factors influencing the low implementation of toddler developmental monitoring include limited maternal knowledge, suboptimal use of the Maternal and Child Health Book (Buku KIA), and insufficient guidance from health workers. A preliminary study in Wage Village, Sidoarjo Regency, involving 24 mothers of toddlers identified the main barriers: 75% did not know how to conduct monitoring, 4.2% reported lack of time, 12.5% did not have a KIA book, and 8.3% stated that no one provided guidance. This highlights that although *posyandu* services are operational, they have not fully encompassed systematic developmental monitoring.

Based on this description, a gap is evident between national policies and field practices. On one hand, regulations emphasize the importance of growth and development monitoring, but on the other hand, community practices are still hampered by limitations in knowledge, media, and technical support.

Therefore, interventions are needed to improve mothers' knowledge and skills in conducting stimulation and early detection of child development independently at home. These efforts are expected to strengthen the role of families in supporting child growth and development, improve the quality of developmental monitoring at the *posyandu* level, and contribute to achieving the national stunting reduction targets (Dinas Kesehatan Provinsi Jawa Timur, 2024; WHO, 2020; Kementerian Kesehatan RI, 2023b, 2023a, 2025; UNICEF, 2018).

2. METHODS

This community service activity was carried out in Wage Village, Sidoarjo Regency, targeting 24 mothers of toddlers. The implementation method consisted of three main stages: preparation, implementation, and evaluation.

The preparation stage was conducted through a focus group discussion (FGD) with local stakeholders, namely the Head of Wage Village, the Head of the Community Health Center (Puskesmas), the Village Midwife, the Chair of the Family Welfare Empowerment Team (TP-PKK), and the *Posyandu* Coordinator. The FGD was conducted in stages, beginning with disseminating the initial survey results, then problem identification, and formulating a follow-up action plan. This stage aimed to ensure that the program was aligned with community needs and received full support from all partners.

The implementation stage was carried out by providing educational interventions to mothers of toddlers. The materials were delivered using lectures, demonstrations, and guided practice. The content included the basic concepts of toddler development stimulation, methods of conducting early detection using the Maternal and Child Health Book (Buku KIA), and practical skills in providing age-

.

appropriate stimulation. At this stage, each mother was allowed to practice directly under the guidance of facilitators and *posyandu* cadres, so that the knowledge gained could be applied effectively at home.

The evaluation stage assessed mothers' knowledge and skills improvement before and after the training. Knowledge was measured using a questionnaire containing stimulation and developmental detection questions. At the same time, skills were assessed through an observation sheet on completing the KIA book and implementing developmental stimulation. The analysis was carried out by comparing pre-test and post-test results to determine the effectiveness of the training in improving mothers' capacity in monitoring child development.

3. FINDINGS AND DISCUSSION

The frequency distribution of the respondents' characteristics involved in the community service activity can be seen in the following diagram:

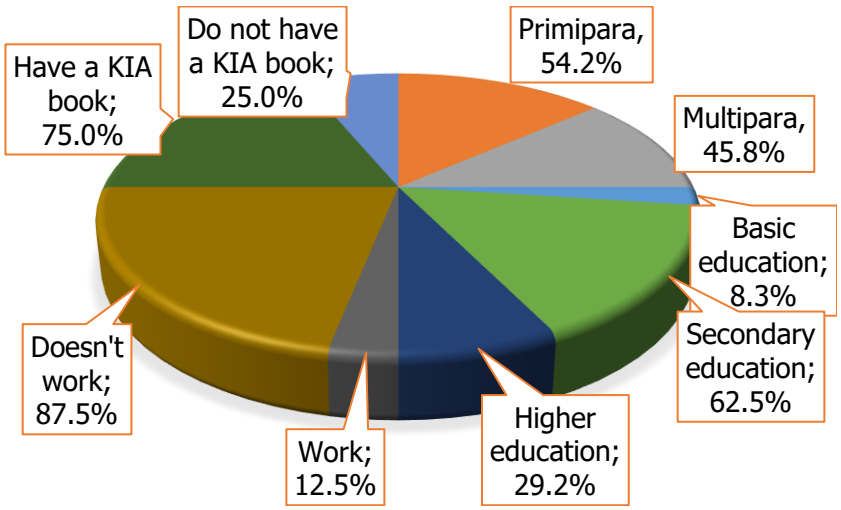

Figure 1. Diagram of Respondents' Characteristics

In the diagram above, it can be seen that the majority of mothers of toddlers (54.2%) are young mothers who have only one child (primipara). Most of the mothers of toddlers have a secondary level of education (62.5%), the majority are not employed (87.5%), and most already own a Maternal and Child Health Book (KIA) (75%).

