The Role of the Multidisciplinary Team in the Provision of Continuum Services to Learners with Special Educational Needs and Disabilities at the One Stop Centre of Livingstone University Teaching Hospital in Southern Province of Zambia

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ABSTRACT

This study examined the role of the multidisciplinary team (MDT) in delivering continuum services to learners with special educational needs and disabilities (LSEND) at the One Stop Centre of Livingstone University Teaching Hospital, Southern Province, Zambia. Grounded in epistemological foundations within a positivist paradigm, the research used a phenomenological design to capture participants' lived experiences of MDT practice. A qualitative approach was employed, with data gathered through in-depth interviews and focus group discussions with 18 participants, including healthcare professionals, special education teachers, social workers, and caregivers. Thematic analysis identified recurring patterns across participant accounts. Findings indicate that effective interdisciplinary collaboration within the MDT enhanced continuum services for LSEND through: (i) comprehensive multidisciplinary assessment; (ii) tailored, individualized intervention planning; (iii) collaborative planning and shared decision-making; (iv) professional development and cross-disciplinary learning; (v) ongoing communication and coordinated service delivery; (vi) systematic monitoring of learner progress; (vii) active family and caregiver involvement; (viii) early identification and intervention; and (ix) holistic support addressing educational, medical, psychosocial, and developmental needs. Overall, structured MDT collaboration strengthened service coordination, improved timeliness of interventions, and promoted continuity of care for LSEND. The study concludes that multidisciplinary teamwork is a critical mechanism for enhancing access to comprehensive, coordinated, and sustainable continuum services within one-stop service delivery models in Zambia.

BACKGROUND OF THE STUDY

The rights of Learners with special educational needs and disabilities (LSEND) are firmly anchored in international human rights instruments. Adopted in 1989, Article 23 of the United Nations Convention on the Rights of the Child (CRC) explicitly affirms that such children should have access to and receive education in a manner that promotes their fullest possible social integration and individual development (UN Office of the High Commissioner for Human Rights, 1989). The realisation of this right often necessitates the active involvement of specialised professionals and the integration of diverse areas of expertise in the lives of LSEND. Complementing this, the Convention on the Rights of Persons with Disabilities (CRPD), adopted in 2006, provides the most comprehensive international legal framework for safeguarding the educational rights of persons with disabilities. It obliges ratifying states to guarantee that learners with special educational needs have access to academic, health, social and life-skills education, as well as alternative learning methods tailored to their individual needs (UN Division for Social Policy and Development: Disability, 2006).

LSENDs often present complex, overlapping medical, developmental, psychosocial, and protection needs that cannot be effectively met by a single professional discipline. This complexity has driven the global adoption of hospital-based multidisciplinary teams (MDTs) to deliver coordinated, continuous, and family-centred care across the child's life course (D'Amour et al., 2005). MDTs, typically composed of paediatricians, nurses, physiotherapists, psychiatrists/psychologists, occupational and speech therapists, social workers, and, where

relevant, police or child-protection officers and specialist educators, work collaboratively to integrate assessment, diagnosis, acute treatment, rehabilitation, psychosocial support, and linkage to education and community services through joint planning, shared goals, and ongoing monitoring (WHO, 2021).

Interdisciplinary collaboration is essential for delivering continuum services, ensuring children receive comprehensive, coordinated care. Swinso, Harris and Baker (2019) highlight mutual respect, shared responsibility, and a collaborative problem-solving culture as hallmarks of effective teamwork. The continuum of professional collaboration ranges from liaison to full collaboration, with each level contributing differently to service quality (Lolwana, 2021; Christie, 2018). Collaboration—representing the highest level—requires joint assessments, shared expertise, role release, and trust among team members.

Research consistently demonstrates that collaboration across health, education, and social sectors enhances long-term developmental, behavioural, and educational outcomes for LSEND. Guralnick (2015) emphasises that early, coordinated, multidisciplinary approaches yield positive trajectories in communication, cognition, and social behaviour. Similarly, Suter and Bruns (2017) observe improvements in family engagement, reduced behavioural issues, and increased academic achievement when professionals work collaboratively.

According to McWilliam and Casey (2018), the effectiveness of such collaboration depends on the fidelity and coordination of evidence-based practices rather than isolated professional input. Daniels et al. (2020) further argue that MDT collaboration ensures early intervention and prepares LSEND for successful community integration.

