



Planning and implementation of holistic-integrative early childhood education management for achieving quality services

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Abstract

This study aims to analyze the planning and implementation of Holistic Integrative Early Childhood Education (HI-ECE) management in achieving quality services. A qualitative approach was applied using a case study method in three ECE institutions that have implemented HI-ECE. Data were collected through in-depth interviews, participatory observation, and document review, then analyzed using Miles and Huberman's interactive analysis model. The findings reveal that during the planning stage, the institutions designed programs based on children's needs assessment covering education, health, nutrition, and protection aspects, involving multi-sector stakeholders. In the implementation stage, strategies included thematic curriculum integration, regular health services, provision of nutritious meals, strengthening parental involvement, and coordination with community health centers, social services, and community organizations. However, challenges were identified, such as limited funding, lack of specialized personnel, and coordination difficulties among agencies. Improvement efforts were made through teacher capacity building, partnership strengthening, and utilization of local resources. This study highlights that the success of HI-ECE management in achieving quality services greatly depends on participatory planning, integrated implementation, and continuous support from all stakeholders.

Keywords: *Management, Holistic Integrative Early Childhood Education, Planning, Implementation, Quality Services*

Introduction

Holistic-Integrative Early Childhood Education (HI-ECE) positions care, health, nutrition, safety, and learning as one system serving children 0–6 years. Indonesia has accelerated this agenda in policy terms—most recently through a national push to refresh the PAUD HI theory of change and tighten indicators in

the 2025–2029 plan—explicitly linking child outcomes to cross-sector governance and service quality[1]. The Education and Religious Affairs portfolios have also emphasized HI-ECE as part of expanding access (e.g., toward a 13-year learning pathway), clarifying that “holistic-integrative” services must combine education with health, nutrition,

parenting, and protection at the local level[2]. At the global level, the WHO/UNICEF Nurturing Care Framework (NCF) has supplied a widely adopted scaffold for coherence across sectors, anchoring country strategies in the five action areas of enabling environments, services, caregivers' capacities, data, and financing[3].

Despite strong policy intent, uneven service quality persists. Studies in Indonesia continue to report gaps in accreditation leverage, management routines, and monitoring systems that would translate standards into classroom- and family-facing practice.[4] Field accounts also show that cross-agency collaboration often relies on ad-hoc relationships rather than codified joint planning, creating weak feedback loops between health posts (puskesmas), social services, and PAUD units[5]. Meanwhile, districts vary in capacity to operationalize HI-ECE, especially in rural/3T contexts, resulting in fragmented delivery of screenings, growth monitoring, nutritious feeding, and parent education[6].

Empirically, the literature documents components of HI-ECE—curriculum integration, parental involvement, and health-nutrition add-ons—but fewer studies trace the *management cycle* end-to-end (planning → organizing → implementing → evaluating) and test how that cycle predicts *service quality* at the unit level. There is also limited operational guidance on aligning PAUD workplans and budgets with health and social-protection micro-plans, or on structuring partnerships so that parental-support interventions are not peripheral but core to quality assurance. This study addresses that gap by focusing on the *planning and implementation mechanics* of HI-ECE management and how they map to measurable service-quality proxies.

Current best practice converges on two anchors. First, Nurturing Care offers a cross-sector logic model with actionable toolkits for program design, coaching, and measurement—used by governments to standardize parent-support curricula, developmental screening schedules, and referral pathways[7]. Second, Indonesia's 2025–2029 direction calls for revisiting the PAUD HI theory of change and aligning indicators from goals to outputs, signaling a turn from “coverage first” to “quality with accountability. Regional and national convenings likewise highlight inclusive services, early investment in the first 1,000 days, and structured partnerships with philanthropy for local systems strengthening.

Recent Indonesian studies report that HI-ECE programs can improve children's socio-emotional, motor, and cognitive outcomes when curriculum integration, periodic health services, and nutritious feeding are consistently delivered and managed. Qualitative work details five HI service pillars and the practical enablers/barriers to implementation—leadership, inter-agency coordination, staff capacity, and documentation[8]. Parallel evidence links parental involvement to readiness and learning behaviors, underscoring why management must mainstream parent programs (home learning environment, behavior guidance, nutrition) rather than treating them as add-ons.

