No One Left Behind: Using Mixed-Methods Research to Identify and Learn from Socially Marginalised Adolescents in Low- and Middle-Income Countries

Sarah Baird[1] · **Laura Camfield[2]** · **Ashraful Haque[3]** · **Nicola Jones[4]** ·
Anas Al Masri[5] · **Kate Pincock[4]** · **Mahesh C. Puri[6]**

Abstract

This article describes the mixed-methods approach used by the Gender and Adolescence: Global Evidence (GAGE) research programme. It discusses how qualitative and quantitative methods can be used both in isolation and combined to learn about the lives of adolescents in low- and middle-income countries (LMICs), focusing on the methodological and ethical approaches used to reach socially marginalised adolescents (including adolescents with disabilities, adolescents not in school, adolescent refugees, adolescents living in urban slums, adolescents who married as children, and adolescent mothers). We reflect on the implementation of the GAGE conceptual framework, discussing its strengths and weaknesses, and the challenges to promoting inclusive and genuinely mixed-methods research practices. While these methods have been adapted in the countries where research was undertaken, the conceptual framework provides a common methodological approach, utilising an intersectional lens. We show how mixed-methods approaches can contribute to the knowledge base on research with socially marginalised adolescent girls and boys globally, serving as an important resource for future research with young people in LMICs.

Keywords Mixed-methods · Adolescence · LMICs · Gender · Disability · Child marriage · Refugees · Adolescent mother

Résumé

Cet article décrit l'utilisation de méthodes mixtes par le programme de recherche Gender and Adolescence: Global Evidence (Genre et Adolescence: des données probantes mondiales ou GAGE). Il explique comment les méthodes qualitatives et quantitatives peuvent être utilisées à la fois de façon isolée et combinée pour en savoir plus sur la vie des adolescent·es dans les pays à revenu faible et intermédiaire

✉ Sarah Baird
  sbaird@gwu.edu

Extended author information available on the last page of the article

(PRFI), en se concentrant sur les approches méthodologiques et éthiques utilisées pour atteindre les adolescent·es exclu·es socialement (y compris les adolescent·es handicapé·es, les adolescent·es non scolarisé·es, les adolescen·ets réfugié·es, les adolescent·es vivant dans des bidonvilles urbains, les adolescentes mariées dans leur enfance et les mères adolescentes). Nous réfléchissons à la mise en œuvre du cadre conceptuel GAGE, discutant de ses forces et de ses faiblesses, et des défis à relever pour promouvoir des pratiques de recherche inclusives et véritablement mixtes. Bien que ces méthodes aient été adaptées dans les pays où la recherche a été mise en oeuvre, le cadre conceptuel fournit une approche méthodologique commune, utilisant une perspective intersectionnelle. Nous montrons comment l'utilisation de méthodes mixtes peut contribuer au corps de connaissances dans le cadre d'études relatives aux adolescentes et adolescents socialement exclu·es dans le monde, ce qui peut être une ressource importante pour de futures études concernant les jeunes dans les PRFI.

Introduction

The past decade has witnessed an increasing number of large-scale mixed methods research projects exploring the experiences of socially marginalised adolescents in low- and middle-income countries (LMICs), often with the aim of overcoming limitations associated with single-method qualitative or quantitative studies (Bamberger et al. 2010; Roelen and Camfield 2015; Banati 2021). These include multi-country initiatives such as Young Lives, the Global Early Adolescent Study, and the subject matter for this article, the Gender and Adolescence: Global Evidence (GAGE) study. One of the rationales for mixed methods research in comparison to single-method initiatives is that the data it generates are well suited to triangulation and complementarity, improving the insights available to researchers (Greene et al. 1989). This is especially important given that the ways that the broader socio-political context within which mixed methods research is being conducted may shape the interpretation of data and the stories which emerge; particularly when it comes to exploring the intersections of marginalisation and vulnerability experienced by adolescents in LMICs across diverse contexts as we do in this Special Issue. Multiple and mixed methodologies may be well-suited to capturing complexity—but it is only possible for a wider range of voices and stories to emerge when the power dynamics at the centre of research processes are adequately recognised and challenged through research processes.

Drawing on examples from the empirical articles which comprise this Special Issue, this article examines the ways that a mixed-methods approach to research across varied contexts and populations helps to introduce critical nuance into research with adolescents. We reflect on how the GAGE mixed methods approach helps facilitate (i) a multidimensional focus whilst retaining complementarity of data through a single conceptual framework; (ii) the ethical inclusion of marginalised adolescents; (iii) large-scale rigorous research which offers depth as well as breadth, (iv) engagement with diverse and critical perspectives; (v) recognition of adolescent agency; and (vi) linking the agency of adolescents to emancipatory action.

First, we argue that mixed-methods research informed by this conceptual framework is key to capturing the multidimensionality of adolescents' capabilities. Each of the Special Issue articles are guided by the conceptual framework of the Gender and Adolescence: Global Evidence (GAGE) longitudinal research programme (2015–2024) (GAGE Consortium 2019). GAGE—and specifically the articles in this Special Issue—seek to address the lack of data on these socially marginalised adolescents in relation to six key domains, namely bodily integrity, education and learning, psychosocial well-being, health and nutrition, voice and agency, and economic empowerment (Jones et al. 2018). That said, a number of papers in this special issue utilize qualitative data only, usually when topics within particular domains are too sensitive or nuanced to be to be effectively captured by quantitative data; and one uses only quantitative data, allowing for more advanced quantitative methods within the limited space constraints of an article. Where single methods are utilised, we discuss entry points for drawing in other approaches which build on lessons learned in other contexts.

Second, we pay particular attention to the ways that our approach advances ethical research with socially marginalised adolescents—who tend to be less visible in existing studies, whether cross-sectional or longitudinal. These include younger adolescents aged 10–14 years, who (for example) are not included in national demographic and health surveys (Garbett et al. 2021), and who are also largely invisible in data to assess progress against Sustainable Development Goal targets (Guglielmi and Jones 2019). It also includes those marginalised on the basis of refugee status, disability status, marital status, parenthood and area of residence (whether in remote rural or conflict-affected contexts). These studies also often treat gender as a variable, rather than attending as we do to the ways that gender intersects with these other social identities to amplify marginalisation for some girls rather than others. In each of the GAGE focus countries (Bangladesh, Ethiopia, Jordan, Nepal, Palestine and Rwanda) the sampling approach and tools were adapted to the specific context of the study location, and focused on finding and interviewing socially marginalised adolescents who are often excluded from large-scale surveys. These include: (1) adolescents with disabilities (Jones et al. 2021; Bani Odeh owedah et al. 2021); (2) adolescents who are out of school (Woldehanna et al. 2021; Ghimire et al. 2021; Sultan et al. 2021); (3) adolescents who married as children (Abu Hamad et al 2021.; Gugliemi et al. 2021; Emirie et al. 2021); (iv) adolescents who are mothers (Coast et al. 2021); and (5) displaced adolescents (Essaid　Sajdi et al. 2021; Bani Odeh owedahdeh et al. 2021; Abu Hamad et al 2021.; Gugliemi et al. 2021).

Third, the scale of the GAGE cohort, and the commitment to share the voices of some of the most socially marginalised adolescents, has required methodological adaptation, diversity, and rigour. GAGE is generating quantitative data with more than 20,000 adolescents and their primary (female) caregivers as part of a sequenced mixed-methods design that began with formative qualitative studies. These surveys are integrated with qualitative research with a sub-sample of adolescents and their families, and participatory research with adolescents and their peers. These are then further complemented by quantitative surveys with a subset of adult males, community leaders, school and health facility personnel, and qualitative interviews with community and district-level officials, as well

as non-governmental organisation (NGO) service providers. The multidimensional research problems and questions posed by GAGE, for example how different groups of adolescents in different country contexts experience the transition between childhood and adulthood and the ways that these experiences are shaped by their age, gender, disability, and geographic location, are ideally suited to being answered using multiple study elements and mixed methods research. For many of the research questions that GAGE seeks to answer, innovative mixed method approaches can offer more complete answers than either qualitative or quantitative methods alone (Jones and Pereznieto 2014; Weine 2015).