However, effective collaboration depends on professional readiness. Melton (2020) stresses that team members must possess specialised expertise as well as cross-disciplinary knowledge ("multi-skilling"), enabling role release and seamless collaboration. New or inexperienced teams may require additional time and structured processes to establish efficient interdisciplinary systems (Hay, 2016).

International evidence further supports interdisciplinary collaboration. Christie (2015) and Hay (2016) found that collaborative teamwork significantly enhances service delivery and quality of life for LSEND in the U.S. and other settings. Similarly, evidence from Saudi Arabia shows that even advanced technological systems cannot replace the need for multidisciplinary collaboration (Mosia, 2021). These findings collectively indicate that effective interdisciplinary collaboration is crucial for supporting LSEND, although its implementation at LUTH was previously unknown—justifying the current study.

The global demand for interdisciplinary and inter-professional collaboration in health settings continues to rise, particularly in the management of LSEND whose needs span medical, psychological, educational, and social domains. Studies indicate that MDT approaches improve diagnostic accuracy, promote early intervention, and enhance long-term developmental outcomes.

Disability affects a substantial portion of the global population, and the needs of children with disabilities extend beyond medical care to include educational, psychosocial, and developmental support (World Health Organization & World Bank, 2011). Globally, there is increasing recognition that children with special educational needs and disabilities (LSEND) require holistic, coordinated support to ensure their full participation in education, health, and social life. This holistic support often necessitates a multidisciplinary team (MDT) approach, whereby professionals from different disciplines collaborate to address the complex, interrelated needs of each child (Odom et al., 2015). Multidisciplinary collaboration allows for comprehensive assessments and interventions that consider multiple dimensions of a child's life, including physical health, cognitive functioning, emotional wellbeing, social environment, and educational needs. Such an approach helps move beyond soloed interventions and accommodates the diverse, often overlapping challenges faced by LSEND. In many high-income countries, MDTs have become standard practice in special education, rehabilitation, and inclusive schooling, reflecting a shift from discipline-specific services to integrated, person-centred care (Friend & Cook, 2013; Bronstein, 2003). Research indicates that cross-disciplinary collaboration in early childhood and school settings leads to integrated, child-centred support, improving educational, health, and developmental outcomes (Steinbrenner et al., 2020).

At the regional level, within Africa, the need for coordinated, holistic services for children with disabilities is particularly pressing. Many African countries face structural challenges including limited health and education resources, stigma, and under-resourced special education systems (Mpofu & Shumba, 2019). Studies in East Africa have identified critical gaps in access to specialist care, rehabilitation, and psychosocial support for children with disabilities, noting that economic, cultural, and infrastructural constraints impede the application of comprehensive, family-centred care models (Tayler & Sumsion, 2018). Countries such as South Africa have attempted to integrate educational, medical, and allied health services, including physiotherapy, speech therapy, and audiology, to support learners with complex needs (Jones et al., 2020). Nonetheless, regional studies highlight persistent challenges such as insufficient training of educators and allied health professionals, high workloads, and under-resourced institutions (Bach et al., 2019). These experiences underscore both the importance and difficulty of implementing effective coordinated support systems in resource-constrained contexts.

In Zambia, national policies provide a legal and institutional framework for inclusive education and support for persons with disabilities. The Persons with Disabilities Act (2012) obliges the Ministry of General Education to ensure that learners with disabilities are not excluded from mainstream education and that reasonable accommodations and support are provided (Government of Zambia, 2012). Despite these policies, access to education and support for LSEND remains limited. Many children face barriers such as stigma, inadequate infrastructure, and lack of trained personnel (Chitiyo et al., 2020; Van der Veen et al., 2018). While non-governmental initiatives provide individualized support through customized learning plans, life skills programs, and therapy, these services reach only a small subset of children with disabilities (African Education Program, 2020). Overall, the Zambian context reflects a mismatch between policy ideals and practice, particularly for children with complex needs requiring medical, therapeutic, psychological, and educational support simultaneously. Few institutions offer integrated, multidisciplinary services, and assessments and interventions are often fragmented, inadequate, or unavailable (Salas et al., 2020; Chitiyo et al., 2020). The limited availability of trained special-education teachers, therapists, psychologists, and coordinated support services contributes to significant unmet needs among LSEND (Booth & Ainscow, 2021).

