Evidence for impact on de-institutionalization: A systematic review of the current status, gaps and future directions of translatable research on alternative care

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This study presents a review of previously published materials. No data collection on humans or animals has been conducted. Therefore, participants' informed consent and ethics approval declarations are not pertinent to the study.

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Conflict of Interest:

This paper is based on a report developed as part of The Evidence for Impact Working Group (E4I) of the Transforming Children's Care Collaborative (https://www.transformcare4children.org/). The report has been guided by the Working Groups' Terms of Reference focussing on "Strengthening the common understanding and positioning on evidence" described as "independent and objective" evidence in this sector. Better Care Network supported EA for her contributions to the current paper. MJBK and MHvIJ were supported by the non-profit foundation Beagle Advise, Research & Development. The content of this paper is the sole responsibility of the authors.

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Abstract (210 words)

Background: The transition from institutionalized care to alternative family-based care arrangements for children and youth without available parents is an important policy aim around the world. It is timely to document the evidence to date on de-institutionalization (DI) and identify the gaps stalling translation of DI findings to policy or practice. Vulnerable children and their (alternative) parents deserve family-based DI reform that is sustainable and successful in improving their lives.

Method: We conducted a narrative review of studies on de-institutionalization conducted in the last five years. Our systematic search identified 161 pertinent studies covering 67 countries across most continents.

Main results: The majority of the studies were qualitative, used some type of 'convenience' sampling, and had a modest number of participants (but with a broad range, 1 – 5351). Remarkably few studies included children under 6 years of age. Despite small samples and relatively weak designs, the majority of the studies suggested policy implications of their results.

Recommendations: Much work has been done, but the majority of DI research does not meet the requirements of transparency and replicability, perhaps due to the specific circumstances of performing DI research. To overcome these shortcomings, we suggest for DI studies to create more replicable evidence with translatable impact on governments, policymakers, sponsors and practitioners.

Key words (4-5)

Orphanage; Family-based Care; Street Children, Care Reform, Group Care

Evidence for impact on de-institutionalization of children without parental care: Current status, gaps and future directions of translatable research on alternative care

De-institutionalization is the common term for the process of transitioning from institutionalized or residential care to family-based care arrangements (including foster or kinship care, adoption or kafalah) for children and youth without available parents. In 2015, about 7.5 million children were living in institutions (Desmond et al., 2020), and in the past decade, with wars and pandemics roaming around the globe, the quality of care for children without available parents has not become less urgent. In view of the documented negative consequences of residential care for children's health and development (e.g., Van IJzendoorn et al., 2020), many recommendations have been made to transform the care for children who for various reasons can't grow up with their biological parents to go from residential to family-based care arrangements (e.g., Goldman et al., 2020), and many initiatives have been developed to implement such de-institutionalization recommendations. With these initiatives to optimize policies and practice of care for children, and the wish to implement evidence-based practices, it is time to take stock of the empirical evidence on de-institutionalization and the various steps and parties involved.

What is the evidence on de-institutionalization (DI) and what are gaps stalling translation of DI findings to policy or practice of alternative family-based care? Our perspective is that for empirical evidence to have impact on policy and practice, it should be *reproducible* (would the same data lead to similar if not identical conclusions?) and *replicable* (would another study with similar methods lead to similar if not identical conclusions?), as explained elsewhere (National Academy of Sciences, NAS, 2019). Independent researchers should be able to reproduce and replicate a study, whether it is a quantitative, mixed methods, qualitative, or meta-analytic study. Transparency in (pre-)reporting the process and published products of a study is a key condition for evidence to have impact.

In our process model of research programs (Van IJzendoorn & Bakermans-Kranenburg, 2024), the methodological differentiation between the context of discovery and the context of justification can be made, in line with the work of Popper (1959) and Lakatos (1978). In the context of discovery researchers try to find hypotheses that are open to falsification. All qualitative or quantitative methods to generate such hypotheses are allowed, but in the next phase these hypotheses should be subjected to transparent, systematic and stringent tests to check whether they survive efforts to reject them with falsifying empirical data. In this process valid replication studies are crucial as tests to see how robust the original hypotheses are. Applied to the de-institutionalization context, the hypothesis that the transition to family-based care arrangements benefits child (mental) health should be empirically tested in reproducible and replicable studies. In the context of justification, the robustness of the hypothesis is examined with narrative or quantitative syntheses or meta-analyses, and their combination in so-called umbrella reviews of meta-analytic results. This type of evidence is needed to have impact on de-institutionalization policies or practices; guarantees for the truth-value of findings need to be established. Policymakers, professionals, parents and not the least children have the right to receive advice and support based on replicable and valid scientific insights instead of subjective intuitions.

Against this outline of what we consider to be evidence for impact we conducted a narrative review of DI studies done in the last five years. We aim to review this recent literature to chart the landscape of DI studies, note its strengths and challenges, and present some successful examples of various types of (correlational, qualitative, experimental, and mixed method) DI studies. We also want to make clear what gaps can be observed in this field of inquiry, that are in the way of translation of results to policy and practice.

Methods

For this narrative synthesis of studies on di-institutionalization, we searched for pertinent papers on Web of Science from June 1st, 2018 to March 1st 2024 (the years following those that had been searched in the context of the Lancet Commission on Institutionalisation and Deinstitutionalisation, Goldman et al., 2020; Van IJzendoorn et al., 2020) using the following string of terms: TS=((deinstitutionalisation OR deinstitutionalization OR de-institutionalization OR de-institutionalisation OR "alternative care" OR "family-based care" OR "family-type care" OR "care reform") AND (child* OR adolec* OR infan* OR orphan*)) and Preprint Citation Index (Exclude – Database) and 2018-2024 (Publication Years). Except for the Preprint Citation Index, we searched all other collections of Web of Science (Web of Science Core Collection, Grants Index, KCI- Korean Journal Database, MEDLINE, ProQuest Dissertation & Theses Citation Index, and the Scientific Electronic Library Online SciELO Citation Index). The Web of Science collection covers a range of sources including grey literature (dissertation theses, etc.), books, and more. We found 639 potentially relevant hits (Figure 1).