Table 1 shows how the tools used to generate data for the articles in this Special Issue were adapted to engage with different groups of socially marginalised adolescents in each context. It also provides a summary of the countries, vulnerability groups and methods used in each of the articles.

Fourth, given the range of perspectives, strengths, interests and aptitudes among adolescents, developing a suitably diverse qualitative toolkit has been an important ethical objective for promoting research practices that include the most socially marginalised individuals. Yet qualitative methods for evaluating programmatic impact with adolescents in LMICs, and for working with very young adolescents in general, remain underdeveloped (Chen et al. 2007; Wickenden and Kembhavi-Tam 2014; Jones et al. 2018; Pincock and Jones 2020). GAGE baseline research piloted various approaches and instruments, drawing on learning from mixed-methods research with adolescents. This points to both the merits of a diverse and flexible approach, and the ethical and practical challenges it can generate (Leyshon 2002; Langevang 2007; Hemming 2008; Alderson and Morrow 2011; Christensen 2017). In doing so, GAGE recognised the need for researchers to discover what was most effective in eliciting the perspectives of a diverse range of young people, enabling their participation in ways which reflected their strengths and interests, and allowed for divergent views to emerge. As the articles that comprise this Special Issue show, these methods were then adapted for use in each country context to reflect what worked in different places with different young people, given these considerations.

Fifth, GAGE research is premised on an epistemological framework that sees adolescents as actors in their own right, with the capacity to construct and determine their social lives (Prout and James 1990). Recognising the agency of adolescents in this way demands that research is undertaken *with* them rather than *on* them (James 2007). This underscores the need for participatory elements, creating space for the voices and perspectives of adolescents to emerge in a less structured way while engaging them in shaping the content and direction of the research (Sabo 2003; Arnold and Cater 2011; Stuart et al. 2015). This methodological approach has been adapted to different contexts, with articles in this Special Issue by Hamad et al., Bani Odeh et al. and Emirie et al. drawing on participatory research with adolescents.

Finally, GAGE's mixed methods research seeks ways to link the agency of adolescents with transformative action that expands their capabilities, both individually and collectively. We finish this article with a discussion of the mechanisms by which the diverse adolescent voices that are central to the project's inclusive and

Table 1 Summary by article of GAGE tools adapted for use with socially marginalised groups of adolescents and sample sizes

Authors	Countries	Vulnerability groups	Tools used to generate data	Qualitative sample	Quantitative sample
Sajdi et al.	Jordan	Refugees	Focus groups (adolescents) Individual interviews (adolescents)	48 (6 focus group discussions (FGDs), 42 individual interviews (IDIs))	n/a
Abu Hamad et al.	Gaza/Jordan	Refugees and married girls	Object-based interviews (adolescents) Service mapping (QuickTap Survey) (service providers) Focus group discussions (caregivers) Vignettes to explore social norms (adolescents) Social network mapping (adolescents) Participatory peer-to-peer interviews using visual methods (photography and videography) (adolescents) Key informant interviews (staff at Makani centres) Quantitative survey (adolescents)	Jordan: 240 (25 IDIs with married girls) Gaza: 62 IDIs (married girls and caregivers)	Jordan: 4,101 (158 married girls) Gaza: 406
Guglielmi et al.	Bangladesh	Displaced and married girls	Focus groups (adolescents and caregivers) Object-based interviews (adolescents and caregivers) Cox's Bazar Panel Survey (quantitative data) (adolescents)	57 (18 FGDs, 39 IDIs; 10 IDIs with married girls)	260 (92 married girls)

Table 1 (continued)

Authors	Countries	Vulnerability groups	Tools used to generate data	Qualitative sample	Quantitative sample
Emirie et al.	Ethiopia	Married girls	Object-based interviews (adolescents) Body mapping (adolescents) Community mapping (adolescents) 'Marriage chain' and 'Marriage pairs' tools to explore social norms (adolescents, caregivers and stakeholders) Key informant interviews (kebele leaders, health extension workers, teachers, police, local religious leaders and bureaus of women's affairs and justice officials)	354 (190 adolescent IDIs, 60 with married adolescents), 44 IDIs with parents, 20 key informant interviews (KIIs))	n/a
Coast et al.	Rwanda	Adolescent mothers	Individual interviews (adolescents and caregivers) Focus groups discussions centred around community and institution mappings (adolescents and caregivers) Key informant interviews (government and community organisations, including para-social workers) Quantitative survey (adolescents)	49 (5 FGDs, 24 IDIs, 20 KIIs)	117

Table 1 (continued)

Authors	Countries	Vulnerability groups	Tools used to generate data	Qualitative sample	Quantitative sample
Jones et al.	Ethiopia	Adolescents with disabilities	Individual interviews with sign language and other interpreters where necessary/feasible (adolescents and caregivers) Body mapping (adolescents) Community mapping (adolescents) Key informant interviews (teachers, health extension workers, Bureau of Labour and Social Affairs) Quantitative survey (adolescents)	81 (48 IDIs with adolescents with disabilities, 33 KIIs)	6826 (315 AWDs)
Bani Odeh et al.	Jordan	Adolescents with disabilities	Individual interviews with sign language and other interpreters where necessary/feasible (adolescents and caregivers) Participatory peer-to-peer interviews using visual methods (photography and videography) (adolescents) Focus group discussions (adolescents and caregivers)	82 IDIs (56 with adolescents with disabilities, 26 mothers of adolescents with disabilities)	n/a
Woldehanna et al.	Ethiopia	Out-of-school adolescents	Quantitative survey (adolescents)	n/a	6800

Table 1 (continued)

Authors	Countries	Vulnerability groups	Tools used to generate data	Qualitative sample	Quantitative sample
Ghimire et al.	Nepal	Adolescent girls in commercial sex work	Focus group discussions (adolescents, caregivers and stakeholders) Individual interviews (adolescents) Key informant interviews (employers, community members and NGO actors) Case studies (NGO actors) Life history interviews (adolescents) Analysis of intervention programmes for sex workers Online study of social media Observation of Nepal/India checkpoints known for trafficking	123 (26 FGDs, 40 IDIs, 45 KIIs, 9 life history interviews, 3 case studies)	n/a
Sultan et al.	Bangladesh	Adolescents in urban slums	Individual interviews (adolescents) Social norms vignette discussions (caregivers) Key informant interviews (adolescents and caregivers) Quantitative survey (adolescents)	36 IDIs in urban slums	780

emancipatory objectives have fed into processes of change at family, community, national and global levels.

The GAGE Conceptual Framework

GAGE's conceptual framework lends itself to a research agenda that draws on mixed methods to generate data because of its focus on the dynamic interaction between individuals and their family, peer networks, and environments, and how this interaction changes over time. As explored in the opening article of this Special Issue, the conceptual framework focuses on '3 Cs': capabilities, change strategies, and contexts. It positions adolescents as having multidimensional capabilities, which differ on the basis of age, gender, ability, marital status and location. It explores the change strategies that adolescents and the actors that shape their lives engage in to make the transition to adulthood. It also seeks to understand the broader social, economic, political and cultural factors that constrain and enable adolescents' lives. To meet these dynamic and multidimensional research objectives, it was vital to adopt a methodology that enables the participation of a broad range of actors.

