



Rapid Evidence Assessment of ‘What Works’ to Improve Social Inclusion and Empowerment for People with Disabilities in Low- and Middle-Income Countries

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Acknowledgements

Thanks to Hugh Waddington (3ie and Campbell IDCG) for suggestions used in developing the individual study quality assessment tool. We also thank Miriam Light and other colleagues at the Department for International Development (DFID) for useful feedback.

Executive summary

Background: There are approximately one billion people with disabilities globally, equating to one in seven people worldwide. There is extensive evidence that people with disabilities are on average poorer, and face widespread stigma, discrimination, and social exclusion. They are also often disempowered, for instance, left out of making important decisions or having their voices heard, despite the call of the Disability movement of ‘Nothing about us, without us’.

Social inclusion and empowerment are central to the UN Convention on the Rights of Persons with Disabilities (UNCRPD), as they are necessary for the achievement of all rights. Furthermore, social inclusion and empowerment are development issues, as the Sustainable Development Goals (SDGs) include a call to *empower and promote the social, economic and political inclusion of all*. Barriers to social inclusion and empowerment for people with disabilities include system-level and institutional barriers (e.g. lack of inclusive policies and legislation), physical barriers (e.g. inaccessible transport and buildings), information barriers (e.g. lack of sign-language interpretation at meetings), and perhaps most importantly, barriers due to stigmatising attitudes and discriminatory behaviours and practices. Consequently, effective interventions should aim to overcome these barriers to achieve social inclusion and empowerment for people with disabilities.

The aim of the Rapid Evidence Assessment (REA) is to provide an assessment of the effectiveness of interventions to improve social inclusion and empowerment for people with disabilities in low- and middle-income countries (LMICs).

A second REA has been undertaken to assess the effectiveness of interventions to improve educational outcomes for people with disabilities in LMICs. These two REAs were commissioned in advance of the Global Disability Summit in July 2018 and co-hosted by the UK Government, the Government of Kenya, and International Disability Alliance, and will be used to inform global action to implement the SDGs and the UNCRPD.

Methods: The studies included in this REA are taken from the Disability EGM prepared by the Campbell Collaboration for DFID under the auspices of the Centre for Excellence for Development Impact and Learning (CEDIL). Eligible studies included systematic reviews and impact evaluations published in English from 2000 onwards that assessed the effectiveness of interventions for people with disabilities in LMICs. 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. The assessment is thus restricted to evidence from rigorous studies of effects, not the broader evidence base of research documenting the lived experiences of people with disabilities.

The search for eligible studies for the EGM comprised an electronic search of over 20 databases and sector-specific websites, and screening of the included studies in the identified reviews. Screening was a two-stage process of first screening by title and abstract and then the full texts. During the development of the EGM, basic information was recorded for each study, including type of intervention, outcomes measured, study design, and location of the study.

The REA focused on studies identified by the EGM process that included 'social inclusion' or 'empowerment' as study outcomes. In total, 16 primary studies and 18 systematic reviews were identified that included these outcomes. The included studies in the 18 reviews were assessed against the inclusion criteria for this REA. Since all eligible single studies from the reviews were already identified and included in the REA, the systematic reviews are not discussed separately to avoid duplication.

Next, as part of the REA, all studies that had outcomes related to social inclusion or empowerment were assessed in greater detail. A pair of coders screened all the studies and summarised the basic study characteristics, including details of the study design, the intervention implemented, and the outcomes of the intervention. For each study they applied a quality assessment and scored the study as there being 'low', 'moderate', or 'high' confidence in the study results. A narrative summary and summary of findings/results table was produced for each study.

The Social Inclusion and Empowerment studies were grouped by sub-outcomes based on the World Health Organization (WHO) Community-Based Rehabilitation (CBR) matrix, that is:

Social Inclusion:

- 1) Personal assistance
- 2) Relationships, marriage, and family
- 3) Culture and arts
- 4) Recreation, leisure, and sports
- 5) Justice

Empowerment:

- 1) Advocacy and communication
- 2) Community mobilisation
- 3) Political participation
- 4) Self-help groups (SHGs)
- 5) Disabled people's organisations (DPOs)

For each sub-outcome a narrative summary was prepared for the main themes and findings, including consideration of where there was strong evidence for effect (i.e. the number and sample size of studies), where there were evidence gaps, and the quality of the individual studies underlying the body evidence.

Results: There were 16 eligible primary studies, including studies conducted in 12 countries: Bangladesh (two studies), Brazil, Chile, China (two studies), Ethiopia, India (three studies), Kenya (two studies), Malaysia, Thailand, Turkey, Uganda, and Vietnam (two studies). Five of the studies concern interventions for people with physical or sensory impairments, nine for people with mental health or neurological conditions, and two for all disability types.

The following conclusions were reached by the REA:

- **There was very little rigorous evidence available:** only 16 studies were identified. All the studies measured improvements in social inclusion, and only two in empowerment.
- **The quality of the evidence was poor:** almost all the studies were scored as having low quality, and only three were of moderate quality.
- **Most interventions tried to improve the social skills of the person with disabilities, but did not focus on system-level (e.g. policies) or community-level changes.** Most studies showed evidence of impact.
- Examples of **promising** programmes included:

- **Vocational training** supporting people with disabilities improved measures of social inclusion (e.g. improved perceived acceptance by family members), and empowerment (e.g. likelihood of voting) in Bangladesh.
- **Social skills training:** programmes were effective at improving social skills in Malaysia, Brazil, and India.
- **A school-level intervention** which trained teachers using a complex behavioural intervention called the ‘Good School Toolkit’, designed to change the operational culture of the school, was effective at reducing violence perpetrated against children with disabilities in Uganda.
- **CBR and other holistic interventions** were effective in improving social inclusion (for example, friendships) and empowerment (for example, membership of DPOs and village councils) for people with disabilities in Bangladesh.

Summary of evidence

The evidence was summarised in relation to each of the sub-outcome areas. This was rated as ‘promising evidence’ (green); ‘limited evidence’ (amber); or ‘no evidence’ (red).

| Social inclusion | Empowerment |
|---|---|
| General social inclusion <i>Limited evidence</i> | Advocacy and communication <i>No evidence</i> |
| Personal assistance <i>No evidence</i> | Community mobilisation <i>No evidence</i> |
| Relationships, marriage, and family <i>Promising evidence</i> | Political participation <i>Limited evidence</i> |
| Culture and arts <i>Limited evidence</i> | Membership of SHGs <i>Limited evidence</i> |
| Recreation and sports <i>Limited evidence</i> | DPOs <i>Limited evidence</i> |
| Justice <i>Limited evidence</i> | |

Evidence limitations and gaps

- **The interventions and outcome measures used by the 16 studies were all different. This meant direct comparison (for example, across countries) was very difficult.** The outcomes used were mostly in terms of social skills, rather than social inclusion, and only two explored outcomes related to stigma or discrimination.^{2, 3} This means that most interventions tried to treat the person with disabilities, rather than to address societal reasons for their exclusion and lack of empowerment.

- There were additional important evidence gaps: only one of the studies was undertaken in a humanitarian context, and data were lacking on whether outcomes differed according to gender, or whether interventions were cost-effective.

Conclusion: Improving social inclusion and empowerment for people with disabilities is an important right, as well as a development need, and will help with the achievement of other rights (e.g. access to education). There was ‘promising evidence’ that interventions are effective at improving relationships for people with disabilities. Concerted action is needed to promote social inclusion and empowerment for people with disabilities in tandem with long-term investment in better-quality evidence on what approaches and programmes are most effective in delivering this change.

Recommendations for further research:

1. People with disabilities must have a central role in developing policies and programmes to support social inclusion and empowerment, and assessing their effectiveness, through participatory processes. This includes having a central role in the conduct of these assessments (e.g. in defining the research questions, formulating the intervention for evaluation, and/or collecting and analysing data).
2. High-quality intervention studies using consistent approaches to measurement, and including analysis of different population groups and settings, need to be funded and undertaken to provide evidence on ‘what works’ to improve social inclusion and empowerment for people with disabilities. These new studies may preferentially focus on empowerment, as the evidence gaps here are even larger than for social inclusion, despite it being an important focus of many disability programmes.
 - a. Studies should use robust methodologies, including randomised controlled trials (RCTs), with 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 questions¹, which is recommended by the UN for the measurement of disability), social inclusion, and empowerment. This may require the development of new tools which can draw on experiences from other research areas, such as gender and HIV.
 - c. Studies undertaken should consistently consider a broad range of characteristics and aspects of identity (e.g. gender, ethnicity, and intersectionality), which 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 – generally upper-middle – income countries), and in humanitarian settings, to understand ‘what works’ to advance educational outcomes for people with disabilities, in these contexts.

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

- e. Advocacy efforts are needed to encourage funders (including governments, multilateral agencies, research institutes, and other foundations) to commit financial support towards these studies.
3. Relevant existing programmes implemented by governments, DPOs, and non-governmental organisations (NGOs) should evaluate whether they are effective at improving social inclusion and empowerment 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.
4. Monitoring systems should be implemented that allow disaggregation of social inclusion and empowerment data by disability/impairment types (e.g. using the Washington Group measures). This will permit the assessment of inclusion and progress over time of people with disabilities in these areas.

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1. Background

1.1 Global disability: magnitude and impact

There are an estimated one billion people with disabilities worldwide and the majority (80%) live in LMICs.⁴ People with disabilities are greatly over-represented among the most marginalised in society. They often experience stigmatising attitudes, norms, and behaviours. This stigma, coupled with inaccessible environments and systems and institutional barriers (e.g. lack of anti-discrimination legislation), may result in discrimination of people with disabilities, and potentially their families, so that they are not able to enjoy their rights on an equal basis with others. As a consequence, people with disabilities on average have lower educational attainment, poorer health, lower economic opportunities, and are at increased risk of poverty.⁴⁻⁶

Box 1 What is disability?

The UNCRPD defines disability as '*long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder [a person's] full and effective participation in society on an equal basis with others*'.⁷

Exclusion of people with disabilities is a human rights issue. As set out in the UNCRPD, people with disabilities have the right to full participation, non-discrimination, and equality of opportunity in all realms of life.⁷ Disability is also an important development concern; the prevalence of disability is highest in LMICs and there is strong evidence that poverty and disability are inter-related,⁶ and that people with disabilities are being 'left behind' in many fundamental areas of development. The understanding that development efforts must be inclusive of all (including people with disabilities) is core to the UN 2030 Agenda for Sustainable Development and achievement of the SDGs.⁸ Inclusion of people with disabilities is explicitly stated in five of the goals, including in SDG target 10.2: '*By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.*'⁸

This REA will focus on social inclusion and empowerment for people with disabilities, including consideration of why these issues are important, and how better outcomes may be achieved.