Given was context, there was need to study how a multidisciplinary team model is been implemented effectively in Zambia, particularly within a hospital-based “one-stop centre” providing continuum services including assessment, therapy, educational support, referral, and family engagement. Despite policy frameworks and scattered initiatives, empirical research documenting the composition, roles, functions, and outcomes of MDTs in Zambian institutions is limited (Mokhtar et al., 2024). Investigating the MDT at the one-stop centre of Livingstone University Teaching Hospital (LUTH) provided an opportunity to generate evidence on how multidisciplinary collaboration functioned in a Zambian context, whether comprehensive, holistic assessments and integrated interventions effectively respond to the complex needs of LSEND, and how family involvement, monitoring, and communication are operationalized in practice. Such a study will contribute to policy development; will guide resource allocation, and supports expansion of similar MDT-based services in Zambia. While international and regional literature supports the effectiveness of MDTs for children with special needs, there is limited documented experience from Zambia, especially in hospital-based continuum models. Understanding the structure, roles, and effectiveness of MDTs in LUTH provided context-specific evidence to support sustainable, integrated service delivery for LSEND in Zambia.

It is against this background that the study examined the role of the multidisciplinary teams in continuum service provision to Learners with Special Educational Needs and Disabilities at the one stop centre of Livingstone University Teaching Hospital in Southern Province, Zambia.

Theoretical Framework

Underpinned by parses’ human becoming theory. The human becoming school of thought focuses on humans’ living experiences, meanings and patterns that create individuals’ unique processes of life. Human becoming theory includes the totality paradigm, which states that man is a combination of biological, psychological, sociological, and spiritual factors. (Parse, 1998, 2007b, 2011b, 2012a,b). It also includes the simultaneity paradigm, which states that man is a unitary being in continuous, mutual interaction with the environment. The

emphasis of the theory is on dialogue, presence and participation of other expertise in completing the healing of the client.

Since the multidisciplinary team consists of various professionals who are well versed in different disciplines, which are vital to complete the circle of development of a LSEND child, the human becoming theory provided the totality and simultaneity paradigms to the study. This means through the guiding of the theory; the services offered by the multidisciplinary team are those that meet the biological, psychological, sociological, emotional, physical, academic and spiritual challenges of LSEND.

Problem Statement

Several studies at global, regional, and national levels have examined multidisciplinary approaches in supporting learners with special educational needs and disabilities. At the global level, Smith and Jones (2024), in their study titled "Multidisciplinary Team Approaches in Inclusive Education and Disability Services", highlighted the role of cross-disciplinary collaboration in promoting holistic and child-centred support. At the regional level, Rehman (2023) conducted a study entitled "Interdisciplinary Collaboration in Disability Services in Low- and Middle-Income Countries", which examined MDT coordination and service delivery within sub-Saharan African contexts. In Zambia, Chansa Kabali et al. (2025), in their study "Caregiver and Professional Perspectives on Multidisciplinary Service Delivery for Learners with Disabilities in Zambia", explored stakeholder experiences and challenges in MDT-based interventions.

While these studies are informative on interdisciplinary collaboration, service coordination, professional roles, and stakeholder perspectives, little or nothing is known about the role of multidisciplinary teams in the provision of continuum services for learners with special educational needs and disabilities within hospital-based one-stop centres. Specifically, empirical evidence is lacking on MDT functioning at the One-Stop Centre of Livingstone University Teaching Hospital in Southern Province, Zambia. This knowledge gap is what the present study sought to address.

Objective of the study was to examine the role of the MDT in the provision of continuum services to LSEND at the one stop centre of LUTH

The research question what is the role of the MDT in the provision of continuum services to LSENDS at the one stop centre at LUTH.

METHODOLODGY

This study used epistemological philosophical foundations. Epistemological view aligns with subjectivism or constructivism, which asserts that knowledge, is co-constructed through interactions between the researcher and participants. This perspective emphasises that understanding is not discovered but is actively constructed through dialogue, interpretation and reflection (Pulla and Carter, 2018). Each participant's perspective reflects a unique construction of reality influenced by professional background, cultural norms, and lived experiences within the healthcare and educational systems. By adopting epistemology, the study was able to produce rich, nuanced insights that reflect the complexities of human experience. The epistemological stance adopted in this study is rooted in constructivism, which recognizes that knowledge is co-constructed through the interactions and experiences of individuals within specific social and professional contexts. This aligns with the nature of the study, which sought to understand the varied perspectives of multidisciplinary team members working at the one-stop centre at Livingstone University Teaching Hospital. Rather than seeking a single, objective truth, the study aimed to explore how each respondent interprets and understands the needs of children with special educational needs based on their professional expertise and lived experiences. This epistemological position justified the use of qualitative methods that facilitated open dialogue and reflective engagement with the participants. Through interviews and interactive discussions (focus group), knowledge was developed collaboratively between the researcher and the respondents, allowing for a rich and nuanced understanding of how different professionals contribute to meeting the complex needs of these children. This approach ensured that the findings reflect the subjective meanings constructed by participants within their real-world professional environments.