GAGE Methodology: Key Dimensions

Mixed Methods

Mixed methods can be particularly appropriate for multidisciplinary social research such as that conducted by GAGE which brings together political scientists, economists, anthropologists, public health experts, and more. Greene et al.'s (1989) typology provides a helpful basis for understanding how mixed methods can be useful in the context of GAGE's research. The use of qualitative and quantitative data can be triangulated to mutually corroborate findings; the different types of data also complement each other, with qualitative interviews allowing elaboration on survey data, for example. Qualitative findings may also be used to inform the design of quantitative studies as well as refine questions; Guglielmi et al. (this issue) find their interviews with Rohingya refugees enabled conversations to take place about the most appropriate terminology for particular concepts, which then informed the quantitative survey design.

The role of qualitative data is particularly important in the case of sensitive topics (e.g. experiences of child marriage, maintaining health and hygiene during menstruation, or utilizing sexual and reproductive health services) where the value of quantitative data is limited. Qualitative, semi-structured interviews create space for such topics to be explored or even be brought up by respondents themselves without direct probing through predetermined questions. For example, in Coast et al.'s article (this issue) qualitative research was able to add richness to data on topics such as abusive relationships; whilst the quantitative data

indicates prevalence of consensual vs. non-consensual relationships, the qualitative research shows girls' aspirations for their relationships and the stigma they have to navigate. The latter would be challenging to collect in a quantitative survey. Similarly, Abu Hamad et al. (this issue) observe that child marriage rates are underestimated in surveys, again likely due to stigma and illegality; but qualitative research created opportunities for adolescents to disclose their experiences as well as point to its drivers.

Extensive piloting enabled GAGE to develop and refine the instruments used for both methods, and ensure that they aligned with the wider objectives of inclusivity and diversity. Using surveys has expanded the breadth and range of the study to include data from a large number of participants in a short time, and across multiple cohorts. The inclusion of quantitative data allows for broader generalisation of results, and anchors the qualitative data in findings that can be considered representative of a given study population. This allows us to draw robust quantitative comparisons across characteristics of adolescents such as urban/rural, refugee/non-refugee, ever married/never married, disabled/non-disabled, older/younger, and male/female. The quantitative data also allows us to utilise multivariate regression analysis and other methods, providing a robust statistical foundation to support qualitative descriptive findings.

By piloting a variety of methods prior to large scale data collection, researchers in the six focus countries were able to explore what methods were most effective, and adapt existing tools to meet the conditions and requirements of different contexts and cohorts. This then informed subsequent stages of the research. An example of this can be found in the article by Bani Odeh et al. on the experiences of adolescents with disabilities, which outlines the training that researchers were given in the use of multiple methods including visual methods, drawing techniques and interviewing. This gave researchers a broad toolkit for generating data with adolescents with visual and hearing impairments on a 'case-by-case' basis according to the interests and adaptation requirements of adolescent participants themselves. Indeed, this flexibility is key to promoting innovative research practices (Hesse-Biber 2015, p. xxxiv) as well as centring participants within an ethic of care (Jones et al. 2020).

For the quantitative surveys, a number of approaches were taken to ensure inclusivity. First, cognitive interviews were conducted to ensure comprehension that also included the socially marginalised populations described above. Second, enumerators were extensively trained on working with socially marginalised adolescents, with a small subset specifically trained to work with adolescents with disabilities. Third, the research team utilized local expertise (e.g. disability support services) and incorporated team members with sign language expertise as needed.

Alderson and Morrow (2011) suggest that mixed methods can also be a way of including children and young people in research, actively and respectfully. For example, Clark and Moss (2001) describe using a multi-method or 'mosaic; approach as a way of recognising young children's voices and language. A mosaic approach enables the inclusion of a greater diversity of perspectives, recognising that not all methods will suit all young people, as in Bani Odeh et al.'s findings. Visual methods—for example, those which combine drawing, crafts, photography or other activities not premised on being able to verbalise—can be a powerful

way to convey ideas (Alderson and Morrow 2011). However, whilst young people who have attended school may be familiar with these activities from their use in educational settings, this does not mean that they will necessarily enjoy using them (Christensen 2017), and young people who are out-of-school may not find these methods intuitive (Crivello et al. 2009). Having a range of ideas and methods as part of a toolkit can give more flexibility, and thus more scope for engaging a diversity of participants and voices in research (Jones et al. 2019; Małachowska et al., 2020).

A lack of adaptation of research tools can lead to the tokenistic inclusion of disadvantaged young people, including those with disabilities, who cannot use their participation as a means to express their opinions (Ottmann and Crosbie 2013). Developing tools which enable marginalised young people to both participate in research and use their participation to reflect on and explore their own experiences in a supportive setting is therefore an ethical imperative. The adaptations needed to include adolescents and youth with disabilities in research often benefit their non-disabled peers too (Wickenden and Kembhavi-Tam 2014), as has been the case with the use of participatory photography approaches in GAGE developed initially to facilitate the engagement of adolescents with hearing impairments and audio diary approaches to facilitate the participation of adolescents with visual impairments (Jones et al. 2017). Whilst during the baseline research drawn on throughout this special issue, adolescents with intellectual disabilities were not included, researchers are exploring the safeguarding and practical measures that will be needed to support their inclusion in future rounds—one of the further benefits of longitudinal research being the opportunity to refine methods to promote inclusive practices where their need emerges.

It is important to recognise that whilst mixing methods can strengthen findings, there are also research questions and domains which are better suited to exploration using particular methods, as well as occasions in this Special Issue where authors have elected to focus on findings from a particular methodlogy. The articles by Essaid et al., Emirie et al. and Bani Odeh et al. each use a range of qualitative methods such as focus groups and interviews to explore the violence of life in displacement, child marriage and disability-based exclusion respectively. These are complex and sensitive topics on which quantitative survey data from GAGE is available, yet where a qualitative analysis that centres the subjectivity and agency of marginalised adolescents can both nuance and enrich understanding of their experiences, and counter representations of such young people as passive victims of structural violence. There is no corresponding quantitative data in the qualitative article by Ghimire and Samuels on commercial sex work (CSW) in Nepal; further quantitative research could deepen their analysis by establishing numbers of adolescents participating in CSW, creating a better understanding of the scale and who is participating; disaggregate by districts of origin, contributing towards a clearer picture of drivers; and disaggregate by venues of CSW, enabling better targeting of interventions. Whilst quantitative data—which is the subject of analysis in Woldehanna et al.'s paper on educational attrition in Ethiopia—can be compared across sites, qualitative research generates data which is context-specific and rich in detail. A combination of both under

a single conceptual framework which prioritises adolescents' agency and works towards transformative policy and programming objectives is key to the mixed-methods approach championed by GAGE.

Qualitative and Participatory Approaches

Several articles in this Special Issue explore data generated through participatory methodologies (Jones et al.; Hamad et al.; Emirie et al.; Bani Odeh et al.). The 'new social studies of childhood' emphasises how children and young people are agentic actors and can construct and shape their social lives (Prout and James 1990; Davidson 2017). This approach asserts that the definitions of childhood which dominate popular discourse are socially constructed, culturally specific, and a product of various political and social actions over time (Hendrick 1997). While childhood is evidently affected by social, environmental and political change, children are active in this process and can resist these changes, show resilience to them, or rework them to their advantage (Katz 2004, p. xi). In line with the United Nations Convention on the Rights of the Child (UNCRC 1989) children have a right to be properly researched. Articles in the UNCRC on children's right to express themselves and their opinions, to expect high-quality services, and receive protection from exploitation all have relevance for a participatory research agenda (Beazley et al. 2006; Warshak 2003).

Participatory research with young people has emerged from this tradition, demonstrating its utility for understanding young people's agentic participation in their own lives. Bradbury-Jones et al. (2018, p. 80), in a systematic review of participatory research with children and young people across diverse geographies, highlight that participatory spaces can 'recalibrate opportunities and attention given to marginalized and silenced groups' such as young people with disabilities or survivors of abuse and neglect. Participatory research can also support young people to develop skills and exercise agency in otherwise adult-dominated decision-making spheres. This emphasis on youth participation has been evident within international development since the early 2000s, in part as a facet of the broader participation agenda, originating in critiques of 'top-down' development that became popularised within work and research during the 1980s and 1990s (Chambers 1983, 1997). A central aim of the participatory agenda was to challenge the power dynamics of development processes and build in mechanisms for those affected by these processes to be agentic in determining them (Mohan 2001).

