

# ASSESSING POSYANDU CADRES' READINESS IN IMPLEMENTING INTEGRATED PRIMARY HEALTH SERVICES IN YOGYAKARTA, INDONESIA

*Evaluasi Kesiapan Kader Posyandu dalam Melaksanakan Integrasi Layanan Primer di Yogyakarta, Indonesia*

\*Tri Siswati<sup>1,2</sup>, Yustiana Olfah<sup>2,3</sup>, Jutharat Attawet<sup>4</sup>, Nurhidayat Nurhidayat<sup>1,2</sup>, Lukman Waris<sup>5</sup>

<sup>1</sup>Department of Nutrition, Poltekkes Kemenkes Yogyakarta, Yogyakarta, Indonesia

<sup>2</sup>Center of Excellence for Applied Technology Innovation in the Field of Public Health, Poltekkes Kemenkes Yogyakarta, Yogyakarta, Indonesia

<sup>3</sup>Department of Caring, Poltekkes Kemenkes Yogyakarta, Yogyakarta, Indonesia

<sup>4</sup>Department of Nursing and Allied Health School of Health Sciences Swinburne University of Technology, Victoria, Australia

<sup>5</sup>Institute of Health Science Husada Jombang, Jombang, Indonesia

Correspondence\*:

Address: Jl Tata Bumi, Banyuraden, Gamping, Sleman, Yogyakarta, Indonesia | e-mail: tri.siswati@poltekkesjogja.ac.id

## Abstract

**Background:** The readiness of *Posyandu* (a community-based health service) cadres' to implement the Integrated Primary Health Services (Integrasi Layanan Primer/ILP) is vital to advancing preventive and promotive care.

**Aims:** This study aims to evaluate the cadres' readiness, identify challenges, and propose effective strategies for sustainable implementation.

**Methods:** A mixed-method design from April to June 2024. 113 cadres from Kulon Progo, Sleman, and Yogyakarta City participated in a cross-sectional study. Cadres' readiness was evaluated based on the *posyandu* cadres' basic skills training curriculum. Ten informants were interviewed to explore the opportunities, needs, and limitations of the ILP implementation. Descriptive statistics were used for data analysis.

**Results:** Most cadres (63.7%) were aged 41-50 years, 60.2% had completed senior high school, and 72.6% were housewives. The cadres demonstrated high readiness for ILP implementation, with the main needs in the form of improving logistics, funding, training, and community participation. In addition, there was a need to improve the literacy and skills of cadres in providing health services across the life stages, such as immunization, growth and development monitoring, and infant and child feeding.

**Conclusion:** *Posyandu* cadres are ready to implement the ILP; however, strengthening cadres' capacity and fostering community collaboration are key strategies for ensuring the sustainability of the program and achieving health transformation.

**Keywords:** cadres, health transformation, integrated primary service, *posyandu*

## Abstrak

**Latar Belakang:** Kesiapan kader *posyandu* untuk menerapkan Integrasi Layanan Primer (ILP) sangat penting untuk memajukan upaya preventif dan promotif.

**Tujuan:** Untuk mengevaluasi kesiapan kader, mengidentifikasi tantangan, dan mengusulkan strategi implementasi yang efektif dan berkelanjutan.

**Metode:** Metode mixed method yang dilaksanakan pada bulan April-Juni 2024. Sebanyak 113 kader di *Posyandu* dari Kabupaten Kulon Progo, Sleman, dan Kota Yogyakarta berpartisipasi dalam penelitian kros sektional. Kesiapan kader dinilai berdasarkan kurikulum pelatihan keterampilan dasar kader *posyandu*. Sebanyak 10 orang informan yang dipilih secara purposif diwawancarai secara mendalam untuk menggali informasi tentang kendala, kebutuhan, dan peluang implementasi ILP. Data dianalisis menggunakan metode statistik deskriptif untuk komponen kuantitatif dan pendekatan tematik untuk komponen kualitatif.

**Hasil:** Mayoritas kader (63,7%) berusia 41-50 tahun, 60,2% berpendidikan SMA, dan 72,6% adalah ibu rumah tangga. Kader menunjukkan kesiapan tinggi dalam implementasi ILP, dengan kebutuhan utama berupa peningkatan logistik, pendanaan, pelatihan, dan partisipasi masyarakat. Selain itu, terdapat kebutuhan peningkatan literasi dan keterampilan kader dalam memberikan layanan kesehatan berdasarkan siklus kehidupan, seperti imunisasi, pemantauan tumbuh kembang, dan pemberian makan bayi dan anak.

