

Center of Excellence for Developmental Stimulation, Learning Behavior, And Services for Children, La-Orutis Demonstration Lampang School, Suan Dusit University

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Abstract: The project titled Development of a Center of Excellence for Services to Stimulate Child Development and Learning Behavior at the La-orutis Demonstration School, Suan Dusit University, Lampang Center aimed to establish a Center of Excellence for screening, diagnosis, service planning, and intervention to promote child development and learning behavior within the school. The center was developed using a Participatory Action Research (PAR) approach, engaging multidisciplinary experts, parents, educational personnel, and the institution. The core component of the service model was the Individualized Service Plan, designed specifically for children with special needs and grounded in the recognition of each child's unique developmental differences. The approach integrated specialized services into early childhood and primary education while fostering inclusive education, enabling students with special needs to learn alongside their peers in mainstream classrooms. The successful establishment of the La-or Learning and Development Center (LDC) at the La-orutis Demonstration School, Lampang, yielded highly positive outcomes. The results indicated that 93.6% of students showed improved learning development. This success resulted from the center's effective interdisciplinary collaboration—incorporating specialized physicians, therapists, teachers, and parents—to provide holistic and individualized care for students experiencing developmental, psycho-emotional, and behavioral challenges. Effective child-rearing in Thai medical centers of excellence requires strengthened caregiver training for single-parent contexts, careful management of technology use to reduce risks of pseudo-autism and language delay, and balanced parenting approaches to support children's independence.

Keyword: Child Development Stimulation, Children's Learning Behavior, La-orutis Demonstration School.

1. Introduction

The foundation of this study is grounded in the Constitution of the Kingdom of Thailand, B.E. 2560 (2017), which firmly underscores the principles of human dignity, rights, liberties, and equality for all citizens. The Constitution explicitly prohibits unfair discrimination based on factors such as disability, health conditions, or social status. This constitutional mandate places a clear obligation upon educational institutions under the Ministry of Education and the Ministry of Higher Education,

Science, Research and Innovation (MHESI) to prioritize equitable educational opportunities for every child.

However, despite this legal framework, existing surveys conducted by the Office of the Basic Education Commission (OBEC) indicate that educational provision for students with disabilities remains suboptimally effective. A critical challenge identified is the significant deficit in knowledge, understanding, and requisite skills among educational personnel concerning instructional delivery, curriculum development, and the design of learning materials tailored to meet the Individualized Needs of each student (Cayabas Jr & Sumeg-ang, 2023).

This systemic inadequacy has tangible local impacts, particularly evident in Lamphang province, where parents are frequently compelled to seek essential developmental and behavioral stimulation services in neighboring provinces (e.g., Chiang Mai). This situation imposes substantial financial and resource burdens on families and, crucially, disrupts the child's learning continuity in regular classrooms.

Consequently, the establishment of a Center of Excellence (CoE) is deemed essential to align with the national education reform plan and the provincial strategy for expanding educational access. This initiative is positioned to strengthen Thai educational institutions by transforming them into hubs for instruction, research, and community service (Phumphongkhochasorn et al., 2021). The proposed Center of Excellence for Children with Special Needs aims to provide comprehensive, integrated services—including assessment, diagnosis, therapeutic interventions, and developmental rehabilitation—to support the full development of children with special needs (Kienapple & Lyon, 2005). Furthermore, the CoE is mandated to serve as a vital resource for training parents, teachers, and medical personnel, and for conducting research and innovation development in child development through inter-agency collaboration. The center requires a multidisciplinary team of specialists (e.g., pediatricians, psychologists, occupational therapists, speech-language therapists, and special education teachers) and specialized infrastructure, such as dedicated therapy rooms (LaFrance et al., 2019). In the long term, the CoE is committed to advocating for relevant policies to ensure appropriate care, thereby fostering an environment where children with special needs can grow and participate in society with equality and dignity.