Participatory methods have become particularly popular for researching marginalised and socially marginalised children because they name and seek to address power inequalities both between children and adults, and within groups of children. They can provide a means to address the structural and relational marginalisation of particular groups of people. In this framing of young people's participation in research, children are not seen as different and in need of particular methods on the basis of their biological age (Christensen 2004). Addressing power relations is the central concern when designing methodology; rather than seeing participatory methods as 'child-friendly', participation should be reconceptualised as a way of ensuring that marginalised voices are represented and included. In terms of methodology,

this means an awareness of power differentials and a politicisation of processes for generating data.

The extent to which these transformative and empowering aims have been realised by participatory approaches has been subject to critical reflection, most notably by Cooke and Kothari (2001). Work on young people's participation has been similarly critiqued; White and Choudhury (2007, p. 539) suggest that the structure of the development industry itself can result in the co-option of young people's voices into a pre-established agenda, often in ways that reinforce rather than challenge class and racial divides. Marco-Crespo et al. (2018) add to this the challenge of sustainability, as short-term funding cycles for research and programmatic interventions too often replace supporting young people in age-appropriate ways over the course of adolescence with participation in participatory research activities.

These important methodological caveats notwithstanding, there is a growing body of evidence that emphasises not only the importance of participatory research as a process that seeks to disrupt relations of power and disadvantage, but also underscores the quality and innovative nature of the insights that such research can generate. Engaging with young people through participatory research and evaluation can strengthen understandings of their lived realities and, in turn, strengthen the interventions designed to support their well-being (Marco-Crespo et al. 2018).

GAGE has used a number of qualitative methods that have a participatory element in that they create space for young people to decide how and what they want to talk about (see Jones et al. 2019 and Małachowska et al. 2020 for more information on these tools in the context of the broader GAGE research programme). The object-based interviews described in the articles by Hamad et al., Mitu et al. and Emirie et al. (this issue) which engage with the issue of child marriage included the use of the My Favourite Things tool. This tool was originally developed in the United Kingdom (UK) for exploring the trajectories of pregnant young mothers and, later, their children (Thomson et al. 2011; Thomson and Hadfield 2014). It is unstructured and open-ended, as it starts by encouraging adolescents to think of a favourite object and use this as a point from which to explore its significance in their lives. This tool was able to be adapted for use in urban and rural settings where people had fewer possessions, and with adolescents of varying abilities. Because it works with the capacities of adolescents and allows them to set the agenda for the interview, it can be seen as genuinely participatory and inclusive, as well as shifting the power of interpretation within an interview environment to centre on participants' intentions and priorities. For example, in the case of some married girls who engaged with this tool, the household items that they selected allowed them to talk about their mixed emotions around gaining respectability in the community through marriage and in their new role as a homemaker, but the simultaneous challenges of shouldering adult burdens as a child with limited guidance and support and the loss of opportunities to socialise with unmarried peers who were now on a different life trajectory.

Intergenerational interviews can also be used to improve understanding of how adolescent decision-making has changed over time, by gender, and also potentially by disability. This format of interviewing was used by Hamad et al. (this issue) to explore drivers of and changing norms around child marriage in Gaza and Jordan and encourage reflection by caregivers on the practice. It was also used by Bani

Odeh et al. (this issue) to understand how the social experience of disability has changed over time in Jordan, offering insights into entry points for effective norm change. Specific training and debriefing sessions were held to mitigate concerns around confidentiality and anonymity when interviewing within families, including, for example, on how to ensure neutrality and avoid expressing judgment regarding intra-family dynamics, developing tailored probes based on information learned in one interview to encourage in-depth and well triangulated findings, and reporting any child protection issues that arise. The tool has enabled adolescents to take the lead in interviewing parents and grandparents on topics such as the key challenges they perceive adolescents as facing—for example, child marriage and child work—and whether these are similar or different to the challenges they themselves encountered at the same age. This can help to unpack and elucidate complex interconnected drivers; for example, Abu Hamad's article finds that whilst intergenerationally transmitted cultural norms may play a part in the ongoing practice of child marriage, the experience of displacement has amplified the prevalence of the practice for some families. For Bani Odeh et al. (this issue) intergenerational interviews gave adolescents with disabilities the opportunity to lead this aspect of the research. By putting the adolescent in a different role, it opens up opportunities for conversations that adolescents may be interested in having, but find difficult to initiate themselves, given family hierarchies and dynamics (see also Bani Odeh 2019).

There are challenges in determining the extent of adolescents' participation, even where participatory methods are used. Indeed, this is a key debate within the literature on participatory methods. For example, Beazley et al. (2006) argue that participatory research should involve those who will participate in determining questions, generating data and analysing it. However, Morrow (2008) suggests that this can be particularly difficult; the differential power between adult researchers and young people becomes even more prominent when it comes to analysis and presentation. At this point, young people, particularly those from marginalised groups, cannot draw on their own knowledge due to the need to interpret data according to academic conventions, which can create feelings of disempowerment (Mayall 1994). Nonetheless, one of the benefits of a longitudinal approach in which cohorts are followed up over time through repeated interactions is that this allows space for further engagement and refinement of analysis and findings with those adolescents who have participated in the research. For example, in Ethiopia the second round of qualitative interviews about the cultural practice of '*shegoye*', an adolescent-only dance where young people meet prospective marriage partners discussed in Emirie et al.'s article, revealed the deeply gendered nature of the practice, including physical and verbal gender-based violence towards girls to ensure their active participation. This did not emerge until later in the data collection, indicating the benefit of ongoing engagement and the building of relationships with participants so that their participation can be continuously advanced.

Social Networks and Peer Relationships

The social-ecological framework at the heart of GAGE research draws on an understanding of adolescence not only as a biological experience, but also a social one. The emotional and physical changes adolescents undergo change how their families, communities and societies view them (Patton et al. 2016). In many places, this leads to greater restrictions on mobility for adolescent girls due to fears around their safety (Harper et al. 2018), while adolescent boys are given greater access to food and educational opportunities when resources are limited. Outcomes for adolescents are highly dependent on their family, household, community, state and global contexts (Jones et al. 2018). The social-ecological framework means that GAGE research engages not only with adolescents, but with the contextual factors and individuals which shape their agency and capabilities. To explore these factors, several different methodological tools were used (Jones et al. 2019).

One tool used to explore relationships by Hamad et al. in Jordan and Gaza and by Jones et al. in Ethiopia (this issue), both articles that explore the experiences of adolescents who are known to experience social isolation and limited mobility, sees researchers supporting adolescents to draw a social support quadrant. Adolescents were given a pen and paper and shown how to divide the page into four sections: one each for people they liked to spend time with, people they avoided, people they went to with their worries, and who they went to for advice. The aim was to find out more about adolescents' social resources—who they were able to go to and the types of support they could draw upon in different situations. One of the strengths of this approach is its flexibility; if respondents were reluctant to disclose their own social support networks, then questions could be asked in an abstract sense—for example, 'who do boys of your age turn to'—to garner information on the sources of support they saw as available more generally to young people of the same and opposite gender.

