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Community Empowerment in Stunting Prevention Through the Complete Stunting Response Mothers Movement (GITa TingTas)

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ABSTRACT Stunting remains a major public health challenge in Indonesia despite a gradual decline in its prevalence. In Magetan Regency, the stunting prevalence decreased from 17.2% in 2022 to 14.9%; however, this figure still exceeds the national development target of below 14%. In Pandeyan Village, approximately 14% of children under five continue to experience stunting, indicating the need for sustainable community-based interventions to improve maternal knowledge and preventive practices. This community service program aimed to enhance mothers' awareness and knowledge of stunting prevention through health education and the establishment of the Complete Stunting Response Mothers Movement (GITa TingTas). A pre-experimental one-group pre-test–post-test approach was implemented involving 100 mothers of children under five in Pandeyan Village, Maospati District, Magetan Regency. Participants attended structured training sessions covering exclusive breastfeeding, complementary feeding (MP-ASI), child growth and development monitoring, and environmental hygiene. Knowledge regarding stunting prevention was assessed using pre-test and post-test questionnaires administered before and after the educational intervention. The findings demonstrated a marked improvement in participants' knowledge following the training. The proportion of mothers with excellent knowledge increased from 11% to 23%, while those with good knowledge increased from 48% to 61%. Conversely, the percentage of participants with sufficient knowledge declined from 23% to 16%, and those with poor knowledge decreased from 18% to 0%, indicating substantial gains in understanding after the intervention. Interactive discussions further revealed increased participant engagement and awareness regarding early detection and prevention of stunting. In conclusion, the GITa TingTas community empowerment program effectively improved mothers' knowledge of stunting prevention and strengthened community participation in child health promotion. Continuous educational activities and sustained collaboration among community members, health cadres, and local government are recommended to maintain behavioral changes and support long-term reductions in stunting prevalence.

INDEX TERMS Stunting Prevention, Community Empowerment, Maternal Education, Health Promotion, GITa TingTas

I. INTRODUCTION

Stunting remains a critical global public health imperative, severely compromising child survival, cognitive development, and lifetime economic productivity, particularly in developing nations [1], [2]. Malnutrition during the first 1,000 days of life induces irreversible physiological impairments, leading to reduced physical stature, diminished intellectual capacity, and an elevated vulnerability to non-communicable metabolic diseases [3], [4]. In Indonesia, despite national strategic frameworks targeting a stunting prevalence below 14%, persistent regional disparities remain [1], [5]. Regional data from Magetan Regency reveals a stunting prevalence of 14.9%, with specific sub-districts like Pandeyan Village reporting rates as high as 14% among toddlers [6]. This high prevalence stems primarily from suboptimal maternal knowledge regarding balanced nutrition, inadequate exclusive breastfeeding, improper complementary feeding (MP-ASI) practices, and poor environmental sanitation [4],

[7]. Consequently, mitigating local stunting rates requires robust, grassroots interventions tailored to localized rural dynamics [5], [8].

The contemporary state-of-the-art strategy for stunting prevention relies heavily on community-based health service posts (Posyandu) [9]–[11]. Conventional programs utilize community health cadres as frontline motivators to conduct routine growth monitoring, anthropometric screening, and basic health education [12]–[14]. Recent state-of-the-art methodologies have increasingly adopted multi-modal instructional tools—combining didactic lectures, focus group discussions (FGDs), audiovisual media, and practical demonstrations—to strengthen cadre and maternal competencies [15]–[18]. Educational technology and structured counseling programs have demonstrated substantial efficacy in elevating knowledge retention and transforming maternal caregiving behaviors [19]–[21].

However, a critical research gap persists in existing literature and field implementations. Most existing interventions focus predominantly on isolated cadre training without establishing a dedicated, sustainable community movement that directly bridges health cadres with mothers of toddlers at the neighborhood level [5], [22]. Existing programs frequently suffer from passive maternal participation, fragmented inter-sectoral communication, and a lack of continuous, structured follow-up mechanisms after initial educational sessions [23]–[25]. Furthermore, empirical evaluations measuring the direct impact of comprehensive maternal training groups on multi-faceted stunting dimensions—encompassing breastfeeding, MP-ASI, growth screening, and environmental hygiene—remain under-documented in rural Indonesian settings [7], [18].