1.1. Objective

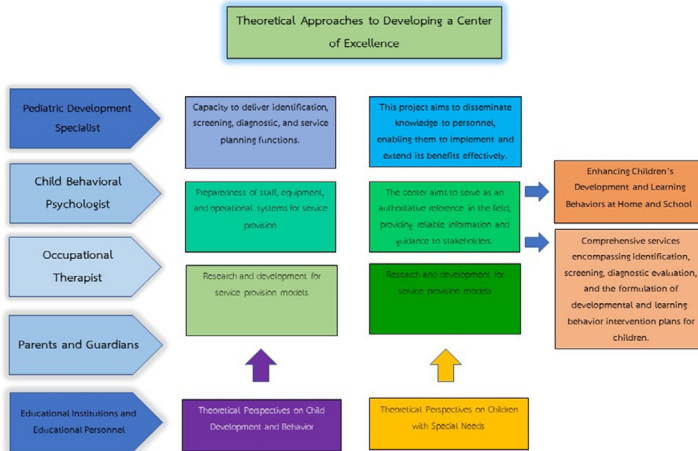
To establish a Center of Excellence (CoE) at La-orutis Demonstration School, Lamphang, providing integrated services for the identification, screening, diagnosis, and individualized planning of developmental and learning behavior stimulation for children.

1.2. Conceptual Framework

The conceptual framework for this study was developed through an integration of rigorous research and expert consultation. Investigators conducted an extensive review of domestic and international research, examining the core principles, administrative structures, and service models necessary for the establishment and management of a Center of Excellence (CoE). These theoretical insights were then directly informed by qualitative data gathered via brainstorming sessions and in-depth interviews with a

multidisciplinary group of key stakeholders, including expert resource persons, medical specialists, school administrators, teachers, parents, and other relevant parties. This integrated approach, blending scholarship with practical expertise, culminated in the definition of the study’s conceptual framework, presented in Figure 1 as follows:

Figure 1 Conceptual Framework.



2. Theoretical Framework

2.1. Development of Center of Excellence (CoE) for Children with Special Needs

The CoE for Children with Special Needs is rooted in the strategic integration of interdisciplinary knowledge and resources to promote high-quality, standardized service delivery. A CoE serves as a nexus for specialized expertise, dedicated facilities, and resources (Fekadu et al., 2021). Its critical mission is to develop Best Practices, conduct research, provide support, and facilitate training in relevant fields, ensuring that services are managed with high efficacy and tailored to the context of the recipients. Specifically, A Center of Excellence for Child Development acts as a specialized entity aimed at promoting the holistic development of young children. This is achieved through the integration of knowledge from various fields, including education, public health, psychology, and social sciences, ultimately developing service systems that effectively meet the true needs of children (Fusco et al., 2023).

Key Characteristics of a Child Development CoE Based on established literature, the essential characteristics of a Child Development CoE encompass five main roles:

1. Specialized Expertise Center: Focusing on observation, identification, screening, promotion, and developmental stimulation (Guralnick, 2023; Shonkoff, 2003).
2. Professional Development Hub: Serving as a learning and professional development center for teachers and educational personnel (Cui, 2019).
3. Research and Innovation Center: Driving research and the development of new innovations (Seidel et al., 2019).
4. Networking and Partnership Center: Functioning as a central hub for collaborative

networks between organizations and the community (World Health Organization, 2020).

5. Family and Community Engagement Unit: Promoting the crucial involvement of family and community members (Epstein, 2011) within a Developmentally Appropriate Environment (Levy & Wasmuth, 2025).

2.2. Core Service Delivery Principles

The efficacy of the CoE model is supported by research advocating for an integrated service approach across developmental work, education, and family support, emphasizing multidisciplinary coordination and genuine family involvement (McCloskey & Clark Hammond, 2022). This aligns with the principles for caring for children with special needs, defined as those whose development or abilities deviate from typical patterns due to physical, intellectual, learning, emotional, behavioral, or social limitations. Such children require distinct instruction, care, and support to ensure quality of life and vocational prospects (Hemalatha, 2015).