**Kesimpulan:** Kader *posyandu* siap melaksanakan ILP, namun penguatan kapasitas penguata kader dan kolaborasi masyarakat diperlukan untuk menjamin keberlanjutan program dan mencapai transformasi kesehatan.

**Kata kunci:** ILP, kader, *posyandu*, transformasi kesehatan



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## Introduction

Health transformation has been a crucial agenda for many countries worldwide, advancing public health, addressing present and future challenges, and achieving more equitable healthcare systems (Barry, 2021). The global strategy for health services focuses on an individual or people-centered, integrated approach to deliver more comprehensive, responsive, and affordable services to address various health needs of communities (World Health Organization, 2010). Several countries, including Iran (Heydarian *et al.*, 2021; Saran *et al.*, 2023), Australia (Trankle *et al.*, 2019), Hong Kong (Kong *et al.*, 2015), Turkey (İlgün *et al.*, 2023) and Singapore (Tan *et al.*, 2021), have implemented health transformation programs to address low health status, inadequate service quality and performance, inequality in access to health services, and financial and provision systems.

Since 2021, Indonesia's Ministry of Health has also committed to addressing similar challenges through health transformation initiatives guided by six pillars of health transformation. These six pillars are directed to strengthen primary health services, improve referral systems, increase national health resilience, reform health financing, develop health human resources, and transform health technology. All of these efforts are the foundation for the realization of a comprehensive and sustainable health system (Atika, 2023).

Primary health services play an important role as the basis for the development of the national health system in Indonesia. The main goal is to ensure that all communities receive services that are comprehensive, accessible, and based on community empowerment (Suryanto *et al.*, 2017). One of the main components of this service is Posyandu (Integrated Service Post), which is a health facility managed by the community and focuses on providing health services for mothers and children under five years old (Yani *et al.*, 2023).

As part of efforts to improve the quality of basic health services, the Ministry

of Health launched the ILP program in Posyandu. This program is designed to improve the effectiveness and efficiency of services, with an emphasis on promotive and preventive approaches in order to strengthen public health services (Atika, 2023). It was officially implemented in 2023 through the Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07/Menkes/2015/2023 concerning Technical Guidelines for the Implementation of ILP.

Cadres are community health volunteers who deliver primary healthcare services at the grassroots level. Posyandu cadres are key in improving access to and quality of health services, ensuring successful health screenings and referrals to community health centers. They actively participate in health forums and community empowerment initiatives, improving their health independently. Cadres must master 25 essential skills for managing posyandu and providing comprehensive health services for pregnant and lactating women, infants, toddlers, school children, adolescents, adults, and the elderly (Indonesian Ministry of Health, 2023). Previous research shows that individual readiness, including technological competence and skills, plays a significant role in determining the success of a program (Salvador-Carulla *et al.*, 2024). In addition, cadres should have sufficient understanding, adequate skills, motivation, and access to technology, expertise, and resources to achieve successful program implementation (Siswati, Iskandar, *et al.*, 2022). Although the ILP has become a strategic component in the reform of the national health system, to date there has been no systematic study specifically evaluating the readiness of cadres to implement it in the field.

To strengthen the foundation of the analysis, this study applied a combined approach between the Kotter 8-Stage Change Model (Harrison *et al.*, 2021) and the Consolidated Framework for Implementation Research (CFIR) (Keith *et al.* 2017) in evaluating the readiness of cadres for the implementation of the ILP. CFIR allows for an in-depth exploration of the various systemic, organizational, and

individual determinants that influence successful adoption, while Kotter offers a framework of incremental change, from building urgency to sustaining improvement. The synergy of these two frameworks supports the identification of obstacles and opportunities, as well as the basis for recommendations for strengthening cadre capacity and the sustainability of ILP.

## Method

### Design

A mixed-methods design with an explanatory sequential approach was employed. In the initial stage, we used a cross sectional study to observe the characteristics of cadres and their readiness to implement the ILP program with a structured questionnaire. Then semi-structured in-depth interviews used to explore opportunities, challenges, and needs related to ILP implementation. We followed the COREQ (Consolidated Criteria for Reporting Qualitative Research) guidelines, including clear descriptions of sampling, interview procedures, data analysis, and consideration of cultural and linguistic factors (Tong, Sainsbury, and Craig, 2007).