To address this gap, this study aims to evaluate the effectiveness of an integrated community empowerment initiative known as the Complete Stunting Response Mothers Movement (Gerakan Ibu Tanggap Stunting Tuntas [GITa TingTas]) in Pandeyan Village, Magetan Regency [6]. The primary objective is to quantify improvements in maternal knowledge and assess the viability of establishing a sustainable, cadre-led maternal movement for localized stunting elimination [6], [12]. This article provides three key contributions to the domain of community health empowerment:

1. **Model Framework Contribution:** It introduces the GITa TingTas framework, an innovative, community-driven empowerment model that systematically engages mothers of toddlers through interactive, multi-method training [6].
2. **Empirical Validation:** It delivers rigorous pre-test and post-test empirical evidence demonstrating significant knowledge enhancement across key stunting prevention pillars, including exclusive breastfeeding, MP-ASI, growth monitoring, and environmental sanitation [6], [15].
3. **Actionable Implementation Strategy:** It establishes a replicable strategic blueprint for local health centers (Puskesmas) and village administration to institutionalize cross-sectoral collaboration and continuous cadre mentoring [14], [24].

The remainder of this article is structured as follows: Section II outlines the research methodology, participant demographics, training modules, and assessment protocols. Section III presents the empirical findings, detailed statistical comparisons of pre- and post-test knowledge levels, and a theoretical discussion on behavioral change mechanisms. Finally, Section IV concludes the paper and offers policy recommendations for scalable implementation.

II. METHODS

A. STUDY DESIGN AND ETHICAL CONSIDERATIONS

This study employed a quantitative, quasi-experimental research design utilizing a single-group pre-test and post-test intervention framework to evaluate the effectiveness of a structured community empowerment program [26], [27]. The study was conducted in Pandeyan Village, Maospati District, Magetan Regency, East Java Province, Indonesia

[1]. The intervention model, designated as the Complete Stunting Response Mothers Movement (Gerakan Ibu Tanggap Stunting Tuntas [GITa TingTas]), was designed to enhance maternal knowledge and operational capacity regarding stunting prevention [1], [28]. Ethical approval and institutional permission were obtained prior to study execution from the relevant health polytechnic institutional review board and local municipal authorities [1]. All participants were provided with comprehensive explanations regarding the objectives, procedures, and voluntary nature of the study before signing written informed consent forms [29].

B. POPULATION AND SAMPLING FRAMEWORK

The target population comprised mothers residing in Pandeyan Village who had children aged under five years (toddlers) [1]. A non-probability purposive sampling strategy was applied to select study participants [30]. The inclusion criteria were: (1) mothers having toddlers diagnosed with stunting or non-stunting status, (2) permanent residency within the administrative boundaries of Pandeyan Village, and (3) full willingness to participate throughout all phases of the training program and complete both evaluation instruments [1]. Mothers who were absent during either the pre-test, training sessions, or post-test evaluations were excluded from the final analytical dataset. Out of the initial community outreach, a total sample size of $N = 100$ respondents was enrolled into the training program [1]. Following data cleaning and validation for complete pre- and post-test responses, $n = 88$ completed datasets were retained for final statistical analysis [1].

C. INTERVENTION PROTOCOL (GITa TingTas PROGRAM)

The GITa TingTas intervention was implemented as a standardized, multi-modal instructional module delivered by certified health educators and community midwives [1], [31]. The instructional package integrated four primary domain modules:

1. **Exclusive Breastfeeding Practices:** Optimal breastfeeding duration, lactation techniques, and nutritional benefits [1].
2. **Complementary Feeding (MP-ASI):** Timely introduction, dietary diversity, hygienic preparation, and age-appropriate feeding frequency [1].
3. **Growth and Development Monitoring:** Operational utilization of Maternal and Child Health (KIA) handbooks, interpretation of growth charts, and early detection of growth faltering [1].
4. **Environmental Hygiene and Sanitation:** Clean water usage, safe sanitation disposal, and personal hygiene management [1].

The pedagogical methodology combined interactive lectures, structured Focus Group Discussions (FGDs), audiovisual video screenings, practical demonstrations, and Q&A sessions to maximize cognitive retention and practical skill absorption [1], [32].

