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Widening the focus of school readiness for children with disabilities in Malawi: a critical review of the literature

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ABSTRACT

In recent years, school readiness has become increasingly contested by early childhood researchers resulting in a lack of agreement on how it should be conceptualised and assessed, particularly in relation to children with disabilities. This article responds to some of these arguments by carrying out a critical examination of the literature surrounding early childhood education and care, assessment procedures, and cultural background in relation to school readiness. Evidence from the review revealed that there are few assessment instruments that capture the contextual aspects of children's early learning and development, such as their cultural background, linguistic diversity or level of impairment or disability. We draw on the evidence to propose a holistic model of school readiness that can be used to help us to understand the transition of children with disabilities into primary educational settings in a low-income country in sub-Saharan Africa. We conclude that children's assessment instruments should provide an accurate yet nuanced picture of children, within their context, alongside information that can support them into primary school. In doing this, it is vital to use contextual measures that are inclusive of children with different abilities and consider the constraints that may prevent them from going to school.

KEYWORDS

Early childhood education and care; school readiness; assessment instruments; disability; Malawi

Introduction

Supporting optimal developmental trajectories for every child is crucial for improving long-term outcomes for all persons globally. At present, over 250 million children under five years who are living in low- and middle-income countries, experience difficulties and delays in their development, leading to a poorer school, economic, psychological and health outcomes (Black et al. 2017). An estimated 53 million children globally (approximately one tenth of all children) have a developmental disorder (Olusanya et al. 2018), with most of these children living in low- and middle-income countries (LMICs). The last 15 years have seen an improvement in neonatal care and a reduction in child mortality rates in most LMICs, resulting in an increasing population of children

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with developmental disabilities surviving. For example, in Malawi, up to 40% of all children are considered in danger of developmental delay and disability (Tataryn et al. 2017).

Global declarations, such as the UN Sustainable Development Goals (2014), supported by large donor funding, have placed early childhood development as an international priority. Specifically, target 4.2 sets out a clear mandate to 'ensure that all girls and boys have access to good-quality early childhood development' with specific global indicators (4.2.1) measuring the proportion of children under five years of age, who are developmentally on track in health, learning and psychosocial well-being. More recently, international development organisations, including WHO and UNICEF, have entered the realm of early childhood education and care (ECEC), working with governments to develop and validate assessment tools (e.g. Early Childhood Development Index), and collect and publish internationally comparative data of children's development (e.g. UNICEF Multi-Indicator Cluster Studies). This has given rise to debates about the purpose, organisation and structure of ECEC. In particular, there is a conflict where organisations that promote target-based approaches and follow biological-maturational measurable criteria linked to the achievement of certain levels of cognitive, socio-emotional, communication and psychomotor development, whilst also advocating 'holistic' approaches of nurturing, protecting and supporting children in their early years (UNICEF 2019).

In recent years, school readiness has become increasingly debated by early childhood researchers, who argue for a more bi-directional approach between the child and their environment (Murphy and Burns 2002; McDowall Clark 2017).

Today, school from readiness is recognised as a multi-faceted construct (Scott-Little et al. 2006) comprising several dimensions. It includes both skills considered necessary in order to benefit from schooling and ready knowledge deemed essential for young children to acquire, and the 'prescription of how and when they should be expected to demonstrate these skills' (McDowall Clark 2017, 12). UNICEF, for instance, recognises a wider definition of school readiness which, in turn, means school readiness programmes can benefit disadvantaged children rather than exclude them. Figure 1 shows how the three dimensions: school, family/community and child interconnect in order to create a space for school readiness to take place (UNICEF 2012). The first dimension is the child's readiness for school, which focuses on learning and developmental outcomes; the second refers to the school's readiness for the child, which focuses on school-level outcomes and practices that foster a smooth transition into primary school; and the third, refers to families' readiness for school, which incorporates parent attitudes to school itself and involvement in the child's early learning as well as development and transition to school (Nonoyama-Tarumi and Bredenburg 2009).