This study employed a phenomenological research design to explore and understand the lived experiences of participants in relation to the phenomenon under investigation. The phenomenological approach was appropriate as it enabled the researcher to capture participants' subjective meanings, perceptions, and interpretations of their experiences as they naturally occurred. By engaging participants through in-depth data collection methods, the study sought to identify common themes and the underlying essence of the phenomenon from the participants' perspectives. This approach allowed for a rich, contextualised understanding of the experiences being studied, grounded in the voices of those directly involved. The use of phenomenology ensured that the findings reflected authentic experiences and provided deep insight into how participants make sense of their realities, thereby contributing meaningfully to knowledge within the field.

The study population comprised multidisciplinary team (MDT) members directly involved in the care of learners with special educational needs and disabilities (LSEND). Participants included two nurses, two special education teachers, two police officers, two caregivers, two physiotherapists, one psychologist, one occupational therapist, two paediatricians, two social workers, one psychiatrist. Below is a table showing the demographic data of each participant.

ID/group	Role	Gender	age (yrs)	Highest qualification	Years of work experience
SW-1	Social worker	Male	53	MSc Social Work	>25
SW-2	Social worker	Female	45	BA Social Work	>10
NUR-1	Nurse	Female	35	Diploma RN + Cert. in Mental Health	8
NUR-2	Nurse	male	44	Diploma RN plus cert. psychiatry nursing	>15
POL-1	Police officer	Male	38	Diploma in Guidance & Counselling	>10
POL-2	Police officer	Female	48	MSc Conflict Resolution	>20
PT-1	Physiotherapist	Female	27	Diploma Physiotherapy	4
PT-2	Physiotherapist	Male	39	Diploma Physiotherapy	>15
OT-1	Occupational therapist	female	57	Diploma Occupational Therapy	>30
PSY-1	Psychiatrist	Female	44	Degree in Clinical Health	>10
SET-1	Special education teacher	Female	48	MA Special Education	22
SET-2	Special education teacher	Female	46	BA Special Education	24
DOC-1	Doctor	Female	32	Degree in medicine	10
DOC-2	Doctor	male	49	Degree in medicine	14
CG-1	Caregiver	Male	55	Grade 12	—
CG-2	Caregiver	Female	49	Diploma in teaching	>20

A purposive sampling technique was employed to recruit participants with direct involvement in the assessment, treatment, rehabilitation, and follow-up care of LSEND. This approach enabled the inclusion of participants with relevant experience and facilitated the collection of diverse professional and experiential perspectives, which was essential for understanding MDT roles and collaboration practices within the study context (Villamin et al., 2024).

Data were collected using semi-structured interviews and focus group discussions, which provided participants with the flexibility to articulate their lived experiences, perceptions, and meanings related to multidisciplinary team (MDT) roles and collaboration practices. These methods were consistent with the phenomenological orientation of the study, as they allowed participants to engage deeply with the phenomenon and express their experiences in their own words. Data analysis was conducted using interpretive thematic analysis, through which patterns of meaning were systematically identified and organized into major themes reflecting participants' experiences of MDT roles and collaborative practices. The use of thematic analysis is well supported within qualitative research literature as a rigorous and appropriate analytic approach for capturing and interpreting experiential data (Doyle et al., 2020; Colorafi & Evans, 2016). Ethical approval for the study was obtained prior to data collection. This study used the narrative accuracy checks and interpretive validity to ensure that the data collected was trustworthy and valid. An expert review in research methods is where an expert in the topic. All participants provided informed consent, and ethical principles including confidentiality, anonymity, and the right to withdraw from the study at any stage were strictly upheld throughout the research process.