The framework highlights that developmental promotion for children with special needs must be Individualized Intervention (Guralnick, 2023), encompassing behavioral, linguistic, cognitive, social, and motor domains.

1. **Multidisciplinary Team:** Effective intervention relies on the collaboration of a multidisciplinary team, including occupational therapists, speech-language therapists, psychologists, and special education teachers.
2. **Family-Centered Practice:** The concept of early intervention emphasizes the central role of the family in collaboration with professionals, where experts acknowledge the family's capabilities and engage in open, continuous information sharing (Dunst, 2002). Parents play a vital role in transferring therapeutic activities from the center to the home context, necessitating the organization of home environments and routines to match the child's development plan (Berkant & Atilgan, 2024; Pierangelo, 2012).
3. **Integrated Model for Efficacy:** Consequently, specialized CoE services must adopt an integrated model comprising screening, assessment, individualized planning, multidisciplinary teamwork, and family involvement as crucial components for maximum developmental effectiveness (Guralnick, 2023). This model is consistent with the capacity-building family-centered practices approach (Dunst & Trivette, 2014), which has proven to enhance participatory collaboration and significantly improve the children's quality of life.

2.3. Participatory Action Research (PAR) as a Developmental Framework

Participatory Action Research (PAR) is a critical research approach for enhancing service quality, relying on the collaboration between researchers and stakeholders, including the community, parents, and educational personnel. The essence of PAR lies in its collaborative approach to creating practical knowledge that can be effectively utilized for real-world development and problem-solving. This methodology is pivotal in fostering a sense of ownership in both the research process and its outcomes, while simultaneously boosting the credibility of the data, as the information directly reflects the lived experiences and perspectives of those involved. Consequently, PAR forms a fundamental basis for developing sustainable practices in health, service delivery,

and social welfare systems (Aveyard, 2023; Cornish et al., 2023; Cornwall & Jewkes, 1995; Hart & Bond, 1995).

2.4. Contextual Need at La-orutis Demonstration School

La-orutis Demonstration School, Lampang Center, Suan Dusit University, operates under the Ministry of Higher Education, Science, Research and Innovation (MHESI), offering early childhood and primary education. The institution champions an inclusive education policy for students with special needs (Keesookpun et al., 2023). However, the school identified over 20 students diagnosed with special needs during the 2021 academic year, with this number showing a continuous upward trend. This situation highlighted an urgent need for specialized support services and systems. Effectively caring for this student population demands collaboration among the family, the school, and specialized experts to jointly develop individualized behavior development plans (Anderson-Butcher & Ashton, 2004). This necessity aligns perfectly with the core tenets of PAR and existing research that emphasizes the significant role of parental participation in enhancing the social skills and development of children with special needs. Moreover, family involvement is recognized as a key determinant of a child's long-term development (Hill & Tyson, 2009).

2.5. Application of PAR in the Research Project

Therefore, this research project was specifically designed to apply the PAR methodology to address the challenges in providing developmental and learning behavior stimulation services for children with special needs within the school and the broader context of Lampang province. The application of PAR facilitates the creation of an integrated operational system, consistent with the approach proposed by the World Health Organization (World Health Organization, 2020). This system links data derived from parental input, expert assessment and diagnosis, and the academic expertise of the demonstration school, which functions as both a model institution and an academic experimental site. This process leads to the generation of knowledge, innovations, and developmental promotion practices that are responsive to the actual conditions of the learners. Crucially, establishing the Center of Excellence through the PAR process not only elevates the quality of care for students with special needs at La-orutis Demonstration School but also provides a framework that can be scaled up and extended to network schools (Saengchan, 2024). This positions the CoE as a model for providing developmental and learning behavior stimulation services at both the regional and national levels, contributing to the long-term practical utility and sustainability of the Thai education system.

3. Research Methodology

3.1. Population and Samples

The target population for this research comprised all relevant stakeholders at La-orutis Demonstration School, Lampang, specifically: Specialized Medical Experts, Special Education Teachers, Occupational Therapists, Teachers, Educational Personnel, Students, and Parents.