Considering the tensions and general lack of agreement on the construct of school readiness and how it should be assessed, we felt it would be helpful to carry out a critical examination of the literature surrounding early childhood education and care (ECEC), assessment and school readiness over the past 20 years. The main aim of this paper is, therefore, to share the results of the review to help identify assessment tools that measure the progress of a child's development and learning outcomes in low-income countries. This review formed the first stage of a three-year project to promote the inclusion of children with disabilities in early childhood day centres, called community-based child centres (CBCCs), through the development of inclusive strategies and

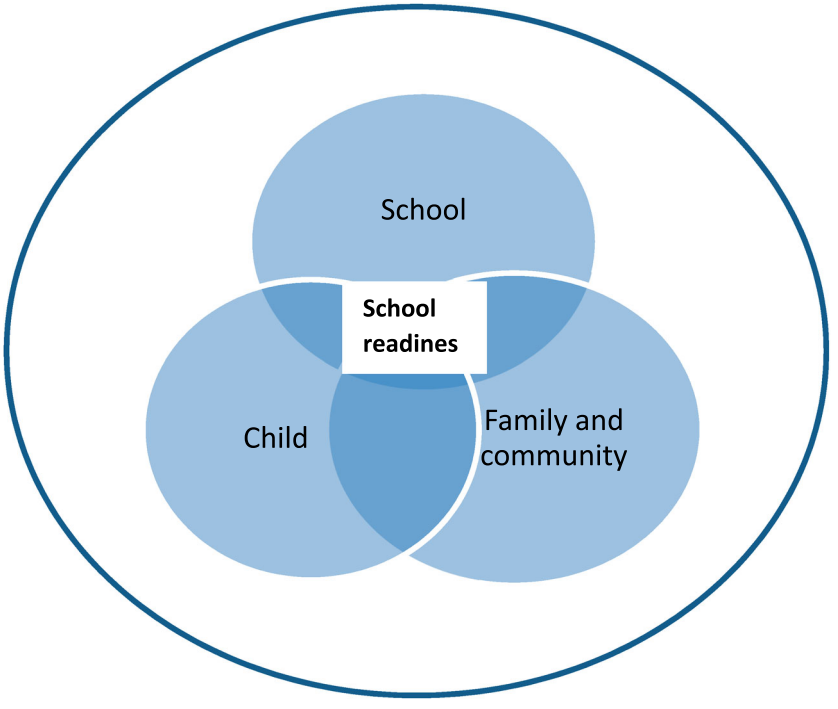

Figure 1. UNICEF model showing the inter-connecting of child, school and family/community.

teaching resources to support children with disabilities in a rural district of Southern Malawi (McLinden et al. 2018; Soni et al. 2020). We constructed the following question to guide the review: What assessment tools are most appropriate for measuring the educational development of children with disability in low-income countries?

Methods

We first developed a review protocol, which was prepared and agreed on before the review took place between July and November 2016. The team comprised two authors who have a combined background in disability, inclusion and early childhood education. The general framework for the review used the following procedures (Boland, Cherry, and Dickson 2017):

(1) Developing a review protocol
(2) Eligibility criteria
(3) Literature search
(4) Appraisal of included studies
(5) Data extraction
(6) Data synthesis

An extensive search of screening and assessment instruments that measure both child development and school-readiness outcomes in LMICS, was carried out as part of the

first stage of the research. The following search words and terms were used: 'disability', 'impairment', 'intellectual disability', 'neuro-developmental delay', 'learning disability', 'early childhood', 'child development', 'school readiness', 'early years', 'kindergarten', 'assessment scales', 'assessment tools', 'assessment instruments', 'cognitive skills', 'learning domains', 'psychosocial functioning', 'metrics', 'adaptive scales', 'screening', 'developmental milestones,' 'developing countries' and 'low and middle income countries'. The search focused on databases on education, psychology, early childhood and development, paediatric journals from prominent databases such as the British Education Index, Psych INFO, JSTOR, PROQUEST Education and Education Resources Information Centre (ERIC). Additional databases such as the World Bank, UNICEF and targeted international non-government organisations (e.g. Save the Children) were also consulted. Our inclusion criteria comprised articles and documents written in English from the year 2000 onwards, which contained details of relevant instruments as well as empirical and other review studies in low- and middle-income countries.