1.2 Social inclusion of people with disabilities

Social inclusion is multi-faceted and different interpretations emphasise different aspects. However, most commonly, social inclusion refers to inclusion in social, political, cultural, and economic dimensions.⁹ A UN report on the World Social Situation defines social inclusion as the '*process of improving the terms of participation in society, particularly for people who are disadvantaged, through enhancing opportunities, access to resources, voice and respect for rights*'.¹⁰

Stigma and discrimination manifest themselves in a lack of social inclusion. Discrimination on the basis of disability means any distinction, exclusion or restriction that has the purpose or

effect of preventing people with disabilities access to their rights.⁷ The discrimination people with disabilities experience can cut across all aspects of life – political, economic, social, cultural, civil or any other field – and includes denial of reasonable accommodation. People with disabilities also experience stigmatising attitudes. These are inaccurate perceptions and beliefs that can be widespread in society and can often result in and underpin exclusion, and sometimes exploitation, abuse and violence.¹¹ People who are stigmatised are made to feel ashamed, and stigma is often one of the driving factors behind discrimination against people with disabilities.¹² The families and carers of people with disabilities are also sometimes stigmatised or discriminated against by association.¹³

Social inclusion of people with disabilities is recognised as a fundamental right in the UNCRPD, including in *'participation in cultural life, recreation, leisure, and sport'* (article 30) and in article 29 on participation in political and public life. Furthermore, without social inclusion other rights (e.g. right to education) may not be realised. Social inclusion is also fundamental to implementing the 2030 Agenda; as long as people with disabilities are excluded from equal participation in all aspects of life, the SDGs arguably cannot be achieved. Wider society also benefits from the valuable contributions that people with disabilities make. Further, meaningful inclusion of people with disabilities, for example in arts, sports, and community processes, can challenge stigmatising attitudes and norms and, in turn, reduce discrimination and social exclusion. On an individual level, social inclusion of people with disabilities is important for many personal development reasons, including promoting health, well-being, self-esteem, and dignity, and strengthening social connections and economic opportunities.¹⁴

Despite the benefits of social inclusion, there is evidence from LMICs that people with disabilities face widespread social exclusion, stigma, and discrimination.^{4, 15} For instance, studies conducted in India, Cameroon, and Guatemala show that adults with disabilities face greater participation restrictions in interpersonal relationships and social, community, and civic life compared with their non-disabled peers.^{5, 15} People with disabilities, particularly women and children, are also at increased risk of violence.^{16, 17} Research from humanitarian contexts conducted in refugee camps in Tanzania and conflict-affected areas of Ukraine shows high levels of social isolation among older people with disabilities and lack of opportunity for engagement in activities outside of the home.¹⁸

Box 2 provides quotes from people with disabilities, drawn from a range of qualitative studies, to highlight the negative impacts of lack of social inclusion.

Box 2 Voices of people with disabilities: experience of lack of social inclusion

Social isolation

'I don't go out the house. I just look out of the window.' Woman, 78, Ukraine¹⁸

'They tell me that I don't see, so they tell me not to play. So, I don't play much So, I stay in my room and write if I want to.' Girl with disabilities, Nepal¹⁹

Shame, exclusion, and stigma

'Even if I'm interested [to attend an event], when people ask me, I tell them I'm not interested. I don't want them to pity me, I hate when they use the word "bichara" (pity). Instead of people saying you can do this and that and can get there, I don't like people who say "bichara".' Young woman, Nepal¹⁹

'Some in the community are merciful. Others say, "Why is she carrying a dead person...a useless person".' Caregiver, Turkana, Kenya²⁰

'B has not been part of any food programme, but we haven't exposed him to any of these programmes [why?] I was ashamed to take him out for a project.' Caregiver, Turkana, Kenya²⁰

Lack of rights

'The main problem is that when people lower their voices at a meeting, I can't hear them. I'm not involved.' Man, 81, Tanzania. ¹⁸

'I should receive same rights as the able-bodied people. I can't play what I want to play because the teacher points out my disability. They say I can't play. I can't even participate in events that is to do with study [like a quiz] ... ' Girl with physical impairment, Nepal¹⁹

Vulnerability to Violence

'People beat him up and sometimes he comes back home crying and with bruises on his face ... [and] his body swollen from the beatings. He goes straight in bed and cries himself to sleep It worries me and sometimes I feel like crying because my child goes through that. If he was able to speak, he would be able to point out who does those things to him.' Caregiver, Malawi²¹

Barriers that limit social inclusion of people with disabilities include physical barriers such as inaccessible transport and buildings (e.g. community centres, sport facilities) and information barriers (e.g. lack of sign-language interpreters at cultural events). Stigmatising attitudes and norms are important barriers to social inclusion. For example, prejudice and misconceptions result in people with disabilities being discriminated against by being denied opportunities – including opportunities to establish relationships, express their sexuality, marry, and have families.^{4, 22}

Systematic and institutional barriers are also critical, such as discriminatory legislation and policies that exacerbate the exclusion of people with disabilities from decision-making processes and other areas of life.⁹ Barriers may be exacerbated in times of humanitarian crises, with people with disabilities disproportionately affected by the fragmentation of family and support networks, infrastructure, and services.¹⁸ Research with conflict-affected populations highlighted how inaccessible homes, public buildings, and transport limited access to community safe spaces and meetings for people with disabilities.¹⁸ Women with disabilities may experience additional barriers to social inclusion – as a result of the intersectional prejudice that they may face as a result of gender and disability.

Social exclusion impacts individuals in diverse ways depending on their impairment, gender, socioeconomic and cultural background, and other characteristic and contexts. For example, older people with disabilities often experience discrimination based upon both their disability and age, and older women may be even further disadvantaged. People with certain impairment types may face particularly high levels of discrimination. For instance, in many parts of the world people with albinism are often targeted as a result of deep-rooted discriminatory beliefs, such as that their body parts can bring good fortune. Societal stigma can result in people with psychosocial and intellectual disabilities being segregated, constrained in their homes, or institutionalised.

Various approaches are used to promote social inclusion for people with disabilities, with the ambition that *'People with disabilities have meaningful social roles and responsibilities in their families and communities, and are treated as equal members of society.'*¹⁴

Social inclusion can be achieved through diverse interventions. The CBR guidelines developed by the WHO recognise that a comprehensive and multi-sectoral approach is required to improve the equalisation of opportunities and social inclusion of people with disabilities while combating the perpetual cycle of poverty and disability. The CBR matrix (Figure 1) provides a visual representation of the different aspects that contribute to CBR. This is a well-established framework which is widely used for discussions of policies and a programme related to people with disabilities, and has been used as the guiding framework for classifying the interventions and outcomes considered by the studies included in this REA.

The CBR matrix consists of five key components: Health; Education; Livelihood; Social; and Empowerment – each of which comprises a series of sub-elements. Programmes or interventions focused on improving inclusion are grouped into five areas: Personal assistance; Relationships, marriage and family; Culture and arts; Recreation, leisure, and sports; and Justice.¹⁴

Figure 1 WHO CBR matrix¹⁴

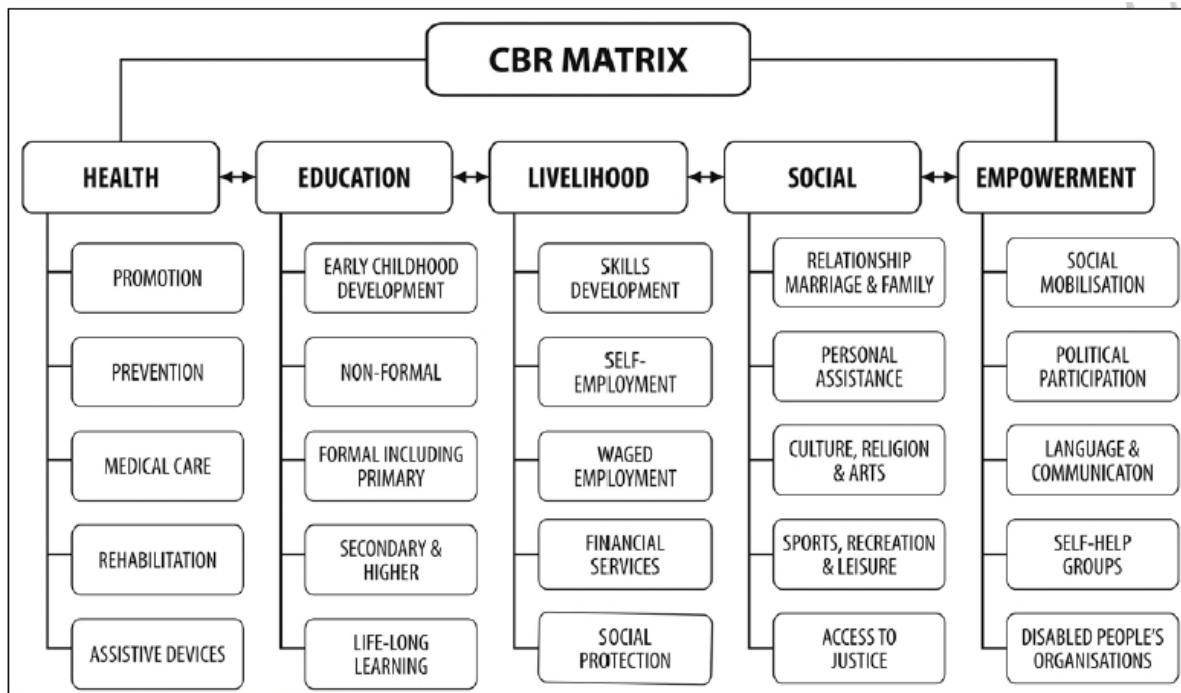


Figure 1: CBR matrix (WHO, 2010)

1.3 Empowerment of people with disabilities

Empowerment is a cross-cutting issue that is fundamental to achieving inclusion in all aspects of life, such as education, livelihood, and social inclusion. Empowerment is complex, multi-layered, and lacking a universally agreed definition. Broadly, it relates to people with disabilities having a voice, taking control over their own lives, and advocating for their rights and entitlements.²³ The CBR guidelines suggest *'empowerment begins to happen when individuals or groups of people recognize that they can change their situation, and begin to do so'*.^{14, 24}

More recent work has taken empowerment to mean a state of both subjective and objective being, where people have greater voice over decision making that affects their lives, an expanded range of choices and the possibilities of making them in the social, political, and economic spheres, and increased control over their own lives.²⁵⁻²⁷ The synthesis paper by Andrea Cornwall (2016) outlines meanings of the term, especially in relation to empowerment of women and girls, arguing that in addition to its uses around building agency and choice, empowerment is also linked to power, and can be *'understood in terms of gaining a sense of power to shape the lives we live'*.²⁴

The concept of *'Nothing about us without us'* is at the heart of the international disability movement. People with disabilities have unique insight into the barriers they face and how these could be overcome. Accordingly, the preamble to the UNCRPD recognises *'the importance for persons with disabilities of their individual autonomy and independence, including the freedom to make their own choices'* and that people with disabilities should *'have*

the opportunity to be actively involved in decision-making processes about policies and programmes, including those directly concerning them, in other words, be empowered. The UNCRPD also recognises specific rights relevant to empowerment, including *'participation in political and public life'* (article 29), and *'freedom of expression and opinion'* (article 21).