The screening process, outlined in the flowchart (Figure 1), started with excluding duplicate records (n = 5), leaving n = 634 records that were screened using Web of Science excluding features for non-empirical reviews (n = 61) and editorials (n = 37). The resulting set of records were screened on basis of title and abstract (n = 536), and records were excluded if they were not on DI (n = 246), based on secondary data analysis (n = 11), not empirical studies (n = 42), or not targeting the population of children or adolescents (n = 16). Full text screening was conducted on 221 papers. Reports were excluded if they were not DI related (n = 33), not about children (n = 7), not empirical (n = 16), had no information in the English language (n = 3), and one further duplicate was detected. This resulted in a final set of n = 161 relevant papers to be coded.

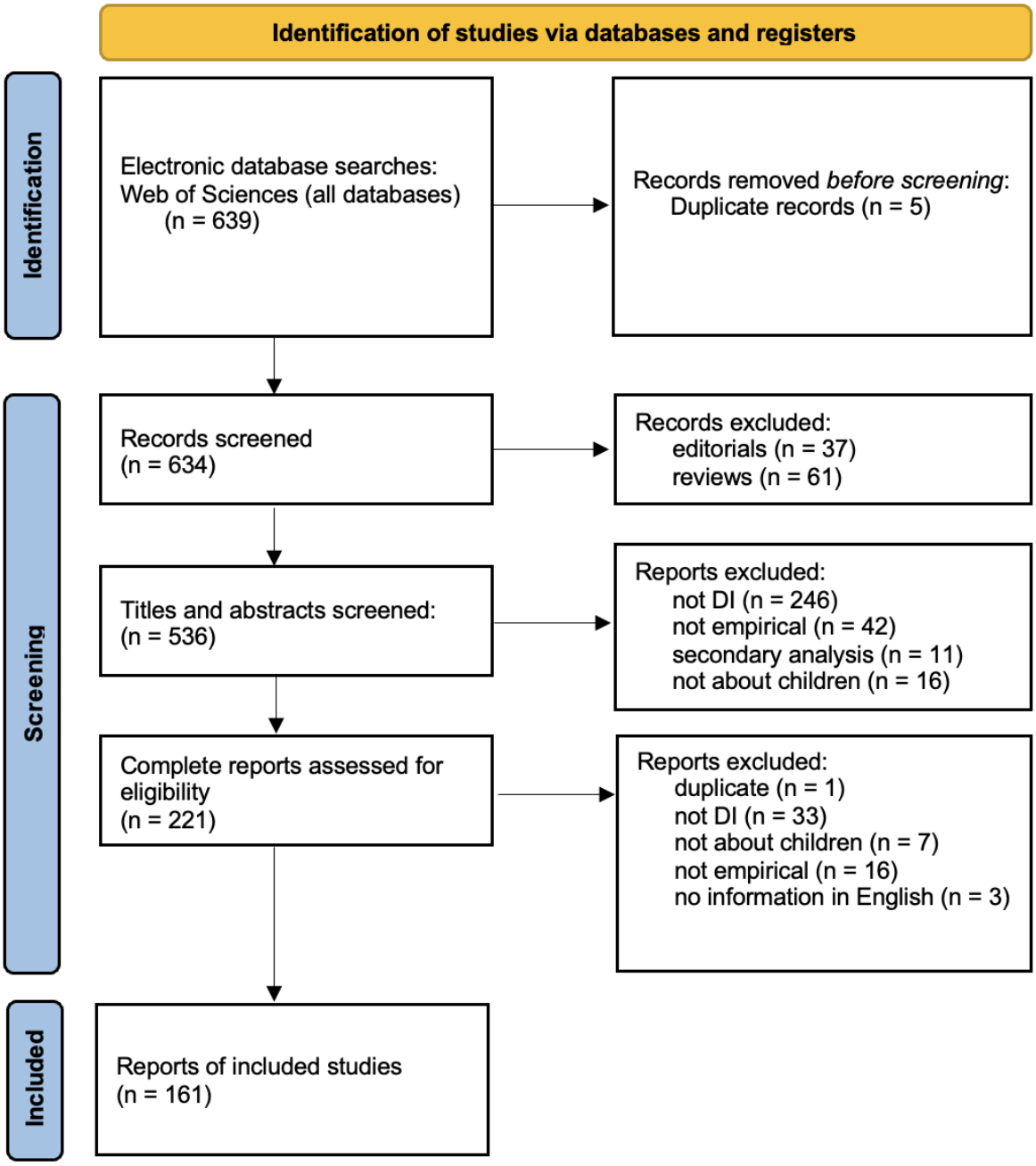

Figure 1. Flowchart of the literature search and screening

Training of coding was conducted on the 50 publications collected in a previous search that had been coded by MJBK and MHvIJ, and served as training material for EA. After the training phase the coding system was expanded with categories for Participant and Public Involvement (Bakermans-

Kranenburg & Van IJzendoorn, 2024b) (PPI: present; absent; unclear) and PPI type of participants (care users; care leavers; professional caregivers; family members; other). Added to the original category for type of participant was "legal guardian' and for data-analysis 'policy framework analysis' was added. The resulting coding system included the following categories: country of study; design; data-collection method; participant age; type of participant; sample size; sampling method; data-analysis; recommendations; focus on children with disabilities; PPI (see Supplementary Table S1 for the coding system). For intercoder reliability MHvIJ and EA independently coded another 30 papers with the final coding system. The overall intercoder agreement was good, with all percentages of agreement above 88% except for PPI (52%), but some categories contained insufficient data or insufficient variance for computing agreement (age and sampling method). EA coded the remaining papers.

