

Pre- and Post-intervention Teacher Knowledge, Attitudes and Practices (KAP) on educating girls with disabilities in the Lakes Region, Kenya

Introduction

Children with disabilities are one of the most marginalised and socially excluded groups of all children, regularly facing discrimination and negative attitudes that impede their ability to access education. Children with disabilities are less likely to attend school, and girls with disabilities are even more likely to not attend school (UIS/UNICEF 2015). It is estimated that around 93 million children (approximately 5.1% of all children) live with a ‘moderate or severe’ disability (WHO/World Bank, 2011).

It has been argued that without the inclusion of children with disabilities, it will not be possible to achieve universal primary education (UNDESA, 2011; UIS/UNICEF 2015). Achieving inclusive and quality education for all reaffirms the belief that education is a powerful and proven vehicle for sustainable development. Goal 4, one of the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development, ensures that all girls and boys complete free primary and secondary schooling by 2030. It also aims

to provide equal access to affordable vocational training, and to eliminate gender and wealth disparities with the aim of achieving universal access to a quality higher education.

Article 28 of the Convention of the Rights of the Child (CRC; UN, 1989) recognises the right to education for all children. Article 23 of the CRC and Article 24 of the Convention on the Rights of Persons with Disabilities (CRPD; UN, 2006) guarantee the right to education for children with disabilities. Further to guaranteeing the right to education, the CRPD demands that States ensure ‘an inclusive education system at all levels’. However, the CRPD does not define what inclusive education is, which has led to a variety of interpretations and different systems of implementation.

In Kenya, inclusive education is being promoted through the government (Parliament of Kenya, 2007), and a draft specific policy on inclusive education is *in fieri*.

Children with disabilities may be placed in mainstream ('inclusive') classes, in resource units in mainstream schools or, more typically, in 'special' segregated schools. While overall enrolment in primary education is increasing in Kenya, the number of children with disabilities (and girls with disabilities in particular) accessing primary education remains low. However, the precise numbers are not known due to weak reporting systems, and a lack of clarity about definitions of disability and assessment of impairments. It is also the case that girls with disabilities seem to drop out of education at an increased rate, although the precise reasons for this are unclear (mainly lack of resources and facilities in schools). Globally, 31 million of the 58 million primary school-age children out of school are girls (UIS/UNICEF, 2015).

In order to address these issues, Leonard Cheshire Disability (LCD) received funding from the UK Department for International Development Girls' Education Challenge fund to implement an Inclusive Education (IE) programme aimed at addressing barriers to education – including gender barriers – and ensuring that 2,050 girls with disabilities in 50 primary schools in five districts in the Lake Region, Western Kenya, receive a full, quality and inclusive primary education.

This programme entails a partnership between research and practice in order to better understand and address these barriers. The results presented here are taken from a pre- and post-intervention research study aimed at teachers – a component of a larger research study,

which forms a part of the overall programme intervention.

Teacher Survey

As teachers are crucial to the effective delivery of education, a pre-and post-intervention survey on Knowledge, Attitudes and Practice (KAP) of teachers around disability and inclusive education was undertaken to measure the effectiveness of teacher training for 130 teachers in selected project schools in the five districts. The sample comprised:

30 teachers who were the 'trainers of teachers' (TOTs) from schools selected for the LCD IE Programme. These teachers had previously undergone special needs training through the government system.

100 teachers, that is 20 from each of the five districts.

Both TOTs and teachers were selected to cascade the LCD IE training to a further 600 teachers, through mentorship.

Of the 130 participants who completed the pre-intervention (i.e. 2014) KAP survey, the majority (N=123) participated in the post-intervention KAP (i.e. 2016). Of these, 30 were TOTs and 93 were teachers.

Survey Tools

A questionnaire was developed by the Leonard Cheshire Disability and Inclusive Development Centre, based upon previous research and practical experience in the field, and was administered to both sets of respondents before they underwent any LCD IE in-

service training. The questionnaire was designed to assess respondents' KAP around inclusion of children with disabilities, and an additional subset of questions was included that focused on gender (and specifically on girls' education), for a total of 29 questions.