### Setting and Time

Three regions in the Special Region of Yogyakarta Province (Kulon Progo, Sleman, and Yogyakarta City) were the setting for this study. Data collection was carried out from April to June 2024.

### Sample and Recruitment

The study involved 113 health cadres selected through purposive sampling based on their roles in ILP implementation, willingness to participate, and availability during data collection. Qualitative data was collected through in-depth interviews with ten participants, while quantitative data was collected through in-depth interviews with ten participants. The recruitment process aimed to capture a broad perspective on ILP implementation, with participants chosen for their active roles, direct experience, and insights into challenges, opportunities, and needs.

## Data Collection and Instruments

Quantitative data were collected using a structured questionnaire to assess cadres' characteristics, training experiences, and readiness to implement the integrated primary health services in *posyandu*. The questionnaire covered aspects of *posyandu* management and health services across various life stages. It was developed based on the Ministry of Health's 2023 *posyandu* cadres' basic skills training curriculum. The evaluation included knowledge and performance in five categories: *posyandu* management, health services for infants and toddlers, school children and adolescents, pregnant and lactating women, adults, and the elderly. Skills were assessed via direct observation using a checklist during the *posyandu* activity. Knowledge and skills were scored as 1 if true and 0 if false. Subsequently, the total score for knowledge and skills was summed up, ranging from 1 to 100. The scores were categorized into very ready (level 4,  $\geq 90\%$ ), ready (level 3,  $>80-90\%$ ), moderate (level 2,  $>70-80\%$ ), and not ready (level 1,  $\leq 70$ ). These cut-off points were determined by adapting existing competency-based assessment frameworks used in health workforce evaluations, where readiness is typically measured through a combination of theoretical knowledge and practical performance (Indonesian Ministry of Health, 2023). Furthermore, the knowledge and skills scores were combined and grouped into "very ready" if both knowledge and skills scores were at level 4, "ready" if the knowledge and skills scores were at levels 3 and 4, "less prepared" if the knowledge and skills scores were at levels 2 and 3, and "not ready" if the knowledge and skills scores were at levels 1 and 2.

For qualitative data, semi-structured interviews were conducted using a flexible guide that covered cadres' experiences, support systems, challenges, training needs, and community engagement. The interviews were conducted face-to-face at mutually agreed locations (e.g., *posyandu* site, participants' homes, or nearby community facilities), and each session lasted between 30 and 60 minutes. All interviews were audio-recorded with

participant consent and transcribed verbatim. In addition to recording conversations in audio, the researchers also took field notes to enrich the context of the data.

This study applies triangulation involving a research team in the interview and data analysis processes independently. Each researcher reviews the interview transcripts to identify the main themes, then the analysis results are compared and discussed together until interpretive agreement is reached. This approach is used to enhance the objectivity and depth of the analysis, as well as to produce strategic recommendations regarding the readiness of posyandu cadres. Additionally, data source triangulation is conducted by combining the results of questionnaires, in-depth interviews, and supporting documents to obtain a comprehensive picture of the readiness of cadres in the implementation of ILP. All data is analyzed systematically by grouping into themes and subthemes, allowing for deep exploration of the emerging patterns and key factors affecting the success and sustainability of ILP (Carter *et al.*, 2014).

### Analysis

Quantitative data analyzed used to descriptive statistics for describing the characteristics and readiness of cadres in implementing ILP. Meanwhile, qualitative analysis was conducted thematically with manual coding. Data triangulation is obtained by combining the results of questionnaires, interviews, and field documents.

## Results and Discussion

### Demographic Characteristics

The results showed that most respondents were between 41 and 50 years old (63.7%), had completed senior high school (60.2%), and were primarily housewives (72.6%). Nearly half of the respondents (47.8%) had less than ten years of experience as health cadres, and 80% had multiple roles within the healthcare system, as detailed in Table 1.