All mothers of toddlers involved in this community service activity received two days of training on toddler development stimulation and detection. The effectiveness of the training was measured using knowledge and skills questionnaires administered before and after the training ended. The evaluation results of this community service activity are presented as follows:

3.1. Knowledge of the Mother and the toddler about stimulation and detection development toddler

The level of mothers' knowledge before and after receiving the material on toddler development stimulation and detection is presented as follows:

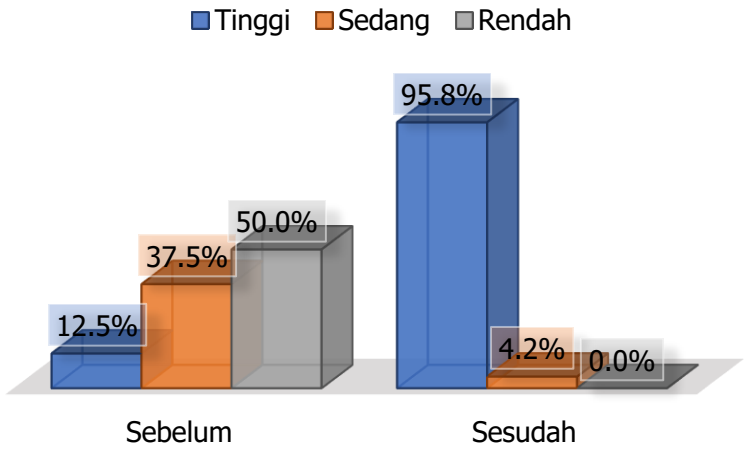

Figure 2. Diagram of Mothers' Knowledge Levels in Toddler Development Stimulation and Detection

After being provided with material on toddler development monitoring, there was a significant increase in mothers' knowledge, with the high category reaching 83.3%. This finding demonstrates that training on stimulation and developmental detection is effective in improving maternal health literacy related to child growth and development (Basri et al., 2023; Jauhar et al., 2024; Kamila, 2023; Rahayu & Widyastutik, 2024). This increase in knowledge is particularly important because mothers are the closest figures to their children and serve as the primary decision-makers in their children's daily lives. Matters related to child development—from stimulation and monitoring developmental milestones to making decisions about seeking health services—are largely determined by mothers. Thus, mothers represent a strategic target for educational interventions in growth and development monitoring.

Although health facilities such as hospitals and community health centers (puskesmas) already provide child development clinics, many toddlers still do not receive optimal stimulation and developmental detection services (Liyanovitasari et al., 2023; Ratnaningsih et al., 2024). This reflects a gap between service availability (supply side) and family utilization (demand side). The main barriers faced by mothers in conducting developmental monitoring were identified as follows: not knowing how to perform monitoring (75%), lack of time (4.2%), not owning a Maternal and Child Health Book (Buku KIA) (12.5%), and lack of guidance from relevant parties (8.3%).

.

Most of these obstacles are associated with maternal lack of knowledge regarding how to conduct monitoring and access the available services (Rahayu & Widyastutik, 2024; Widyaningsih et al., 2020).

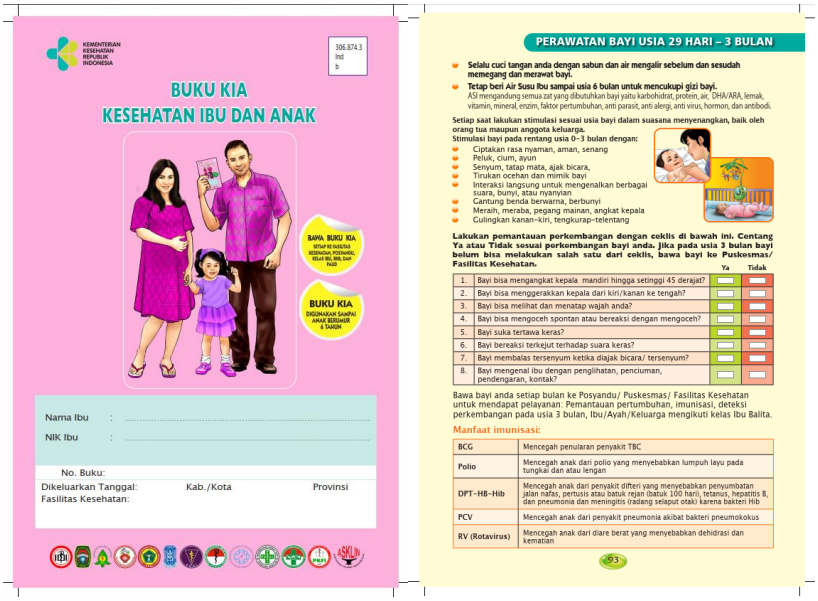

Figure 3. The Cover and Developmental Monitoring Table in the Maternal and Child Health (KIA) Book

This lack of knowledge underscores the need for more targeted education. The Maternal and Child Health Book (Buku KIA) can serve as a practical guide that is easily accessible and usable at home to assist mothers in providing stimulation and conducting early detection of toddler development (Ersila & Prafitri, 2022). However, the distribution of the KIA book must be accompanied by proper training on its use. Without mentoring or practical guidance from cadres and health workers, the knowledge gained by mothers may not translate into real behavioral changes in daily life.