However, evidence suggests that these rights are often not being realised and exclusion of people with disabilities from these processes, in turn, creates barriers to their inclusion in society.^{4, 28} A systematic literature review found that despite widespread ratification of disability-inclusive legislation across Africa, people with disabilities face many barriers to political participation, including physical inaccessibility of buildings, stigma (e.g. from registration officials), and lack of education and financial resources.²⁹ Research in refugee camps in Tanzania and conflict-affected communities in Ukraine highlighted that older people with disabilities were not being included in decision-making processes about issues that affected them.¹⁸ Gender analyses are therefore vital when considering empowerment of people with disabilities. More broadly, discrimination and stigma impact individuals in diverse ways depending on their impairment, gender, socioeconomic and cultural background, and other characteristics and contexts.¹³ For example, poverty, environmental degradation, and violence experienced by indigenous peoples result in higher prevalence of disability in these communities as well as the denial of access to services and justice³⁰, while people with intellectual disabilities can often face particular forms of discrimination, including involuntary treatment and denial of legal capacity.¹³

Various approaches can be used to improve the empowerment of people with disabilities, with the goal that *'People with disabilities and their family members make their own decisions and take responsibility for changing their lives and improving their communities.'*¹⁴ These efforts can be categorised as interventions working to improve social mobilisation; political participation; language and communication; SHGs; and DPO participation, as outlined in the CBR matrix of the WHO.¹⁴

1.4 Aim of this REA

Social inclusion and empowerment are integral to disability-inclusive development, with many programmes and policies promoting empowerment of people with disabilities and addressing physical, attitudinal, and institutional barriers to social inclusion. Evidence of 'what works' to improve social inclusion or empowerment of people with disabilities is needed to inform policy, practice, and further research.

The aim of the REA is to provide an overview of the effectiveness of interventions to improve social inclusion and empowerment outcomes for people with disabilities in LMICs.

A second REA has been undertaken to assess the effectiveness of interventions to improve educational outcomes for people with disabilities in LMICs. These two REAs were commissioned in advance of the Global Disability Summit in July 2018 and co-hosted by the UK Government, the Government of Kenya and International Disability Alliance, and will be used to inform global action to implement the SDGs and UNCRPD.

2. Methods

2.1 EGM: study identification and coding

The studies included in this REA are taken from the Disability EGM prepared by the Campbell Collaboration for DFID under the auspices of CEDIL.³¹ The EGM identified the availability of studies exploring the effectiveness of interventions for people with disabilities in achieving outcomes relating to health, education, livelihood, social, and empowerment. This REA focuses only on those studies related to improving social inclusion and empowerment outcomes.

The EGM included systematic reviews and primary studies published from 2000 in English that assessed the effectiveness of interventions for people with disabilities in LMICs. Eligible primary studies were restricted to impact evaluations, including RCTs, because they are the appropriate design for assessing whether an intervention is effective at producing the outcome of interest. 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. Inclusion of studies and reviews published in non-academic literature ('grey' literature) is part of the protocol of EGM, but identification of these studies has not yet been completed, and so they were not included in the REA.

The search for studies for the EGM comprised an electronic search of over 20 databases and sector-specific websites, and screening of the studies identified by the searches against pre-defined inclusion criteria to identify eligibility for inclusion in the EGM (for more details of the search see the protocol for the EGM, Saran *et al.*, 2018).³¹

Screening was a two-stage process of first checking the title and abstract, and then the full-text report (the results of this search are reported in White *et al.*, 2018).³² Screening was undertaken independently by two individuals, with a third-party arbiter in case of disagreement. After studies had been identified as meeting the inclusion criteria, basic information was extracted on each study, including intervention type, outcomes reported, and study characteristics such as study design and location (this process of data extraction is referred to as 'coding'). Further information on the studies that were identified by this process is available in the EGM report (White *et al.*, 2018).³² Additional reports were identified for possible inclusion by checking the reference lists of eligible studies (this process is referred to as 'back-referencing').

2.2 REA: coding of included studies

This REA focuses on those studies identified by the EGM that report interventions or outcomes in the domains social inclusion or empowerment, as set out in the CBR matrix.¹⁴

For social inclusion these include general measures of social inclusion or social skills, with sub-outcomes related to relationships, marriage, and family; personal assistance; inclusion in culture, religion, and arts; inclusion in sports, recreation, and leisure; and/or access to justice. For empowerment, eligible outcomes were those related to social mobilisation; political

participation; inclusion in SHGs; and/or DPOs; and development of language, communication, and advocacy skills.

Using these definitions, the REA included 16 primary studies and 18 reviews. A summary of included studies was prepared, in addition to the coding described above. This summary consisted of basic study characteristics (e.g. study design, study population, description of intervention, whether the study was conducted in a humanitarian context²); narrative summary (i.e. description of main outcomes in relation to the intervention); summary of findings/results; and quality assessment (described below). This stage of coding was conducted by pairs of coders, with comparison and discussion to resolve any discrepancies.

2.3 Quality assessment tools

The tool used to assess study quality is shown in Table 1. This tool includes six criteria appropriate to the assessment of quantitative impact evaluations, as follows:

1. **Study design** (potential confounders³ taken into account): impact evaluations need either a well-designed control group, preferably based on random assignment, or an estimation technique which controls for confounding and the associated possibility of selection bias.
2. **Adequate sample size**: small samples generally mean that a study is underpowered, i.e. there is a high risk of not finding an effect even if the intervention works.
3. **Attrition or losses to follow-up**: this can be a major source of bias in studies, especially if there is differential attrition between the treatment and comparison group (called the control group in the case of RCTs) so that the two may no longer be balanced in pre-intervention characteristics. The US Institute of Education Sciences What Works Clearinghouse (WWC) has developed standards for acceptable levels of attrition, in aggregate and the differential, which are applied here.³³
4. **Clear definition of disability**: for a study to be useful, the study population must be clear, which means that the type and degree of disability should be clearly defined, preferably with reference to a widely used international standard.
5. **Clear definition of outcome measures**: this is needed in order to aid interpretation and reliability of findings and comparability with other studies. Studies should clearly state the outcomes being used, with a definition and the basis on which they are measured, preferably with reference to a widely used international standard.

² A study was classified as occurring in a humanitarian context if the paper said that the study location was in the context of a man-made crisis (e.g. war) or disaster caused by natural hazards (e.g. earthquake).

³ A confounder is a variable that is associated with both the exposure and the outcome of interest, and so can produce a spurious association between the exposure and the outcome. For instance, if disability is the exposure and lack of political engagement is the outcome, then poverty will be a potential confounder. This is because poorer people may be more likely to be disabled and more likely **not** to be politically engaged; in other words, poverty can confound the association between disability and political engagement. This means that unless we account for poverty in the study design the association between disability and lack of political engagement may be over-estimated.

6. **Baseline balance:** this shows that the characteristics of the treatment and comparison groups are the same at baseline. Lack of balance can bias the results.

Study quality was rated high, moderate or low for each of the criteria, applying the standards as shown in Table 1. Overall study quality classification was on the basis of the lowest rating achieved across the six criteria – the weakest link in the chain principle. This approach to quality assessment was strict, and therefore would be expected to score few studies as having high quality (e.g. RCTs with adequate sample size, detailed description of methods, and adherence to processes to reduce the risk of confounding and bias). Studies were not excluded on the basis of quality assessment.

Table 1 Study quality assessment criteria

| | Criterion | Low | Moderate | High |
|---|--|--|---|---|
| 1 | Study design (potential confounders taken into account) | Before versus after. Naïve matching | Instrumental Variable, Regression Discontinuity Design (RDD), Propensity Score Matching (PSM), double difference | RCT, natural experiment |
| 2 | Adequate sample size | ≤30 (or fewer than eight clusters) | 31–49 (or 8–12 clusters) | 50 or more (or 13 or more clusters) |
| 3 | Attrition or losses to follow-up are presented and acceptable | Attrition not reported, OR falls well outside WWC acceptable combined levels | Overall and differential attrition close to WWC combined levels | Overall and differential attrition within WWC combined levels |
| 4 | Disability measure is clearly defined and reliable | No definition OR overall attrition >50% | Unclear definition OR single question item only (e.g. are you disabled?) | Clear definition, e.g. Washington Group questions, detailed measure of impairment |
| 5 | Outcome measures are clearly defined and reliable | No definition | Unclear definition | Clear definition using existing measure where possible |
| 6 | Baseline balance (n.a. for before versus after) | No baseline balance test (except RCT) OR reported and significant differences on more than five measures. PSM without common support | Baseline balance test, imbalance on five or fewer measures | RCT, RDD |
| | Overall confidence in study findings | Low on any item | Moderate or high confidence on all items | RCT with high confidence on all items |

Table 2 provides a worked example of applying the quality assessment tool. The example used (Grider, 2014)³⁴ is a controlled before-and-after study, comparing the change in measures of social inclusion after receipt of wheelchair with matched controls using PSM analyses (social inclusion is measured as time spent out of home, distance travelled from home). As summarised in the table below, many of the study characteristics were appropriate (e.g. large size, clear outcome measures). However, confidence in the study results was judged to be 'low', because the study did not use a randomised controlled design and did not present a power calculation to justify the sample size.

Table 2 Application of study quality assessment tool to a sample study

| No. | Item | | Notes |
|-----|--|-------|---|
| 1 | Study design , sampling method is appropriate to the study question | Amber | PSM |
| 2 | Adequate sample size , e.g. sample size calculations undertaken | Red | Sample size was not small (120 current wheelchair users and 141 non-wheelchair users), but no power calculation was presented |
| 3 | Attrition or losses to follow-up | Green | 32% of people in the baseline survey were not included in the follow-up |
| 4 | Disability/impairment measure is clearly defined and reliable | Amber | People were classified on the basis of needing a wheelchair, but there was a lack of information on impairment type |
| 5 | Outcome measures are clearly defined and relatable | Green | Clear definition of outcomes was used (i.e. time spent out of home, distance travelled from home) |
| 6 | Baseline balance | Amber | PSM was used to adjust for baseline differences, although baseline balance was not demonstrated |
| | Overall confidence in study findings | Red | Low on any item |

Scoring: Red – 'low'; Amber – 'moderate'; Green – 'high'

2.4 Evidence assessment

The studies identified for inclusion in this REA were grouped by domains, that is: Social Inclusion and Empowerment. For each sub-outcome with these domains, a results table was prepared, showing the key study characteristics, outcomes, and quality assessment. From these, a narrative summary was prepared drawing out the main themes and findings, including consideration of where there was strong evidence of effectiveness (number of studies and sample size in those studies and consistency of findings across studies) and where there were evidence gaps, as well as the quality of the individual studies included.