Methodology

Analyses proceeded along the following lines:

1) Characteristics of the matched sample (i.e. TOTs and teachers who took part in both the 2014 and 2016 KAP).

2) Descriptive analyses of TOTs and teachers across the intervention period. These examined prior experience, perceived ease, and preparedness of the TOTs and teachers to educate students with different types of impairments in 2014 and 2016. Additionally, TOT and teacher beliefs about gender and disability were examined at both times.

3) Our primary focus and interest was to examine whether the LCD IE intervention could shift TOT and teacher knowledge, attitudes and practices toward students with disabilities. As such, we conducted inferential analyses (i.e. with intention to inform wider contexts) to establish the overall effectiveness of the intervention on knowledge, attitudes and practices. Specifically, we assessed the impact of the intervention on:

- Teacher Knowledge (i.e. beliefs about inclusive education); Attitudes (i.e. negative emotions about educating students with a disability); and Practices (willingness to adopt inclusive education

practices); Concerns (Self-focused, Other-focused); Perceptions of barriers (Environmental, Negative parental attitudes, Lack of teacher expertise).

4) Finally, we collected and analysed qualitative data in order to provide comprehensive insight into the processes of change underpinning the impact of the intervention on TOTs and teachers.

What follows is an extract of findings – the full report is available on leonardcheshire.org

Results

Respondent Characteristics

Of the 30 TOTs present in the matched comparative sample, half were male. Of the 93 teachers, 52 were male (55.9%) and 41 were female (44.1%).

Both sets of respondents were on average around 43 years old and had an average of 21 years' professional experience. TOTs reported teaching in their current school on average 9.3 years, and teachers 8 years.

The majority of teachers had a certificate or diploma in primary teaching education, and a small number (25%) had obtained a diploma in Special Needs Education (SNE). By 2016 this had increased to just under half of teachers (N=42, 45.2%).

Unsurprisingly, given that they were deliberately selected for their previous training and experience, all TOTs reported having being trained in SNE.

Teaching experience

As noted above, in the Kenyan educational system, children with disabilities are either placed in mainstream classes, in resource units in mainstream schools or in special segregated schools. Regarding reporting on the type of school within which they currently taught, the majority of teachers and TOTs taught in mainstream classes exclusively. However, as special schools were not included in this programme, this is to be expected.

TOTs and teachers reported on both their current and previous experience of teaching students with a range of disabilities. In 2014, both groups found it difficult overall to teach children with disabilities, but teachers found it particularly difficult to teach children with sensory impairments and children with learning difficulties. TOTs found it particularly difficult to teach children with multiple disabilities. Not surprisingly, both TOTs and teachers found it easier to teach a child with physical disabilities. In 2016, TOTs and teachers reported more ease of educating students with most impairment types, compared to 2014.

Teachers were also asked about the extent to which they felt their previous training helped them deal effectively with students with disabilities. Overall, teachers recognised the importance of training in teaching pupils with disabilities. While, in 2014, on average around a quarter of teachers reported having no previous training on specific impairments, in 2016, this had fallen considerably to just over a tenth. However, in 2014 and

2016 more than half had no training on working with children with multiple disabilities.

In 2016, TOTs and teachers reported more preparedness to educating students with all impairment types, compared to 2014

Gender and Disability

A section in the questionnaire asked about KAP around gender and disability. Overall in both 2014 and 2016 TOTs and teachers shared very similar, gender-neutral views regarding the importance of education for both boys and girls with disabilities. However, when asked more specific comparison questions about girls and boys with disabilities, it would appear from the data that over time there is increased awareness.

For example, it would appear from responses that the majority of TOTs and teachers are comfortable talking about sex and reproductive health with both boys and girls with disabilities. However, in 2014 over a quarter of teachers stated that they are uncomfortable talking about these topics regardless of the gender of the students, while about a quarter of TOTs are uncomfortable talking about sex and reproductive health particularly with girls with disabilities. In 2016, these numbers had reduced to 15% of teachers and zero TOTs respectively.

