Improving educational outcomes for people with disabilities in low and middle-income countries: why does it matter and what works?

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Why does disability matter? There are an estimated 1 billion people, including 150 million children, with disabilities worldwide.[1] This means that, on average, one in seven people, and one in 20 children, have disabilities. People with disabilities are on average poorer, and face widespread stigma and discrimination.

What is the impact of disability on education? Evidence consistently shows that people with disabilities have worse educational outcomes than their peers without disabilities. A recent UN Economic, Scientific and Cultural Organization (UNESCO) report found that people with disabilities were less likely to have attended school (77% vs. 87%) and to have completed primary school (56% vs. 73%) or secondary school (36% vs. 53%), and had fewer years of schooling (4.8 years vs. 7.0 years) than their peers without disabilities.[2] Girls with disabilities fared particularly badly.

Why does exclusion of people with disabilities from education matter? Everyone has the right to education, including people with disabilities, and so exclusion is a violation of rights. Exclusion from education is also a development issue, as Sustainable Development Goal (SDG) 4 calls for '*inclusive and quality education for all*', specifically including children with disabilities.[3] The benefits of education are broad-ranging, from better financial prospects to more social inclusion, and these benefits may be particularly important for girls with disabilities, who face multiple layers of discrimination.

What are the barriers preventing people with disabilities from being educated? Children with disabilities are not a homogenous group, and the reasons for exclusion from school will vary for girls and boys, in different settings, and for children with different impairment types. Looking broadly, barriers can be experienced at the level of the system, the school, the family, and the child. [4]

- System-level barriers include the lack of legislation or policies to support the inclusion of children with disabilities in education, lack of enforcement of policies, and lack of resource allocation to support inclusion.
- School-level barriers include inadequate training and support for teachers to be able to teach children with different needs and abilities effectively. This is a particular challenge in many low- and middle-income countries, where classes are large and there is a lack of specialist resources and appropriate teaching materials. Schools may also be physically inaccessible, and the attitudes of teachers and pupils towards people with disabilities can be negative.
- Family- and child-level barriers include the lack of support from caregivers to encourage the inclusion of their children in schools. Children with disabilities may also experience poor health, and difficulties with different skills used for learning, and this may reinforce negative attitudes that children are not capable of learning or worth investing in.

What works to improve educational outcomes for people with disabilities in low- and middle-income settings? We conducted a Rapid Evidence Assessment (REA) to answer this question. We undertook an extensive scoping of the literature, and identified 24 studies that explored 'What works' to improve educational outcomes for people with disabilities in low- and middle-income settings.[5-28]

What evidence is included in the REA?

We only included systematic reviews and impact evaluations in the REA. Qualitative studies, process evaluations, and non-impact evaluations (e.g. cross-sectional surveys) were not eligible for inclusion, as although these studies can produce valuable insights into the needs and experiences of people with disabilities, they are not designed to measure impact. Our findings and recommendations should be understood in this context.

We applied quality grading to the literature, so that we could assess where there was strong evidence and where evidence was limited or missing.