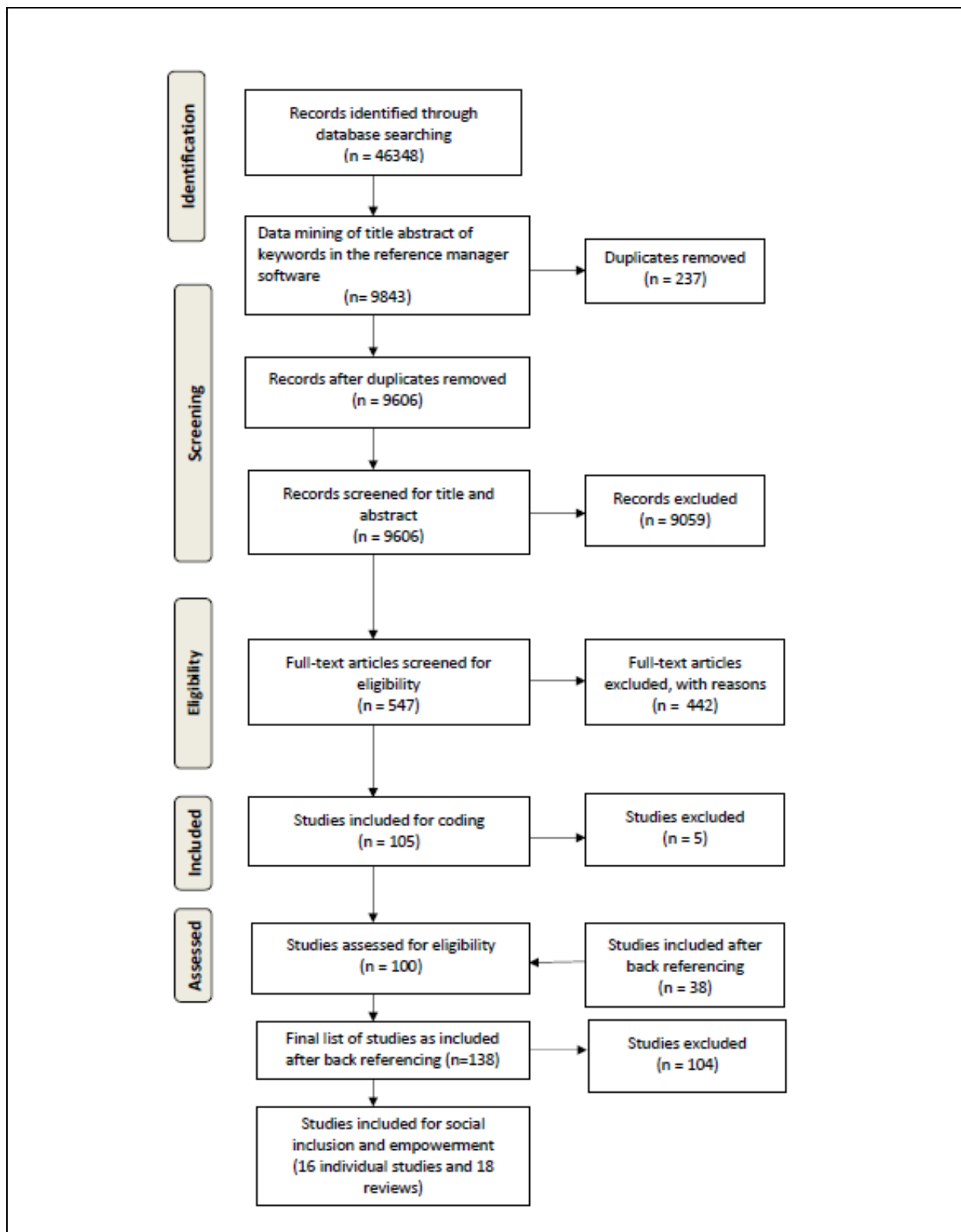
3. Results

3.1 Studies included in the REA

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow chart outlines the steps in the review process (Figure 2). In total, 34 studies (16 primary studies and 18 systematic reviews) were identified that included outcomes related to social inclusion or empowerment. The primary studies included RCTs and other impact evaluations.

The primary studies included in the 18 systematic reviews were also assessed for eligibility; all eligible primary studies were however already included (in the 16 individual primary studies identified). As such, the REA does not include summarised findings of the systematic reviews in order to avoid duplication.

Figure 2 PRISMA flow chart of included studies from the EGM



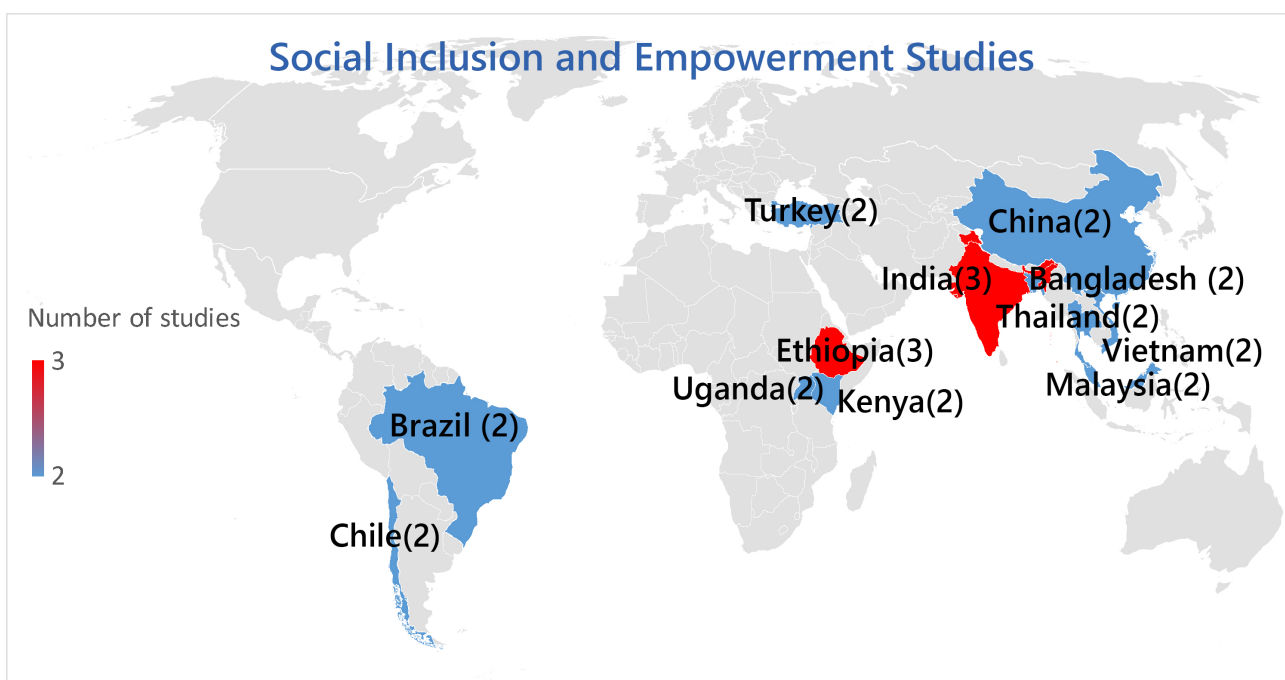
3.2 Individual studies

The 16 studies included in the review are summarised in Box 5. One study published two papers. Both papers are included in the review; however, this was counted as

one study only.^{35, 36} All 16 studies included outcomes related to social inclusion.⁴ Only two studies (Biggeri *et al.*^{35, 36} and Nuri *et al.*³⁷) included outcomes related to empowerment.

The 16 studies were conducted across 12 countries: Bangladesh (two studies), Brazil, Chile, China (two studies), Ethiopia, India (three studies), Kenya (two studies), Malaysia, Thailand, Turkey, Uganda, and Vietnam (two studies); see Figure 3.

Figure 3 Map showing the location of studies included in the REA



Box 3 Summaries of studies of interventions aiming to improve social inclusion or empowerment for people with disabilities

1. Biggeri *et al.* (2014) studied the impact of CBR on people with different disabilities, from which two papers were published.^{35, 36}

- Study design: Case-Control Study
- Country: India
- Setting: Community based
- Participants: 2,373 people with different disabilities
- Impairment type: Physical, visual, hearing and speech, or intellectual
- Percentage female: 41.3%, 44.2% control
- Humanitarian setting: No

⁴ The studies reported a broad range of outcomes (e.g. livelihood inclusion, educational outcomes), but for the purpose of this REA only those related to social inclusion and empowerment were reported.

- Intervention: Comprehensive CBR programme, including through establishment of SHGs (n=1,918)
- Control: 28 villages not covered by programme (n=455)
- Follow-up: Up to seven years
- Outcome measure: Participation in the community, participation in the family, having friends, participation in SHGs, participation in Gram Sabha (village council) meetings, disability certificate, and DPO participation
- Cost-effectiveness considered: No

In intervention areas where CBR was implemented, there were improvements in reported participation in the community and in the family. Furthermore, there were significantly more people from all disability groups who had a disability certificate and who were members of SHGs and DPOs. There was more participation in Gram Sabha meetings, except for people with intellectual disabilities. People with intellectual disabilities had significantly fewer friends in CBR areas. Findings were not disaggregated by gender. Confidence in the study findings was low, because it did not use a randomised design and could not demonstrate balance of characteristics of the two groups at baseline.

2. Devries *et al.* (2018) studied the Good Skill Kit programme for reducing physical violence toward primary school students with disabilities.³⁸

- Study design: Cluster RCT
- Country: Uganda
- Setting: Mainstream primary schools
- Participants: 42 schools, 1,899 students (including 278 children with some functional difficulties, and 104 children with disabilities)
- Impairment type: Functional impairment using short-set Washington Group questions
- Percentage female: 49% (children with disabilities)
- Humanitarian setting: No
- Intervention: Good School Toolkit – a complex behavioural intervention that aims to foster change in operational culture at the school level (21 schools)
- Control: No intervention (Intervention to be provided at later date) (21 schools)
- Follow-up: Three months after end of intervention
- Outcome measure: Physical, emotional, and sexual violence from school staff and peers
- Cost-effectiveness considered: No

The trial showed that after the intervention the prevalence of physical violence perpetrated by school staff in the past week towards students with some functional difficulties and students with disabilities was lower in intervention schools than in the control schools. The intervention also reduced violence perpetrated by peers. Differences in the effect of the intervention by gender were not reported. Although most of the study characteristics were appropriate, there was only moderate confidence in the results because adequacy of sample size was not demonstrated through a power calculation.

3. Grider (2014) studied the economic impact of wheelchairs for the disabled in Ethiopia.³⁴

- Study design: Case-control study with PSM
- Country: Ethiopia
- Setting: Community based
- Participants: 261 (120 current wheelchair users and 141 non-wheelchair users)
- Impairment type: Certified by physician as physically impaired to degree of needing a wheelchair
- Percentage female: Not stated
- Humanitarian setting: No
- Intervention: Wheelchair provision
- Control: Non-wheelchair users (n=141)
- Outcome measure: Employment and income. Time spent out of house, farthest distance travelled in last seven days
- Cost-effectiveness considered: Yes (but not for social inclusion outcomes)

Results showed that current wheelchair users (the treatment group) devoted 1.75 more hours per day to work and 1.40 fewer hours per day to street begging, and realised a 77.5% increase in income. They also travelled further from home and spent more time outside the house than those in the comparison group. Results were not disaggregated by gender. Confidence in the study results is only moderate, as it used PSM rather than a randomised controlled design.