A second tool used in the same articles is the social network hexagon, which draws on social network literature (Flynn et al. 2017; Tubaro et al. 2016; Vincent et al. 2018) to explore the range of people an adolescent interacts with in-person and virtually, and the quality of those interactions. The hexagon's six segments include family, friends, neighbours, community members, romantic interests and intimate partners, and online peers and community. It is used to probe the relative importance of different individuals in each of these domains in the adolescent's life, and why. The tool enables the adolescent to share the sorts of things they discuss or confide with a given person in their network, whether or not that person is a role model, as well as the extent to which adolescents form ties with similar or dissimilar others along lines of gender, age, ethnicity, religion, class or educational status. It also looks at the extent to which adolescent lives cross over in different spaces—community, school, neighbourhood and online. In particular, it facilitates a discussion around the quality of peer relationships—often problematised as sources of negative pressure for young people—may be very important and positive for them (Christensen 2017). Peer groups are a significant influence on the mental health of adolescents because this is a time of life

when they are seen to increasingly turn to friends rather than parents for emotional support and advice (Patton et al. 2016). As such, we found that this tool is better suited to older adolescents for whom non-family peer and trusted adult relationships are becoming increasingly important, as highlighted for example in the paper by Jones et al. (this issue) in their exploration of the drivers of psychosocial wellbeing among adolescents with disabilities in Ethiopia.

Quantitative Approaches

Complementing these qualitative tools, GAGE uses three core quantitative instruments, with common as well as country-specific questions and modules. The survey instruments can be found here: https://www.gage.odi.org/types/method-tools-and-guides/. The primary female caregiver module involved interviewing the adolescent's main female caregiver in each household (although secondary female caregivers or male caregivers were substituted as needed). Questions focus on the household composition, family background, assets, durables, dwelling, and access to safety nets. For primary female caregivers of younger adolescents (aged 10–12), there are questions on parenting, gender attitudes and norms, mental health, financial inclusion, time allocation, exposure to violence, fertility, marriage, and use of technology. GAGE drew on validated tools when they existed, adapting as appropriate to the local context. In addition, GAGE developed new measures on topics where measures did not exist, particularly measures specific to very young adolescents where current tools are often not appropriate. The quantitative surveys cite all measures used. The focus on parenting is particularly important as it allows us to look at parents' influence over adolescent trajectories as we continue to follow the adolescents over time. Collecting detailed information on the primary female caregiver also allows us to investigate the intergenerational transmission of mental health, violence, and attitudes, among other issues.

The survey tool used directly with adolescent respondents explores education, time allocation, paid work, health and nutrition, mental health, mobility, voice and agency, social inclusion, programme support, financial inclusion, economic empowerment, technology, marriage and relationships, sexual and reproductive health, and violence. The questions are tailored to the respondent's age and adapted to the local context. There are also specific skip patterns, based on (for example) refugee status, marital status and disability status that allow the enumerator to ask certain questions of certain populations. These surveys are closely linked to the GAGE conceptual framework to collect detailed data across all six GAGE capability domains, focusing on gender as a cross-cutting issue.[1]

In the articles included in this Special Issue, quantitative data does several important things. Firstly, it can help to elucidate apparent contradictions that may emerge within qualitative data sets where subject experiences are centred. In the article by

---

[1] All quantitative datasets will be archived at the UK Data Archive (as of the writing of this article Ethiopia and Dhaka baseline surveys are already posted) and can be found at https://beta.ukdataservice.ac.uk/datacatalogue/studies and then search for "gender and adolescence global evidence".

Sultan et al., the qualitative data suggests that high levels of corporal punishment and bullying puts adolescents off attending school, yet the quantitative findings on actual school attrition shows that this does not lead to them dropping out because it happens so extensively as to be normalised. This then generates further important questions about how to challenge norms. The quantitative findings also allow the exploration of group characteristics and their impact on outcomes. In Jones et al.'s article, the authors show the way that patterns in educational achievement by adolescents with disabilities across different sites could be explored by disaggregating data by impairment, gender and age, finding correlations between numbers of years of schooling attained and different types of impairment. In Coast et al.'s article, a quantitative survey being undertaken with both adolescent mothers and non-mothers found that adolescent mothers are significantly more likely to have experienced forced sexual encounters than non-mothers, emphasizing their particular vulnerability.

Longitudinal Research

The articles in this Special Issue focus on GAGE's baseline data, which will serve as the first of up to four rounds of panel data collected over the course of our study. In 2016, *The Lancet*'s call for a stronger focus on adolescents highlighted the need for more long-term research with young people (Patton et al. 2016). The short-term basis of much of the available knowledge on adolescence is inadequate for understanding the consequences of development interventions, especially given that this period of life is characterised by such a significant transition. Longitudinal research can offer unique insights into patterns of change in a way that is simply not possible without following groups of people over time. Yet qualitative longitudinal research presents both practical and ethical challenges. Both the meanings attached to data and the contexts in which they are generated will change over time. Additionally, there may be challenges in maintaining consent in participation as young people become more mobile (Taylor 2015). The richness of detail built up through long-term, repeated interactions can also cause problems in assuring anonymity, especially when those represented in reports remain involved in projects (Neale 2013; Morrow et al. 2014). There can also be difficulties in maintaining contact with participants, especially in contexts of displacement or mobility. Developing relationships that can withstand this requires time and investment by researchers, which must be supported by funding (Adamson and Chojenta 2007). Because of these complexities and expenses, cohort studies such as GAGE are rare. Thus, the baseline findings highlighted in this Special Issue provide critical insights into the lives of socially marginalised adolescents who are under-represented in the literature on young people's well-being, and foreshadow some of the challenges they are likely to face as they transition through adolescence and on to adulthood. For more detail on specific longitudinal research challenges, see Baird et al. (2021).

Socially Marginalised Adolescents: Sampling

GAGE research focuses on two cohorts of adolescents: younger adolescents (10–14 years) who, as already noted, are not included in Demographic and Health and similar surveys, and older adolescents (15–19 years). Following both cohorts will provide a more rapid understanding of transitions into early adulthood. In addition, having an older cohort allows for more rapid baseline analysis of critical issues for the leave no one behind agenda, such as child marriage and adolescent pregnancy.

In order to sample 20,000 adolescents for the study, GAGE combined representative sampling with purposeful and over-sampling of certain socially marginalised populations to provide more evidence on these under-studied groups (see Table 2 for more details on sampling). Utilising purposeful sampling turned out to be essential, particularly for identifying adolescents with disabilities and those who had experienced child marriage.

In the case of adolescents with disabilities, their households were often not identified during census-style door-to-door listing exercises (possibly due to stigma). They are also often not enrolled in school, reducing the efficacy of school-based listing, an often-used data collection method given lower cost of surveying individuals at school [see Muz et al. (2020) for more detail on sampling to include adolescents with disabilities.] Adolescents who had experienced child marriage did not self-identify as such at first interaction, particularly in the quantitative work. This is explained by the fact that it is illegal in most contexts and the subject of many national and international campaigns (UNICEF 2019; Girls Not Brides 2019). However, the qualitative research team, alongside local leaders, was able to identify adolescents who had married as children, and to help them feel comfortable participating in the research, including by engaging with husbands and in-laws to explain the purpose of the study and to provide assurances around conditionality and anonymity. Table 2 provides a summary of the methods used to find the socially marginalised populations studied in the articles in this Special Issue.