D. MEASUREMENT INSTRUMENTS AND DATA COLLECTION PROCEDURES

Data were collected through a prospective, quantitative

survey design utilizing a pre-tested, structured knowledge questionnaire [1], [33]. The questionnaire consisted of closed-ended multiple-choice items designed to assess respondent knowledge across the four intervention domains [1]. The data collection procedure was executed in three sequential phases:

1. Phase 1 (Pre-Test Evaluation): Prior to the delivery of the instructional modules, respondents completed a supervised 20-minute paper-based pre-test to establish baseline knowledge levels across four standard categories: "Very Good" (81%–100%), "Good" (61%–80%), "Sufficient" (41%–60%), and "Poor" ($\leq 40\%$) [1], [34].
2. Phase 2 (Intervention Execution): Participants underwent the multi-modal GITa TingTas educational training sessions executed over dedicated intensive modules [1], [31]. Instructional media including booklets, slides, and educational videos were systematically distributed and presented [1], [32].
3. Phase 3 (Post-Test Evaluation): Immediately following the completion of the intervention program, respondents were administered an identical post-test instrument under identical testing conditions to measure knowledge acquisition and shift across the evaluation categories [1], [35].

E. DATA PROCESSING AND STATISTICAL ANALYSIS

Collected primary data were coded, anonymized, and entered into a digital database for quantitative analysis [1]. Descriptive statistics were computed to determine frequency distributions (f) and percentage proportions (%) for both pre-test and post-test knowledge scores across the four ordinal categories ("Very Good", "Good", "Sufficient", "Poor") [1]. Categorical improvements between pre-intervention and post-intervention scores were compared to evaluate the overall educational efficacy of the GITa TingTas empowerment movement [1], [35].

III. RESULTS

During the stunting training activity, a pre-test and post-test were conducted on stunting prevention, with the following results. "The training program was executed smoothly in Pandeyan Village, beginning with a formal opening session with 100 mothers of toddlers (FIGURE 1).

Educational modules encompassing stunting prevention, exclusive breastfeeding, and environmental hygiene were systematically delivered using interactive media (FIGURE 2). Quantitative evaluation of participants' knowledge before and after the training demonstrated substantial improvements across all categories, as summarized in Table 1.



FIGURE 1. The Opening with Mothers of Toddlers



FIGURE 2. Educational Materials for Stunting Prevention

Based on TABLE 1, the proportion of participants in the "very good" category increased from 11% ($f = 10$) in the pre-test to 23% ($f = 20$) in the post-test. Similarly, respondents in the "good" category rose from 48% ($f = 42$) to 61% ($f = 54$). Conversely, the "sufficient" category decreased from 23% to 16%, and participants in the "poor" category dropped from 18% ($f = 16$) down to 0% ($f = 0$).

Meanwhile, the percentages in the "sufficient" and "poor" categories decreased during the pre-test and post-test. The "sufficient" category decreased from 23% to 16%,

TABLE 1

Frequency Distribution of Pre-Test and Post-Test Knowledge About Stunting Prevention in Pandeyan Village, Maospati District, Magetan Regency, 2025. Category: Knowledge About Stunting

Category	Pre test		Pos test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Stunting Knowledge				
Excellent	10	11	20	23
Good	42	48	54	61
Sufficient	20	23	14	16
Poor	16	18	0	0
Total	88	100	88	100

and the "poor" category decreased from 18% to 0%. Results of the interactive dialogue with active participants raised questions about stunting, child growth and development, how to detect stunted children, and how to address growth and development issues. They also provided input for the continuation of this stunting training to ensure sustainable knowledge and attention on stunting.

Based on Sakula's theory, training is a short-term education through a systematic, effective, and procedurally organized process followed by several people to learn techniques, knowledge, and skills with predetermined objectives. According to Payaman Simanjuntak, training is part of human resource investment [human investment] to improve work abilities and skills, and thus improve employee performance. Training is usually conducted with a curriculum tailored to job needs, given over a relatively short period of time, to equip someone with work skills.

Providing training, counseling, or education to Posyandu cadres is important because cadres play a role as health motivators, health educators, and as direct providers of health services to the community [14]. Providing training to Posyandu cadres in order to strengthen their capacity and role is in line with the theory of behavioral change stimulated by health education. The process of behavioral change occurs when a stimulus or encouragement is given to someone and if it can be accepted or responded to, the stimulus is effective in influencing a person's attention.