4. Lal and Bali (2007) explored the effect of visual strategies on the development of communication skills in children with autism.¹

- Study design: Before versus after design, with naïve matching
- Country: India
- Setting: Special school
- Participants: Three schools, 30 children (aged 5–11)
- Impairment type: Neurological (autism)
- Percentage female: Not stated
- Humanitarian setting: No
- Intervention: 14 one-to-one sessions focused on development of comprehension, labelling, description, joint attention, and active interaction through visual supports (n=15)
- Control: No intervention (n=15)
- Follow-up: Not reported
- Outcome measure: Communication skills
- Cost-effectiveness considered: No

Visual strategies were found to be effective in the development of communication skills of children with autism. Gender disaggregation was not reported. There was low confidence in the study findings, due to the small sample size.

5. Lund (2013) studied the outcomes of a mental health and development programme in rural Kenya in a two-year prospective cohort intervention study.³⁹

- Study design: Before versus after study, without control group
- Country: Kenya
- Setting: Cohort study
- Participants: 203 persons (174 at endline)

- Impairment type: Identified by the psychiatric nurse at the clinic as having a severe mental or neurological disorder
- Percentage female: 49.3%
- Humanitarian setting: No
- Intervention: Basic needs mental health and development programme (mental health services, community engagement meetings, SHGs, livelihood training, and income-generating activities)
- Control: No control group
- Follow-up: Two years
- Outcome Measure: Social relationships (measured with the WHO Quality of Life – Brief scale)
- Cost-effectiveness considered: No

Compared with the baseline (mean score 9.8), there was an improvement in the social relationships score at 12 months (11.6) and again at 24 months (14.4). Findings were not disaggregated by gender. Confidence in the study findings was low, because a randomised design was not used, and there was no control group.

6. Makanya *et al.* (2014) studied the effectiveness of transitional and follow-up programmes to community integration of young adults with intellectual disabilities in Kiambu County, Kenya.⁴⁰

- Study design: Before versus after study, without control group
- Country: Kenya
- Setting: Vocational institution
- Participants: 10 young adults with disabilities plus nine parents, one head teacher/employer and two vocational teachers
- Impairment type: Intellectual
- Percentage female: 30%
- Humanitarian setting: None
- Intervention: Vocational education and transitional services for young adults with intellectual impairments
- Control: No control group
- Follow-up: None after end of project
- Outcome measure: Post-institutional support, community integration (measured through employment inclusion)
- Cost-effectiveness considered: No

The findings revealed that while young adults with intellectual impairments were offered vocational skills training in the special school, what they were trained in was not relevant to the tasks they were engaged in (e.g. trained in tailoring but not using those skills in their job). This led to some of them disliking the kind of jobs they had as avenues of community integration. It was evident that a well-specified vocational transitional service for persons with intellectual impairments was lacking. Disaggregation of results by gender was not reported. Confidence in the study results was low, due to the lack of a randomised design, and small sample size.

7. Momin *et al.* (2004) studied the impact of services for people with spinal cord lesion on economic participation in Bangladesh.⁴¹

- Study design: Before versus after study, with control group

- Country: Bangladesh
- Setting: Hospital and community
- Participants: 64 people with spinal cord lesion (aged 10–59)
- Impairment type: Physical (tetraplegia or paraplegia)
- Percentage female: 50%
- Humanitarian setting: No
- Intervention: Specialist services for people with spinal cord injury offered at Centre for Rehabilitation of the Paralysed, including medical treatment in the hospital and social and economic rehabilitation in the community (n=32)
- Control: Government hospital (n=32)
- Follow-up: Not reported
- Outcome measure: Participation in household
- Cost-effectiveness considered: No

People exposed to the Centre for Rehabilitation of the Paralysed programme are more likely to participate in household work (38%) compared with those who have been to the government hospital only (9%). Data were not disaggregated by gender. Confidence in the study findings was deemed to be low, due to a lack of randomisation, unclear definitions of outcomes used, and lack of demonstration of balance in baseline characteristics between cases and controls.

8. Nuri *et al.* (2012) studied the impact of a vocational training programme for persons with disabilities in Bangladesh.³⁷

- Study design: Before versus after study, without control group
- Country: Bangladesh
- Setting: Vocational training institute
- Participants: 261 unemployed people with physical impairments
- Impairment type: Physical
- Percentage female: 39%
- Humanitarian setting: No
- Intervention: Vocational training programme and job placements
- Control: No control group
- Follow-up: None
- Outcome measure: Social support and inclusion (measured only on the 157 people who had found employment)
- Cost-effectiveness considered: No

Participants who were employed as a result of the intervention reported that employment improved their involvement in family decision making (66% overall, 68% females, 64% males), perceived acceptance in their families (50% overall, 43% females, 56% males), acceptance in community/society (94% overall, 89% females, 99% males), and their political participation in terms of voting for the first time since becoming disabled (94% overall, 89% female, 99% males). Confidence in the study findings was deemed to be low, due to the lack of randomisation or control group, and lack of demonstration of baseline balance or attrition.

9. Othman *et al.* (2015) conducted a pilot study of the effects of a brief cognitive-behavioural and social skills group intervention for children with psychological problems.⁴²

- Study design: Before versus after study, without control group
- Country: Malaysia
- Setting: Psychology clinic
- Participants: 15 children
- Impairment type: Mental health and neurological (screened by psychiatrist)
- Percentage female: Not reported
- Humanitarian setting: No
- Intervention: Stop Think Do cognitive-behavioural social skills training programme
- Control: No control group
- Follow-up: None
- Outcome measure: Conduct problems, peer problems, pro-social behaviours
- Cost-effectiveness considered: No

There were no significant changes in conduct problems, peer problems or pro-social behaviour after the intervention, although improvements were observed in other domains (i.e. total difficulties, emotional problems). Results were not disaggregated by gender. Confidence in the study findings was low, due to lack of randomisation or a control group, and the small sample size.

10. Pajareya and Nopmaneejumruslers (2011) undertook a pilot randomised controlled trial of Developmental, Individual-Difference, Relationship-Based (DIR)/Floortime™ parent training intervention for pre-school children with autism.⁴³

- Study design: RCT
- Country: Thailand
- Setting: Home
- Participants: 32 pre-school children with autism (aged 2–6)
- Impairment type: Neurological (autism)
- Percentage female: 12.5%
- Humanitarian setting: No
- Intervention: Home-based DIR/Floortime™ intervention – a parent skills intervention (one-day training workshop, plus three-hour DVD lecture and manual). The aim was for the family to undertake activities for at least 20 hours per week for three months (n=16)
- Control: Usual activities (n=16)
- Follow-up: Three months
- Outcome measure: Emotional (functional emotional assessment and functional emotional development), which includes measures of social skills (e.g. engagement and relating and interaction)
- Cost-effectiveness considered: No

There was an improvement in the emotional scores and emotional development scores of children in the intervention group compared with those in the control group. Differences in effect of the intervention by gender were not assessed. Confidence in the study findings was deemed to be low, because of a lack of demonstration of balance of the control and intervention groups at baseline.

11. Pereira-Guizzo *et al.* (2012) reported the findings of an evaluation of a professional social skills programme for unemployed people with physical impairments.³

- Study design: Before versus after study, without control group
- Country: Brazil
- Setting: Not specified
- Participants: 16 unemployed people with physical impairments (eight walkers, eight wheelchair users, aged 18–36)
- Impairment type: Physical
- Percentage female: Not stated
- Humanitarian setting: No
- Intervention: Programme for the development of social skills for the work environment, twice a week, 90 minutes per session, 16 sessions total
- Control: No control group
- Follow-up: One and two months
- Outcome measure: Social skills inventory and professional social skills
- Cost-effectiveness considered: No

The social skills scores increased significantly in both treatment groups after the intervention. The improvement in social skills scores was more rapid and marked among the people who could walk compared with those who were wheelchair users. Professional social skills improved in both groups after the intervention. Differences by gender were not reported. Confidence in the study findings was judged to be low, due to the lack of randomisation or a control group, and the small sample size.

12. Ran *et al.* (2003) presented the results of an RCT on the effectiveness of psychoeducational intervention for rural Chinese families experiencing schizophrenia.⁴⁴

- Study design: Cluster RCT
- Country: China
- Setting: Rural communities
- Participants: 357 people with schizophrenia
- Impairment type: Mental disorder
- Percentage female: 61%
- Humanitarian setting: No
- Intervention: (1) Psychoeducational intervention (family education, family workshops, crisis intervention when necessary) with medication; and (2) medication
- Control: No treatment (medication neither encouraged nor discouraged)
- Follow-up: Nine months
- Outcome measure: Relatives' beliefs about the illness and towards the person
- Cost-effectiveness considered: No

The results showed an improvement in the relatives' caring attitudes towards the patients, a gain in knowledge, and an increase in treatment compliance in the psychoeducational family intervention group. Additionally, the relapse rate over nine months in this group (16.3%) was half that of the drug-only group (37.8%), and just over one-quarter of that of the control group (61.5%) ($p < 0.05$). Antipsychotic drug treatment and families' attitudes towards patients after the nine-month follow-up were significantly associated with clinical outcome ($p < 0.05$). Confidence in the result was judged to be moderate, because justification was not given for the adequacy of the sample size.

13. Shin *et al.* (2009) report the effects of a home-based intervention for young children with intellectual impairments in Vietnam.⁴⁵

- Study design: RCT
- Country: Vietnam
- Setting: Home
- Participants: 30 pre-school children with intellectual impairment (aged 3–6)
- Impairment type: Intellectual
- Percentage female: 40%
- Humanitarian setting: No
- Intervention: Training of parents to work with their children through modelling and coaching by teachers during weekly home visits (n=16)
- Control: Usual kindergarten programme (n=14)
- Follow-up: Six months
- Outcome measure: Social skills, interpersonal relationships, and play and leisure time
- Cost-effectiveness considered: No

There were no significant differences at six months between children in the intervention and control groups in terms of social skills, interpersonal relationships, and play and leisure time (as well as other areas, e.g. communication, daily living skills, motor skills). Differences by gender were not reported. Confidence in the study findings was judged to be low because of the small sample size.

14. Shore and Juillerat (2012) assessed the impact of a low-cost wheelchair for people with disabilities in LMICs.²

- Study design: Before versus after study, without control group
- Country: India, Chile, Vietnam
- Setting: Community
- Participants: 519 people who received a wheelchair
- Impairment type: Physical
- Percentage female: 39.8%
- Humanitarian setting: No
- Intervention: Wheelchair receipt
- Control: No control group
- Follow-up: 12 months
- Outcome measure: Amount of time spent outside the home, interaction and relationships, domestic life, and community, social, and civic engagement
- Cost-effectiveness considered: No

Simple, depot-style wheelchairs increased the amount of time spent outside of the home, and improved interaction and relationship scores ($p < 0.001$). There was no change in the domestic life, or community, social, and civic engagement scores following 12 months of use. Disaggregation of results by gender was not reported. Confidence in the study findings was judged to be low, since this study did not use a randomised design and did not include a control group.