PRESENTATION OF FINDINGS

Examining the roles of multidisciplinary team members at the one stop centre of Livingstone University Teaching Hospital (LUTH)

At the One Stop Centre of Livingstone University Teaching Hospital, a multidisciplinary team plays a pivotal role in ensuring comprehensive and effective service delivery to children with special educational needs and disabilities. The roles of multidisciplinary team (MDT) members are central to the effective provision of services for children with special educational needs and disabilities (LSEND). Each professional within the team brings specialized knowledge and expertise that contributes to the holistic assessment, planning, and intervention for the child. This objective sought to explore and understand the specific roles played by MDT members at the one stop centre of LUTH, highlighting how their coordinated efforts support comprehensive care, tailored interventions, and the overall development of LSEND. These coordinated services facilitate seamless transitions, thereby enhancing outcomes for children with special educational needs while promoting their overall development and well-being.

Below are roles of the MDT, which emerged from respondents presented as excerpts:

1. Comprehensive assessments

When asked how comprehensive Assessment is one of the roles of the multidisciplinary team, respondents at the one stop center at University Teaching Hospital had this to say:

Relating to her roles in the multidisciplinary team as a social worker, SW-1 said:

The role of comprehensive assessment within the multidisciplinary team is crucial. As a social worker, my role is to evaluate not just the child's needs but also the family dynamics, economic conditions, and social resources that affect the child's care. This ensures that the team can develop a holistic support plan that considers all aspects of the child's environment, rather than focusing on isolated medical or educational needs.

As for PSC-2, said:

I have witnessed the multidisciplinary team conducting thorough assessments of my child's needs from various perspectives, including educational, developmental, behavioural, and medical. This comprehensive evaluation has helped identify all areas of concern and further informed the development of an individualised support plan for my child.

Making his justification on comprehensive assessment being one of the roles of the multidisciplinary team, N-1 had this to say:

The comprehensive assessment approach helps us identify not just clinical needs but also psychological and social factors that may be affecting a child's health. For instance, a child with recurrent health issues may actually be experiencing stress due to family or social circumstances. Working with social workers and psychologists allows me to integrate these findings into my nursing assessment and tailor my care accordingly.

2. Tailored interventions

When asked how tailored intervention is a role of the multidisciplinary team, out of 18 of the respondents, 14 agreed and had this to says:

SW-1 said:

With input from various professionals, we tailor interventions to address the specific needs of the child. This personalised approach increases the effectiveness of interventions and promotes better outcomes.

In addition, PHY-1 had this to say:

Designing interventions tailored to meet the unique needs, abilities and preferences of each child involves combining strategies from multiple disciplines to address complex or overlapping needs comprehensively.

3. Collaborative planning

When asked about collaborative planning as a role of multidisciplinary team, 10 out of 18 respondents expressed agreement and provided the following perspectives:

PED-2 expressed the following views regarding the roles of the multidisciplinary team:

As a multidisciplinary team we facilitate collaborative planning where professionals from different disciplines work together to develop individualised education plans (IEPs) or support plans. This ensures that all aspects of the child's development are put into consideration. However, at a snail's pace, we have seen this work well over time. Some parents have not been patient enough to go through the process because their expectations are not met. Those that have been with us for some time now can attest that through this collaborative plan, there is great improvement of their children holistically.

Asked to comment on the roles of the multidisciplinary team, PHY-2 responded that:

Based on the assessment findings, as a team we collaborate to develop an individualised education plan (IEP) or support plan tailored to the child's needs. This plan outlines specific goals, interventions, and strategies to address the child's educational, social, emotional and developmental needs.

Speaking on the roles of the multidisciplinary team, Pead-1 made the following observations:

We collaborate as a team to develop individualised education plans (IEPs) or support plans that address the specific needs of each child. This planning process involves input from all team members, including parents/caregivers and it is flexible and adaptable to accommodate changes in the child's needs over time.

4. Professional development

When asked about professional development as a role of the multidisciplinary team, 11 out of 18 respondents agreed and provided the following insights.

When interviewed about her perspective on the roles of a multidisciplinary team, PED-1 said:

Working within a multidisciplinary team has allowed us as professionals to learn from each other, share best practices, and stay updated on the latest research and interventions in the field of special education. This ongoing professional development has enhanced the quality of services we provide to children with special educational needs.

5. Ongoing communication and collaboration

A multidisciplinary team ensures that communication is maintained to coordinate services and share crucial information regarding a child's progress. Eleven respondents out of eighteen had this to say: In offering his views on the roles of the multidisciplinary team, SW-1 noted:

Ongoing communication between professionals helps us track progress and make necessary adjustments to intervention plans. Without structured communication, critical aspects of a child's progress may be overlooked, which is why we insist on regular meetings and shared documentation. When you have not understood a shared document by other professionals, we do not hesitate to call them and find out what exactly they met. We understand that if we do not interpret something correctly, it can affect the intervention to be done on a child with special educational needs.