Table 1. Characteristics of *Posyandu* Cadres

Characteristics	n	%
Age (years)		
20-30	2	1.8
31-40	16	14.2
41-50	72	63.7
>50	23	20.4
Education level		
Junior high school	16	14.2
Senior high school	68	60.2
University	29	25.7
Occupation		
Housewife	82	72.6
Self-employed	12	10.6
State civil apparatus	5	4.4
Entrepreneur	14	12.4
Years of experience		
<10	54	47.8
11-20	31	27.4
>20	28	24.8
Role of cadres		
Single role	23	20.4
Multiple roles	90	79.6

Most cadres in this study were middle-aged and typically had experience and responsibilities in managing community engagement (Pringle *et al.*, 2019). However, the predominant level of cadres' education, that is, senior high school, indicated a potential need for capacity building in terms of technical skills and health knowledge to enhance the quality of services (Siswati, Iskandar, *et al.*, 2022). Moreover, given that the integrated primary health services have been recently introduced, the cadres' status as housewives offers them flexibility to participate in community health services, which is strengthened by their multiple roles such as family planning, environmental health, and elderly care (Wibowo *et al.*, 2021).

### Readiness to Implement ILP

The study shows that Posyandu cadres are generally ready to implement ILP, particularly in Posyandu management, where both knowledge and skills exceeded 90%, indicating a 'very ready' status (see Table 2). Meanwhile, readiness in other life-stage services (maternal, child, adolescent, adult, and elderly health)

varied, with most falling into the 'ready' category, highlighting the need for targeted training and support.

These findings align with prior studies that underscore the role of cadres as social capital and agents of behavioral change in communities (Wibowo *et al.*, 2021). While their multiple roles enhance community health literacy, they also necessitate continuous upskilling to manage workload demands effectively.

Qualitative interview findings revealed that capacity building is a critical need for cadres to effectively deliver ILP services in line with established standards, particularly those based on the life-cycle approach. Figure 1 supports these findings by visually mapping the specific capacity-building needs identified by Posyandu

cadres across various life stages. The most frequently needed competencies include technical skills in anthropometric measurement, child growth monitoring, danger sign recognition, exclusive breastfeeding counselling, and the use of maternal and child health (MCH) books. In addition, the figure shows high demand for improved digital literacy, especially in using applications such as Elsimil for electronic reporting. This indicates that cadres not only require clinical proficiency but also digital and interpersonal communication skills to deliver ILP services effectively. The figure reflects cadres' awareness of the complexity of ILP delivery and their readiness to adapt, provided they are supported with structured, stage-specific training and appropriate digital tools.

Table 2. Cadres' Readiness in Implementing ILP

Category	Knowledge		Skill		Readiness level
	Score	Level	Score	Level	
Management of <i>Posyandu</i>	93.4 ± 5.6	4/very ready	90.1 ± 4.1	4/very ready	Very ready
Health services for infants and toddlers	82.3 ± 4.5	3/ready	82.1 ± 6.2	3/ready	Ready
Health services for pregnant and lactating women	83.1 ± 6.1	3/ready	80.3 ± 4.8	3/ready	Ready
Health services for school children and adolescents	81.4 ± 3.9	3/ready	82.4 ± 4.0	3/ready	Ready
Health services for productive-age individuals and the elderly	84.2 ± 6.1	3/ready	82.1 ± 5.6	3/ready	Ready
Overall readiness level					Ready