15. Wang (2008) assessed the effects of a parent training programme on the interactive skills of parents of children with autism in China.⁴⁶

- Study design: RCT

- Country: China
- Setting: Training at university
- Participants: 27 families of children with autism aged <10 years)
- Impairment type: Neurological (autism)
- Percentage female: 15%
- Humanitarian setting: No
- Intervention: Parent training (n=15)
- Control: No intervention (n=12)
- Follow-up: One week after end of programme
- Outcome measure: Parents' interactive skills
- Cost-effectiveness considered: No

Following the training, parents in the training group, compared with those in the control group, were more sensitive to their children's interests, responded to their children's behaviour more appropriately, were more accepting of their children and their behaviour, showed more enjoyment in interacting with their children, and expressed more warmth toward their children throughout the free play interactions. Gender-disaggregated data were not reported. Confidence in the study findings was low, due to the small sample size.

16. Wolmer *et al.* (2005) analysed a teacher-mediated intervention after disaster: a controlled three-year follow-up of children's functioning.⁴⁷

- Study design: Non-randomised controlled intervention study with naïve matching
- Country: Turkey
- Setting: Schools in earthquake-affected communities
- Participants: 287 children from three schools
- Impairment type: Mental (children who experienced earthquake and are at high risk of Post-Traumatic Stress Disorder (PTSD) – 66% showed moderate or worse symptoms of PTSD at baseline)
- Percentage female: 60%
- Humanitarian setting: Yes
- Intervention: School reactivation programme (teacher-mediated mental health intervention) (n=67)
- Control: No intervention (n=220)
- Follow-up: 12, 24, and 36 months
- Outcome measure: Social behaviour
- Cost-effectiveness considered: No

Three years post intervention, the intervention group had more positive scores for social behaviour ($p < 0.05$) and general conduct ($p < 0.008$) compared with the control group. Outcomes were not disaggregated by gender. Confidence in the study findings was judged to be low, because of a lack of randomised design and lack of demonstration of balance between the intervention and control groups.

3.3 Study findings for social inclusion and empowerment

This REA summarises evidence from rigorous impact evaluations of interventions that affect social inclusion and empowerment. Overall, 16 studies were identified that measured outcomes related to social inclusion and/or empowerment. **Study settings** were mostly in middle-income countries, including Brazil, Chile, China (two studies), India (three studies), Malaysia, Thailand, Turkey, and Vietnam (two studies). Fewer studies were undertaken in low-income countries: Bangladesh (two studies), Ethiopia, Kenya (two studies), and Uganda. One of these studies was undertaken in a humanitarian setting (post-earthquake).

All 16 studies reported outcomes relevant to social inclusion. Only two studies reported outcomes related to empowerment.^{35–37} The key findings from these studies are summarised below by the social inclusion and empowerment outcomes explored.

Social inclusion: General. Three studies measured general social inclusion or social skills outcomes, and all reported positive outcomes. Grider (2014)³⁴ showed that wheelchair provision resulted in people spending more time out of the house, and travelling further away from the house (as well as earning more and spending less time begging). Lal and Bali (2007)¹ showed that a school-based teaching intervention improved communication skills of children with autism in India. Similarly, Pajareya and Nopmaneejumrulers (2011)⁴³ found that the social skills of children with autism in Thailand improved after the delivery of a parent training intervention. Overall, however, the quality of these studies was low, and there is insufficient evidence on ‘what works’ in this domain.

Social inclusion: Personal assistance. No eligible studies were identified, and therefore there is no evidence on ‘what works’ in this area. Relevant outcomes could have included that people with disabilities have individual support plans in place, have access to training to enable them to manage their personal assistance needs, or that support is available for families who provide personal assistance on an informal basis.

Social inclusion: Interpersonal relationships (relationships, marriage, and family). Twelve eligible studies were identified in this domain, all focusing on the relationships component. However, disability type, the intervention, and the outcomes measured varied greatly between the studies. It is, however, notable that a large number of studies do find positive effects, as described below.

Biggeri *et al.* (2014)³⁵ showed that a comprehensive CBR programme improved participation of people with disabilities in the community and in the family. Lund (2013)³⁹ demonstrated that people with mental health or neurological conditions who attended a comprehensive mental health and development programme in Kenya experienced improvements in social relationships scores, which were sustained after 24 months. Makanya *et al.* (2014)⁴⁰ found that provision of vocational education and transitional services for young adults with intellectual impairments in Kenya resulted in higher levels of community integration (measured through employment inclusion). Nuri *et al.* (2012)³⁷ found that people with physical impairments who attended a vocational training programme were more likely to be employed, and that employment improved their inclusion in the family and community. Pereira-Guizzo *et*

al. (2012)³ found that people with physical impairments in Brazil who enrolled in a professional social skills programme experienced improvements in their social skills scores. Wolmer *et al.* (2005)⁴⁷ undertook a teacher-mediated mental health intervention in an earthquake-affected area in Turkey, where there was a high prevalence of PTSD. They showed that the social behaviour and general conduct scores were higher for students in the intervention group, compared with the control.

Several studies reported improvements in inclusion in family activities and how families treat people with disabilities as a result of the interventions. Momin *et al.* (2004)⁴¹ showed that people with spinal cord lesions who were involved in the social and economic rehabilitation programme in Bangladesh were more likely to participate in household work than those who did not engage in the programme. Wang (2008)⁴⁶ found that a parent training programme on the interactive skills of parents of children with autism in China showed positive results for the behaviour of the family towards the child (e.g. more sensitive to child's interests, responded more appropriately, expressed more warmth). Ran *et al.* (2003)⁴⁴ showed that a psychoeducational intervention for rural Chinese families experiencing schizophrenia was associated with an improvement in the relatives' caring attitude towards the person.

But not all studies report positive outcomes after the intervention. Othman *et al.* (2015)⁴² found in a small study in Malaysia that children with emotional or behavioural disorders who were included in a behavioural and social skills training programme did not show improved conduct, peer relationships or pro-social behaviour. Shin *et al.* (2009)⁴⁵ found that a home-based intervention for young children with intellectual impairments in Vietnam was not associated with improvements in social skills or interpersonal relationships.

Other studies were mixed. Shore and Juillerat (2012)² undertook a study in India, Chile, and Vietnam and found that provision of wheelchairs was associated with improvements in interaction and relationship scores, and the amount of time spent out of the home. However, there was no change in domestic or community, social, and civic engagement scores.

Overall, there is promising evidence on 'what works' in this domain.

Social inclusion: Culture and arts, and Recreation, leisure, and sports. These two domains are covered by one study of wheelchair provision in India, Chile, and Vietnam by Shore and Juillerat (2012).² Despite the positive impacts found in relation to the other outcomes (see above), no significant improvement was found in community, social, and civic life. A second study focused on recreation, leisure, and sports also did not show a positive result; Shin (2009)⁴⁵ found that a home-based intervention for young children with intellectual impairments in Vietnam was not associated with improvements in play and leisure time. There is insufficient evidence on 'what works' in these domains, given the sparsity of data available.

Social inclusion: Justice. One eligible study was identified: this study was a cluster RCT of the Good School Toolkit, a school-based anti-bullying programme in Uganda intended to reduce bullying by teachers (Devries *et al.*, 2018).³⁸ The programme reduced physical violence by teachers toward children both with and without disabilities – though violence perpetrated against children with disabilities remained more prevalent than for non-disabled children. Violence perpetrated by peers was

also reduced for both groups. There is insufficient evidence on ‘what works’ in this domain since there is just one study of moderate quality.

Empowerment: Only two studies explored the effectiveness of interventions/outcomes related to empowerment of people with disabilities.

One study (Biggeri *et al.*, 2014)^{35, 36} covers the three empowerment outcome sub-domains for which we have evidence (i.e. participation in SHGs, DPOs and political participation). This study examines a comprehensive CBR programme, comparing treatment areas with comparison areas identified through naïve matching. The participants are divided into four types of impairment: physical, visual, hearing and speech, and intellectual. The results showed greater participation in SHGs and DPOs by all four groups. There was also greater participation in local government (Gram Sabha) by three of the four groups, the exception being persons with intellectual disabilities.

In a second study related to empowerment, Nuri *et al.* (2012)³⁷ explored political participation, and found that people with physical impairments who attended a vocational training programme were more likely to be employed, and that employment increased their political participation in terms of voting for the first time since becoming disabled.

Overall, there is insufficient evidence on ‘what works’ regarding empowerment, since the evidence base is thin, with just two studies, both of which are assessed as being of low quality.

No eligible studies were found with respect to Advocacy and Communication or Community Mobilisation outcomes, and as such there is no evidence on ‘what works’ in relation to these aspects of empowerment.

Marginalised populations, stigma, and discrimination

There were lots of evidence gaps, with many areas of interest only covered by single studies – for example, only one study (Grider, 2014)³⁴ reported a cost-effectiveness analysis, but did not report these analyses in relation to the social inclusion outcomes.³⁴ Likewise, one study (Wolmer *et al.*, 2005)⁴⁷ was undertaken in a humanitarian context (post-earthquake)⁴⁷ and only the study by Nuri *et al.*³⁷ considered whether differences in outcomes were achieved for men and women, finding more positive results for men than women with disabilities for three of the four outcomes following a vocational training programme.

Finally, stigma was considered only indirectly and in two studies, although some positive results were identified in terms of reducing stigmatising attitudes. For instance, two family support programmes in China both showed that the attitude of family members towards the person with disabilities improved after the intervention.^{44, 46} The lack of studies exploring the role of stigma is an important evidence gap, given the pervasive stigmatising attitudes against people with disabilities, and the potential impact this can have in preventing social inclusion and empowerment.

Tables 3 and 4 provide an overview of the body of evidence with respect to each outcome.

Table 3 Summary of the evidence from the individual studies in the REA: social inclusion

| | General social Inclusion | Personal assistance | Relationships, marriage, and family | Culture and arts | Recreation and sport | Justice |
|-------------------------------------|--|----------------------------|--|--------------------------|---|-------------------------------|
| Studies included | 3 | 0 | 12 | 1 | 2 | 1 |
| Impairment type | Physical (1); Neurological (2) | - | All (1); Neurological (5); Intellectual (2); Physical (4) | Physical (1) | Physical (1); Intellectual (1) | All (1) |
| Outcomes | Time out of house, travel away from house, communication skills, social skills | - | Having friends, treatment by family, socialisation, ICF interpersonal relationships checklist, participation in household activities, social acceptance, social relationships, emotional development, pro-social behaviour, social conduct | ICF functioning measures | ICF functioning measures | Violence |
| Intervention type | Wheelchair provision (1), teacher training (1), parent skills (1) | - | CBR (1), comprehensive mental health programme (2), vocational training (2), comprehensive rehabilitation (1), social skills training (2), parent training (2), teacher-mediated mental health (1), wheelchair provision (1) | Wheelchair provision (1) | Wheelchair provision (1); parent training (1) | School-based intervention (1) |
| Evidence of impact | Yes (3) | - | Yes (9) None (3) | No (1) | No (2) | Yes (1) |
| Study quality | Moderate (1) Low (2) | - | Moderate (1) Low (11) | Low (1) | Low (2) | Moderate (1) |
| Gender analyses | Yes (1) No (1) | - | No (12) | No (1) | No (2) | No (1) |
| Humanitarian setting | No (2) | - | No (11) Yes (1 post-earthquake) | No (1) | No (2) | No (1) |
| Cost-effectiveness analysis | No (2) | - | No (12) | No (1) | No (2) | No (1) |
| Areas of consistent evidence | None | - | Most studies show an improvement in interpersonal relationships | None | None | None |
| Overall evidence assessment | Insufficient | No evidence | Promising | Insufficient | Insufficient | Insufficient |