This generated a total of 69 documents (including reports, studies, and instruments). Duplicates and abstracts that did not fit into the inclusion criteria were removed. After full-text screening by a second researcher for relevance to the research question, a final 65 studies were retained. All articles were reviewed twice to ensure that they met the agreed eligibility criteria. When there was a lack of agreement on whether to include or exclude certain papers, we held joint discussions to achieve consensus.

We extracted data from individual studies, and this was recorded in a data extraction form by two of the researchers in the team. We used the form to record key background information about each study, including the location of the study, the sample size, duration of intervention as well as key findings and limitations. We developed a thematic matrix and refined codes to ensure that all interpretations were thorough and consistent across the papers. This process ensured that the specific delineation of the categories was consistent and congruent with full agreement on the themes identified. We then carried out a thematic analysis to identify the main outcomes and contributions of the articles that made the final list for this paper.

Results

This section presents an analysis of the review which is centred around four central themes; the purpose of early childhood assessment instruments, levels of sensitivity for different cultural contexts, measuring the quality and inclusiveness of children's learning environments.

Contextual and cultural sensitivity of assessment instruments

The review revealed that there are few assessment instruments that capture the contextual aspects of children's early learning and development, such as their cultural background, linguistic diversity, impairment or disability. The influence of children's culture and background are not always considered within instruments despite wide variation in global cultural values, practices and experiences. In addition, there are limited assessment instruments that examine the quality of the environment despite research (Yoshikawa et al. 2013; Ngoun et al. 2020), highlighting its crucial impact on the

child's development. In many respects, the assessments did not take into account important individual and group differences in patterns of child development or allow for progression and continuity within and across different educational settings (Pence and Nsamenang 2008). Ostensibly, many of the tools tended to focus on children's biological-maturational levels using measurable criteria which are linked to the achievement of levels of cognitive, socio-emotional, communication and psychomotor development. These, in turn, highlight difficulties children may have, which could potentially lead to developmental delay.

Campbell et al. (2014) state that collecting information on childhood disability is an important first step towards identifying children who will need to be fully screened and assessed for maximising their functioning and, ultimately, improving the long-term quality of their lives. In recent years, the World Health Organisation (WHO), in collaboration with the Washington Group/UNICEF, have responded to international calls to collect data on childhood disability by creating a parent-reported module to identify children with functional difficulties across fourteen domains including seeing, hearing, physical movement, developmental delay and seizures (Crialesi, de Palma, and Loeb 2015). Several other tools using parent/caregiver reporting have been introduced to measure childhood disability, including two additional tools developed through the WHO – Disability Assessment Schedule (WHODAS 2.0) and, more recently the Global Scales of Early Development (GSED), but they have not been extensively validated or widely used to date.

Assessments that have not been piloted and adapted to specific country cultural contexts can lead to inaccurate results on what children are able or unable to perform. For example, Ngoun et al. (2020), in their work on developing Cambodian-specific developmental milestone screening instruments, found the significant effect culture had on how children developed, including what particular milestones they attain and when they attain them. So, for example, Cambodian children are generally not allowed to play with their food and usually eat by themselves later than children in western countries. They are also expected to help their parents and can perform some domestic tasks earlier than is the norm in other contexts. Similarly, in Malawi, Gladstone et al. (2010), when using the Malawi Developmental Assessment Tool (MDAT) (see Table 1), found that children were able to carry out certain tasks earlier compared with children in Western countries. For example, gross motor items of increasing difficulty were added to the assessment because many of the children were able to do all items in the domain at an earlier age. Also, there were additional expectations of children at an earlier age, such as showing physical signs of respect to elders by bowing their heads and using respectful language when greeting them (Gladstone et al. 2010).