Results

Regions. DI studies covered a large number of countries (67 in total) across most continents (see Figure 2). The numbers of DI studies in Africa (62) are in the same range as DI studies conducted in Western European countries (56), whereas the number of DI papers from Eastern Europe (12), North America (18) and South America (20) are much lower, and Asian DI studies fall in the middle (37). In the current set of DI papers, publications from China (2) and Japan were virtually absent, and work in Australia (1) and the Middle East (1) was similarly almost lacking. Surely these are remarkable gaps on the world map because the underrepresented countries certainly do have institutions where children and youth are growing up, and careful reflection on conditions and policies to transition to family-based care would be required in the interest of the institutionalised children.

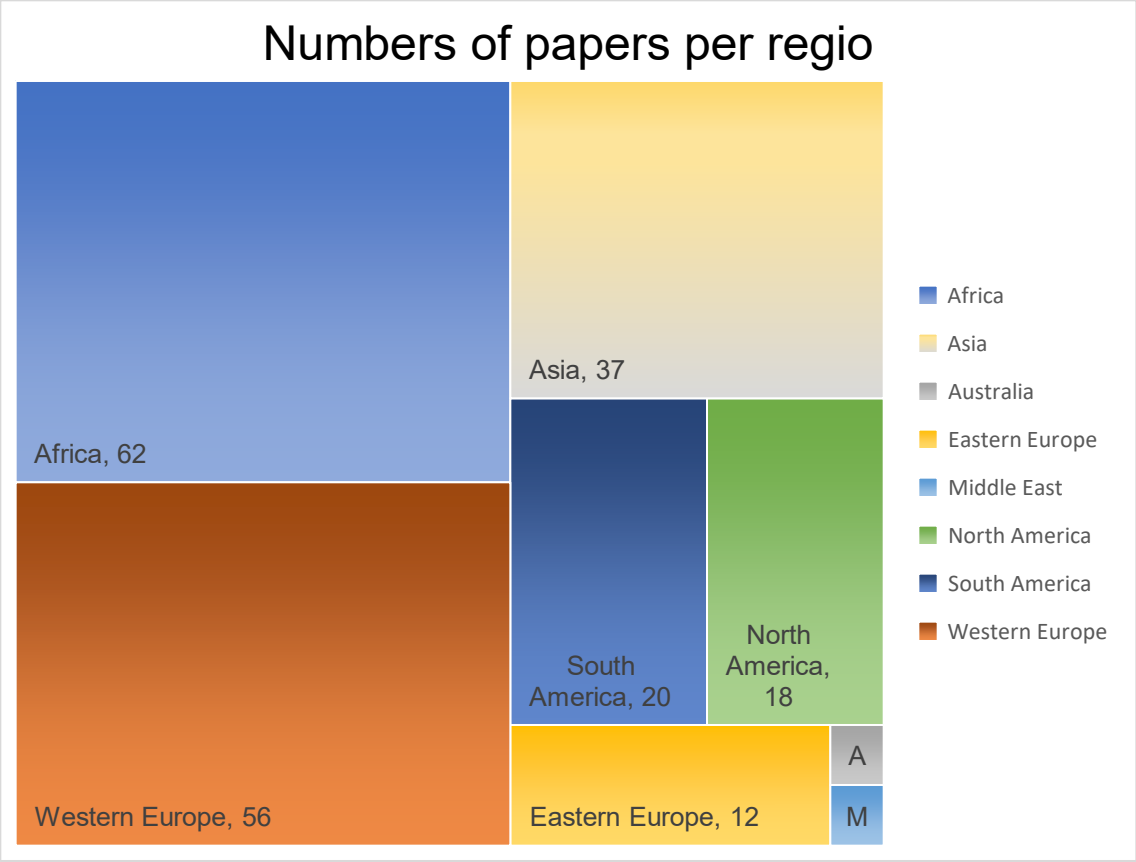

Figure 2. Numbers of papers per region

Research designs. The large majority of the studies were qualitative, *k* = 90, of which 4 were case studies (see Figure 3). Other qualitative approaches were historical, policy framework or legal analysis, and phenomenological, grounded theory or thematic analysis studies. In this qualitative category, semi-structured interviews as well as focus groups were popular as method of data collection. Surprisingly few studies used the preeminent qualitative method of participant observation that is often used in cross-cultural research (Spradley, 2016). Quantitative DI studies were present in sufficient numbers to illustrate their feasibility in the complicated area of DI but their numbers are modest (*k* = 42) compared to the qualitative work. This field of inquiry is clearly different from mainstream developmental science in which quantitative methods are dominating the published literature. A mixture of quantitative and qualitative approaches within the same study was found in several papers (*k* = 29). We did not see much

use of Participant and Public Involvement (PPI, Bakermans-Kranenburg & Van IJzendoorn, 2024b) in the studies, although in recent years the call to include youth, caregivers and care professionals in DI studies sounds louder. It should be noted however that intercoder agreement for PPI was not sufficient to provide quantitative estimates.