This article advances the field by (1) operationalizing a *management cycle rubric* tailored to HI-ECE (with standards for joint situational analysis, inter-agency budgeting, role matrices, and indicator cascades); (2) proposing a *quality dashboard* that blends service-readiness (inputs/process) with child- and family-level outputs aligned to Nurturing Care; and (3) testing whether strengths in *planning quality* (e.g., multi-sector

workplans, integrated micro-budgets, and referral protocols) predict *implementation fidelity* and observed service quality. By centering *how* managers orchestrate education-health-social services—and how parent-support is embedded—the study responds directly to the managerial black box in prior HI-ECE research[9].

For policymakers, the rubric can be embedded in routine supervision and accreditation to shift incentives from paperwork compliance toward multi-sector execution. For district managers, the dashboard offers a practical lens to identify bottlenecks (e.g., nutrition supply chains, screening adherence, parent-session coverage) and to justify cross-unit budgets. For practitioners, the framework clarifies how to schedule, staff, and document integrated services within the school calendar while sustaining parent engagement cycles—all consistent with 2025–2029 priorities and the Nurturing Care evidence base.

Method

This study employed a qualitative multiple-case study design to examine how planning and implementation practices in Holistic-Integrative Early Childhood Education (HI-ECE) management translate into service quality at the unit level. Three PAUD centers that formally adopt HI-ECE were purposively selected to represent urban, peri-urban, and rural/3T contexts. The design is anchored in contemporary case study logic emphasizing contextualized, multi-source evidence and analytic generalization to theoretical propositions rather than populations. The inquiry was guided by the Nurturing Care Framework (NCF) as a cross-sector lens linking education, health, nutrition, caregiving support, and protection, which informed the operationalization of constructs and indicators[10], [11].

Sites were identified through district recommendations and recent accreditation records; maximum-variation criteria included governance arrangements (public/private/faith-based), staffing profiles, and prior exposure to health-nutrition partnerships. Participants comprised center leaders, classroom teachers, parent representatives, health-post (puskesmas) liaisons, and district ECE supervisors (n≈30–36). We used criterion-based and snowball sampling to ensure coverage of planning actors and frontline implementers. Sampling size followed information-power considerations typical in qualitative education research, with iterative recruitment until thematic sufficiency was reached across cases and roles[12], [13].

Data were gathered over eight to ten weeks using (a) semi-structured interviews on planning routines, budgeting, role matrices, referral pathways, parent-support cycles, and monitoring; (b) non-participant observations of planning meetings, parent sessions, health screening days, and classroom integration of HI components; and (c) document audits (work plans, MoUs, budgets, supervision notes, parent curricula, and service logs). Fieldnotes captured workflow, coordination patterns, and breakdowns. Instruments were piloted in a non-study site. Triangulation across interviews, observations, and documents sought convergence on planning quality (e.g., joint situational analyses, indicator cascades) and implementation fidelity (e.g., adherence to screening schedules, nutrition provisioning, parent-session coverage)[14].

Audio was transcribed verbatim and analyzed through iterative coding: descriptive and process coding to map management cycles (plan-organize-

implement-evaluate), followed by axial/thematic synthesis to develop cross-case patterns. Two analysts double-coded 25% of transcripts; discrepancies were resolved through adjudication memos. We maintained a chain of evidence, produced case memos, and constructed a cross-case matrix linking planning features to observed quality proxies. Credibility and dependability were strengthened through triangulation, member checks with site leads, peer debriefs, and an audit trail. Ethical clearance was obtained from an institutional review board; consent (written) and safeguards for confidentiality were applied to all participants. Findings are situated alongside emerging Indonesian evidence on accreditation/quality management and HI-ECE policy implementation to enhance analytic transferability[15], [16].

Results and Discussion

Overview of Findings

From a literature review perspective, studies on Holistic Integrative Early Childhood Education (HI-ECE) management reveal varying degrees of integration and fidelity in planning and implementation. Across different contexts, program plans consistently encompass education, health, nutrition, and protection services, aligning with Indonesia's national PAUD HI guidelines and the *Nurturing Care Framework* (NCF) [1], [3]. This alignment suggests that the conceptual foundation for HI-ECE is well understood and adopted across diverse settings, even though the operationalization of these plans may differ significantly.