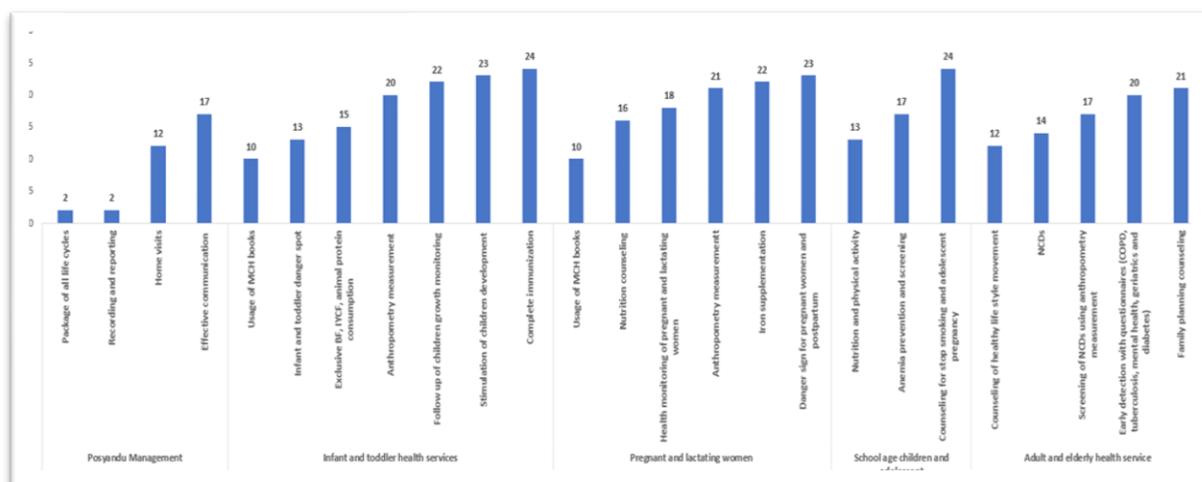


Figure 1. Types of capacity building required by cadres

### Qualitative Findings

Ten cadres were interviewed, representing varied age groups (30 to 60 years old), education levels (from junior high school to university), occupations (housewives, civil servants, self-employed, retirees), and years of experience (<10 to >20 years). Most were actively involved in immunization, reporting, or home visits. While some cadres owned Android phones,

others lacked access to digital tools and relied on borrowed devices. These variations highlight different levels of readiness and support for ILP implementation.

Building on these profiles, the thematic analysis revealed six key themes reflecting the cadres' experiences, challenges, and support needs during ILP implementation, as presented in Table 3.

Table 3. Qualitative Analysis of Cadres' Readiness to Implement ILP

Theme	Sub-theme/coding	Selective coding	Statement
Facilities and support equipment	Posyandu kit/ equipment (basic biomedical examination kits such as blood sugar, cholesterol, and uric acid tests, tensimeters, and batteries)	Inadequate resources for the facilities and infrastructure required for the implementation of integrated primary services.	<p><i>"We pay for the batteries, which can cost around IDR 150 thousand annually, but there is no reimbursement for replacement costs." (P2)</i></p> <p><i>"Public awareness is sufficient, but there is a lack of willingness to cover the costs of replacing the sticks. In the past, they were provided by students involved in internships and research, but that is no longer the case, despite the need in the community." (P1)</i></p>
	Smartphone		<p><i>"Currently, all information is shared via WhatsApp, and posyandu activity reports are submitted to community health centers through Android devices. However, not all cadres own Android phones." (P5)</i></p> <p><i>"There are challenges with reporting using cellphones; not all cadres own Android phones, making the process incompatible." (P3)</i></p>
	Laptop		<p><i>Now, in the era of electronic reporting, we do not have a laptop, so I borrow my son's when he is not using it." (P4)</i></p>
	Posyandu building		<p><i>So far, the posyandu operates in the foyer of a mosque, and we need a dedicated building, although it is an open and simple one." (P7)</i></p> <p><i>"The posyandu is located at the patrol post or the house of the head of the neighborhood association, and we don't have a designated building for it." (P6)</i></p>

Theme	Sub-theme/coding	Selective coding	Statement
Financial, operational and well-being support	Incentives for cadres	Limited incentives, operational costs, and cadre welfare	<p><i>"Yes, the work of a cadre is volunteer-based, and there are many activities and reports. Sometimes, the reports are required to be submitted." (P9)</i></p> <p><i>"We do not receive monthly incentives, and we are also responsible for procuring our own uniforms." (P8)</i></p> <p><i>"We receive an incentive of IDR 75 thousand per month, which is a 50% increase from the previous year." (P3)</i></p>
	Transportation fee		<p><i>"There is no transportation reimbursement, even though we must conduct home visits; sometimes, a single visit is not enough." (P10)</i></p> <p><i>"Some cadres cannot ride motorcycles, so they have to ride motorcycle taxis, incurring personal costs." (P9)</i></p>
	Wi-Fi access		<p><i>"Mobil data plan is necessary for data transmission via cellphones or laptops. When we run out of mobile data plan, we have to go to the village and ask for Wi-Fi access." (P8)</i></p>
Literacy	Capacity building and recreation		<p><i>"We need advanced training to enhance our skills in managing posyandu and also recreational activities to maintain enthusiasm, motivation, and teamwork." (P1)</i></p>
	Training/short course/seminar	The necessity to enhance the capacity and literacy of cadres is essential to improve the quality of health services provided to the community.	<p><i>"We need training to deepen and update our knowledge related to health services for the community, such as immunization. Now, there are many types of immunizations, unlike in the past, when only a few were available." (P2)</i></p> <p><i>"We also need courses to build our confidence when providing counseling or home visits, and providing literacy, education, and counseling to mothers and children." (P3)</i></p>