The stimulus will then be processed and make a person willing to act (Stimulus-Organism-Response theory by Skinner, 1938) and Holland, 1953 [13]. The stimulus in question can be education, knowledge, or motivation. Health education is an effort to provide and improve knowledge, attitudes, and practices or skills to individuals or community groups to achieve optimal health. Health education is intended to change a person's behavior to be responsible for their health condition. Through the provision of information or education, knowledge increases which in turn changes a person's attitude, ultimately encouraging behavioral changes based on the individual's awareness and willingness [24]. Attitudes and behaviors based on knowledge are more durable than those not based on knowledge [25]. Knowledge is a crucial factor related to behavioral change. Knowledge is the first point that will be affected when cadres receive education, namely the result of not knowing to knowing. The next points that will develop are attitude, awareness or motivation, skills, performance, and self-confidence. Starting with increased knowledge, cadres can develop other capacities to actively participate in the prevention and early detection of stunting [18,26].

A good outreach strategy involves all five senses, which will clarify and expand a person's acquired knowledge. Frequently conveying information or knowledge can also increase knowledge retention, resulting in longer-lasting memory. By using a variety of methods, more media are used and more information is received. This can maximize cadres' ability to absorb a large amount of information. Training or education using various media will improve the willingness to see, read, touch, or hear the information presented [28]. Therefore,

training using various methods simultaneously, such as lectures, discussions, Q&A sessions, demonstrations, combined with booklets, videos, or other media, is more effective in increasing the capacity of cadres than using lectures or demonstrations alone. If education is provided to cadres using the right methods and media, behavioral change in them will be easier to achieve [29].

The lecture method is a method that conveys information to the target audience verbally. Lectures can reach large groups without the need for multiple instruments [18]. However, this method tends to make participants passive and is less effective in maximizing their understanding. Therefore, it is recommended that this method be combined with other methods, such as discussions, Q&A sessions, simulations and practices, or other methods. This is because discussions can encourage participants to think critically and provide opportunities to express opinions and ask questions, allowing the trainer or educator to more easily assess participants' understanding. The discussion method is a follow-up method after previously providing information or education through lectures. This allows cadres to actively participate and gain better knowledge through discussions. [24]. Several other methods that are quite effective in increasing cadre capacity include focus group discussions (FGDs) and the use of audiovisual media to improve cadre knowledge and attitudes. Disseminating knowledge through FGDs is considered effective because the information dissemination process is carried out systematically and specifically on a specific issue through group discussions. Through FGDs, cadres can actively participate and are given the opportunity to discuss and share their opinions or experiences, enabling cadres to be more focused and enthusiastic [30]. On the other hand, video is a modern medium with the main characteristics of moving images, writing, and sound that explain the displayed images, making it easier for videos to attract the attention of the target audience. The use of video or audiovisual media utilizes at least two [2] senses simultaneously to receive stimuli: sight and hearing. The more senses used in the learning process, the cadres' understanding and ability to absorb the material will improve and be retained in their memory for a longer period [29]. Apart from knowledge, the use of audiovisual media can also increase motivation and learning outcomes because complicated and complex material can be explained more clearly [26].

IV. DISCUSSION

A. INTERPRETATION OF FINDINGS AND EFFICACY OF THE *GITa TingTas* INTERVENTION

The primary objective of this study was to evaluate the educational efficacy of the Complete Stunting Response Mothers Movement (Gerakan Ibu Tanggap Stunting Tuntas [*GITa TingTas*]) in enhancing maternal knowledge regarding stunting prevention in Pandeyan Village, Magetan Regency [1]. The quantitative analysis revealed a significant positive shift in cognitive outcomes following the implementation of the multi-modal training program [1]. Specifically, the proportion of participants achieving the "Very Good" knowledge classification doubled from 11% ($f = 10$) in the pre-test to 23% ($f = 20$) in the post-test,

while respondents in the "Good" category expanded from 48% ($f = 42$) to 61% ($f = 54$) [1]. Crucially, the intervention completely eradicated the "Poor" knowledge category, which decreased from an initial 18% ($f = 16$) down to 0% ($f = 0$), alongside a reduction in the "Sufficient" category from 23% ($f = 20$) to 16% ($f = 14$) [1].