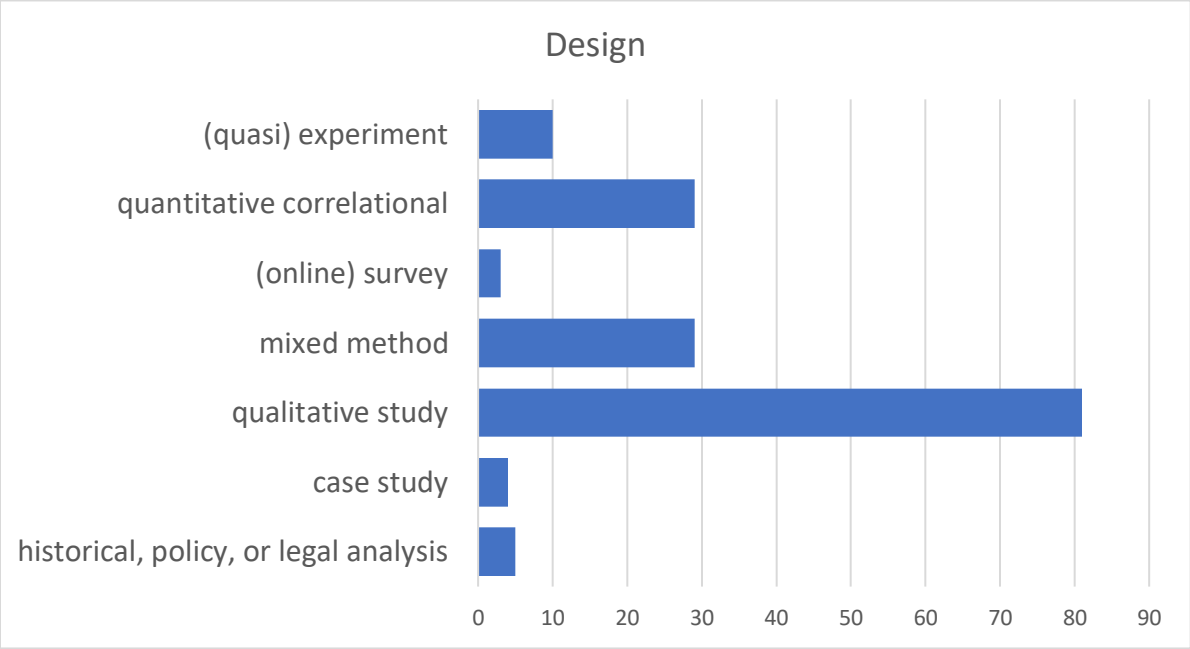

Figure 3. Study design of the de-institutionalization studies

Sampling. Type of sampling was only minimally reported in many papers. When reported, the large majority of DI studies used some type of 'convenience' sampling ('purposive', 'snowball'), *k* = 133. Only few studies aimed for replicable or representative data-collection (*k* = 14). Notable exception is the Bucharest Early Intervention Project (Nelson, Fox & Zeanah, 2014), reporting on the effects of the transition to foster-family care of formerly institutionalised children. Important for DI are BEIP publications on conditions that predict more versus less successful foster care arrangements for children's development into adolescence and emerging adulthood (see King et al., 2023). DI studies on population-wide administrative data tracing the development of formerly institutionalised children in

various alternative care arrangements are scarce but potentially fruitful for policy-related best-evidence DI recommendations.

Type of Participants and Sample Size. Although a substantial number of studies included the target group of children in their research (*k* = 69, see Figure 4), two salient gaps are the under-representations of the youngest children (*k* = 17 in the range of 0 - 12 years of age, see Figure 5) and children with disabilities (*k* = 18). Participants were mostly typically developing adolescents or adults, but note that in many papers detailed information about age or developmental status of participants is missing (*k* = 81). The lack of DI studies on children with atypical (cognitive, motor, or neuro-) development is striking. Professionals (including social workers, policymakers, NGOs) were often targeted whereas (birth, foster or kin) parents and (adult) care leavers were also represented. The number of participants in DI studies ranged from 1 to 5351, but a substantial number of studies included small numbers of participants (fewer than 20 participants, see Figure 6).