6. Monitoring progress

The team continuously evaluates the child's development through structured assessments to determine the effectiveness of interventions. During the interview, when asked about her views on the roles of a multidisciplinary team, SPT-1 stated:

Regular assessments help us adjust our strategies to better support each child's development. We rely on both qualitative and quantitative data to ensure that our interventions yield tangible progress. This has helped me as a teacher to know the capabilities of the child, know how to engage the learner for better results. I strictly follow the recommendations that I have been given by other team members. If I am told not to exceed 30 minutes in my education intervention with the child, then I do just that.

7. Family involvement

Family participation in the child's development is crucial, ensuring consistency in interventions across different settings.

PSC-1 shared his insights on the roles of the multidisciplinary team, stating:

Parents are an integral part of the intervention process; as such, the multidisciplinary team ensures we are actively involved in decision-making. I can attest as a parent with a child with special educational needs that this collaborative approach between parents and professionals has led to better adherence to therapy goals.

Asked to comment on the roles of the multidisciplinary team, OT-1 responded that:

This model of a multidisciplinary team cannot be complete without the involvement of the family. Families receive training to continue therapeutic activities at home, reinforcing progress made in therapy. We conduct monthly workshops for parents, teaching them various techniques to use at home.

8. Early intervention

The importance of early detection and intervention in improving developmental outcomes for children with special needs was strongly emphasised by the respondents. Out of 18 respondents, 13 were in agreement.

During the interview, when asked about her views on the roles of a multidisciplinary team, SW-1 stated:

Social work interventions focus on identifying children at risk of developmental delays early. By working with medical professionals and educators, we ensure that children receive timely support before issues become more complex.

N-2, when questioned in the interview about the roles of a multidisciplinary team, provided the following response:

As nurses, we play a critical role in identifying early signs of developmental disorders. Through routine screenings and parent education, we advocate for early referrals and appropriate interventions.

9. Holistic support

A multidisciplinary team provides comprehensive care that addresses medical, psychological, educational, and social needs, ensuring that children receive well-rounded support.

In offering his views on the roles of the multidisciplinary team, SW-1 noted:

By holistic support, we mean looking beyond just academic performance. As social workers, we address family dynamics, socio-economic challenges and emotional well-being to create a nurturing environment for children with special educational needs to be able to perform better in their academics. Through this kind of approach, as a multidisciplinary team, we are looking into the well-being of a child with special educational needs as a whole making it easy for them to perform better in their academics.

DISCUSSION OF FINDINGS

What is the role of MDT in the provision of continuum of services to LSENDs at the one stop centre of Livingstone University Teaching Hospital (LUTH?)

The delivery of effective and comprehensive care to LSENDs requires a holistic and coordinated approach. At the heart of this approach lies the concept of multidisciplinary collaboration where professionals from various fields work together to address the complex and interrelated needs of these children. The one-stop centre at Livingstone University Teaching Hospital, serving as both a healthcare and educational training facility, presents a unique setting to examine the interplay of diverse professional inputs in supporting LSEND. The findings in this study set out to establish the role of a multidisciplinary team (MDT) in ensuring the provision of a continuum of services from diagnosis and intervention to educational and psychosocial support. The discussions herein are grounded in this context and aim at bringing out the roles of the MDT.

1. Comprehensive assessments

The findings affirm that comprehensive assessment is a central role of the MDT at LUTH, integrating medical, academic, psychological, social, and physical dimensions. Social workers (SW-1) highlighted the need to consider family dynamics and socio-economic context. Nurses (N-1) emphasised integrating social and psychological factors. Physiotherapists (PHY-1) and occupational therapists (OT-1) focused on motor skills and sensory processing, while psychiatrists and psychologists (PSY-1) stressed cognitive, emotional, and behavioural evaluations. Parents (PSC-2) and special education teachers (SPT-1) validated these perspectives, underscoring the importance of holistic, interdisciplinary assessments in guiding effective interventions.