These empirical improvements demonstrate that structured, multi-dimensional health education can successfully bridge critical information gaps in rural community settings [1], [36]. The cognitive progression observed among mothers can be theoretically grounded in Skinner's Stimulus-Organism-Response (SOR) framework and Bandura's Social Learning Theory [1], [37]. By delivering targeted educational stimuli—focusing on exclusive breastfeeding, complementary feeding (MP-ASI) preparation, anthropometric growth tracking, and environmental sanitation—the GITa TingTas program effectively stimulated internal cognitive processing among mothers [1], [38]. This heightened cognitive awareness translates directly into increased self-efficacy and behavioral readiness to implement preventative caregiving practices [38], [39].

Furthermore, the interactive dialogue sessions conducted post-training revealed heightened maternal interest in early detection mechanisms and developmental milestones [1]. Participants actively sought guidance on addressing growth faltering and requested sustained educational follow-ups [1]. This proactive engagement underscores that when community empowerment initiatives move beyond passive lecture formats toward participatory learning environments, maternal responsiveness and retention are significantly maximized [1], [40].

B. COMPARATIVE SYNTHESIS WITH EXISTING LITERATURE

The findings of this study closely align with, yet expand upon, contemporary research evaluating community-based stunting interventions across developing regions [36], [41]. The substantial shift in maternal literacy observed in Pandeyan Village mirrors the outcomes reported by Sutinbuk et al., who demonstrated that structured maternal empowerment models (such as the ERKADUTA framework) significantly enhance stunting prevention behaviors through targeted health education [5]. Similarly, research by Sopiatus and Maryati confirmed that healthcare and maternal training interventions yield statistically significant improvements in baseline stunting awareness and diagnostic attitudes [16].

A central driver of the cognitive gains observed in the GITa TingTas program was the strategic integration of multi-sensory instructional methodologies, including focus group discussions (FGDs), audiovisual materials, and practical demonstrations [1], [32]. This finding strongly corroborates the empirical work of Pangesti et al. and Permatasari et al., who established that multi-media instructional approaches—combining visual booklets, interactive media, and peer-led discussions—achieve superior knowledge retention compared to traditional, unimedia lecture approaches [18], [28]. The simultaneous utilization of auditory and visual stimuli engages multiple

cognitive pathways, thereby facilitating the consolidation of complex nutritional and sanitation concepts into long-term memory [1], [42].

Conversely, contrasting insights emerge when comparing single-tier intervention models with the integrated community movement approach evaluated in this study [1], [43]. Numerous previous studies have focused exclusively on capacity-building for Integrated Health Post (Posyandu) cadres, assuming that cadre knowledge automatically cascades down to mothers in the broader community [8], [12]. However, as highlighted by Yusriani et al. and Mediani et al., information transfer from cadres to mothers often suffers from attrition, miscommunication, or passive reception [8], [14]. The GITa TingTas framework contrasts with these traditional models by directly involving mothers of toddlers alongside local cadres, establishing a collaborative learning ecosystem [1]. This direct-engagement strategy bypasses potential communication bottlenecks, ensuring that primary caregivers directly acquire actionable skills in MP-ASI preparation, growth chart interpretation, and household sanitation management [1], [44].

C. STUDY LIMITATIONS AND MULTI-LEVEL IMPLICATIONS

1) Limitations and Methodological Weaknesses

Despite the positive cognitive outcomes documented in this study, several methodological limitations must be acknowledged [1]. First, the study utilized a single-group pre-test and post-test quasi-experimental design without an unexposed control group [1], [26]. Consequently, external confounding variables—such as concurrent national public health campaigns, media exposure, or informal peer communication—could not be fully isolated from the intervention effect [26]. Second, the post-test evaluation was administered immediately following the completion of the training modules [1]. While this instrument effectively measured immediate short-term knowledge acquisition, it did not capture long-term cognitive retention or long-term behavioral compliance over a six-to-twelve-month period [1], [33]. Third, the sample population ($n = 88$) was geographically restricted to a single village (Pandeyan Village, Magetan Regency), which may limit the direct statistical generalizability of the findings to urban centers or socio-culturally distinct regions outside East Java [1], [30]. Finally, the study relied primarily on self-reported knowledge scales and written test scores rather than direct, longitudinal observation of household dietary practices and anthropometric changes in children [1], [35].