Taking a few examples of other assessments, we can see how rigorous testing and piloting have led to a small number being validated in different country contexts, and showing good specificity to children's development and linguistically diverse backgrounds (Li, D'Angiulli, and Kendall 2007) within the stated age range. Others have been adapted for use in different contexts, such as the Early Development Instrument (EDI), a teacher-completed measure of a child's school readiness that assesses outcomes of early development, including physical health and well-being, social competence, emotional maturity, language and communication, and cognitive development and general knowledge. This has been used extensively across Canada and was successfully

Table 1. Examples of child-focused screening/assessment instruments (tools).

Name of instrument	What does it do?	What skill areas are assessed?	Strengths and weaknesses for use in LICs and children with disabilities
Early Development Instrument	**Age range** – 3.5 - 6.5 years of age **Type** – 103-item questionnaire **Completed by** kindergarten teachers in the second half of the school year **Aim** – to measures children's ability to meet age-appropriate developmental expectations in five general domains. This assessment has been used in Ethiopia, Malawi ad Mozambique.	• Physical health and well-being • Social competence • Emotional maturity • Language and cognitive development • Communication skills and General Knowledge	♣ EDI data contribute a developmentally-based indicator on children on the cusp between early development and school-age that, together with other indicators, can inform research and policy about the outcomes of the early years and predictors of later development. ♣ Instrument can be completed by the class teacher.
IDELA (Save the Children)	**Age range –** 3.5–6 **Type** – 22 item questionnaire **Completed by** – trained enumerators or trained community members **Aim** – to holistically measure children's development and emergent skills as school readiness. This assessment has been used in Ethiopia, Malawi, Mali, Mozambique, Rwanda and Zambia.	• Approaches to learning (persistence, motivation & engagement) • Motor • Language • Early literacy • Maths • Problem-solving • Socio-emotional	During the assessment, the child is asked to think about friendships, empathising, solving conflicts, motivation – based on picture stimuli which may not always be culturally appropriate. The instrument does not set thresholds for 'school readiness' and an IDELA score in a certain range cannot be taken as indicative of a serious problem or developmental delay.
Ages and Stages Questionnaires	**Age range** – Birth to 6 **Type –** series of 20 questionnaires comprising of 30 items at designated intervals **Completed by** – parents and teachers self-report. Parents select 'yes', 'sometimes', and 'not yet' for each of the 30 scored items. **Aim** – to screen infants and young children for developmental delay in their natural environment. Assessment been used in Mozambique as part of an RCT by the World Bank and Save the Children. Also used in India.	• Communication • Gross motor • Fine motor • Problem solving • Personal-social (e.g. self-help skills), • Socio-emotional development (communication, autonomy, affect, and interaction with people.) This is a separate instrument in ASQ.	A complexity of creating or adapting appropriate measures to LMICs where a range of languages and socio-economic contexts may affect item understanding and interpretation and the acceptability of screening procedures. It also has a section with open-ended items that are not scored. These items look at the quality of skills to detect parent concerns, including early language and behavioural concerns.
Malawi Development Assessment Tool (MDAT)	**Age range** – birth to 48 months **Type** – 68 assessment activities undertaken by children **Completed by** – trained assessors **Aim – to** identify a child's development in 4 domain areas through a series of tasks which are incrementally more difficult as the assessment progresses alongside main carer who can provide some	Domain areas: • Gross motor skills • Fine motor skills • Language • Social skills	The tool has good sensitivity to identifying children with neuro-developmental delay in low income settings. Assessors require specific training provided by a trained nurse or other trained professional and requires a parent or carer to be present during the assessment. All tasks are scored as 'pass or fail'. The

(*Continued*)

Table 1. Continued.