The study sample was selected as follows:

Purposive Sampling was employed to select the expert and professional participants, including: Specialized Medical Experts, Special Education Teachers, Occupational Therapists, General Teachers and Educational Personnel and Parents of students at La-orutis Demonstration School, Lampang. Students from La-orutis Demonstration School, Lampang, aged 2 to 9 years, were selected based on identified special needs. Their inclusion followed a multi-stage process: initial screening by teachers and parents, formal diagnosis by specialized medical experts, and verification through official data reports of children with special needs.

3.2. Research Instrument

The instruments utilized for data collection in the project, “Development of a Center of Excellence for Stimulating Development and Learning Behavior in Children at La-orutis Demonstration School, Lampang,” were:

1. Interview Protocol for Parents: Used to gather data from parents of students at La-orutis Demonstration School, Lampang.
2. In-Depth Interview Protocol for Experts: Used for specialized medical experts, special education teachers, occupational therapists, general teachers, and educational personnel.
3. Student Assessment Forms: Used to evaluate the developmental progress and behavior of students at La-orutis Demonstration School, Lampang.

The research instruments were systematically developed based on three key sources: contextual data regarding students with special needs, feedback from parent meetings, and relevant theoretical concepts pertaining to the development of a child development Center of Excellence. The draft instruments were then subjected to rigorous expert validation to ensure construct validity, content validity, appropriate wording, and comprehensive coverage of the research objectives. Following revision based on expert recommendations, the finalized tools underwent pilot testing before being administered to the study sample.

3.3. Collection of Data

The study proceeded through four systematic phases:

1. Contextual Study: Initial data was collected via a literature review on special needs care, communication, and learning skills, including benchmarking against existing child development centers.
2. Expert and Parent Interviews: In-depth interviews were conducted with specialized medical experts, special education teachers, therapists, teachers, personnel, and parents. This data informed the development of screening tools, assessment forms, and intervention designs.
3. Focus Group Discussion : A Focus Group involving the same stakeholders was conducted to validate preliminary findings and gather collective input.
4. Intervention and Individual Assessment: Students underwent developmental and behavioral stimulation activities. Post-intervention, specialized medical experts,

teachers, and parents collaboratively assessed each student's development using the assessment form, and data was analyzed individually to evaluate outcomes.

4. Data Analysis

Qualitative data, sourced from in-depth interviews, focus groups, and documentation, was analyzed using Content Analysis. The process focused on establishing key themes, data interrelationships, and significant keywords relevant to the research.

4. Result

The establishment of the Center of Excellence (CoE) for screening, diagnosis, and intervention planning for child development and learning behavior at La-orutis Demonstration School, Lampang, resulted in the creation of the La-or Learning & Development Center (LDC). The LDC functions as an interprofessional collaborative center where staff from diverse disciplines work toward the shared goal of maximizing service effectiveness. The core operational team—responsible for planning, implementation, and evaluation—comprises three main groups: Specialized Physicians in Child Development, Specialized Experts in Occupational Therapy, and Assistants for Child Development and Learning Behavior Stimulation. The LDC also utilizes a dedicated working committee for consultation. Furthermore, the LDC's operational achievements have been categorized across six key outcome areas.

4.1. Vision, Mission, and Strategies

Vision: To be a model center for promoting child development and learning in educational settings.

Mission

1. Service: Provide screening, diagnosis, and stimulation planning for child development and learning behavior.
2. Knowledge Development: Research and advance expertise in promoting child development and learning.
3. Dissemination: Transfer knowledge regarding special needs development and learning to other institutions.
4. Collaboration: Work with the Demonstration School, support university initiatives, and partner with external agencies.

Development Strategies:

1. Center Hub: Establish the LDC as the central hub for special needs development promotion.
2. Core Services: Deliver effective services for stimulating development, behavior, and learning.
3. Networking: Develop collaborative partnerships with network organizations for service delivery.