In addition, it should be made clear that with regards to some of these issues (for example, violence against girls with disabilities) it is not possible to extrapolate from these results whether or not they are happening, or rather if it is

that the teachers are unaware of them occurring. In some cases, it would seem that the TOTs, having been made more aware of issues through training, may be more sensitive to them. These issues warrant further investigation.

Understanding Inclusive Education

Respondents were asked whether they had heard of IE, and in both 2014 and 2016, all TOTs (N=30, 100%) reported having heard of inclusive education. In 2014, nearly a quarter of teachers (N = 21, 22.6%) had not heard of inclusive education, but by 2016 this had decreased to zero, meaning all teachers had heard of inclusive education – in fact they all took part in the LCD in-service training on IE.

Both sets of respondents were then asked to identify the most important characteristics and key elements of inclusive education. Previous lack of clarity was harmonised after the intervention.

Participants commonly focused on the processes by which inclusive education is achieved as its key elements. Often these were practical, entailing things like: modification of the environment (e.g., toilets, latrines), knowledge gained by the teachers, the implementation of adaptive curriculum and use of assistive devices (e.g., hearing aids). However, participants also sought to highlight the psychological processes which constitute inclusive education provision: for example, empathy and sense of belonging.

The main characteristics of IE were unsurprisingly most comprehensively

identified by the TOTs. Several TOTs and also a number of teachers showed a good understanding of key elements such as acceptance, curriculum adaptation, enabling and accessible environments, resource allocation, and the development of Individualised Education Plans (IEP). Several also mentioned a 'multidisciplinary approach', the importance of attitudinal change, and the training of teachers in IE.

Fortunately, only a minority of respondents were more normative, using a medical or charity-model to understand disability (which is not what the LCD IE in-service training promotes). For example, a minority mentioned words such as 'love', and 'normal' (neither are rights-based language) when talking about children with disabilities (although these may be culturally acceptable). Nevertheless, the language used to refer to people with disabilities can send powerful messages (positive or negative) into the community.

Classroom Assistants

While classroom assistants are not being used in this programme, they potentially play a key role in providing support to children with disabilities (and teachers) in the class. Therefore questions about their role were included in the survey, and the responses given provide an interesting insight. In both 2014 and 2016, all TOTs (N=30, 100%) said that they would find a classroom assistant helpful. In 2014, the majority of teachers (N=82, 88.2%) said they would find a classroom assistant helpful. In 2016 this number had increased (N=87, 93.5%). The role of classroom assistants was frequently seen

either as carers (supporting basic activities of daily living) or as experts in specific teaching activities for children with different impairments (such as physiotherapists or sign language interpreters).

Some teachers described the classroom assistants' role as being focused on discipline, control and acting as a stand-in for the class teacher. Others felt that the classroom assistant had a separate function (sometimes even in a separate location), rather than that of aiding the teacher. Others identified them as a potential resource for the pupils. Some mentioned a potential role for parents or community members.

While many of these may be practiced as components of IE, on their own they are not all likely to facilitate inclusion of a child with disabilities in a mainstream class, unless they are used in combination to support the child.

Attitudes and beliefs

Teachers were asked a set of questions around attitudes and practices on children with disabilities and education, based on their experience. Overall both TOTs and teachers demonstrated the same positive attitude towards children with disabilities.

Overall, the LCD inclusive education intervention was effective at positively shifting knowledge and attitudes about inclusive education, but no evidence was found that the intervention could impact practices.

Specifically, the intervention was effective at producing more positive attitudes

toward inclusive education among TOTs and teachers. Specifically, both TOT and teacher beliefs about inclusive education became more positive pre- to post-intervention. Moreover, teachers reported reduced negative emotions about educating students with disabilities. However, the intervention did not appear to impact teacher and TOT willingness to adopt inclusive practices.