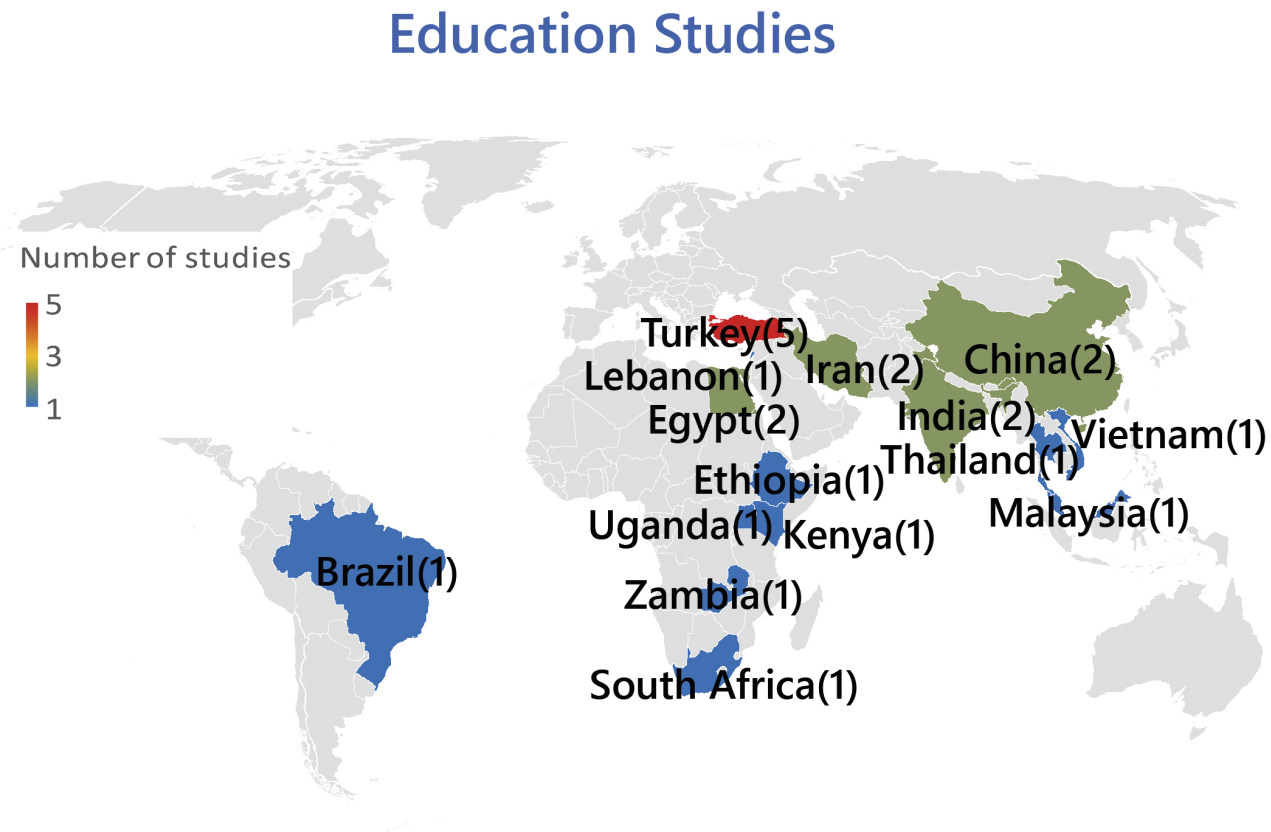
Findings that emerged from the REA

The following conclusions were reached by the REA:

- There was very little evidence available: Only seven studies measured improvements in early life skills, [5-11] 15 in primary education,[12-26] two in secondary education,[27, 28] and none in non-formal education or lifelong learning.
- The quality of the evidence was poor: 22 studies were scored as being of low quality, and only two as being of moderate quality.[13]

- Most interventions tried to improve children's skills, but did not focus on system-level or school-level changes. Most studies showed evidence of impact. Examples of effective programmes are as follows:
    - **Parental training**: An intervention for parents of children with autism in Thailand that provided training (through workshops and DVDs) on how to do exercises with their child found improvements in the emotional skills of children in the intervention group compared to the control group.[8]
    - **Teacher training**: An inclusive education intervention in Kenya improved teachers' preparedness to educate children with disabilities.[12]
    - **Child training:** A training programme was effective at improving the mathematical skills of children with hearing impairment in Malaysia compared to a control group.[21]
    - **A school-level intervention** that offered training to teachers was effective at reducing violence perpetrated against children with disabilities in Uganda.[13]

Figure 1: Map showing the location of studies included in the REA



Summary of evidence

The evidence was summarised in relation to each of the sub-outcomes areas. This was rated as ‘promising evidence’ (green); ‘limited evidence’ (amber); or ‘no evidence’ (red). Table 1 provides an overall assessment of the evidence in each area.

Table 1: Summary of evidence by sub-outcome area

Stage of education
Early intervention *Limited evidence*
Primary education *Promising evidence*
Secondary education *Limited evidence*
Non-formal education *No evidence*
Lifelong learning *No evidence*

Evidence limitations and gaps

- The interventions and outcome measures used by the 24 studies were all different. This mean direct comparison (for example, across countries) was very difficult. The outcome measures used were mostly in terms of the skills for learning of the child (e.g. reading); only one study measured academic achievement, and none explored stigma or discrimination.
- There were additional important evidence gaps: none of the studies were undertaken in humanitarian contexts, and few assessed whether interventions worked differently for boys and girls. None of the studies addressed whether segregated schools or inclusive schools produce the best educational experience and outcomes for children with disabilities, and few studies addressed how education can be made more inclusive.