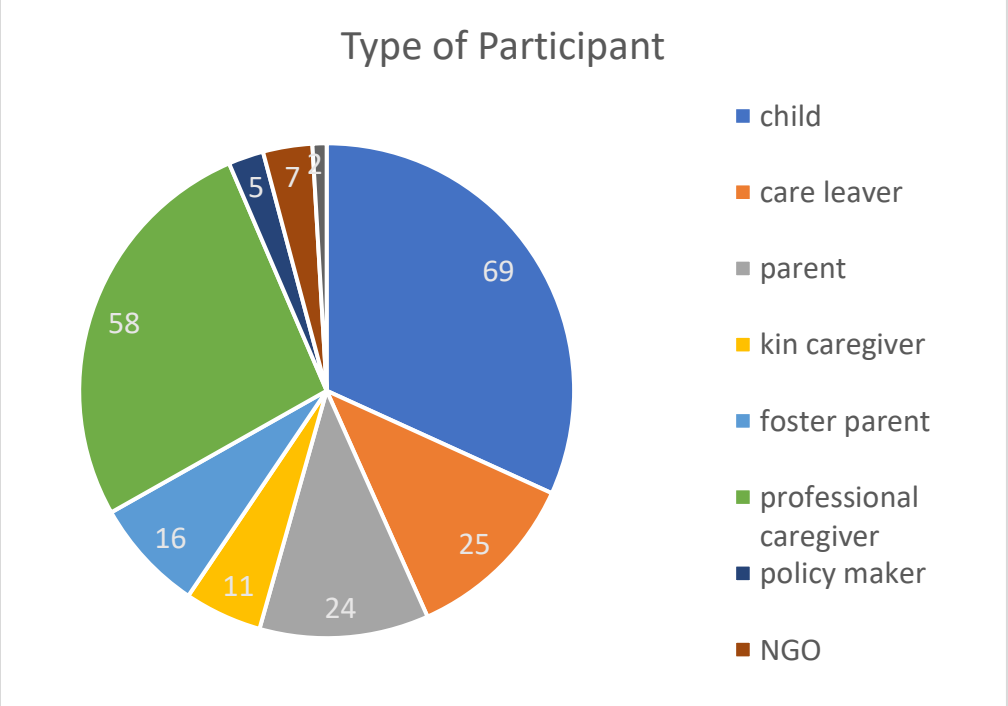

Figure 4. Type of participants included in the de-institutionalization studies

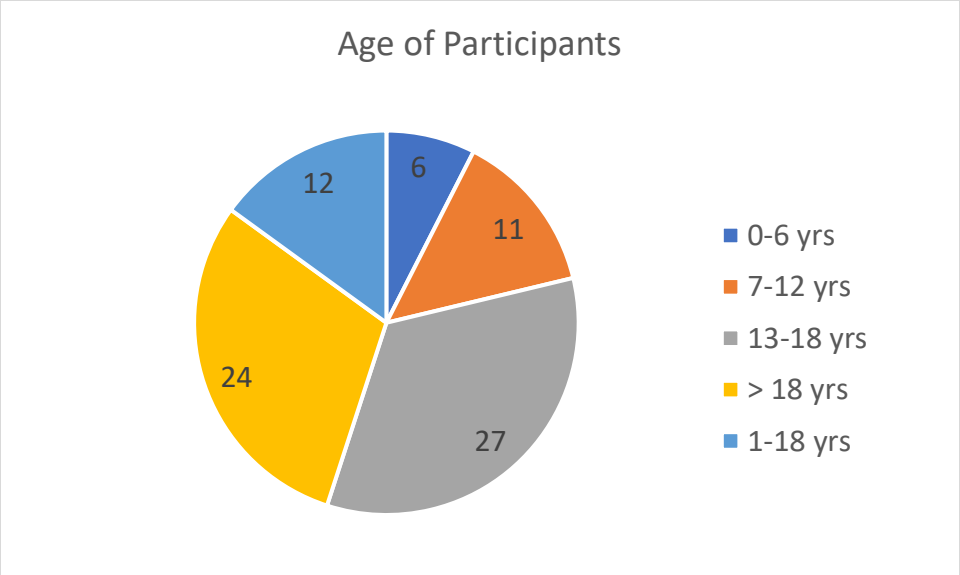

Figure 5. Age of participants.

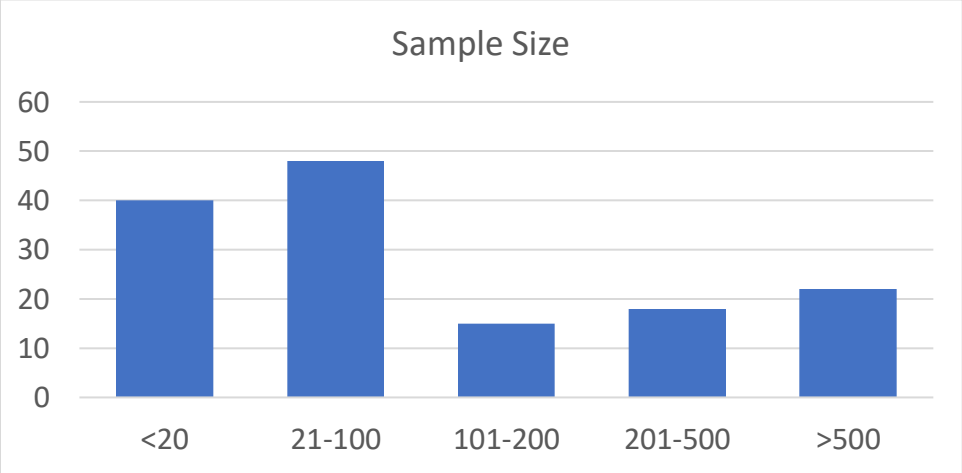

Figure 6. Sample sizes of de-institutionalization studies

Policy Recommendations. The majority of the studies paired their results with policy and/or research implications (*k* = 139). Most of these studies suggested policy changes (*k* = 125), whereas *k* = 35 papers (also) noted research gaps. In only 22 papers no recommendations were presented. A table summarizing the findings can be found in Supplementary Table S2

Discussion

Our systematic review of recent DI studies showed a substantial number of publications but also some substantive gaps to be filled. Here we will discuss some of the weaknesses that characterize current studies on DI, the resulting translational challenges in the field, and issues of ethics and sustainability.

Weaknesses of current studies

When reviewing the corpus of papers, the first thing that springs to the eye is that DI studies have not yet covered all regions and continents of the globe. Regions that are underrepresented in an absolute sense, irrespective of the numbers of children in alternative care, are China, Japan, Middle East, Australia and New Zealand, and Eastern Europe. Some of these countries and regions have large estimated numbers of children living in institutions (Desmond et al., 2020). Second, in remarkably few DI studies young children from 0 - 6 years of age and children with disabilities are included. Adults are more easily to reach and to participate in studies as informants than young children which might be one of the reasons for the neglect of the youngest age categories. Yet, some impressive (quasi-)experimental studies have been conducted with young children, e.g., King and colleagues' (2023) Bucharest study starting in infancy and Hearst et al.'s (2022) study on Zambian families with children with disabilities. These examples illustrate the feasibility of DI research in rather difficult circumstances and deserve to be replicated in other regions or countries.