Comparisons between TOTs and teachers revealed some evidence that TOTs held generally more positive beliefs about inclusive education compared to teachers. Additionally, compared to teachers, TOTs reported less negative emotions before the intervention but after the intervention levels of negative emotions reported by TOTs and teachers were not significantly different (i.e. the intervention appeared to reduce teachers' negative emotions to a level comparable with TOTs).

Daily Practices

Despite the gap in their skills and training, both groups were positive about their perceived teaching ability. Findings suggest that the intervention was successful at improving perceived teaching self-efficacy among both TOTs and teachers, though TOTs perceived teaching self-efficacy was generally higher across the intervention, compared to teachers.

TOTs perceived themselves as being more self-efficacious than teachers in their daily practices, and all of the TOTs' responses to the statements were more positive than those of the teachers, in particular about adapting assessment procedures to

take account of specific needs and developing lesson plans to suit students of all abilities. Overall TOTs were more confident about teaching children with disabilities effectively, whatever the specific nature of the impairment.

Teachers were less positive about teaching children with multiple or severe disabilities. Importantly, this indicates that it is the severity of the impairment and not just the presence of a disability that may be a crucial factor in determining a teacher's response to a child with disabilities. It is not clear which specific impairments may cause particular concern, and this warrants further investigation.

Finally, both TOTs and teachers showed a similar level of agreement about their ability to build relationships with parents.

Concerns

The intervention was very effective at reducing TOT and teacher concerns about including a child with disability in the classroom. Specifically, both TOT and teacher self-focused concerns were reduced pre- to post-intervention. Moreover TOTs and teachers reported reduced other-focused concerns over the intervention period.

Comparisons between TOTs and teachers also revealed that TOTs held generally less self-focused and other-focused concerns about including a child with a disability in their classroom, compared to teachers.

These findings suggest that LCD's inclusive education is able to reduce both the self-focused concerns that teachers have

about educating a child with a disability (e.g., anxiety) and concerns related to others (e.g., parental attitudes). Our descriptive data underpins the importance of these findings. That is, levels of both pre-intervention self-focused concerns ($M = 2.40$, $SD = 0.63$) and other-focused concerns ($M = 2.67$, $SD = 0.62$) were quite high, given that "4" was the upper scale limit. This suggests that such concerns were experienced quite keenly by participants and that they may pose a particular challenge for policymakers wishing to implement inclusive education in schools. As such, it is particularly encouraging that the intervention appeared to significantly reduce both sets of these concerns over time.

However, it is also important to note that, given that post-intervention levels of self-focused concerns ($M = 2.04$, $SD = 0.60$) and other-focused concerns ($M = 2.34$, $SD = 0.68$) were around the scale mid-point, that the intervention does not entirely ameliorate such concerns, but instead attenuates them. This suggests that the LCD's inclusive education intervention could play an integral role in a multi-faceted approach designed to address this important barrier to inclusive education among TOTs and teachers.

Barriers to Education

The intervention was effective at reducing TOT and teacher perceptions of barriers toward children with a disability attending school.

Specifically, perceptions of school-based factors (these included inaccessible school

facilities (e.g., “Toilets in the school are not physically accessible”), and lack of provision of aids (e.g., “The lack of assistive devices (e.g. wheelchairs, hearing aids, etc.”); the environment (these included the distance between home and school (e.g., “schools are a long distance from home”) and lack of transportation (e.g., “there is no means of transportation to the school”); parental attitudes (e.g., “Parents generally think it is not worthwhile for children with disabilities to learn”); TOTs and teachers were convinced that the lack of expertise of teachers may represent a barrier to children with disabilities going to school but this measure also decreased among TOTs and teachers pre- to post-intervention.

However, the intervention did not appear to impact how TOTs and teachers perceived financial costs incurred by parents as a barrier to children with disabilities attending school. These included direct (e.g., Parents cannot afford direct costs for the school (e.g. uniform, books, fees)) and indirect costs (e.g., “Parents cannot afford indirect costs for the school (e.g. meals, transportation)”).