Mixed Methods Analysis

Compared to single-methods approaches, mixed-methods research can have strong potential for contributing to better understanding of what Mertens has described as 'wicked' research problems, which involve multiple interacting systems and social uncertainties (Mertens 2015, p. 3). The GAGE conceptual framework recognises the complexity of the determinants of adolescent capabilities; a mixed-methods approach not only enables questions to be asked in the way best suited to objectives and context, it also creates the bedrock for synthesis of the insights into different dimensions of young people's lives that various methods generate. Mixed-methods analysis, however, presents its own set of challenges and complexities. It is first important to note that not all analysis must use mixed-methods, as some research questions are best asked with one approach, as seen in the papers in this

Table 2 Summary of sampling strategy for specific vulnerability groups

Authors	Countries	Vulnerability groups	Sampling strategy
Sajdi et al	Jordan	Refugees	Sample drawn from data on socially marginalised households held by Refugee Assistance Information System (RAIS) and UNHCR; and UNICEF
Abu Hamad et al.	Gaza/Jordan	Refugees and early-married girls	Qualitative sub-sample identified through adolescent-focused service providers including community-based organisations (CBOs) in Gaza and Makani centres in Jordan
Guglielmi et al.	Bangladesh	Displaced and early-married girls	Sample drawn from Inter-Sector Coordination Group (ISCG) data on camp and household vulnerability (includes numbers of adolescent beneficiaries being reached by programming)
Emirie et al.	Ethiopia	Early-married girls	Married adolescents drawn from quantitative sample in communities where married adolescents had been included; where not included, GAGE used snowball sampling through married adolescents, *kebele* (community) leaders, teachers and health extensions workers
Coast et al.	Rwanda	Adolescent mothers	In survey sites, qualitative sub-sample drawn from quantitative sample, which was selected for vulnerabilities (poverty and live birth rates among 15–19-year-olds; in non-survey sites, sample identified through local leaders and community health workers
Jones et al.	Ethiopia	Adolescents with disabilities	Qualitative sub-sample identified through special needs schools, health extension workers, community leaders and Bureau of Labour and Social Affairs
Bani Odeh et al.	Jordan	Adolescents with disabilities	Sample drawn from UNICEF data on adolescents with disabilities and CBOs in the various locations
Woldehanna et al.	Ethiopia	Out-of-school adolescents	Site selection based on economic and/or food insecurity and high rates of child marriage; out-of-school adolescents identified through random household selection at community level
Ghimire et al.	Nepal	Adolescent girls in commercial sex work	Qualitative sample identified through NGOs serving commercial sex workers, and snowball sampling through adolescent girls involved in CSW to access respondents not involved with NGOs
Sultan et al.	Bangladesh	Adolescents in urban slums	Qualitative sub-sample identified through schools in slum catchment areas

Special Issue which take this route. Researchers must have a clear sense at the outset what methods will be used and in what combination, based on the end goal of the research (Brannen and O'Connell 2015). As Vogl (2019) notes, integrated mixed-methods data analysis not only entails the analysis of a qualitative and quantitative strand of data: the interaction between these strands of data itself produces insights, and researchers must be equipped to handle the extensive data and implications this can produce.

In the five papers in this Special Issue that utilize a mixed methods approach in their analysis (Coast et al.; Hamad et al.; Mitu et al.; Sultan et al.; Jones et al.), an iterative process was used to ensure that the quantitative and qualitative data spoke to each other, and did not read as two separate strands of analysis. In addition, discussions were had between the quantitative and qualitative teams in each country, particularly when results were disparate; these were reconciled where possible, or left as remaining puzzles. Indeed, this type of exchange between those working with different tools is integral to a mixed-methods approach given that ultimately all analysis constitutes interpretation of data and thus a selective rendering of results. For the GAGE programme, which seeks to generate insights not only into adolescents' experiences, but also into the changes strategies that will best support expansion of their capabilities, sequentially structured and iterative mixed-methods research offers opportunities to modify questions and methodological toolkits along the way. The main lesson learned from this process is that mixed-methods analysis must be intentional as, while the end result is rewarding, the effort to conduct rigorous mixed-methods research cannot be understated.

Turning Findings into Action for Adolescents

There is an urgent need for more evidence on what works to empower adolescent girls—especially those who are marginalised, and who continue to be overlooked within existing programming and policies. As we have discussed above, research methods can be empowering for adolescent participants, especially those who are marginalised, if they emphasize the elicitation of a diversity of voices, make participation possible for adolescents with a range of interests and access needs, and centre their perspectives Yet research must not stop at shifting these power dynamics at the interpersonal level; it must also be connected to action to address structural marginalisation.

There are several ways in which GAGE research is being translated into the kind of structural change that supports the voice and agency of these adolescents. A key dimension is the supportive and active involvement of girls in advocacy processes at national and global levels, helping to foster conditions that enable girls to expand their capabilities now and in the future. Globally, this includes the active involvement of GAGE in the Adolescent Girls Investment Plan (AGIP) collective, and in work with various governments and stakeholders to ensure findings have uptake and impact. In Jordan, the UNICEF Makani programme has been adapting its programming in response to GAGE findings, including incorporating components on financial literacy (reflecting GAGE findings on economic empowerment); digital literacy;

enhancing interlinkages with social protection systems; and piloting of parenting classes for parents of adolescents in response to findings around adolescent-caregiver relationships. In Ethiopia, GAGE has been working with the Government to implement commitments to end child marriage, providing evidence for and designing the monitoring and evaluation framework for the National Roadmap to End Child Marriage and FGM/C by 2025; developing research tools to verify community readiness to eliminate harmful gender norms and practices; and feeding evidence into guidance manuals to support district officials in the implementation of these national-level commitments.

Conclusion

The mixed-methods approach of GAGE, combined with the programme's explicit focus on including the most socially marginalised adolescents in the study sample, provides the articles in this Special Issue with the unique ability to speak to the lives of adolescents in LMICs and contribute to a scant evidence base on the most socially disadvantaged population groups. Understanding the heterogeneous experiences of young people, and in turn informing policy and programmatic interventions so that they can be more responsive to adolescents' realities can only be done by moving beyond traditional research methods and embedding multiple methods and participation as key principles. Listening to the voices of particularly marginalised groups, including adolescents in remote rural communities, urban slums, adolescents with disabilities, married adolescents, young mothers, and adolescent affected by forced displacements, is essential to achieve the SDGs and to leave no young person behind.

The detailed GAGE methodology described in this article provides a blueprint for researchers looking to conduct research with socially marginalised adolescents. It offers guidance on how to avoid common pitfalls, such as assuming that a census-style listing exercise will guarantee broad representation, or failing to invest in data generation with an adequate sample size of specific sub-groups of interest. It also provides insights as to how to improve participation of adolescents in research processes in developmental and humanitarian settings. In addition, the GAGE conceptual framework has proven essential in connecting streams of work that at first glance may appear to be disparate, but when connected to the common structure of the conceptual framework become more than the sum of their parts. The commitment to mixed-methods analysis has further practically and ethically strengthened the GAGE methodological approach. Overall, we hope that describing these innovative methods and our underlying approach will spur interest in not only the GAGE data, but also in additional research to explore the developing capabilities of and with some of the most socially marginalised adolescents in the Global South.

References

Abu Hamad, B., S. Elamassie, E. Oakley, S. Alheiwidi, and S. Baird. 2021. No One Should Be Terrified Like I Was! Exploring Drivers and Impacts of Child Marriage in Protracted Crises Among Palestinian and Syrian Refugees. *The European Journal of Development*. https://doi.org/10.1057/s41287-021-00427-8.

Adamson, L., and C. Chojenta. 2007. Developing relationships and retaining participants in a longitudinal study. *International Journal of Multiple Research Approaches*. 1 (2): 137–146. https://doi.org/10.5172/mra.455.1.2.137.

Alderson, P., and V. Morrow. 2011. *The ethics of research with children and young people: A practical handbook*. London: Sage.

Arnold, M., and M. Cater. 2011. From then to now: Emerging directions for youth program evaluation. *Journal of Youth Development* 6 (3): 82–94.

Baird, S., N. Jones, B. Abu Hamad, M. Sultan, and W. Yadete. 2021. Capturing the complexities of adolescent transitions through a mixed-methods longitudinal research design. In *Sustainable development across the life course: Evidence from longitudinal research*, ed. P. Banati. Bristol: Policy Press.

Bamberger, M., V. Rao, and M. Woolcock. 2010. Using mixed methods in monitoring and evaluation: Experiences from international development. Policy Research Working Paper 5245. New York: World Bank

Banati, P., ed. 2021. *Sustainable human development across the life course: Evidence from longitudinal research*. Bristol: Bristol University Press.

Bani Odeh, K. (2019) Conducting research with adolescents with disabilities: A perspective from the field. Gender and adolescence: Global evidence. Blog post. www.gage.odi.org/multimedia/conducting-research-with-adolescents-with-disabilities-a-perspective-from-the-field.