Table 4 Summary of the evidence from the individual studies in the REA: Empowerment

| | Advocacy and communication | Community mobilisation | Political participation | Participation in SHGs and DPOs | DPOs |
|-------------------------------------|-----------------------------------|-------------------------------|---|---|---|
| Studies included | - | 0 | 2 | 1 | 1 |
| Disability type | - | - | Physical, visual, hearing, speech, and intellectual (1); Physical (1) | Physical, visual, hearing, speech, and intellectual | Physical, visual, hearing, speech, and intellectual |
| Outcomes | - | - | Participation in Gram Sabha (1); voting (1) | Participation in SHGs and DPOs | Participation in DPOs |
| Intervention type | - | - | CBR programme (1), vocational training (1) | CBR programme (1) | CBR programme (1) |
| Evidence of impact | - | - | Yes (2 – but not intellectual disabilities) | Yes (1) | Yes (1) |
| Study quality | - | - | Low (2) | Low (1) | Low (1) |
| Gender analyses | - | - | Yes (1); No (1) | No (1) | No (1) |
| Humanitarian setting | - | - | No (2) | No (1) | No (1) |
| Cost-effectiveness analysis | - | - | No (2) | No (1) | No (1) |
| Areas of consistent evidence | - | - | None | None | None |
| Overall evidence assessment | No evidence | No evidence | Insufficient evidence | Insufficient evidence | Insufficient evidence |

3.4 Description of characteristics of studies reporting social inclusion or empowerment outcomes

The range of **impairment type/disability** considered was relatively narrow; five of the studies focused on interventions for people with physical or sensory impairments, nine for people with mental health or neurological conditions (including two of people with intellectual disabilities)^{40, 45}, and two for all disability types.

No two studies used the same disability measure, which undermines comparability between studies or generalisability of study findings. This partly reflects the diversity of disability types covered by the various interventions being studied. But it also reflects a lack of consensus around disability measures, which undermines comparability between studies or transferability of study findings.

Physical impairment is defined in differing ways in the included studies. For example, it is defined generally as being certified to need a wheelchair in one case, and as a specific condition (spinal cord lesion) in one case. For mental health or neurological conditions, in three cases interventions are for treatment groups defined as people with intellectual impairments, one for people with a ‘severe mental or neurological disorder’, one for people with schizophrenia, one for children with emotional and behavioural problems, and three for children with autism. The two studies that considered disability groups more broadly defined disability in terms of being assessed as having low mental or physical functioning.

There is also great variation in the **interventions** studied. The 16 studies include 10 unique intervention types. As outlined in Table 5, some interventions appear in multiple studies – for example, parent training and vocational education appear in three separate studies and wheelchair provision is reported in two studies. The number of occurrences of each intervention (across the 16 studies) is indicated in parentheses.

Table 5 Interventions by nature of impairment

| | |
|--|---|
| Physical or sensory | Wheelchair provision (2); comprehensive rehabilitation services (1); vocational training (2) |
| Mental health or neurological condition(s) | Child skill training programme (2); parent training programme (3); comprehensive support programme (2); vocational training (2); teacher-mediated mental health intervention (1), |
| All impairment types | CBR through SHGs (1); Good School Toolkit (school-based anti-bullying intervention) (1) |

All studies report multiple **outcomes**, usually across several outcome domains. No two studies use the same outcome measures, even when the construct to which they refer is the same (e.g. social skills). Outcome measurement is most commonly undertaken at the end of the intervention, sometimes with follow-up at 12 and 24 months. Long-term sustainability of the benefits of short-run interventions cannot be

taken for granted, so lack of follow-up in general, and of any long-run follow-up, is an important gap in the evidence.

In terms of **study design**, of the 16 studies, four were RCTs, including two cluster RCTs – one with randomisation at the school level and the other at township level. One study used a comparison group with quasi-experimental matching (PSM). Four studies used naïve matching, that is, a comparison group which is stated as being similar to the treatment group but with no statistical matching procedure. Seven studies used before versus after with no control group.

Sample sizes were small in half the studies. Four studies had 20 or fewer participants, a further three studies had sample sizes of between 21 and 31 participants, and one of the cluster RCTs had just two clusters per treatment arm. Such studies are almost certainly underpowered, that is, they have a high probability of failing to identify differences between the treatment and comparison group. They are also at risk of failing to achieve sample baseline balance even if the treatment and comparison groups are indeed drawn from the same population. The remaining eight studies had a moderate sample size, including the other cluster RCT with 42 clusters, and four studies with between 200 and 300 participants. Just one study had over 1,000 participants.

Almost all studies fail to explicitly address attrition or losses to follow-up, although this is potentially an important source of bias. One study explicitly mentions the overall attrition rate (15%). None address differential attrition (i.e. whether the characteristics of those who remain in treatment and comparison groups differ to those who dropped out).

3.5 Overall study quality

Table 6 shows the studies by our six quality assessment criteria. Overall there is low confidence in the study findings for 13 of the 16 studies, and moderate confidence for the remaining three. That is, the literature overall is not of sufficient quality to base firm conclusions about ‘what works’ in relation to improving empowerment and social inclusion. The only exception is the area of interpersonal relationships, where evidence was more promising.

The criteria of study design, sample size, attrition, and balance are each generally scored low for the majority of studies. Disability and outcome measurement score higher in individual studies but, as noted above, the diversity of measures makes comparability and assessment of the body of evidence difficult.

Table 6 Study quality assessed against critical appraisal criteria

| Study | Design | Sample | Attrition | Disability | Outcome | Balance | Overall |
|-----------------|--------|--------|-----------|------------|---------|---------|---------|
| Biggeri (2014) | Red | Amber | Red | Amber | Amber | Red | Red |
| Devries (2018) | Green | Amber | Amber | Green | Green | Green | Amber |
| Grider (2014) | Amber | Amber | Green | Amber | Green | Amber | Amber |
| Lal (2007) | Red | Red | Red | Green | Green | Amber | Red |
| Lund (2013) | Red | Green | Amber | Amber | Amber | Red | Red |
| Makanya (2014) | Red | Red | Red | Red | Red | Red | Red |
| Momin (2004) | Red | Amber | Green | Green | Red | Red | Red |
| Nuri (2012) | Red | Amber | Red | Amber | Amber | Red | Red |
| Othman (2015) | Red | Red | Red | Amber | Amber | Red | Red |
| Pajareya (2011) | Red | Amber | Amber | Amber | Amber | Red | Red |
| Pereira (2012) | Red | Red | Red | Amber | Amber | Red | Red |
| Ran (2003) | Green | Amber | Green | Green | Green | Green | Amber |
| Shin (2009) | Red | Red | Red | Amber | Amber | Red | Red |
| Shore (2012) | Red | Green | Amber | Amber | Amber | Red | Red |
| Wang (2008) | Red | Green | Amber | Amber | Amber | Amber | Red |
| Wolmer (2005) | Red | Green | Amber | Amber | Amber | Red | Red |

Scoring: Red – 'low'; Amber – 'moderate'; Green – 'high'.

4. Discussion

This REA has summarised evidence from rigorous impact evaluations of interventions to improve social inclusion and empowerment of people with disabilities. It is clear from the assessment that the evidence base on ‘what works’ to achieve better social inclusion and empowerment for people with disabilities is severely limited, in terms of scope, quantity, and quality (Tables 3 and 4). Specific limitations of the evidence are considered later in this section.

Only 16 studies were eligible for inclusion in the review based on the rigorous inclusion criteria for studies assessing impact. All 16 of the studies explored outcomes related to social inclusion. Most of these (12 of the 16) were, however, focused on improving relationships for people with disabilities. Only two studies explored empowerment outcomes.^{35–37} This leads us to conclude there is ‘promising evidence’ of ‘what works’ for improving relationships, but ‘insufficient’ or ‘no evidence’ for the other domains of social inclusion and all areas of empowerment.

4.1 Overview of key results

A broad range of interventions were assessed that attempted to improve social inclusion or empowerment outcomes, with most of the focus on social inclusion, in particular improving general social skills or relationships. Overall, the REA found promising evidence that interventions can be effective at improving the relationships of people with disabilities. There was also evidence of the effectiveness of an intervention to reduce violence perpetrated by teachers and peers against children with disabilities, although this was from just one study.³⁸

A consistent finding across the review was that interventions, such as social skills training and those that enable people with disabilities to take on more responsibility such as gainful employment, can be effective in improving the social skills of people with disabilities and/or their relationships, and so there was promising evidence for effectiveness. However, the follow-up for most of these studies was short and so it was not possible to assess whether the improvements were sustained, or whether improved social skills translated into improved social inclusion.

Few interventions targeted other aspects of social inclusion, such as personal assistance, inclusion in recreation and the arts, and access to justice. Studies addressing empowerment, using the criteria set out, were almost entirely lacking.^{35–37} The interventions used varied between studies, so that data synthesis was difficult. **Studies are needed to evaluate ‘what works’ to improve empowerment of people with disabilities, and to target a broader range of aspects of social inclusion.**

Outcomes reported were almost always measured in terms of the person’s improved skill, which would support better social inclusion (i.e. better social skills or communication skills), rather than in terms of social inclusion or empowerment more broadly, or interventions designed to address systemic factors that cause their exclusion (e.g. policies or programmes that have measures to include people with disabilities). Whilst a few studies measured social inclusion (e.g. relationships), the outcome measures did not include satisfaction with social inclusion or the quality of social inclusion (e.g. satisfaction with relationships).

An important gap is that few of the studies explicitly assessed reductions in perceived stigma as outcomes or interventions. This was only assessed in two studies, which showed improved attitudes to the person with disabilities as a result of the intervention.^{2, 3} This gap is an important omission, as stigmatising attitudes and norms are major barriers towards the social inclusion of people with disabilities, and their empowerment. Moreover, these two studies looked at only one measure of stigma (attitudes) but did not consider changes in other outcomes such as knowledge (e.g. ignorance) or behaviours towards people with disabilities. Another issue is that there was a lack of consistency in outcomes used, making it difficult to compare findings. This evidence gap is not easy to overcome, given the lack of agreed measurement tools for social inclusion, empowerment or stigma. **Greater consistency is needed in the social inclusion and empowerment outcomes measured in studies, and these should focus more holistically, and broaden the focus beyond social skills.** Research on and for people with disabilities could draw on concepts and definitions used in other areas of inequalities and discrimination, such as gender and HIV.⁴⁸

Disability is an extremely heterogeneous category, including people with a broad range of impairment types, who will face different challenges and facilitators to social inclusion and empowerment. Almost all of the studies focused on people with a single impairment type, so that it was not possible to compare the effectiveness of the intervention for people with different or multiple impairments. Exceptions were the studies by Biggeri *et al.* (2014)^{35, 36} and Devries *et al.* (2018).³⁸ However, these studies did not disaggregate outcomes by impairment type, likely because of small numbers.