Figure 2: Summary of key results and evidence gaps

	Early intervention	Primary	Secondary	Non-formal	Lifelong
					
Number of studies	7	15	2	0	0
Impairment type	Neurological (4) Intellectual (2) Developmental (1)	Hearing (4) Intellectual (4) Neurological (3) All (2) Physical (1) Visual (1)	Intellectual (2)	–	–
Outcomes	Parent skills (4) Child skills (3)	Child skills (9) Teacher's skills (3) Parent's skills (1) Violence (1) Academic outcome (1)	Child skills (2)	–	–
Evidence of impact	✔ Yes (6), No (1)	✔ Yes (13), Mixed (2)	✔ Yes (2)	–	–
Study quality	LOW (7)	LOW (13) MODERATE (2)	LOW (2)	–	–
Gender analyses conducted	✖ No (6), Yes (1)	✖ No (15)	Yes (1), No (1)	–	–
Overall evidence assessment	Insufficient evidence	Promising evidence	Insufficient evidence	No evidence	No evidence

Conclusions

The inclusion of people with disabilities in education, so that they can achieve good academic and social outcomes, is an important right, as well as a development need. Currently, people with disabilities are more likely to be excluded from school and to fail to achieve equitable educational outcomes than those without disabilities. This exclusion from education is a violation of the human rights set out in the UN Convention on the Rights of Persons with Disabilities (UNCRPD). Furthermore, the SDGs, which call for quality education for all, cannot be met without a focus on the educational inclusion of children with disabilities.

This REA found that there is 'promising' evidence that interventions can be effective in improving the educational skills of primary-school-aged children with disabilities. In other domains of education (e.g. early or secondary education), evidence of what works was not available or was insufficient. The REA offers a summary of the rigorous evidence, not all evidence, and its findings and recommendations should be understood in that context. It is clear that more and better quality evidence is urgently needed on what works, so that specific approaches or programmes can be recommended to close close the gaps in educational attainment between children with and without disabilities, and ensure that no one is left behind.

Recommendations for further research:

1. People with disabilities should have a central role in developing policies and programmes to support improvement in educational inclusion and outcomes, and assessing their effectiveness, through participatory processes. This includes having a central role in carrying out these assessments (e.g. in defining the research questions, formulating the intervention for evaluation, and/or collecting and analysing data).
2. Impact evaluations need to be funded and undertaken on ‘what works’ to improve educational outcomes for people with disabilities. Efforts should also be made to integrate measures of disability within planned or ongoing mainstream education impact evaluations and other demographic or household surveys that include education outcomes.
3. New studies should focus on areas where there is large need (e.g. primary and secondary school outcomes) as these are crucial for long-term economic productivity. Addressing lifelong learning and non-formal education may be secondary priorities.
    a. Studies should use robust methodologies, including randomised control trials, and should have a sufficient sample size.
    b. To support comparison of effectiveness between interventions, studies should use consistent approaches to defining and measuring disability (e.g. using the Washington Group questions[1]). This may require the development of new tools.

[1] www.washingtongroup-disability.com/washington-group-question-sets/short-set-of-disability-questions/

c. Studies should consistently consider a broad range of characteristics and aspects of identity (e.g. gender, ethnicity) that may influence outcomes.

d. More studies need to be conducted in low-income countries (the majority of the studies in this review were from middle-income – generally upper middle-income – countries), and in humanitarian settings, to understand 'what works' to advance educational outcomes for people with disabilities, in these contexts.

e. Advocacy efforts are needed to encourage funders (including governments, multilateral agencies, research institutes, and other foundations) to commit financial support towards these studies.

4. Relevant existing programmes implemented by governments, disabled persons organization and non-governmental organisations, should evaluate whether they are effective in improving educational outcomes for people with disabilities. Given the complexity of undertaking high-quality impact evaluations, programme implementers may wish to seek advice from experts when designing and delivering such studies.

5. Monitoring systems should be implemented that allow disaggregation of educational outcomes by disability/impairment types (e.g. using the Washington Group measures) to assess the inclusion and progress of people with disabilities in education under different circumstances (e.g. inclusive and segregated schools), and whether we are closing the gap in comparison to children without disabilities.

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