Therefore, educational and training programs on SDIDTK should focus on improving knowledge and addressing practical barriers through simple strategies that mothers can implement at home. Providing practice-based materials, cadre mentoring at the *posyandu*, and integrating developmental monitoring activities into primary health care services can help bridge the gap between policy and field implementation. These steps are expected to encourage mothers to take a more active role in monitoring child growth and development, so that toddler monitoring services can run optimally and support the achievement of national targets for accelerating stunting reduction and improving the quality of the future generation.

3.2. Mothers' Skills in Toddler Development Stimulation and Detection

Skill level Mother toddler before and after given material about stimulation and detection development, the toddler is as follows:

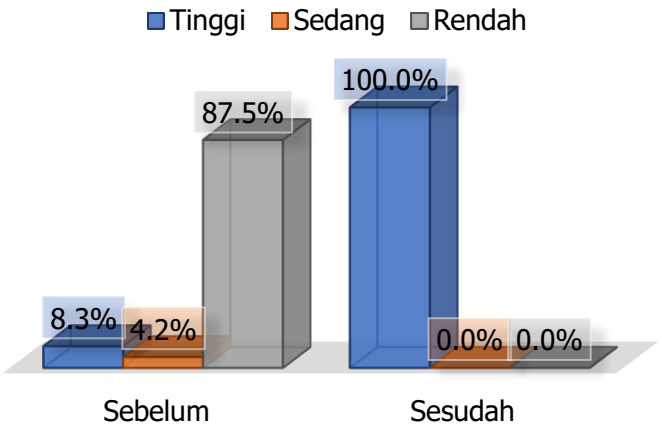

Figure 3. Diagram of Mothers' Skill Levels in Toddler Development Stimulation and Detection

The activity results showed that after the training, there was an increase in mothers' skills in conducting stimulation and developmental detection, with the high category reaching 91.7%. This finding not only confirms the effectiveness of the training in improving knowledge but also demonstrates that mothers' practical abilities in monitoring toddler development significantly improved. This is consistent with previous studies, which reported that applied educational interventions are effective in enhancing parents' skills in providing early stimulation and conducting developmental detection according to the child's age stage (Ersila et al., 2021; Indrayani et al., 2019; Ramadhani & Sumanto, 2023).

This skill improvement carries important implications, as skills represent the tangible translation of knowledge into daily practice. Without adequate skills, the knowledge acquired by mothers may not be implemented consistently. The skills in question include providing age-appropriate stimulation, recognizing signs of developmental delays, and accurately completing the toddler development monitoring section in the Maternal and Child Health Book (KIA). With these enhanced skills, mothers are expected to be more confident in taking an active role as primary caregivers, especially in the early detection of developmental delays (Indrayani et al., 2019).

Strengthening mothers' skills is also essential, because they are the closest figures to children and have the most time to provide stimulation. Empowering mothers through parenting practices based on stimulation and early detection supports more

.

comprehensive developmental monitoring, without relying solely on health workers at *posyandu* or health facilities (Ramadhani & Sumanto, 2023). This aligns with the family-centered care approach, which emphasizes family involvement—particularly mothers—in monitoring children's growth and development on an ongoing basis (Ersila et al., 2021).

Figure 4. Implementation of Training on Toddler Development Stimulation and Detection

In this community service activity, mothers of toddlers were provided with practical guidance on how to complete the Maternal and Child Health Book (KIA) as a tool for monitoring child development. In addition, mothers were directed to understand the follow-up actions that should be taken if any developmental deviations or delays were identified. This approach is important because the KIA book is not merely an administrative record, but also serves as an early screening instrument that can guide families in determining when a child needs to be referred to a health facility for further assessment (Ersila et al., 2021; Indrayani et al., 2019). Thus, improving mothers' skills through this training directly enhances the quality of early detection of child growth and development in the community.

Overall, these findings strengthen the evidence that practice-based training with intensive mentoring can improve mothers' skills in stimulation and developmental detection (Ramadhani & Sumanto, 2023). Furthermore, the results highlight the urgency of sustainable empowerment programs for mothers of toddlers, so that the skills acquired are not temporary but can be maintained and consistently developed in daily parenting practices (Ersila et al., 2021; Indrayani et al., 2019).