Third, sampling in this field of inquiry is unfortunately mostly convenience recruitment of participants with the risk of dependent data as 'birds of a feather flock together' (whether it is snowballing or purposive sampling). It also tends to lead to small, underpowered studies, a fourth weakness observed in the set of studies on DI. The number of studies with very small samples (fewer than 20 participants) amounted to $k = 40$, and small studies run the risk of inflated and thus non-

replicable results (e.g., Anderson, 2019). For example, in one study interviews were conducted with 7 experts and 10 care-leavers of institutions. Both groups were recruited through convenience sampling (Artamonova et al., 2020). The authors differentiated results depending on gender and age, leaving very small sub-groups. Nevertheless, they concluded that the developmental pathways of male informants looked normal, and the experiences of female care leavers were somewhat traumatising. This generalization is not warranted with such a small sample, where care-leavers were invited to participate with the snowball principle of using the networks of participants, and care workers were recruited by representatives of the institutions. Another example is a study reporting on interviews with 28 adolescents in institutional care recruited through convenience sampling (Mishra & Sondhi, 2021). The qualitative approach suggested that the participants were hardened by early adversities and acquired resilience to develop long-term adjustment. Therefore, the authors conclude that institutional care would hold the potential to offer what at-risk residents need. It is questionable whether such results are replicable in larger and more representative samples. In quantitative developmental, biomedical and neurobiological animal and human research small samples turned out to be one of the most important causes for the replication crisis. Related to this issue, we found that replication studies, constituting an essential step in gaining knowledge and a requirement for responsible translation (Van IJzendoorn & Bakermans-Kranenburg, 2021; 2024), were virtually absent in reported DI research.

Translational challenges

Three conditions for translation of scientific findings to policy or practice are necessary. First, empirical results should be replicated in several independent studies that meta-analytically show an overall robust effect. Second, the change in caregiving environment should be ethically defensible, for example in line with UN Convention on the Rights of the Child (CRC; United Nations, 1989), which is the

universal expression of consensus on the rights of the child. Third, from a cost-effectiveness perspective the proposed change should prove to be good use of scarce resources compared to care-as-usual or alternative care options (Van IJzendoorn & Bakermans-Kranenburg, 2024).

The set of studies collected for the current review show a dearth of replicated and replicable DI investigations. For translation to policy or practice independent replication of studies on de-institutionalization is required. “One study is no study” if the goal is to apply results in real life settings where physical and mental health are at stake. Replicability also concerns reliability of the methods used to reach conclusions. Many studies failed to examine the intercoder reliability of data collection or data analysis and might not be reproducible by independent researchers. This is not only the case for qualitative (e.g., Bentum & Manful, 2022) but also for quantitative research (Hasan et al., 2029). Replication research is crucial to make progress in the field. Doing a replication study promotes critical understanding of previous research, increases one’s own methodological rigor, provides a test of potential false positives in earlier studies or may reveal moderating factors explaining differences in results. Replication research enables meta-analyses, a necessary step on the way to translation.

Second, the change of caregiving arrangements implied by the transition to family-based care should be ethically defensible. Whereas the UN Convention on the Rights of the Child (CRC; United Nations, 1989) defends the rights of the children that are the first focus of the process of DI, a second focus should be on the professional caregivers. The numbers of studies including professional caregivers as participants seems promising (k = 57), but in most studies they only report on the health or behavior of the children they care for (e.g., Ferrara et al., 2019). Yet, the transition to family-based care needs careful research on the roles of the professional caregivers involved. They know the children and they have rich experiences in caring for them, but they do need training for their new tasks. There is a clear need for developing and testing training programs preparing institutional staff for their new roles as

case workers of children in family-based care arrangements, including offering parenting support to the families receiving previously institutionalized children in their homes (e.g., Juffer et al., 2017). In the transition to family-based care, it is often said that no child should be left behind in institutional settings. In the same vein, the responsibility to leave no professional caregiver behind has to be taken seriously.

The third requirement for responsible translation is a defensible cost-benefit, cost-effectiveness or cost-utility balance of various alternative care arrangements including large and small institutional care, foster care, adoption, kinship care, or kafalah (this economics approach was mentioned in Hearst et al., 2022, and Rogers & Karunan, 2020). Of course, effectiveness of the policy change, intervention or treatment should be established, preferably on basis of meta-analytic evidence and compared to other policy or intervention domains. The additional costs of an intervention or change of care arrangement should be computed compared to care-as-usual or alternative options, in the short- but also long-run. Scalability should be estimated if a policy or intervention is thought to address the needs of millions of families and children (Kraft, 2020). The combination of these three dimensions (effectiveness, costs, and scalability) might lead to an educated guess about the cost-benefit balance.

In the Rogers and Karunan (2020) study the authors refer to Carter's (2005) estimates of costs involved in various alternative care arrangement. Carter concluded that community residential/small group home care would cost approximately half that of state institutional care; foster care approximately one fifth to one third, and family support/social service provision one eighth of state institutional care (Carter, 2005). These computations are however outdated, not only because they are more than 20 years old and only based on Eastern Europe provisions but also because in health economics more sophisticated models have been developed.