Bani Odeh, K., N. Jones, K. Pincock, and A. Malachowska. 2021. I Wish Someone Would Ask Me Questions: The Unheard Voices of Adolescents with Disabilities in Jordan. T*he European Journal of Development Research*.

Beazley, H., S. Bessell, J. Ennew, and R. Waterson. 2006. *What children say. Results of comparative research on the physical and emotional punishment of children in Southeast Asia and the Pacific 2005*. Bangkok: Save the Children Sweden.

Bradbury-Jones, C., L. Isham, and J. Taylor. 2018. The complexities and contradictions in participatory research with young people: A qualitative systematic review. *Social Science & Medicine* 215: 80–91.

Brannen, J., and R. O'Connell. 2015. Data Analysis I: Overview of data analysis strategies. In *Oxford library of psychology: The Oxford handbook of multimethod and mixed methods research inquiry*, ed. S.N. Hesse-Biber and B. Johnson, 257–274. Oxford: Oxford University Press.

Chambers, R. 1983. *Rural development: Putting the last first*. Harlow: Longman.

Chambers, R. 1997. *Whose reality counts? Putting the first last*. London: Intermediate Technology Publications.

Chen, S., B. Poland, and H.A. Skinner. 2007. Youth voices: Evaluation of participatory action research. *The Canadian Journal of Program Evaluation* 22 (1): 125–150.

Christensen, P. 2017. Mixed methods and ethical research with children. Video Resource. SAGE Research Methods. https://methods.sagepub.com/video/mixed-methods-and-ethical-research-with-children.

Christensen, P.H. 2004. Children's participation in ethnographic research: Issues of power and representation. *Children & Society* 18 (2): 165–176.

Clark, A., and P. Moss. 2001. *Listening to young children: The mosaic approach*. London: National Children's Bureau.

Coast, E., M.W. Mwali, R. Isimbi, E. Ngabonzima, P. Pereznieto, S. Buzby, R. Dutton, and S. Baird. 2021. If She's Pregnant, then that Means that Her Dreams Fade Away: Exploring Experiences of Adolescent Pregnancy and Motherhood in Rwanda. *The European Journal of Development Research*.

Convention on the rights of the child. 1989. Treaty no. 27531. United Nations Treaty Series, 1577, pp. 3-178. Available at https://treaties.un.org/doc/Treaties/1990/09/19900902%2003-14%20AM/Ch_IV_11p.pdf.

Cooke, B., and U. Kothari. 2001. *Participation: The new tyranny?* London: Zed Books.

Crivello, G., L. Camfield, and M. Woodhead. 2009. How can children tell us about their wellbeing? Exploring the potential of participatory research approaches within Young Lives. *Social Indicators Research* 90 (1): 51–72.

Davidson, E. 2017. 'Saying it like it is?' Power, participation and research involving young people. *Social Inclusion* 5 (3): 228–239.

Emirie, G., N. Jones, and M. Kebede. 2021. The School Was Closed, So When They Brought Me A Husband I Couldn't Say No: Exploring the Gendered Experiences of Child Marriage Amongst Adolescent Girls and Boys in Ethiopia. *The European Journal of Development Research*. https://doi.org/10.1057/s41287-021-00418-9.

Flynn, H.K., D.H. Felmlee, and R.D. Conger. 2017. The social context of adolescent friendships: Parents, peers, and romantic partners. *Youth & Society* 49 (5): 679–705.

GAGE consortium. 2019. *Gender and adolescence. Why understanding adolescent capabilities, change strategies and contexts matters*. 2nd ed. London: Gender and Adolescence: Global Evidence.

Garbett, A., B. Perelli-Harris, and S. Neal. 2021. The untold story of 50 years of adolescent fertility in West Africa: A cohort perspective on the quantum, timing, and spacing of adolescent childbearing. *Population and Development Review* 47: 7–40. https://doi.org/10.1111/padr.12384.

Ghimire, A., F. Samuels, and S. Mainali. 2021. Changing patterns of commercial sex work amongst adolescent girls in Nepal: the role of technology. *The European Journal of Development Research*.

Girls Not Brides. 2019. Child marriage: A form of violence against children. Brief. London: Girls Not Brides. https://www.girlsnotbrides.org/resource-centre/child-marriage-a-form-of-violence-against-children/.

Greene, J.C., V.J. Caracelli, and W.F. Graham. 1989. Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis* 11: 255–274.

Guglielmi, S., and N. Jones. 2019. *The invisibility of adolescents within the SDGs. Assessing gaps in gender and age disaggregation to leave no adolescent behind*. London: Gender and Adolescence: Global Evidence. https://www.gage.odi.org/publication/the-invisibility-of-adolescents-within-the-sdgs-2/.

Guglielmi, S., M. Mitu, and J. Seager. 2021. 'I Just Keep Quiet': Addressing the Challenges of Married Rohingya Girls and Creating Opportunities for Change. *The European Journal of Development Research*.

Harper, C., N. Jones, A. Ghimire, R. Marcus, and G. Kyomuhendo Bantebya. 2018. *Empowering adolescent girls in developing countries: Gender norms and social justice*. London: Routledge.

Hemming, P. 2008. Mixing qualitative research methods in children's geographies. *Area* 40 (2): 152–162.

Hendrick, H. 1997. Constructions and reconstructions of British childhood: An interpretive survey, 1800 to present. In *Constructing and reconstructing childhood: contemporary issues in the sociological study of childhood*, ed. A. James and A. Prout, 34–62. London: Routledge.

Hesse-Biber, S.N. 2015. Navigating a turbulent research landscape: Working the boundaries, tensions, diversities and contradictions of multimethod and mixed methods inquiry. In *The Oxford handbook of multimethod and mixed methods research inquiry, xxxiii–liii*, ed. S.N. Hesse-Biber and R.B. Johnson. Oxford: Oxford University Press.

James, A. 2007. Giving voice to children's voices: Practices and problems, pitfalls and potentials. *American Anthropologist* 109 (2): 261–272.

Jones, N. and P. Pereznieto 2014. *Going global: International development approaches*. In Oxford Handbook on Mixed and Multimethod Research. Oxford University Press: NY.

Jones, N., I. Gercama, E. Presler-Marshall, and B. Abu Hamad 2017. *Adolescent perspectives on services and programmes in conflict-affected contexts: A participatory research toolkit*. London: Gender and Adolescence: Global Evidence.

Jones, N., S. Baird, and L. Lunin. 2018. *GAGE research design, sample and methodology*. London: Gender and Adolescence: Global Evidence.

Jones, N., E. Presler-Marshall, A. Małachowska, E. Jones, J. Sajdi, K. Banioweda, W. Yadete, K. Gezahegne, and K. Tilahun. 2019. *Qualitative research toolkit: GAGE's approach to researching with adolescents*. London: Gender and Adolescence: Global Evidence.

Jones, N., K. Pincock, B.A. Hamad, A. Malachowska, S. Youssef, S. Alheiwidi, and K.B. Odeh. 2020. Ensuring no voices are left behind: the use of digital storytelling and diary-writing in times of crisis. In *Research in times of crisis*, ed. H. Kara and S.M. Khoo. Bristol: Policy Press.

Jones, N., J. Seager, and W. Yadete. 2021. People consider us devils: Exploring patterns of exclusion facing adolescents with disabilities in Ethiopia. *The European Journal of Development Research*. https://doi.org/10.1057/s41287-021-00387-z.

Katz, C. 2004. *Growing up global: Economic restructuring and children's everyday lives*. Minneapolis: University of Minnesota Press.

Langevang, T. 2007. Movements in time and space: Using multiple methods in research with young people in Accra, Ghana. *Children's Geographies* 5 (3): 267–282.

Leyshon, M. 2002. On being 'in the field': Practice, progress and problems in research with young people in rural areas. *Journal of Rural Studies* 18: 179–191.