The findings show that comprehensive assessment is a central role of the MDT at LUTH, integrating medical, academic, psychological, social, and physical domains to guide holistic interventions. These results align with

the World Health Organization (2010), which emphasizes multidisciplinary, biopsychosocial assessment as essential for coordinated disability services, and Reeves et al. (2017), who report that comprehensive, team-based assessments improve care planning and outcomes in complex cases. However, Hall (2005) cautions that professional silos and inconsistent assessment standards, and Nancarrow et al. (2013) can undermine multidisciplinary assessment argue that without strong team processes and shared frameworks, comprehensive assessments risk being superficial or duplicative. This suggests that while comprehensive assessment is a core MDT role at LUTH, its effectiveness depends on standardized tools, shared training, and functioning team processes.

2. Tailored interventions

Respondents confirmed that tailored interventions are critical to address the unique needs of LSEND, supported by collaboration across social work, medical, nursing, psychological, and educational domains. Evidence indicates such individualised interventions improve learning, development, parental satisfaction, and service sustainability (Mitchell, 2014; Friend & Cook, 2013; Kassah et al., 2014). However, Lindsay et al., 2008; Topping & Maloney, 2005 observes that despite these tailored interventions, the effective child-centred care remains uncertain.

3. Collaborative planning

Collaborative planning enables MDT members to pool expertise to create comprehensive IEPs or support plans. Paediatricians, physiotherapists, nurses, teachers, and parents emphasised its role in addressing developmental, social, and emotional needs. Literature supports improved service integration, reduced duplication, and better outcomes through shared goal setting (Bronstein, 2003; Dettmer et al., 2005; WHO, 2010). Nonetheless, Atkins et al., 2003; Sloper, 2004 identified barriers that still existed even amid collaborative planning.

4. Professional development

Eleven of eighteen respondents highlighted MDTs as platforms for professional growth, enabling knowledge sharing and skill enhancement. Collaborative learning strengthens adoption of evidence-based practices and responsiveness to children's needs (Salas et al., 2020; Booth & Ainscow, 2021; Chitiyo et al., 2020; Van der Veen et al., 2018). Participants reported improved strategies, morale, and service quality through MDT collaboration.

5. Ongoing communication and collaboration

Structured communication through meetings, shared documentation, and consultations is critical for coordinated service delivery. Respondents highlighted its role in preventing fragmentation, ensuring consistent care, and enabling timely intervention. Evidence confirms that regular interdisciplinary communication fosters transparency, trust, and accountability (Miller et al., 2020; Tayler & Sumsion, 2018; Ainsworth et al., 2021; Mpofu & Shumba, 2019. Effective communication remains key for integrated MDT interventions.

6. Monitoring progress

Monitoring developmental progress is central to MDT functions. Respondents described using structured assessments, academic evaluations, behavioural checklists, and parent feedback. Evidence highlights improved accountability, early identification of ineffective strategies, and timely modifications through multi-source monitoring (Renshaw et al., 2018; Lamb & Bond, 2019; Nye & Melendez-Torres, 2021). Holistic assessment across home, school, and clinic contexts supports tailored interventions (Bronfenbrenner). Potential limitations could include assessment fatigue and overemphasis on quantitative measures (Boyle & Sharma, 2020; Kay et al., 2017). Collaborative monitoring enhances intervention precision and continuity of care.

7. Family involvement

Family engagement is central to effective MDT service provision. Parents who actively participate in therapy sessions and home-based interventions contribute to improved outcomes. Studies support strong communication, collaboration, and shared decision-making in promoting holistic child development (Mokhtar et al., 2024; Rizk et al., 2025; Martinez-Yarza et al., 2024). Barriers include low awareness, limited resources, and minimal policy support (Hyassat et al., 2024; Alquraini & Gut, 2021). Despite challenges, parental involvement strengthens consistency and effectiveness of interventions.

8. Early intervention

MDT members emphasised grounding interventions in research to ensure effectiveness. Professionals across disciplines reported using evidence-based strategies such as CBT, ABA, differentiated instruction, and assistive technologies (Gormley et al., 2022; Odom et al., 2015; Steinbrenner et al., 2020; Boavida et al., 2018). Challenges include adapting protocols to local contexts and balancing research with family realities (Greenhalgh et al., 2014; Petrie, 2016). Evidence-based practice supports more reliable, effective, and measurable outcomes.

Early identification and intervention were highlighted as crucial for improving long-term outcomes. Social workers, educators, medical and psychological professionals' emphasised screenings, tailored interventions, and timely referrals. Literature supports that early intervention improves cognitive, social, and functional skills, while delayed support can exacerbate challenges (Bishop et al., 2021; Smith et al., 2017; Hohensee et al., 2020; Williams et al., 2018). Interventions must be personalized, balancing resource limitations with sustainable support (Schulze & Brown, 2019; Parks & Harris, 2016).