4.2. Organizational Structure

The operation of the La-or Learning & Development Center (LDC) is governed by

three primary bodies: the Operating Committee, the Advisory Committee, and the LDC Manager. Their respective roles are defined as follows:

4.3. Operating Committee

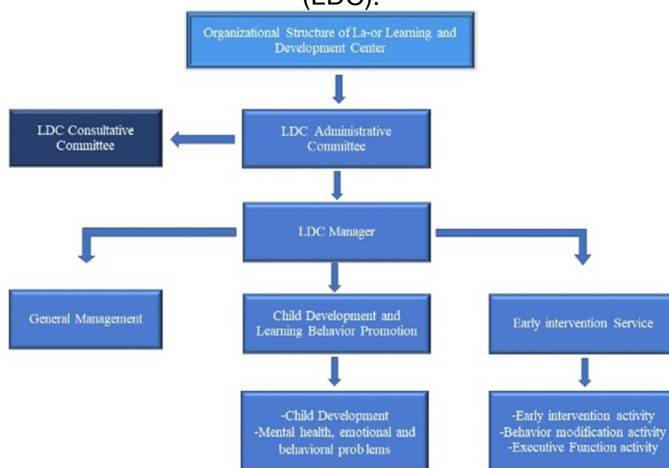
The Operating Committee plays a vital role in governing the direction, planning, and administration of the La-or Learning & Development Center (LDC), ensuring the Center of Excellence operates efficiently and achieves its defined objectives. Its responsibilities encompass strategic planning—including setting policies, goals, and directions—along with financial oversight and resource allocation. Crucially, the Committee drives the development of service models and operational processes, fosters collaboration and partnership, and builds networking capacity at the school, community, and university levels. Finally, it is charged with evaluating the efficacy of the interprofessional team, management, and data systems, and producing performance reports necessary for Continuous Quality Improvement (CQI).

4.4. Advisory Committee

The Advisory Committee is essential for providing strategic direction and professional support, ensuring the LDC operates in alignment with its mission and professional standards. It serves as a consultative mechanism, offering academic, policy, and developmental guidance to strengthen both management and service delivery. Specifically, the Committee provides technical and professional guidance on service standards and rigorously reviews the academic accuracy of all plans related to assessment, diagnosis, and child development stimulation. Furthermore, it offers recommendations aimed at helping the Center achieve its goal of becoming a Center of Excellence (CoE).

4.5. LDC Manager

Figure 2: Organizational Structure of La-or Learning and Development Center (LDC).



The LDC Manager is responsible for establishing an efficient management system, overseeing all functional areas, and ensuring quality service delivery by coordinating activities among the committees, experts, and personnel. Management duties include general administration and the supervision of all learning and developmental stimulation services (as shown in Figure 2).

4.6. Facilities and Equipment

The LDC has developed specialized rooms to support the Center's various services: a room for occupational therapy (OT) and developmental stimulation, a room for special education, and a room for speech-language therapy.

4.7. Occupational Therapy and Stimulation Room

This room was designed prioritizing safety, comfort, and age-appropriateness. The space is ample, allowing children freedom of movement for activities and supporting the development of a wide range of skills.

4.8. Special Education Room

This room was configured to accommodate the individual needs of each student and provide an environment conducive to diverse learning and developmental trajectories. Key design elements include an open layout, sufficient but non-glaring lighting, low noise levels, appropriate temperature and ventilation, and the use of colors and materials that minimize anxiety or distraction.

4.9. Speech-Language Therapy Room

This space was designed to support the development of language, communication, and articulation skills. The environment is optimized with partial soundproofing on walls to reduce noise distraction. The overall atmosphere is warm and friendly, helping children feel secure and focused on training, thereby ensuring low internal noise for clear hearing and vocalization.

Service Provision: Screening, Diagnosis, and Planning

The La-or Learning & Development Center (LDC) provides specialized services, including identification, systematic screening, diagnostic assessment, and personalized intervention planning, for students at La-orutis Demonstration School, Lampang. Service beneficiaries are categorized into three distinct cohorts (as delineated in Table 1):

1. Voluntary Participants: Students and parents participating on a self-initiated basis.
2. Referral Cohort: Students identified via structured observation by classroom educators and the LDC's promotion team.
3. Supplementary Intervention Seekers: Students and parents independently requesting access to additional developmental stimulation activities.