Such models have been applied by Wilson-Barthes and colleagues (2022; 2021) on the cost-utility balance between institutional care, living on the street or being raised in alternative family-based

care. In their health economics computations on data of the OSCAR's Health and Well-Being Project in Kenya, family-based care would be more cost-effective compared to living on the street (Barthes et al., 2022), and less cost-effective compared to institutional care (Barthes et al., 2021). The health economics models however suffer from a lack of valid developmental input. For example, Wilson-Barthes et al. (2021) used a 10-items Children's Depression Inventory-Short Form (CDI-SF, Ahlen & Ghaderi, 2017) to measure depression-free days and convert these to Quality-Adjusted Life Years or QALYs, a cornerstone of cost-effectiveness computations and comparisons. Yet, the CDI-SF was not validated in Kenya and the conversion to QALYs had not been psychometrically or econometrically tested. In general, such short questionnaires for complex constructs like children's well-being and development may be flawed by response biases that are partially rooted in genetic differences (Runze & Van IJzendoorn, 2024). Much more work must be done to make the cost-effectiveness models work in this complicated domain of alternative care (Van IJzendoorn & Bakermans-Kranenburg, 2020). But such work will be critical to convince policymakers not only to initiate but also to complete the difficult transitions involved in DI.

Ethics and Sustainability

To close the gap between scientific goals and ethical *desiderata*, Patient/ Participants/ Policy-makers and Public Involvement (PPI, Bakermans-Kranenburg & Van IJzendoorn, 2024b) has been promoted in the biomedical and mental health sciences. PPI covers a spectrum from patients' or policy-makers' involvement in outlining relevant but uncharted areas of research to action research that integrates research and activism in all stages of the applied research cycle. In DI studies PPI is rarely implemented, although the idea is gaining traction that youth in alternative care should have a stronger voice in decisions about research and policy related to alternative care.

One of the examples of PPI in DI research is the study by Frimpong-Manso and colleagues (2024) in Ghana who adopted 'practice research' to co-create scientific knowledge and its translation to practice. In close cooperation with five practicing social workers, research questions were refined, and interviews were conducted with a convenience sample of 25 professionals from NGOs and institutions. The interview guide was developed in collaboration with the practitioners. The study purpose and key themes for reporting were also agreed upon with input from practitioners, to ensure that study findings would be relevant to practice. In weekly sessions the team discussed the study process, the interview transcripts and the findings. In consultation with the practitioners, agreement was reached on the final themes emerging from the thematic analysis process. These final themes were that residential care is not an optimal environment for children, that residential care was still needed for children in vulnerable situations, and that institutions might serve as temporary shelters for children without adequate family or parental care. Consequently, one of the policy recommendations was to turn residential settings into respite care centres with short-term stays. Yet, five practitioners seem not sufficient considering the complexity of ethical issues. More theory and research are needed to bridge the gap between what is (scientifically) the case in the domain of alternative care and the arguments of what should be strived for (ethical grounding) with proposed changes in policy or practice.

A second issue of ethical relevance is related to the observation that we did not always find the names of local collaborators among the authors of DI studies. From an ethics perspective, in DI studies local students and researchers in LMICs should be enabled to (co-)author publications about the results or to profit otherwise from a DI project through research training or education in line with the Cape Town Statement on *Fostering Research Integrity Through the Promotion of Fairness, Equity, and Diversity* (Horn et al., 2023). The Cape Town Statement emphasizes open science that guarantees full free access of researchers and professionals in LMICs to the scientific literature. The declaration also

stresses the privileged access to their own data for some years to prevent non-LMICs scientists to profit from faster access with more resources than their peers in LMICs. Collecting raw data in LMICs and then exporting them to academia in so-called WEIRD (Western, Educated, Industrialized, Rich, and Democratic; Henrich et al., 2010) countries without local students, professionals and researchers benefitting from the work should not be allowed. Training of local researchers also improves the sustainability of research and implementation programs.

Third, donor-funded research may come with some specific ethical risks of suppression of negative results or bias in reported findings. When “the butcher marks his own paper” the risks for more positive marks than warranted are present. In the worst case, they may hinder the research process or prevent publication of unwelcome results. As we note below, financial conflicts of interest should be avoided or – if that turns out to be impossible- made explicit. Ideally, investigators should be completely independent from stakeholders financing (parts of) the study.

Future directions

As a preamble, before we turn to recommendations for further steps in DI research, we note that a first priority in the field is to reach consensus on what exactly should be transformed in the de-institutionalization process. This seems a simple issue and consensus between stakeholders appears almost self-evident. But in this sector, nothing seems more complicated than reaching such consensus (Shawar & Shiffman, 2023). In their paper on *'Global priority for the care of orphans and other vulnerable children: transcending problem definition challenges',* Shawar and Shiffman (2023) conclude: "In order to potentially become a more potent force for advancing global priority, children's care proponents within international organizations, donor agencies, and non-governmental agencies working across countries will need to better manage their disagreements around deinstitutionalization as a care

reform strategy." Here we stipulate that the DI concept semantically consists of three components, namely the target population, the institutional arrangement, and the DI destination with minimally acceptable alternative care settings for the target population. We propose to settle on (contestable but pragmatic) stipulations or working definitions of these three components as follows: (1) children and adolescents are defined as any human beings below age 18 years; (2) institutions are stipulated to be 24/7 professional or non-kin group care regulating day and night routines regardless of group size, duration or quality of the institutions; and (3) de-institutionalization is the process of transitioning away from institutions toward alternative family-based care arrangements which can be foster or kinship care, adoption or kafalah, or reunification with the family of origin. Living in large or small institutions, boarding schools or residential madrasahs or living on the street are excluded from this type of alternative (family-based) settings. Small-group care is sometimes labelled as 'family-like care' (e.g. in SOS-Children Villages), but as we have shown elsewhere (Van IJzendoorn & Bakermans-Kranenburg, 2022) meta-analytic findings demonstrate that they do not better than large-scale institutions in terms of child developmental outcomes. Small-group care should not be the outcome of DI, but point of departure.