Additionally, no differences were observed between TOT and teachers in regard to their perceptions of barriers.

Pre-intervention levels of perceptions of barriers were rather high (all > 3). Post-intervention they had shifted significantly, but remained high (all > 2.50). This suggests that the intervention was able to mildly attenuate, but not ameliorate, the

extent that school-based factors, the environment, parental attitudes, and lack of teacher expertise were seen as a barrier toward a child with a disability attending school. This is unsurprising as many of these barriers refer to things that are outside of the participants’ control (i.e. environment, parental attitudes, expertise of other teachers).

Conclusion

The survey data presented here represent just one step towards developing a better understanding of the situation regarding education for girls with disabilities in the Lakes Region.

The results of the survey provide a rich picture of the situation in the schools where the LCD project was implemented. They show how teachers’ knowledge, attitudes and practices can potentially impact on the education of girls with disabilities; as well as help identify the areas or issues that the programme could specifically address, for example, through adapting the in-service teaching training programmes.

Our findings suggest that the LCD IE in-service intervention may be a useful tool to improve teacher knowledge and attitudes among participants who are generally open to inclusive education. Moreover, the intervention may be particularly effective as part of a multi-faceted approach designed to address the self-focused and other-focused concerns held by teachers, which these findings also suggest may pose a particular challenge to implementing inclusive

education. Additionally, the intervention is also able to improve teachers' perceived teaching self-efficacy and attenuate perceived barriers to educating a child with disability in the classroom.

In light of the empirical information summarised here and presented more in detail in the comparative KAP report. We believe that the LCD inclusive education intervention has had a positive impact on participating TOTs and teachers in the Lakes Region in Kenya, and thus may have broader application in other similar national and international contexts – if additional resources are made available.

Results show that LCD in-service teacher training is effective in increasing teachers' confidence and capabilities to teach children with disabilities; as teachers become more aware about inclusion they also become more aware of the gaps and need for specific resources and other requirements.

Implications of the findings:

- 1) There is a need to be more targeted in teacher training, for example, more work is needed around assessment of children with disabilities (especially those with learning difficulties);
- 2) There is a need to address the exclusion of children with most severe disabilities;
- 3) There is a need for additional resources, including classroom assistants, allowances, teaching and learning materials;

4) Teacher training on IE should be harmonised and standardised (taking into account local context).

Recommendations

- The Kenyan Government should implement, resource and plan for new IE policy
- Any training of teachers (or other related staff) must make clear that successful inclusion relies on many components of IE which must all be combined to ensure meaningful inclusion
- Further training should be provided on working with children with specific impairments (e.g. epilepsy or multiple disabilities)
- There needs to be greater links, exchange of information and support between teachers and parents/caregivers to ensure better continuity and provision for the child
- There needs to be improved assessment of children to identify specific impairments, linked to improved awareness, use and delivery of individual education plans (IEPs). This could be part of pre-service teacher training, with regular updates in-service

References

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About the Programme (GEC)

The overall goal of the DFID-funded GEC project 'Pioneering Inclusive Education Strategies for disabled girls in Kenya' is to address physical, cultural and social barriers to education for girls with disabilities, and to ensure that 2,050 disabled girls in 50 primary schools in in Lake Region receive a full, quality and inclusive primary education. Specifically, the project will: a) Increase awareness and capacity of duty bearers and service providers to respond to the needs of disabled girls; b) Improve enrolment and retention of disabled girls in mainstream primary schools; c) Improve quality and accessibility of mainstream education for disabled girls; d) Improve knowledge and evidence to demonstrate the effectiveness of inclusive education (IE). This is a 45-month programme which is implemented in 50 schools in five districts in the Lake Region (Mbita, Migori, Kisumu East, Kuria East and Siaya) and is composed of both research and programme. The research offers the possibility to gather evidence which can be fed back to improve delivery, highlight gaps and challenges, as well as develop hypotheses for further research.

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