Name of instrument	What does it do?	What skill areas are assessed?	Strengths and weaknesses for use in LICs and children with disabilities
	of the answers to routine-based questions. Assessment tool has been used in Pakistan, Zimbabwe, Kenya, Uganda, Mozambique to name a few.		test covers children up to 48 months.
Leuven Involvement Scale for Young Children	**Age range – 5–6 years Type:** Observation of children in learning settings **Completed by:** trained observers **Aim –** to look at children's levels of involvement and degree of well-being. The scales have been used in 19 settings in Free State South Africa.	A five point rating scale. The core of the rating process consists of an act of empathy in which the observer must get into the experience of the child, in a sense has to become the child. This gives the information to draw conclusions concerning the mental activity of the child and the intensity of his experience.	Easy to use after some inter-rater testing and can be used in tandem with one or more of the above tools to provide data on a child's level of involvement and well-being when performing different tasks.

adapted to the Australian context and renamed the Australian Early Development Index (AEDI). Interestingly, when the AEDI was applied in the Indonesian context, it showed weak to moderate reliability and validity (Brinkman et al. 2017), therefore, questioning the transferability of tools developed in the West.

Save the Children, in response to the dearth of child assessments that can be used at large-scale and within low-income settings, released the International Developmental Early Learning Assessment (IDELA) which includes approaches to learning, persistence and engagement (see Table 1). This assessment has reportedly been used in 45 countries and measures across the domains of motor development, emergent language, literacy and numeracy, and social-emotional development, and has become a leading assessment of ECEC in many studies in LMICs (Save the Children n.d.). This, too has been adapted to different contexts. For example, the Government of Bhutan added to the bank of questions on spiritual and moral development in the assessment. The instrument has been used alongside the Ages and Stages Questionnaires (ASQ) in Bangladesh in 2015 and has reportedly strong and positive correlations with the domains measured by the ASQ (Wolf et al. 2017).

The instruments presented in Table 1 have been used in low-income countries and contain tasks that would readily fall into a 'school-readiness' scale of physical development, socio-emotional development, ability to use language as well as an ability to problem solve and carry out early literacy and numeracy tasks. These tools, therefore, only focus on one area, namely, what the child can or cannot do. Whilst child-focused assessment instruments are helpful in ascertaining how well they are functioning, it is, nevertheless, also vital to consider the extent to which the assessments monitor the varying degrees of attention, interest and involvement that children demonstrate when they are sufficiently well motivated to participate in new learning activities and are encouraged to progress towards autonomy in their practical application of new skills and concepts (UK Government 2016). Assessments that adhere to

specific pass-fail criteria, based on linear-based targets, can be penalising to children with severe or profound and multiple difficulties (UK Government 2016). That is not to say they cannot make linear progress, but it does not necessarily follow the same developmental pattern as typically developing children (Miller 2016). Hence, there may be a period of lateral progress, in which, for example, a child does not gain new concepts or skills, but learns to apply existing concepts or skills to a broader range of contexts which are not always observed at school (Lerner et al. 2013). Carpenter et al. (2016) argue for assessments that focus more on aspects of a child's cognition and learning (e.g. responsiveness, curiosity, and discovery), as these could show children with disabilities in a more favourable light.

Other non-child development-focused tools, such as the Leuven Scale for Involvement and Well-being (in learning) (Laevers 2005), take a different approach to assessing the child, thus accounting for more complex developmental processes that children follow. Laevers argues for a developmentally appropriate approach that demands active participation of the child, who will respond and initiate what kind of impulse he/she needs at this very moment. What is particularly interesting about the thinking behind the instrument is the fundamental right for and ability of children to experience 'well-being' and 'involvement' in whatever educational setting they find themselves, including a low resourced setting.

Measuring quality and inclusiveness of early childhood education and care environments