2) Theoretical, Practical, and Policy Implications

The empirical results of this study carry significant theoretical, practical, and policy implications for rural public health administration [1], [45]:

- a. **Theoretical Implications:** This research reinforces behavioral change theories within community health contexts by demonstrating that structured, multi-sensory educational stimuli directly elevate cognitive readiness and maternal self-efficacy in low-resource settings [1], [37]. It provides an empirical foundation for integrating participatory movement-based frameworks into traditional health promotion models

[1], [40].

- b. Practical Implications for Health Practitioners: For healthcare workers and Posyandu midwives, the GITa TingTas framework offers a practical, standardized template for executing interactive maternal education [1], [31]. Healthcare facilities should transition away from passive, didactic lectures toward participatory modules that incorporate active Q&A sessions, FGDs, and physical demonstrations of complementary food preparation and growth chart reading [1], [32].
- c. Policy and Administrative Implications: From a policy perspective, local governments and municipal health offices (Dinas Kesehatan) should institutionalize community movements like GITa TingTas within village development plans (Rencana Pembangunan Jangka Menengah Desa) [1], [45]. Establishing sustainable funding channels and cross-sectoral partnerships between village administrations, regional public health centers (Puskesmas), and local women's empowerment groups (PKK) will ensure continuous cadre mentoring and long-term stunting elimination in alignment with national strategic targets [1], [7], [10].

V. CONCLUSIONS

This study aimed to evaluate the operational effectiveness of a community-driven empowerment initiative, designated as the Complete Stunting Response Mothers Movement (Gerakan Ibu Tanggap Stunting Tuntas [GITa TingTas]), in enhancing maternal knowledge and capacity for stunting prevention in Pandeyan Village, Maospati District, Magetan Regency. The empirical findings demonstrate that the implementation of structured, multi-modal instructional modules—encompassing exclusive breastfeeding, complementary feeding (MP-ASI), anthropometric growth monitoring, and environmental sanitation—yielded a substantial positive shift in cognitive literacy among participating mothers of toddlers ($\$n = 88\$$). Specifically, baseline evaluation revealed that prior to the training intervention, only 11% ($f = 10$) of respondents achieved a "very good" knowledge score and 48% ($f = 42$) attained a "good" score. Following the execution of the GITa TingTas program, post-test assessments demonstrated a significant cognitive enhancement, with the proportion of participants in the "very good" category increasing to 23% ($f = 20$) and the "good" category rising to 61% ($f = 54$). Concurrently, the proportion of participants in the "sufficient" knowledge tier declined from 23% ($f = 20$) to 16% ($f = 14$), while respondents categorized within the "poor" knowledge classification dropped completely from 18% ($f = 16$) down to 0% ($f = 0$), confirming the complete elimination of severe information deficits within the study sample. These quantitative metrics validate the efficacy of combining interactive lectures, focus group discussions (FGDs), and audiovisual media over traditional unimedia approaches. Future works should focus on conducting longitudinal cohort evaluations over extended six-to-twelve-month intervals to measure long-term cognitive retention, behavioral compliance, and actual dietary habits.

Additionally, future research should incorporate unexposed control groups across diverse geographic and socioeconomic regions, while expanding the evaluative framework to measure direct child anthropometric outcomes (Z-scores for height-for-age) alongside cross-sectoral policy integration between municipal public health centers (Puskesmas) and village administrations.

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DATA AVAILABILITY

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request.

AUTHOR CONTRIBUTION

Astuti Setiyani conceptualized and designed the study, secured institutional support, supervised the program implementation, and drafted the initial manuscript. Hery Sumasto was responsible for the methodology, data curation, formal statistical analysis, and software management, as well as contributing to the critical editing of the text. Agung Suharto carried out field investigation, resource allocation, data validation, and visualization, while actively participating in the review and editing process. All authors contributed to the interpretation of the results, revised the manuscript for intellectual content, and approved the final version for publication.

DECLARATIONS

ETHICAL APPROVAL

This community service study was conducted in accordance with institutional ethical standards. Ethical clearance was approved by the Institutional Ethics Committee of the Health Polytechnic, Ministry of Health, Surabaya. Written informed consent was obtained from all participating mothers prior to data collection and intervention execution.

CONSENT FOR PUBLICATION PARTICIPANTS

All authors and participants have consented to the publication of the anonymized data and findings presented in this manuscript.

COMPETING INTERESTS

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

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