4. CONCLUSION

The community service program in Wage Village, Sidoarjo Regency, successfully improved mothers' knowledge and skills in toddler stimulation and developmental

detection, as demonstrated by their ability to complete the Maternal and Child Health Book (KIA) and understand the follow-up actions required in cases of developmental discrepancies. This success underscores the importance of empowering mothers as the primary caregivers of children. Therefore, continuous mentoring by *posyandu* cadres, optimization of KIA book utilization, and developing simple and digital educational media are recommended to support the sustainable monitoring of toddler growth and development.

REFERENCES

Basri, S., Saleh Jastam, M., Amansyah, M., Widiastuty, L., Kahfi, M., & Ekasari, R. (2023). Clean And Healthy Living Behavior (PHBS) Education In School Through Snakes And Ladders Game. *Jurnal Pengabdian Masyarakat*, *19*(2), 203–212.

Dinas Kesehatan Provinsi Jawa Timur. (2024). *Profil Kesehatan Provinsi Jawa Timur Tahun 2023*.

Ersila, W., & Prafitri, L. D. (2022). Optimalisasi Peran Ibu Dalam Deteksi Perkembangan Balita. *Prosiding Seminar Nasional Ikatan Bidan Indonesia Cabang Kota Tasikmalaya*, 41–52.

Ersila, W., Prafitri, L. D., & Abdurrachman. (2021). Meningkatkan Keterampilan Kader melalui Pelatihan Deteksi Perkembangan Balita. *The 13th University Research Colloqium*, 608–612.

Improving Early Childhood Development, World Health Organization (2020).

Indrayani, D., Legiati, T., & Hidayanti, D. (2019). Kelas Ibu Balita Meningkatkan Pengetahuan dan Keterampilan Ibu dalam Stimulasi Tumbuh Kembang. *Jurnal Kesehatan Prima*, *13*(2), 115–121. https://doi.org/10.32.807/jkp.v13i2.240

Jauhar, M., Kartikasari, F., & Kusumawardani, L. H. (2024). Pelatihan Kader Kesehatan untuk Meningkatkan Keterampilan Deteksi Dini Stunting. In *Jurnal Litbang* (Vol. 20, Issue 1). http://ejurnal-litbang.patikab.go.id

Kamila, N. A. (2023). Pengaruh Pelatihan terhadap Pengetahuan dan Kemampuan Psikomotor Kader Kesehatan dalam Melakukan Deteksi Dini Stunting serta Stimulasi Tumbuh Kembang Balita. *JIKF*, *11*(2), 56–60.

Kementerian Kesehatan RI. (2022). *Pedoman Pelaksanaan Stimulasi, Deteksi Dan Intervensi Dini Tumbuh Kembang Anak di Tingkat Pelayanan Kesehatan Dasar* (Vol. 1).

Kementerian Kesehatan RI. (2023a). *Buku KIA Kesehatan Ibu Dan Anak*.

Kementerian Kesehatan RI. (2023b). *Panduan Pengelolaan Posyandu Bidang Kesehatan*.

Kementerian Kesehatan RI. (2025). *Survei Status Gizi Indonesia Dalam Angka Tahun 2024*.

Liyanovitasari, Natalia, D. O., & Swantika, I. P. (2023). Pemberdayaan Kader *Posyandu* Dalam Stimulasi Deteksi dan Intervensi Dini Sikumbang (Psikologi,Tumbuh,

.

Kembang) Anak. *Indonesian Journal of Community Empowerment (IJCE)*, *5*(1), 89–95.

Peraturan Menteri Kesehatan Republik Indonesia Nomor 4 Tahun 2019, 1 (2019).

Rahayu, S. M., & Widyastutik, D. (2024). Pengaruh Edukasi Buku Saku Terhadap Tingkat Pengetahuan Ibu Tentang Deteksi Tumbuh Kembang Bayi Dan Balita Di Desa Sukorejo, Kecamatan Musuk, Kabupaten Boyolali. *Jurnal Kesehatan Kusuma Husada*, *15*(2), 1–9.

Ramadhani, A. D., & Sumanto, R. P. A. (2023). Peningkatan Keterampilan Pendidik PAUD dalam Deteksi Dini Tumbuh Kembang melalui Edukasi Berbasis Website. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *7*(6), 7338–7349. https://doi.org/10.31004/obsesi.v7i6.4216

Ratnaningsih, E., Febriati, L. D., & Sugathot, A. I. (2024). *Studi Kualitatif Peran Kader dalam Pelaksanaan Layanan Stimulasi Deteksi dan Intervensi Dini Tumbuh Kembang (SDIDTK)* (Vol. 13, Issue 1).

UNICEF. (2018). *Nurturing Care for Early Childhood Development: A Framework for Helping Children Survive and Thrive to Transform Health and Human Potential*.

Widyaningsih, T. S., Windyastuti, & Tamrin. (2020). Peran Kader Dalam Memotivasi Ibu Balita Yang Berkunjung Ke *Posyandu*. *JKEP*, *5*(1), 1–12.