Małachowska, A., N. Jones, B. Abu Hamad, T. Al Abbadi, W. Al Almaireh, S. Alheiwidi, K. Bani Odeh, A. Iyasu, Y. Gebre, K. Gezahegne, S. Guglielmi, K. Mitu, K. Pincock, S. Rashid, M. Saleh, M. Sultan, K. Tilahun, F. Workneh, W. Yadete, and S. Youssef. 2020. *GAGE virtual research toolkit: Qualitative research with young people on their covid-19 experiences*. London: Gender and Adolescence: Global Evidence.

Marco-Crespo, B., S. Casapulla, C. Nieto-Sanchez, J.G. Gómez Urrego, and M.J. Grijalva. 2018. Youth participatory research and evaluation to inform a Chagas disease prevention program in Ecuador. *Evaluation and Program Planning* 69: 99–108.

Mayall, B. 1994. *Children's childhoods: Observed and experienced*. London: Falmer Press.

Mertens, D.M. 2015. Mixed methods and wicked problems. *Journal of Mixed Methods Research* 9: 1–6.

Mohan, G. 2001. Participatory development. In *The Arnold companion to development studies*, ed. V. Desai and R. Potter, 49–54. London: Hodder.

Morrow, V., J. Boddy, and R. Lamb. 2014. *The ethics of secondary data analysis: Learning from the experience of sharing qualitative data from young people and their families in an international study of childhood poverty*. NOVELLA Working Paper. London: IoE. http://eprints.ncrm.ac.uk/3301/1/NOVELLA_NCRM_ethics_of_secondary_analysis.pdf.

Morrow, V. 2008. Ethical dilemma in research with children and young people about their social environments. *Children's Geographies* 6 (1): 49–61.

Muz, J., S. Baird, J.H. Hicks, S.F. Rashid, M. Sultan, W. Yadete, and N. Jones. 2020. Finding the hard to reach: A mixed methods approach to including adolescents with disabilities in survey research. In *Leaving no child or adolescent behind: A global perspective on addressing inclusion through the SDGs*, ed. S. Chatterjee, K. Hodgkinson, and A. Minujin. Bergen: Comparative Research Programme on Poverty.

Neale, B. 2013. Adding time into the mix: Stakeholder ethics in qualitative longitudinal research. *Methodological Innovations Online* 8: 6–20.

Ottmann, G., and J. Crosbie. 2013. Mixed method approaches in open-ended, qualitative, exploratory research involving people with intellectual disabilities: A comparative methods study. *Journal of Intellectual Disabilities* 17 (3): 182–197.

Patton, G., et al. 2016. Our future: A Lancet commission on adolescent health and wellbeing. *The Lancet* 387 (10036): 2423–2478.

Pincock, K., and N. Jones. 2020. Challenging power dynamics and eliciting marginalised adolescent voices through qualitative methods. *International Journal of Qualitative Methods*. https://doi.org/10.1177/1609406920958895.

Prout, A., and A. James. 1990. A new paradigm for the sociology of childhood? Provenance, promise and problems. In *Constructing and reconstructing childhood: contemporary issues in the sociological study of childhood*, ed. A. James and A. Prout, 7–33. London: Routledge.

Roelen, K., and L. Camfield. 2015. *Mixed methods research in poverty and vulnerability: Sharing ideas and learning lessons*. Hampshire: Palgrave MacMillan.

Sabo, K. 2003. *Youth participatory evaluation: A field in the making new directions for evaluation*, vol. 98. San Francisco: Jossey-Bass.

Sajdi, J., A. Essaid, C. Miralles Vila, H. Abu Taleb, M. Abu Azzam, and A. Malachowska. 2021. 'I Dream of Going Home: Gendered Experiences of Adolescent Syrian Refugees in Jordan's Azraq Camp. *The European Journal of Development Research*.

Stuart, K., L. Maynard, and C. Rouncefield. 2015. *Evaluation practice for projects with young people*. London: SAGE.

Sultan, M., J. Seager, S. Faiz Rashid, M. Ashraful Haque, and S. Khondaker. 2021. Do Poor People's Dreams Ever Come True?' Educational Aspirations and Lived Realities in Urban Slums in Dhaka, Bangladesh. *The European Journal of Development Research*.

Taylor, R. 2015. Beyond anonymity: Temporality and the production of knowledge in a qualitative longitudinal study. *International Journal of Social Research Methodology*. 18 (3): 281–292. https://doi.org/10.1080/13645579.2015.1017901.

Thomson, R., and L. Hadfield. 2014. Day-in-a-life microethnographies and favourite things interviews. In *Steps to engage young children in research: vol. 2, The researcher toolkit*, ed. V. Johnson, R. Hart, and J. Colwell, 126–130. Brighton: Bernard Leer Foundation, University of Brighton.

Thomson, R., M.J. Kehily, L. Hadfield, and S. Sharpe. 2011. *Making modern mothers*. Bristol: The Policy Press.

Tubaro, P., L. Ryan, and A. D'angelo. 2016. The visual sociogram in qualitative and mixed-methods research. *Sociological Research Online* 21 (2): 1–18.

UNICEF. 2019. Global programme to accelerate action to end child marriage: 2018 Annual Report. New York: UNFPA/UNICEF. https://www.unicef.org/media/60276/file.

Vincent, C., S. Neal, and H. Iqbal. 2018. *Friendship and diversity: Class, ethnicity and social relationships in the city*. Cham, Switzerland: Palgrave Macmillan.

Vogl, S. 2019. Integrating and consolidating data in mixed methods data analysis: Examples from focus group data with children. *Journal of Mixed Methods Research* 13 (4): 536–554.

Warshak, R. 2003. Payoffs and pitfalls of listening to children. *Family Relations* 52 (4): 373–384.

Weine, S. 2015. Applying Multimethod and Mixed Methods to Prevention Research in Global Health. In *The Oxford Handbook of Multimethod and Mixed Methods Research Inquiry*, ed. S.N. Hesse-Biber and R.B. Johnson. Oxford: Oxford University Press.

White, S.C., and S.A. Choudhury. 2007. The politics of child participation in international development: The dilemma of agency. *European Journal of Development Research* 19 (4): 529–550.

Wickenden, M., and G. Kembhavi-Tam. 2014. Ask us too! Doing participatory research with disabled children in the global south. *Childhood* 21 (3): 400–417.

Woldehanna, T., K. Endale, J. Hamory, and S. Baird. 2021. Absenteeism, dropout and on time school completion of vulnerable primary school students in Ethiopia: Exploring the role of adolescent decision-making power in the household, exposure to violence and paid and unpaid work. *The European Journal of Development Research*.

Authors and Affiliations

Sarah Baird[1] [ID] **· Laura Camfield[2] · Ashraful Haque[3] · Nicola Jones[4] ·
Anas Al Masri[5] · Kate Pincock[4] · Mahesh C. Puri[6]**

Laura Camfield
L.Camfield@uea.ac.uk

Ashraful Haque
mahaque@poverty-action.org

Nicola Jones
n.jones@odi.org

Anas Al Masri
a.masri@mindset-res.com

Kate Pincock
k.pincock.gage@odi.org

Mahesh C. Puri
mahesh@crehpa.org.np

1   Department of Global Health, George Washington University, 950 New Hampshire Ave, NW, Washington, DC 20052, USA

2   School of International Development, University of East Anglia, Norwich Research Park, Norwich NR4 7TJ, UK

3   IPA, 6B, House 35, Road 7, Block G, Banani, Dhaka 1213, Bangladesh

4   Overseas Development Institute, 203 Blackfriars Road, London SE1 8NJ, UK

5   Mindset, No. 7 Aref Anabtawi St., Abdali, Amman, Jordan

6   Center for Research on Environment Health & Population Activities (CREHPA), Kusunti, 18-Lalitpur, Kathmandu, Nepal