Our search for instruments that measure quality in early childhood settings in low-income countries yielded fewer results, with a total of 10 scales that assess the child's learning environment, mainly using observation as the principal method, with varying levels of detail on the issue of inclusion. However, 8 out of the 10 scales are exclusively being used in high-income countries (e.g. Classroom Practices Inventory, Early Childhood Classroom Observation Measure). Of the two remaining scales, the 'Early Childhood Environmental Rating Scale-Revisited' (ECERS-R 2005) has been used in a number of low to middle-income countries, for example, Kenya, Malawi and South Africa (Table 2). Encouragingly, it contains a section within a sub-scale on inclusion that observes the inclusion of children with disabilities and their families. Unlike many of the child assessments, it can be used in a number of different ways by school directors for supervision and programme improvement, by teaching staff for self-assessment, and within teacher training programmes. In comparison, the 'Index for Inclusion: developing play, learning' (CSIE 2004) has been developed to encourage the involvement in inclusive development of all practitioners in early years and childcare, but is not a specific measure. The Index consists of a review of all aspects of a school setting, including the views of management committees, children, young people, and their parents/carers. Resources for, and barriers to, play, learning and participation are also recorded on a checklist during the 'Index' process. A total of 46 indicators of inclusion are provided to help enquire about the school's culture, policy and practice of combatting all forms of discrimination. There was no documented evidence in the literature whether the index has been used in low-income settings.

Table 2. Examples of instruments that measure the quality and inclusiveness of ECEC.

Name of instrument	What does it do?	What is it looking at?	Strengths and weaknesses for use in LICs and children with disabilities
Early Childhood Environmental Rating Scale-Revised (ECERS-R)	Designed for pre-school and child care settings (2 ½ – 5 years) Comprising 7 sub-scales Observation (3 h) The scale has been used in a number of countries in sub-Saharan Africa e.g. Kenya, Malawi.	Designed to evaluate quality of provision for children aged 2½ to 5 years in centre-based settings. Comprises 7 sub-scales: Space and Furnishings, Personal Care Routines, Language-Reasoning, Activities, Interaction, Program Structure and Parents and Staff. The Program Structure: looks at staff behaviour towards children with disabilities in the setting.	The scale contains a sub-scale which looks at the inclusion of children with disabilities. Sub-scale on 'space and furnishings' may not be appropriate for settings that have very limited resources.
Index for Inclusion developing play, learning and participation in early years and childcare	The Index is concerned with increasing the participation of all children as well as all adults involved in a setting. It involves a detailed look at how to reduce the barriers to play, learning and participation of any child. It helps settings to become more responsive to the diversity of children in their communities.	Four main elements: *Key concepts* – to support thinking and discussion about inclusive development. • *Planning framework: dimensions and sections* – to structure the approach to review and development. • *Review materials: indicators and questions* – to enable a detailed review of all aspects of a setting and help to identify and implement priorities for change. *An inclusive process* – to ensure that the processes of review, planning and implementing change are themselves inclusive.	The index has been translated into several European languages. Need for more evidence on how the index has been used in low-income countries.

Discussion

This section first discusses some of the implications of the findings on the lives of children with disabilities and their parents, with a focus on the context of Malawi. We then put forward a new ecological systems model of school readiness adapted from McDowell–Clark's dynamic model of readiness. Finally, we present the tools which were used to collect data on children as part of our larger study in Southern Malawi.

Overall, the literature has revealed much ambiguity and limited agreement between academics, policy makers, practitioners and families on the concept of school readiness. Some of these discussions have been around the types of skills and knowledge a child is expected to possess or be able to perform, against fixed standards by the time they enter school at the state statutory age. The multi-dimensional construct of 'readiness' can be contentious when it is applied to children who are considered to be 'behind in their development' as it leads to the notion of 'unreadiness'. This over-simplifies child development and fails to recognise the fact that it does not follow a linear pathway and is largely inappropriate for children with disabilities and their families.

What is concerning is that children with disabilities are consistently failing or not performing well on the assessment tools that focus on attainment alone. This will lead to distress for parents and also for those children who consistently fail the assessments. In many cases, children with specific impairments such as sensory impairment (visual and or hearing), won't necessarily be able to perform the tasks because the tests require them to follow visual cues and follow verbal instructions. Children who have communication and language difficulties (e.g. autism) will also encounter difficulties in completing tasks. It is, therefore, important that the assessment tools identify areas of development where a child with a disability makes progress.