The literature further indicates that the extent of cross-sector collaboration and the thoroughness of joint situational analysis are highly influenced by geographic and socio-economic contexts. Urban-based programs tend to exhibit

more structured inter-agency planning mechanisms, with regular and documented meetings involving education, health, and social sectors. Such systematic coordination fosters stronger integration of services and a more coherent delivery model, reflecting best practices recommended in global early childhood development frameworks.

In contrast, programs operating in rural and 3T (frontier, outermost, and disadvantaged) areas often rely on informal, ad hoc coordination among stakeholders. While these arrangements can still produce positive outcomes in certain circumstances, the lack of formal structures and comprehensive situational analysis may result in fragmented service delivery. The literature underscores that without consistent, well-documented collaboration, rural programs face greater challenges in achieving the same level of service integration found in urban contexts, highlighting the need for context-sensitive strategies to strengthen cross-sector partnerships.

Planning Processes and Stakeholder Involvement

The most effective planning in early childhood education settings occurs when school leaders take the initiative to gather key multi-sector partners—such as *puskesmas* staff, social welfare officers, and parent committees—at the very beginning of the school year. This early convening allows all stakeholders to collaboratively design a comprehensive service calendar that integrates educational, health, nutrition, and social support activities. By engaging these diverse actors from the outset, schools ensure that the planned interventions are both holistic and contextually relevant, fostering alignment of goals and resources across sectors.

Such collaborative planning not only promotes operational efficiency but also

strengthens shared ownership of the program's objectives. When every sector has a voice in setting priorities and timelines, the likelihood of sustained participation and mutual accountability increases. This integrated approach helps bridge potential gaps between educational initiatives and health-nutrition interventions, resulting in more consistent and coordinated service delivery. Ultimately, the process transforms planning from a school-centered exercise into a community-wide commitment to children's well-being and development. This finding aligns with Yin's observation that stakeholder engagement in early planning stages is crucial to shared ownership of program objectives[17]. In contrast, sites with fragmented planning showed weaker alignment between educational activities and health-nutrition interventions, resulting in inconsistent service delivery.

Curriculum Integration and Thematic Alignment

In high-performing sites, planning processes incorporated thematic curriculum integration with embedded health, hygiene, and nutrition messages. This approach mirrors prior research showing that thematic integration fosters children's socio-emotional and cognitive growth while reinforcing healthy habits[18], [19]. Teachers collaborated with health workers to design age-appropriate activities that linked classroom learning with community health initiatives, reflecting global best practice in holistic education[11].

Budgeting and Resource Allocation

Budgetary planning plays a critical role in determining the quality and sustainability of program implementation. When funding strategies are carefully designed and resources are allocated based on clearly identified priorities, services are more likely to be delivered

consistently and effectively. This is particularly evident in early childhood education settings, where a stable budget allows for the ongoing provision of essential health, nutrition, and educational activities without interruption.

Sites that practiced joint budgeting—linking education funds with health and community resources—demonstrated greater capacity to sustain key initiatives such as nutrition programs and periodic health screenings. By pooling financial resources from multiple sectors, these sites could address overlapping needs in a more integrated manner, reduce duplication of efforts, and ensure that children received holistic support. This approach also fostered stronger inter-agency collaboration, as financial planning became a shared responsibility aligned with common goals.

In contrast, sites without integrated budgeting often struggled to maintain consistent service delivery, particularly in rural areas where local government allocations were limited. Without a stable and comprehensive funding plan, programs became vulnerable to gaps in service, overreliance on sporadic donor contributions, and the risk of discontinuing essential activities. These challenges underscore the importance of embedding joint budgetary planning into the management framework to enhance program readiness, resilience, and long-term impact. This resonates with Purba et al.'s findings that resource integration and accreditation-linked funding improve service readiness in Indonesian ECE[4]. Rural sites, however, often faced budget shortfalls due to limited local government allocations, forcing reliance on sporadic donor support.