Theme	Sub-theme/coding	Selective coding	Statement
	Interpersonal communication		<i>"We often face a major obstacle: when we serve individuals who are highly educated, they tend to underestimate our knowledge and skills. So, we need to improve our communication skills." (P4)</i>
	Information technology training related to the applications and reporting system used.		<i>"The community health center uses an application called Elsimil, which is often inquired about by prospective brides. IT training for the ongoing program is needed to ensure that prospective brides are well-educated and can effectively use the application. The current application, Elsimil, is not well-understood by them." (P5)</i>
Communication skill	Lack of confidence when engaging with educated family members	Feel underestimated and need to increase skills in communication	<i>"When we serve individuals who are highly educated, they tend to underestimate our knowledge and skills." (P4)</i>
Digital literacy and technology	Limited access to digital devices	No Android phones or laptops for reporting.	<i>"Not all cadres own Android phones, making the process incompatible." (P3)</i> <i>"I borrow my son's laptop when he's not using it." (P4)</i>
	Lack of training in reporting applications	Challenges include using required applications and requesting formal training.	<i>"The community health center uses Elsimil, but many of us don't understand how to use it well." (P5)</i>
Social support and supervision	Community support	The role of community leaders and the community in achieving the success of the implementation of integrated primary services	<i>"Community support is critical to the program's success. The people here are enthusiastic about visiting the posyandu, especially when health checks (blood pressure, blood sugar, cholesterol, and uric acid tests) are available." (P3)</i> <i>"At the posyandu for toddlers, sometimes the mothers are unable to attend because of work, so the caregivers or grandmothers bring the children here. Sometimes the posyandu schedules coincide with the toddlers' nap times." (P3)</i>

Theme	Sub-theme/coding	Selective coding	Statement
	Support for religious and community leaders		<i>"The success of this program relies on the support of village heads, women's organizations, and village midwives, who can mobilize the community to visit posyandu, complete the Elsimil application, and improve service compliance." (P5)</i>
	Supervision of health centers	Supervision	<i>"The role of community leaders and the community in achieving the success of the implementation of integrated primary services." (P7)</i> <i>"Yes, to ensure that the implementation in the field is in line with technical instructions." (P8)</i>

The overall readiness level of cadres to implement integrated primary health services was promising in this study. However, a more detailed analysis revealed specific gaps that require attention to ensure effective implementation. Despite their general preparedness, cadres demonstrated varying levels of confidence and competence across service areas particularly in addressing adolescent health issues and managing digital data reporting.

This is consistent with the 'Characteristics of Individuals' domain in the Consolidated Framework for Implementation Research (CFIR), which underscores the importance of knowledge, skills, and self-efficacy. For example, one cadre (P4) expressed that *"serving adolescents who are better educated makes us feel unsure... sometimes we get ignored."* This reflects not just a skill gap but also a psychological barrier to communication. Such issues align with Kotter's sixth step, "Empowering broad-based action," suggesting the need to remove communication barriers through training modules that focus on interpersonal skills and confidence-building, especially when interacting with youth.

Another critical finding involves cadres' limited digital literacy, which hindered optimal use of the e-PPGBM system and other reporting tools. Although most cadres own Android-based

smartphones, several reported challenges in operating applications. This corresponds to the 'Intervention Characteristics' construct in CFIR, particularly the 'complexity' and 'adaptability' subdomains. The cadres' difficulties are not merely technical but also point to broader issues of technological support and infrastructure. These results are consistent with findings from previous research in rural Indonesia, where implementation barriers often stem from technological unfamiliarity and weak supervisory mechanisms (Marlita *et al.*, 2021).

Another finding was to improve cadre capacity in health services, an area that required improvement is interpersonal communication. Communication skills are essential for educating the community and fostering behavioral changes. In addition, effective communication skills enable cadres to build strong, close relationships with the community, strengthen trust, and create an environment that supports sustainable health behavioral changes, which ultimately contributes to improving overall public health, including family planning programs (Huda *et al.*, 2020).

Refer finding in Figure 1, specifics for infants and toddlers health services, cadres need knowledge and skills in immunization, growth and development monitoring, as well as infant young and child feeding (IYCF). Immunization literacy is important to provide the right information, identify side effects, and ensure immunization coverage

is achieved. In the aspect of growth and development, cadres play a role in monitoring, education, and referral of special nutrition cases. Low immunization coverage is often influenced by a lack of public trust, limited access, and lack of information. Previous research indicates that public immunization coverage is still influenced by a lack of trust in health workers, vaccine safety issues, barriers to access to health services, and limited information from the mass media, (Biset *et al.*, 2021). Therefore, cadres should become a strategic liaison between health programs and the community in conveying accurate health messages and building public trust.