People with disabilities experience inclusion and empowerment in diverse ways depending on impairment, gender, ethnicity, and other characteristics and contexts. The studies failed to disaggregate by gender (with one exception),³⁷ therefore limiting our ability to discern whether interventions were equally effective for both genders, or to explore the intersectionality between disability and other characteristics associated with discrimination, such as age and ethnicity. As mentioned above, only one of the studies was undertaken in a humanitarian setting, representing a further important gap in knowledge.⁴⁷ **Studies are needed that assess outcomes of interventions for a broader range of impairment types, for both genders, in humanitarian contexts, and allow disaggregation of effects.**

4.2 Limitations of the evidence base

Other concerns about the body of evidence, in addition to the small number of studies identified, include:

- While the studies were conducted in a relatively broad range of countries, only one took place in a humanitarian setting (Turkey post-earthquake).
- The impairment types included were narrow in range, and heavily focused on children with autism and intellectual impairment, and physical impairments in adults.
- A broad range of interventions were included: the 16 studies contained 10 different types of interventions, making comparisons difficult.
- Confidence in the study results was almost universally low, as the studies were generally small and lacked randomisation of the intervention or a control group.

- Despite these constraints, studies generally reported positive outcomes of the intervention. This raises concerns about potential publication bias, which refers to the tendency for studies that do not find positive effects to be less likely to be published or reported. This is an important concern across this body of evidence, given that the studies were often small and low quality, yet found positive outcomes of interventions.

These limitations suggest that more and better-quality studies are needed to identify 'what works' to improve social inclusion and empowerment for people with disabilities, including a broader range of countries and impairment types.

4.3 Consideration of findings against previous reviews

The systematic reviews identified through our search strategy were not included in the REA. This is because the reviews only included studies from high-income settings, they did not identify any eligible studies (or not from LMICs), or they included only eligible primary studies already identified for the REA.

However, **overall these reviews reinforce the key messages identified by the REA: data are scarce, the few existing studies are generally of poor quality, and the comparability of studies is low.** Poor quality is noted in the review of social skills programmes for people with schizophrenia,⁴⁹ the review of effectiveness of interventions to prevent and respond to violence against persons with disabilities,⁵⁰ and the reviews of early intervention for young children with autism.^{51–53} In other reviews the data available were very sparse,^{54, 55} including a review of the effectiveness of parenting training for parents with intellectual disabilities (three eligible studies),⁵⁶ and a review of interventions for children with pervasive developmental disorders in LMICs (four eligible studies).⁵⁷

The broad range of interventions and outcomes employed makes comparison difficult. For instance, Hartling *et al.* (2014) conducted a systematic review of interventions to support siblings of children with chronic illness or disability. They identified 14 eligible studies, but concluded that '*Study differences made it difficult to determine which sibling care features were most salient.*'⁵⁸ Similarly, Lemmi *et al.* (2015) undertook a systematic review of CBR for people with disabilities in LMICs.⁵⁹ They identified only 15 eligible studies, and these were mostly focused on health-related interventions, used a wide variety of interventions and outcomes, and were mostly of low quality.⁵⁹

Despite these concerns, there was some evidence within the systematic reviews that interventions were effective at improving social inclusion and empowerment, again in accordance with the findings of the REA. For instance, Velema *et al.* (2008) assessed the evidence for effectiveness of rehabilitation-in-the-community programmes, and concluded that CBR activities result in social processes that change the way community members view persons with disabilities, increase their level of acceptance and social inclusion, and mobilise resources to meet their needs.⁶⁰

It is notable that there has not been large-scale funding for either interventions to be evaluated or funds for evaluation as there have been, for example, for HIV over the last two decades. As a result the quantity and quality of the research has suffered, as reflected by the existing reviews.

4.4 Strengths and limitations of REA

The strengths and limitations of the REA need to be taken into account when interpreting the validity of the findings.

In terms of strengths, the eligible studies were identified through a comprehensive EGM that searched for data across 20 databases and sector-specific websites and screened more than 46,000 titles for inclusion. Data extraction and coding and quality assessment were undertaken by experienced researchers, using standardised protocols, with double scoring. Both the EGM and REA were conducted jointly by experts in systematic review (Campbell) and the International Centre for Evidence in Disability (ICED), further improving the credibility of the findings.

In terms of limitations, a broad search strategy was used to identify studies related to disability, including specific health conditions or impairment types. Consequently, the population in some of the included studies are people at high risk of disabling conditions (e.g. where there was a high prevalence of PTSD), rather than people with disabilities. Hence, generalisation of findings from such studies to broader groups of people with disabilities may be difficult.

There was a lack of consistency in intervention type and outcome measures used, and so meta-analysis was not possible and even narrative synthesis of findings was challenging.

Studies were only eligible for inclusion if they were published after 2000, and in English. Grey literature, which refers to research published outside of academia (for example, by government or NGOs) was not included in the review, as this was not part of the EGM (this type of literature will be included in the Map at a later phase). Consequently, some eligible studies may have been missed.

Our restricted eligibility criteria, requiring that primary studies were impact evaluations and conducted in an LMIC, meant that some potentially informative studies were excluded. This included non-intervention studies conducted in LMICs (e.g. qualitative studies, process evaluations), interventions of people from LMIC communities but living in high-income settings, or high-quality interventions from high-income settings.

The quality of the data was broadly poor, limiting the confidence in inferences made from the study findings. However, relatively strict criteria were applied for evaluating confidence, and so certain studies were deemed to be low quality although they fulfilled most criteria, for instance, studies that failed to report the sample size calculations.⁴⁴

4.5 Implications of REA

4.5.1 Implications for policy and practice

Concerted action is needed to promote social inclusion and empowerment for people with disabilities in tandem with long-term investment in better-quality evidence on what approaches and programmes are most effective in delivering this change.

It is difficult to identify clear implications for policy and practice to promote social inclusion and empowerment of people with disabilities, given the limited evidence available, the generally low quality of studies, and the fact that the REA focused on

impact evaluations and excluded other study designs or sources of information. The REA is therefore best placed to make recommendations regarding future research.

In general, it is important that legislation, policies, and strategies that are compliant with the CRPD are in place, implemented and monitored to support the social inclusion and empowerment of people with disabilities. Consequently, there are potentially implications for policy and practice in the following categories:

- **Legislation and policies:** Undertaking in-country analyses as to whether legislation and policies are CRPD-compliant is useful to identify where there are gaps, and where advocacy is needed to stimulate change. This has not been assessed in this report as there were no studies of these issues.
- **Strategies and implementation:** The REA found promising evidence that interventions can be effective at improving the relationships of people with disabilities. There is also evidence that one intervention was effective in preventing violence perpetrated by teachers and peers against children with disabilities.⁵ The current evidence base therefore supports the implementation of programmes for people with disabilities in order to assist relationship development, such as social skills development programmes. However, beyond that, no implications for policy or practice can be identified from the REA, as the evidence base was limited in scope, weak in quality, and did not include cost-effectiveness analyses.
- **Monitoring:** Monitoring systems should be implemented that allow disaggregation of core indicators by disability, to assess the social inclusion and empowerment of people with disabilities (e.g. in electoral roll membership).
- **Inclusive decision-making:** This will ensure the active participation of people with disabilities in interpreting evidence on interventions for people with disabilities to inform policy and practice.

4.5.2 Implications for future research

Interventions and programmes are implemented across the world to support the improvement in social inclusion and empowerment of people with disabilities. However, the evidence base on 'what works' is limited in amount and quality, and focused mostly on improving social skills of people with disabilities.

More studies are needed, and these need to be of better quality (i.e. sufficient sample size, using RCT design where possible, with reliable measurement of disability and outcomes, and appropriate measures in place to address confounding and bias). These studies must include people with a broader range of impairment types, and from different settings, including humanitarian settings, and must disaggregate results by disability type, gender, age, ethnicity, and other characteristics.

Evidence is also required to evaluate the effectiveness of interventions targeted at the system (e.g. policy) or community level, rather than at people with disabilities and their family members (e.g. improving social skills).

Greater consistency is needed in the measurement of social inclusion and empowerment outcomes in studies, and this will likely require the generation and validation of new

cross-culturally valid tools – crucially, cross-country studies and those that compare the cost-effectiveness of different interventions, to inform policy and practice.

4.5.3 Conclusions and recommendations

Improving social inclusion and empowerment of people with disabilities is an important right, as well as a development need, and will help with the achievement of other rights (e.g. access to education).

There was promising evidence that interventions are effective at improving relationships of people with disabilities; however, better evidence is needed more broadly on ‘what works’ to be able to recommend effective approaches or interventions. Without this evidence, there is a risk that the most promising programmes will not be scaled up, making it difficult for countries to be CRPD-compliant, and, in turn, risking achievement of the SDGs.

Recommendations:

1. People with disabilities must have a central role in developing policies and programmes to support social inclusion and empowerment, and assessing their effectiveness, through participatory processes. This includes having a central role in the conduct of these assessments (e.g. in defining the research questions, formulating the intervention for evaluation, and/or collecting and analysing data).
2. High-quality intervention studies using consistent approaches to measurement, and including analysis of different population groups and settings, need to be funded and undertaken to provide evidence on ‘what works’ to improve social inclusion and empowerment for people with disabilities. These new studies may preferentially focus on empowerment, as the evidence gaps here are even larger than for social inclusion, yet improving empowerment is an important focus of many disability programmes.
 - a. Studies should use robust methodologies, including RCTs and with 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), social inclusion, and empowerment. This may require the development of new tools, which can learn from other agendas such as gender and HIV.
 - c. Studies undertaken should consistently look at a broad range of characteristics and aspects of identity (e.g. gender, ethnicity, and intersectionality), which 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 – 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.

3. Relevant existing programmes implemented by governments, DPOs, and NGOs should evaluate whether they are effective for improving social inclusion and empowerment 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.
4. Monitoring systems should be implemented that allow disaggregation of social inclusion and empowerment indicators by disability/impairment types (e.g. using the Washington Group measures). This will permit the assessment of inclusion and progress over time of people with disabilities in these areas.

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6. List of abbreviations

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|--------------------|---|--|
| CBR | - | Community-Based Rehabilitation |
| CEDIL | - | Centre for Excellence for Development Impact and Learning |
| DFID | - | Department for International Development |
| DPO | - | Disabled People's Organisation |
| EGM | - | Evidence and Gap Map |
| ICED | - | International Centre for Evidence in Disability |
| LMIC | - | Low and Middle-Income Country |
| NGO | - | Non-Governmental Organisation |
| PRISMA Analyses | - | Preferred Reporting Items for Systematic Reviews and Meta- |
| PSM | - | Propensity Score Matching |
| PTSD | - | Post-Traumatic Stress Disorder |
| RCT | - | Randomised Controlled Trial |
| RDD | - | Regression Discontinuity Design |
| REA | - | Rapid Evidence Assessment |
| SDG | - | Sustainable Development Goal |
| SHG | - | Self-Help Group |
| UNCRPD | - | United Nations Convention on the Rights of Persons with Disabilities |
| WHO | - | World Health Organization |
| WWC | - | What Works Clearinghouse |