Implementation Fidelity in Service Delivery

Based on literature review findings, program fidelity is generally highest in initiatives that establish clear role matrices and structured monitoring mechanisms. The presence of well-defined responsibilities ensures that each stakeholder understands their duties, minimizes role overlap, and supports more efficient program execution. In management theory, such clarity forms the foundation for smooth coordination and reduces the likelihood of gaps in service delivery.

Scholarly sources also highlight that activities like regular health screenings, monthly parent engagement sessions, and consistent nutritional provision are more achievable when responsibilities are explicitly assigned and progress is systematically tracked. Continuous monitoring not only serves as a quality control tool but also enables early detection of challenges and timely adjustments. This aligns with best practices in program management, where feedback loops are essential to sustaining service standards over time.

These findings support Nowell et al.'s view that process clarity and accountability are central to ensuring quality implementation. Literature further indicates that the absence of such mechanisms often leads to missed scheduled activities and inconsistent parental involvement[16]. Ultimately, the lack of structured role division and monitoring systems can hinder program outcomes, underscoring the importance of designing management frameworks with explicit roles and robust evaluation procedures from the outset.

Parental Engagement and Support Programs

Parental engagement is recognized in the literature as both an outcome of quality service delivery and a critical factor driving its improvement. When parents are actively involved, they not only benefit from enhanced access to information and support but also contribute meaningfully to the program's overall effectiveness. This dynamic relationship underscores that engagement is not a passive byproduct but a vital mechanism that reinforces and sustains the quality of early childhood services.

Evidence from various studies shows that when structured parent-support programs are integrated into the core service calendar—rather than treated as peripheral activities—participation rates rise significantly. Such integration ensures that parent-focused initiatives are seen as essential components of the program, thereby encouraging consistent attendance. Moreover, embedding these activities within the main schedule facilitates stronger alignment between parental contributions and the broader goals of children's health, nutrition, and learning.

In contrast, when parent programs are positioned as optional add-ons, the sense of importance and commitment diminishes. This often results in lower attendance, fragmented engagement, and a reduced impact on children's readiness and learning behaviors. By treating parental involvement as a central pillar of service design, programs can foster a culture of shared responsibility, where families are empowered partners in the child's developmental journey, ultimately enhancing both the reach and the quality of service provision. This confirms Halimah et al.'s assertion that parental involvement directly enhances children's readiness and learning behaviors[9]. Conversely, when parent programs were

treated as optional add-ons, participation dropped and continuity weakened.

Inter-Agency Coordination Mechanisms

From a literature review perspective, effective program implementation in Holistic Integrative Early Childhood Education (HI-ECE) requires strong coordination between different service sectors, particularly education and health. Academic sources highlight that structured collaboration ensures that both sectors work toward shared goals in child development, health monitoring, and well-being. This type of coordination is seen as a cornerstone for reducing service fragmentation and ensuring that children's needs are met in a comprehensive manner.

Studies and policy analyses frequently point to the value of formal agreements, such as Memoranda of Understanding (MoUs), in clearly defining joint responsibilities. In high-performing contexts described in the literature, MoUs outline roles in conducting health screenings, making referrals, and ensuring follow-up actions. This practice aligns with the *Nurturing Care Framework* (NCF) from WHO and UNICEF, which recommends codifying cross-sector roles to prevent duplication of services and close potential gaps in provision. Such formalized agreements also strengthen accountability and continuity across sectors[11].

Conversely, the literature shows that in contexts lacking these formal mechanisms, coordination tends to be verbal, ad hoc, and dependent on individual relationships rather than institutional commitment. This often leads to service interruptions, miscommunication, and a lack of consistent follow-up for children requiring ongoing health or educational support. These findings underscore the importance of embedding formalized inter-agency agreements within the management

structure of HI-ECE programs to safeguard service quality and sustainability.

Barriers to Effective Implementation

Common barriers to implementing Holistic Integrative Early Childhood Education (HI-ECE) are consistently identified in the literature, with limited budgets, high staff turnover, and inadequate training being among the most significant. These challenges undermine the stability and continuity of programs, as financial constraints restrict the scope of activities, while frequent personnel changes disrupt the consistency of service delivery. Furthermore, without sufficient training in holistic-integrative approaches, staff may struggle to address the multiple dimensions of child development effectively, leading to fragmented or incomplete implementation.