This research also shows that to implement ILP properly, cadres need to improve literacy and skills in providing health services throughout the life cycle. In pregnant and lactating women, important skills include identifying danger signs as well as education related to nutrition and iron supplementation. This is especially important because pregnancy is a vulnerable period, where complications can have a serious impact on mother and infant health (Pari-Keener *et al.*, 2020; Young and Ramakrishnan, 2020). In addition, pregnant women's understanding of adequate nutrition and Fe supplementation is essential to prevent anemia and pregnancy complications, as well as support nutritional status during breastfeeding (Young and Ramakrishnan, 2020; Desta *et al.*, 2021; Darmawati *et al.*, 2022).

In health services for school children and adolescents, cadres need to strengthen their capacity to deal with issues such as smoking, anemia, and lack of physical activity, as well as cooperation with schools. This collaboration is important because of the various challenges faced to provide health services to school children such as tight learning schedules, lack of interest in health issues, and the need for continuous mentoring and monitoring (Siswati, Olfah, *et al.*, 2022). The integration of health education into the school curriculum and the use of creative and interactive educational approaches is the right effort (Amahmid *et al.* 2020; Follong *et al.* 2022). Another obstacle is the

communication barrier between cadres and teenagers related to the very wide age gap. Therefore, the selection of health ambassadors in schools or the like can be an effective alternative solution in increasing literacy, awareness and active involvement to improve adolescent health (Tang *et al.*, 2022).

In the context of services for adults, increasing the capacity of cadres is mainly related to the Family Planning program, especially related to wider and interactive access to information, as well as the availability of contraceptives (Scanteianu *et al.*, 2022). Good cadre literacy about the choice of contraceptive methods, their benefits and risks, as well as skills in providing personal counseling to couples of childbearing age can help increase awareness, accessibility, and appropriate decision-making in family planning. In the prevention of NCDs in the adult and elderly groups, the knowledge and skills of cadres are very important to support promotive and preventive efforts against diseases such as cancer, heart disease, stroke, and urinary tract disorders. In line with the findings of previous studies, cadres need targeted training on risk factors, early symptoms, and prevention strategies through the promotion of healthy eating, early detection, and an active lifestyle (Karoli *et al.*, 2024).

Overall, this study emphasizes the importance of improving literacy and technical skills as well as good interpersonal communication so that cadres can transfer knowledge and skills of cadres to the community. In addition, support for facilities and infrastructure, financing, and technical supervision from the Health Center is needed so that the implementation of the program can be carried out according to standards.

Cadres play a vital role in ILP implementation, yet their performance is shaped by external factors such as policy support and community engagement. This study, integrating CFIR and Kotter's 8-Step Change Model, reveals that although awareness of ILP is relatively high, critical elements like leadership coalition, structured training, and continuous mentoring remain underdeveloped.

The findings highlight the urgent need for systemic capacity building, sustained supervision, and policy-level reinforcement. To optimize ILP outcomes and ensure long-term sustainability, future initiatives should prioritize strategic investments in cadre development, institutional support, and active community involvement.

The study has limitations, including potential bias, limited generalizability, and reliance on descriptive statistics. The short data collection period may not capture long-term changes or assess the impact on health outcomes.

## Conclusion

The study established that cadres in Yogyakarta are prepared to implement integrated primary health services in posyandu, but prioritizing logistics, financial support, capacity building, community engagement, and technical supervision is crucial for program sustainability and achieving desired health outcomes.

## Declarations

## Ethics Approval and Participant Consent

Ethical approval was granted by the IRB (No. KE/FK/0431/EC/2024, March 20, 2024). All participants provided informed consent after receiving study explanations.

## Conflict of Interest

We have no conflicts of interest.

## Availability of Data and Materials

Data and materials are available upon request via email.

## Authors' Contributions

TS: conceptualization, methodology, questionnaire development, analysis, article drafting, and finalization. JA: article drafting and finalization. NN: field coordinator, data collection, questionnaire development, and analysis. YO: data collection, data management, subject recruitment, and questionnaire development. LW: methodology development and supervision.

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