In response to these negative experiences, we propose that, rather than the school, child and family staying within their own boundaries (Figure 1), there should be opportunities for them to cross these boundaries to develop the necessary relationships and information sharing which will support a smoother transition for the child with disabilities, from the early child-centre into primary school, where all are then ready to engage together. This inter-connecting groundwork could be enabled through the role of an early childhood centre which is located within the community, but several factors have to be in place to ensure the transition process is smooth and effective. Firstly, it is important for ECEC staff to know about the individual needs of the children and their families, and secondly, that there is time for them to liaise with families with support available in schools. We are advocating for a strong tripartite relationship (between the child, child–parent-community and school) by proposing a model of readiness which looks at how

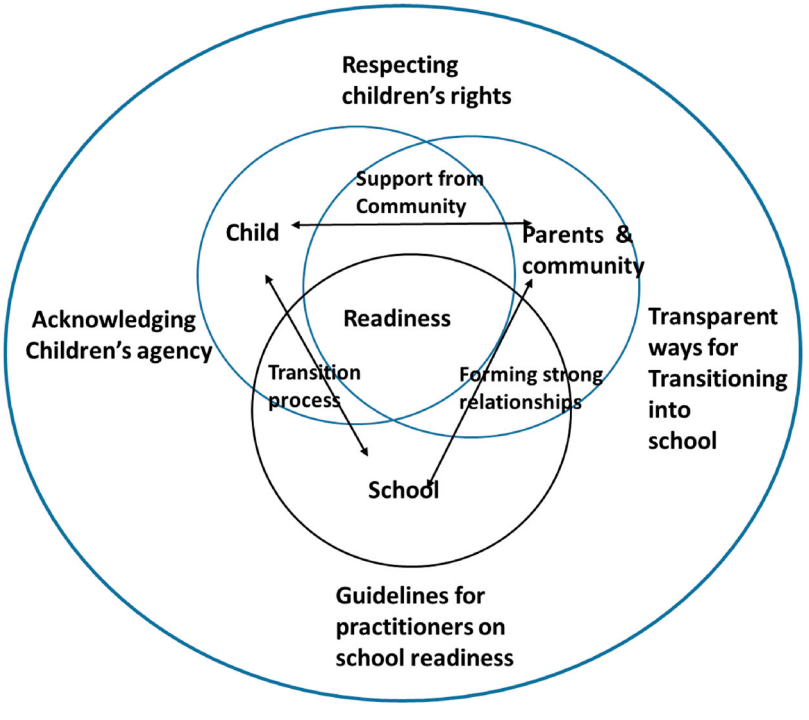

Figure 2. Towards a new ecological system model of school readiness adapted from McDowall–Clark's dynamic model of readiness.

the three distinct actors – child, school, parents and community (Figure 2) inter-relate and are positioned.

Earlier models have a tendency to place children as passive beings waiting to be turned into 'students' by educational establishments working with parents alone. All children are active members affected by, and also affecting, their learning environments. This then raises the issue that school readiness is constantly evolving as are the children who attend the school, in a process of interrelated systems linked through continual activity and change (McDowall Clark 2017, 107). We, therefore, need to identify ways to increase the involvement of children with disabilities in becoming 'ready children'. This shifts the focus from seeing children with disabilities in a negative 'deficit' light, to one where we are able to value the capabilities and potential that these children bring to the school environment. This new systems model (Figure 2) respects children's right to be able to participate in their education, thus building on their strengths as well as acknowledging their own agency and sensitivity to their environments, culture and communities. This process is strengthened by allowing more time for the transition process to take place (e.g. one year for children who will require extensive resources and accommodation) and the forming of stronger relationships between parents, the community and the school staff. It offers a more helpful way of considering readiness, avoiding the 'entrenched positions (McDowall Clark 2017) of 'ready schools' versus 'ready children' that have dominated practices over the past 30 years.