All three cohorts of students receiving developmental and behavioral stimulation services were subsequently categorized by the LDC based on their specific symptomology and behaviors. This classification utilizes two primary diagnostic groups:

Developmental Issues and Psycho-emotional and Behavioral Issues. The detailed manifestations of symptoms within these two categories are outlined as follows.

Table 1: The Number of Children in all Three Groups who Received Developmental Stimulation and Behavioral Services.

Cohort	Number of Students (N)	Percentage (%)
Group 1: Voluntary Participants: Students and parents participating on a self-initiated basis.	13	52
Group 2: Referral Cohort: Students identified via structured observation by classroom educators and the LDC's promotion team.	9	36
Group 3: Supplementary Intervention Seekers: Students and parents independently requesting access to additional developmental stimulation activities.	3	12

1. Neurodevelopmental Disorders group

1. ADHD - Attention Deficit/ Hyperactivity Disorder
2. Autism Spectrum Disorder (ASD)
3. Communication Disorders
4. Learning Disorders
5. Psychological, Emotional, and Behavioral issues group
6. Depressive Disorder
7. Disruptive, Impulse Control, and Conduct Disorders
8. Feeding and Eating Disorders
9. Sleep-Wake Disorders
10. Elimination Disorders
11. Enuresis
12. Encopresis

The screening results identified 25 students with a total of 30 symptom cases, as some students exhibited multiple co-occurring problems. The Developmental Issues cohort comprised 12 cases, specifically distributed as: Attention Deficit Hyperactivity Disorder (n=1), Autism Spectrum Disorder (n=2), Speech and Communication Difficulties (n=4), and Learning Difficulties (n=5). Conversely, the Psycho-emotional and Behavioral Issues cohort totaled 18 cases, including 17 cases of Behavioral and Emotional Regulation Difficulties and 1 case of Elimination Disorders (encompassing enuresis and encopresis). These quantitative findings are fully detailed in Table 2.

Table 2: Distribution of Student Participants by Primary Symptom Category Following Screening.

Type	Detail	Symptom cases
1. Neurodevelopmental Disorders group	1.1 ADHD - Attention Deficit/ Hyperactivity Disorder	1
	1.2 Autism Spectrum Disorder (ASD)	2
	1.3 Communication Disorders	4
	1.4 Learning Disorders	5
2. Psychological, Emotional, and Behavioral issues group	2.1 Disruptive, Impulse Control, and Conduct Disorders	17
	2.2 Enuresis & Encopresis	1
Total		30

The La-or Learning & Development Center (LDC) maintains an operational schedule for developmental and behavioral stimulation services daily, from 08:00 to 19:00. Intervention strategy is formalized through weekly assignments and scheduling for Occupational Therapists, Speech-Language Pathologists (SLP), and Special Education Teachers. Analysis of the service data revealed that student caseloads were grouped into three distinct intervention modalities: Occupational Therapy (n=23, 68%), Speech-Language Pathology (n=4, 12%), and Special Education Instruction (n=7, 20%). The detailed distribution of these intervention services is formally summarized in Table 3.

Table 3: Distribution of the Service Caseload Categorized by Intervention Modality.

Service	Number (persons)	Percentage (%)
Occupational Therapy	23	68.0
Speech-Language Therapy	4	12.0
Special Education	7	20.0
** Some students are eligible to receive more than one type of service.		

After the implementation of learning and behavioral developmental stimulation activities, individual assessments were jointly conducted by medical professionals, teachers, and parents. The results indicated that 93.6% of students showed improved learning development, and 92.8% demonstrated improved ability to learn with peers in regular classrooms. Additionally, 93.6% of parents reported increased knowledge and understanding of childcare, and 95.2% were able to apply developmental stimulation strategies at home. The results are presented in Table 4.