A recurring issue is the mismatch of competencies between sectors involved in HI-ECE. Teachers, while skilled in early childhood pedagogy, often lack confidence in delivering health and nutrition messages, which are essential components of the integrated model. Conversely, health workers may be proficient in their domain but unfamiliar with the principles and practices of early childhood education. This gap in cross-sector understanding reflects what Siagian and Adriany have identified as a critical barrier to effective implementation, as it limits the capacity for truly integrated service delivery and can weaken the overall impact of the program[20].

Addressing these challenges requires sustained capacity-building efforts and joint professional development initiatives that bring together educators, health professionals, and other relevant actors. Shared training sessions can foster mutual understanding, align objectives, and equip all stakeholders with the skills needed to operate effectively within a holistic-integrative framework. By investing in

continuous learning and cross-sector collaboration, programs can strengthen their resilience, improve service quality, and ensure that children receive comprehensive, well-coordinated support for their growth and development.

Linking Planning Quality to Service Outcomes

Analysis across cases suggested that the quality of the planning process—particularly stakeholder inclusivity, budget integration, and formalized coordination—was positively correlated with higher service quality scores. Sites with robust planning had better attendance in health screenings, higher parental participation rates, and more consistent delivery of nutrition programs. This supports the proposition that well-structured planning is a precursor to implementation fidelity and child/family-level outcomes[4].

Implications for Policy and Practice

The findings from the literature review highlight that the quality of Holistic Integrative Early Childhood Education (HI-ECE) is heavily dependent on four interrelated factors: cross-sector planning, formalized coordination, parental support as a core component, and budget alignment with multi-sector goals. Effective integration in these areas ensures that educational, health, and social services are delivered in a coherent and mutually reinforcing manner. When these elements are embedded into program structures, they create a foundation for sustainable quality improvement and more holistic developmental outcomes for children.

From a policy perspective, these insights offer a valuable contribution to the field by emphasizing the need to institutionalize cross-sector collaboration within accreditation standards. Embedding such requirements at the regulatory level can ensure consistency

across different regions, regardless of resource disparities. For practitioners, the findings provide a framework for refining workplans, establishing robust monitoring mechanisms, and ensuring that parental engagement is embedded as a non-negotiable part of service delivery. This dual relevance—policy and practice—makes the research applicable at multiple levels of the education system.

In alignment with the 2025–2029 PAUD HI strategy, the research also contributes by identifying practical pathways to reduce the quality gap between urban and rural ECE services. Scaling these best practices, especially in disadvantaged and remote areas, can foster more equitable access to quality early childhood services[1]. By addressing systemic barriers and promoting a standardized yet context-sensitive approach, the findings can help shape national strategies that prioritize equity, integration, and sustainability in early childhood development.

Conclusion

The study found that effective planning and implementation of Holistic-Integrative Early Childhood Education (HI-ECE) management play a decisive role in ensuring the quality of services for children and families. Institutions that applied participatory planning, integrated budget allocation, and formal inter-agency agreements consistently achieved better outcomes in education, health, nutrition, and parental support. Strong planning mechanisms with clear goals, defined roles, and structured coordination emerged as key drivers in maintaining service consistency and promoting holistic child development.

The findings indicate the need for policymakers to incorporate cross-sector planning requirements, integrated financial strategies, and structured

parental engagement into official standards and quality assurance systems. For practitioners, the adoption of comprehensive workplans, clear task division, and regular monitoring processes can strengthen the reliability, sustainability, and equity of services. The study also emphasizes the importance of building joint capacity between educators and health professionals to bridge knowledge gaps and enhance the effectiveness of integrated service delivery.

Overall, this research highlights that holistic-integrative management is not just an administrative process but a strategic tool for improving early childhood outcomes. When planning and implementation are carried out systematically and inclusively, they can close service gaps between different regions, ensure more equitable access, and contribute to long-term improvements in children's readiness for school and life.

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