Reflecting on the context of Malawi and country of this study, school readiness takes place within a broader context of macro-level activities (within the wider circle), which help to strengthen partnerships for school readiness. There needs to be a shared multi-sectoral responsibility for readiness built on shared understandings between the Malawi Government, ECEC, primary schools (including resource centres) and communities. ECEC can be strengthened by clear policy objectives and roles between the ministries responsible for children with disabilities, thus creating stronger partnerships with clearly defined roles, which is critical. These include genuine opportunities for directors and policy makers to come together to share values and insights, and to effectively communicate them to district-level offices and communities. These values should be translated into clear guidelines for ECD management committees as well as school head teachers in order to increase greater transparency and better quality of education and care for all children attending early childhood centres.

In response to the research question; 'what assessment tools are most appropriate for measuring the educational development of children with disability in low income countries?' the review had been helpful in identifying the following tools, which were used to collect data on children in Southern Malawi:

(1) Washington Group on Disability Statistics (2020)/UNICEF child functioning module
(2) Community-based Child Centre Rating Scale (based on the ECCERS-R – Community-based Child Centre Rating Scale) based on the following sub-scales: (1) routine and structure, (2) supervision (attending to children's needs and safety), (3) caregiver engagement (quality and time-length), (4) free play, (5) managing children's behaviour and communication, (6) social development (interaction with children), (7) provision for children with disabilities, (8) numeracy, literacy and problem-solving.

(3) Malawi Development Assessment Tool (MDAT) in Malawian – Chichewa (extract domains on language and social skill domains).
(4) Malawi School Readiness Rating Scale adapted from the UNICEF Early Learning and Development Standards (2017), and based on the national ECD Early Learning Development Standards (ELDS), which the Malawi Government expects caregivers to teach children under their care. The scale is a curriculum-based assessment that examines how children are performing in relation to the expectations of the curriculum set in the ELDS. Children are individually assessed on eighteen tasks across five domains: literacy (reading and writing), mathematics (numerical knowledge, measurement and spatial relationships). Each outcome is considered as a 'pass' or 'fail'.

Conclusion

In this paper, we have presented some of the main tensions surrounding the ECEC assessment and school readiness from the critical literature review. In doing so, we have tried to shift the focus away from assessment tools that are deficit focused and only capture children's functional skills, towards consideration of the wider contexts and events that affect their physical, social and emotional development. When deciding to assess children, we need to reflect on what we are trying to assess and how we plan to use the data we obtain. When selecting tools, we should consider whether they can locate readiness without penalising children with disabilities. Child assessments tools should be able to paint an accurate yet nuanced picture of the child, within his or her context, alongside information that can support the child in the next stage of their journey into school. When we are conceptualising transition to school, it is vital to use contextual measures that are inclusive of children with different abilities and consider the constraints that may prevent them from attending school (e.g. being able to travel to school).

Taking a wider view of school readiness, early childhood centres in low-income countries can play a key role in a number of ways, by:

- supporting children with disabilities and their families through the various steps of transition to school in a timely way,
- providing support to schools on how to be ready and prepare for the enrolment of children with different disabilities and their individual needs,
- ensuring there is a good balance between curriculum-based assessments (through continuous assessment) alongside child development assessments,
- reflecting on their own practice to ensure they support the inclusion of children with disabilities,
- encouraging a continuous dialogue between the family, child and school during and after the transition process.

In considering which of the assessment instruments (or tools) are most appropriate for measuring the progress of a child's development and learning outcomes in low-income countries, we have argued for a more 'holistic' integrated approach to assessment drawing on a range of simple, easy to administer tools, such as interviews with carer/parent and other stakeholders who take care of the child, through observations of the

child's experiences and the caring and learning environment, and by asking the child to perform curriculum-related tasks through continuous assessment.

Finally, young children's school debut is an important life event that requires an interactive relationship between the child, family, school and community, and the wider social and political environment. Historically, discourses of school readiness have focused on predetermined measures that see children with disabilities in a negative light, thus undermining the many strengths and competencies they bring to a school setting. The construct of readiness can be too easily used to fit all children into a predetermined mould through entrenched or inflexible approaches. It is, therefore, important to critically examine the research evidence but also encourage ECEC practitioners and schools to reflect on their own practice when working with children with disabilities, in order to challenge dominant discourses and inappropriate approaches that go against the best interests of children with disabilities and their families.

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