Table 4: Outcomes of Learning and Behavioral Developmental Stimulation Activities.

Outcomes of Learning and Behavioral Developmental Stimulation	Percentage (%)
1. Improvement in students' learning development after participation in developmental stimulation activities	93.6
2. Improved ability of students to learn with peers in regular classrooms	92.8
3. Increased parental knowledge and understanding of childcare	93.6
4 Parents' ability to apply developmental stimulation strategies at home	95.2

4.10. Information Management System

The LDC utilizes a comprehensive Information System to manage client data and institutional information. The Center's public website serves as both a service directory (detailing occupational therapy, speech-language pathology, and special education) and a knowledge portal, publishing expert articles to support the Center of Excellence objective.

The Information System is crucial for operational support, encompassing the documentation of screening, diagnosis, design of Individualized Development Plans (IDPs), tracking, and long-term evaluation. This robust system ensures rapid, accurate data access, supports remote use, and manages appointment notifications (via Telegram). Ultimately, the IS enables data-driven decision-making for all professionals and administrators, improving the analysis of developmental trends, service planning, and effective communication with parents.

6. Collaborative Networks

The LDC operates through strong inter-sectoral collaboration involving public, private, and civil society organizations. This partnership model is designed to jointly stimulate the development of children with special needs and share resources efficiently to achieve common goals (economic, social, and academic). This cooperation not only enhances operational efficiency but also promotes creativity, knowledge sharing, and the prudent use of limited resources.

The collaborating organizations include:

1. La-orutis Demonstration School, Lampang: Administrators, teachers, educational personnel, and parents jointly participate in observation, planning, and enhancing the learning care for children with special needs.
2. Local Healthcare Institutions (Lampang Hospital): This hospital supports the LDC by providing physicians, nurses, occupational therapists, and psychologists. These professionals work collaboratively on planning the developmental and behavioral care for children with special needs within the Center.
3. Specialized Healthcare Institutions (Prom Health Center, Faculty of Associated Medical Sciences, Chiang Mai University): This unit contributes occupational therapists and speech-language pathologists to jointly develop care plans for the development and behavior modification of special needs children within the LDC.
4. Special Education Expertise Unit (Special Education Center, Lampang Province): This organization provides consultative support from administrators and special education teachers to jointly develop and manage educational instruction appropriate for the developmental needs of children within the LDC.

The LDC is defined by interprofessional collaboration, where diverse specialists align their efforts to maximize service effectiveness. This model aims to achieve excellence in all facets—health, education, behavioral skills development, and knowledge generation. Each professional contributes their specific expertise to the joint planning, implementation, and evaluation processes, thereby ensuring holistic care for children with special needs.

5. Discussion

The LDC was established via Participatory Action Research (PAR), engaging experts, parents, and educators to develop a Center of Excellence (CoE) for individualized developmental and behavioral stimulation. This approach emphasizes systematic, multi-source data for designing effective Individualized Intervention plans (Guralnick, 2023).

The core mission of the LDC is rooted in its vision to be a model center for promoting child development. Functioning as a Specialized Expertise Center, the LDC leverages an interprofessional network (Shonkoff, 2003) to deliver Super-tertiary Care—encompassing advanced diagnosis, planning, and specialized treatment. This comprehensive structure ensures the efficient shared use of specialized resources and expertise, solidifying the LDC's role as a vital Referral Center and a Research and Development Center.

The LDC's positive impact is attributable to five core factors:

1. Integrated Interprofessional Practice: Services (screening, diagnosis, IDP planning)

- rely on the collaboration of physicians, therapists, teachers, and parents, aligning with the family-professional partnership essential for early intervention (Dunst, 2002).
2. Parental Engagement and Professional Development: The LDC operates as a Professional Development Hub (Cui, 2019) by actively promoting ongoing training for staff and fostering increased parental understanding. Furthermore, the robust Information System supports efficient service management and optimal developmental planning (Kaur et al., 2023). Future strategic planning includes enhanced Family & Community Engagement initiatives (Epstein, 2011).
 3. Optimal Environment: Appropriate management of facilities and equipment ensures an environment that maximizes high-quality engagement time (McWilliam & Haukka, 2008), supporting a Developmentally Appropriate Environment (Levy & Wasmuth, 2025).
 4. Integrated Information Transfer: Continuous data sharing and planning among professionals, supported by family cooperation, ensures holistic care and empowers families in decision-making (Dunst, 2002).
 5. Specialized Collaborative Networks: LDC's partnership with four external agencies aligns with the CoE's role as a Networking and Partnership Center (WHO, 2020), ensuring comprehensive support and high-quality service development (Brydon-Miller & Coghlan, 2014).
 6. The LDC is critical for providing appropriate holistic care (diagnosis, therapy, promotion, and consultation) to children with special needs. By leveraging interprofessional expertise and fostering family engagement, the LDC aims to collaborate nationally and internationally to advocate for policies that reduce educational inequity and enable children to thrive

Therefore, child-rearing practices in the Thai context within centers of medical excellence should thoughtfully address several key considerations to maximize effectiveness. The shift from extended family structures to single-parent households highlights the need for LDC centers to strengthen caregiver training, particularly in promoting appropriate developmental stimulation. Additionally, mindful use of technology in child-rearing is essential, as excessive exposure may contribute to pseudo-autism and delayed language development; thus, incorporating group-based activities and art therapy is recommended to support social and communication skills. Furthermore, encouraging a balance between protection and autonomy in parenting practices is crucial, as overly protective caregiving—common in the Thai context—may limit the development of children's self-help and independent living skills.

6. Conclusion

In this study, the purposive sampling, multi-stage selection of participants, and an elaborate instrument validation approach were used to create and determine a Center of Excellence among children with special developmental needs. The methodological framework was devised in order to guarantee the internal validity and practical applicability with the help of four combined steps including: contextual analysis, stakeholder consultation, collaborative validation, and individualized intervention assessment. The data triangulation through the use of the specialized medical specialists, educational specialists, occupational therapists, and parents contributed to the improved validity and understandability of the findings. Expert validation of the

research instruments was conducted to establish construct and content validity, and finally pilot testing was conducted before full implementation was done, in line with the acceptable standards of educational intervention research. The student participants were selected by the multi-stage process that included teacher screening, medical diagnosis, and official approval to reduce the level of selection bias and guarantee proper identification of children with developmental needs.

The qualitative content analysis method provided the possibility to investigate thoroughly and systematically the themes and patterns in the views of various stakeholders, which helped to create the contextually relevant interventions. The achieved ecological validity of the results is due to the interprofessional collaborative model based on the combination of medical, therapeutic, and educational experience, which is best practice in developmental intervention studies. Although the one site nature of the study at La-orutis Demonstration School at Lampang makes the study less generalizable to other different settings, the overall documentation of the procedures and systematic validation procedures contributes to a methodological transparency, and possible replicability. The entire information management system and the network mode of collaboration also enhances sustainability and scalability of the intervention model, which adds up to the future research study in the special education center of excellence.

6.1. Recommendations:

Recommendations from the Research Center of Excellence for Developmental Stimulation, Learning Behavior, and Services for Children, La-orutis Demonstration Lampang School, Suan Dusit University. Interprofessional Collaboration and Support: Effective support for students with special needs requires continuous interprofessional collaboration (e.g., pediatricians, therapists, parents, and teachers) for joint planning, treatment, continuous progress monitoring, and knowledge transfer to teachers and families. Service Expansion: The LDC should strategically plan to offer services to students external to La-orutis Demonstration School, Lampang. This expansion is crucial for maximizing student development and improving regional access to essential services for special needs students.

6.2. Acknowledgement

The completion of the research project, "Development of a Center of Excellence for Developmental Stimulation and Learning Behavior Services for Children at La-orutis Demonstration School," would not have been possible without the invaluable guidance and consultation provided by Dr. Sawong Boonplook, whose time and expertise were generously dedicated to this work.

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