More than 50 years of attachment and emotion regulation research on child and adolescent development has established a firm evidence base for three minimal requirements for 'good-enough' care arrangements. Children and their caregivers need Safe, Stable, and Shared care (Triple S, Forslund et al., 2021; Van IJzendoorn & Bakermans-Kranenburg, 2024). Safe arrangements imply care without physical or psychological abuse or neglect (but not necessarily secure attachments); stable arrangements provide continuous care and availability of a small core set of caregivers avoiding as much as possible break-ups of caregiver - child relationships; and shared care implies the availability of a network of support figures for parents and children to fall back upon in times of need. Crucial question

for DI is what kind of alternative care arrangements can satisfy these three requirements backed up by replicated evidence, ethical grounding and a positive cost-effectiveness balance. Instead of inflow, stock, and outflow numbers of institutionalized children to monitor DI progress, quantitative and qualitative DI indicators that periodically assess maltreatment rates (safety), number of alternative care break-ups (stability), and size of the supportive social network around both child and family (shared care) will be crucial and helpful (Bakermans-Kranenburg, & Van IJzendoorn, 2024a).

Against the background of the discussed gaps in DI studies and the challenges of improving research quality, we will now turn to next steps in developing and prioritizing DI research projects.

First, transparency and replicability of DI studies can be improved with several measures that have so far been rarely used in this sector. First, pre-registration should always be considered. In the biomedical and psychological sciences pre-registration of study design and analysis prior to data-collection has been shown protective against inflated and non-replicable results (Nosek et al., 2018). Data-collection, coding and analysis should be performed by a research team instead of a single researcher to facilitate establishing intercoder agreement and a transparent process of data-analysis. Such research teams should be diverse in terms of cultural background. Reports of the study should be transparent about the assumptions behind the design and about the limitations of the findings for theory testing and practical application. Financial conflicts of interest should be avoided or made explicit. Investigators should be independent from stakeholders financing (parts of) the study when designing, conducting and reporting their research: academic freedom is paramount.

Second, 'Patient and Public Involvement' (PPI) is increasingly considered important and helpful to make research more responsive to the needs and priorities of participants, patients and the public. PPI may improve the quality and relevance of research by making sure that the research questions lead to actionable answers. Involving participants with lived experiences, workers in institutions, kin, foster

and adoptive parents in the research process allows those who are the subjects of the translational studies on de-institutionalisation to have a voice in shaping the research agenda and addressing translational issues (Liabo et al., 2018). Individuals with lived experience, policymakers and other stakeholders should be invited to be involved in defining the aim of a study and in the interpretation, ethical evaluation and potential translation of the results to policy or practice. Other stages of the research cycle, that include creating testable hypotheses, connecting them to valid methods of data-collection and -analysis, and the replicable report of the study, require independent research expertise (Van IJzendoorn & Bakermans-Kranenburg, 2024).

Third, for evidence to have a positive impact on children's lives, it is important that high-quality evidence as outlined above is taken up and used by governmental and civil society policymakers and practitioners, the media and children and families with lived experience of care. Planning studies to produce such evidence should include a plan for ways to ensure that the evidence is available to those who can and will use it to make a difference being convinced of the cost-effectiveness of the proposed changes. This could be managers changing their policies or program methods (including scaling up or closing); government agencies improving their culture of evidence use, so that there are discussions of evidence or promotion of studies to fill gaps that have been noticed; and collaborative development of global evidence-based guidelines for good practice. Our suggestions for DI studies creating more evidence for impact on governments, policymakers, sponsors and practitioners are summarized in Figure 7, presenting helpful and unhelpful strategies to achieve such evidence.

Do	Don't
reach consensus on stipulative definition of DI	confuse formative with summative studies
create robust evidence for impact	conduct small, isolated studies
differentiate between discovery and justification	act as solo researcher, without sounding board
attend to reproducibility = transparency	work without local students/researchers
preregister studies	use convenience recruitment, e.g. snowballing
coordinated replication studies	neglect young children in DI
ethical and cultural reflection on Triple S care	use opaque method description
cost-effectiveness modelling	do cryptic qualitative analysis
more quantitative (quasi-)experiments	use only self-reports, or other questionnaires
qualitative participant observation	involve donors in the research itself
more DI studies on children with disabilities	allow self-evaluation of NGOs
use PPI for exploration and translation	do 'action research'
coordinated multiple case-studies	forget reflection on limitations
establish a global (virtual) DI research centre	make premature translations/recommendations

Figure 7. *Do*s and *Don't*s to enhance DI studies creating evidence for impact

Conclusion

Our systematic search of papers reporting on DI research led to a wealth of papers but also showed serious shortcomings. Important parts of the world were hardly or not covered, and studies often used (very) small samples, that were recruited in ways that undermine their representativeness. Studies on young children and children with disabilities were scarce, as were (quasi-) experimental and replication studies. We realize that conducting DI studies is complex, and the context difficult. However, we also identified some exemplary studies that may serve as models to be followed. The alternative care reform sector is a complex puzzle with numerous separate pieces that have to be integrated into a picture of the whole landscape and of ways to facilitate alternative family-based care for vulnerable children. When they succeed in joining forces, creating a basis for reliable, transparent and replicable DI research, their efforts to make the de-institutionalisation process sustainable and successful in improving the lives of (alternative) parents and their vulnerable children will be not in vain.

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Note: References of all studies included in the analyses can be found in the Supplemental Materials S3

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