9. Holistic support

Holistic support, addressing medical, psychological, educational, and social needs, was a recurring theme. Respondents emphasised integration across health, therapy, education, and family systems. Literature supports that holistic MDT care enhances academic, social, and emotional outcomes (Bach et al., 2019; Jones et al., 2020; Lee & Guo, 2018; Harris et al., 2021. Holistic MDT approaches are critical for comprehensive child development and policy guidance in Zambia.

The study found that regular interdisciplinary meetings, shared documentation, and joint planning enhanced the precision of interventions and minimized duplication of services. Respondents including social workers, physiotherapists, psychologists, and special education teachers highlighted that structured collaboration allowed each professional to contribute their expertise to intervention planning, consistent with Bronstein (2003) and Dettmer, Thurston, and Dyck (2005), who emphasise that collaborative planning improves service integration and efficiency. Contrasting perspectives note that role ambiguity and power imbalances can arise during collaboration, particularly when dominant professional voices overshadow others, potentially

Respondents collectively reported that interdisciplinary collaboration at the one-stop centre of LUTH enhanced the precision, adaptability, and holistic nature of care. Through tailored interventions, collaborative planning, rigorous progress monitoring, family integration, and evidence-based strategies, the MDT ensured a continuum of services that effectively addressed the evolving and multifaceted needs of LSEND.

CONCLUSION

Grounded in Rosemarie Rizzo Parse's human becoming theory, this study provided a critical lens to examine how education, human health and care are co-constructed by individuals and professionals in a healthcare and educational environment.

The findings confirmed the pivotal role that MDTs play in facilitating the continuum of care for LSEND. The various professionals involved, including paediatricians, nurses, occupational therapists, social workers, special education teachers, psychologists and police officers, collectively form a dynamic and interdependent

team. Their collaboration ensures that each child's needs are assessed comprehensively and interventions are tailored to the children's medical, psychological, educational and social context. This multidisciplinary synergy affirms the requisite of shared responsibilities and mutual respect in ensuring holistic service delivery. The presence of coordinated efforts among these professionals' results in improved diagnoses, better treatment plans, informed educational programming, and ongoing psychosocial support.

Importantly, these findings are consistent with those of international and regional studies. For instance, Mukuria and Korir (2016) emphasised the value of cross-disciplinary engagement in achieving holistic child development. Similarly, Chitiyo and Wheeler (2009) identified systemic issues such as inadequate funding and lack of trained personnel as consistent barriers to inclusive services across sub-Saharan Africa. This study reinforces these insights but within the Zambian context, thereby contributing original empirical data to a gap in African literature on MDTs and continuum service provision to LSEND.

RECOMMENDATIONS

Based on the findings of this study, several recommendations are proposed to enhance the efficacy of the multidisciplinary team in continuum of service provision for LSEND at Livingstone University Teaching Hospital and beyond.

1. Policy and legislative frameworks

- The Zambian government should strengthen the implementation of the Persons with Disabilities Act (2012) and the Education Act (2011) by developing actionable guidelines that mandate MDTs at all regional hospitals and inclusive schools.
- A national task force should be established to monitor and evaluate the implementation of these laws, ensuring that the rights of LSEND are realized.
- There is a need to revise policies to include MDT service delivery explicitly as part of the education and healthcare systems.

6. Strengthening intersectional coordination

- The ministries of Health, Education, and Community Development and Social Services should develop an integrated referral and monitoring system that tracks the progress of LSEND across services.
- Joint training programmes and planning meetings should be institutionalized to foster collaboration among sectors.

7. Monitoring and evaluation systems

- A robust monitoring and evaluation framework should be developed to track the performance of MDTs and their impact on LSEND.
- Periodic reviews and audits should be conducted to ensure accountability and continuous improvement.

8. Research and knowledge generation

- Further research should be encouraged to explore MDT practices in other parts of Zambia. Comparative studies can help identify best practices and context-specific solutions.
- Partnerships with academic institutions should be fostered to document and disseminate effective models of MDT continuum service provision.

These recommendations, if implemented, will not only strengthen the role of MDTs in continuum service provision, but will also contribute to the realisation of inclusive development in Zambia. They offer a practical

road map for policy-makers, practitioners, caregivers, and advocates committed to creating a society where every child, regardless of ability, has the opportunity to thrive.

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