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Review

Family Matters: Growing up in Family-Based Care Makes a World of a Difference

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Worldwide millions of children and youth live in institutions that may not provide basic conditions for good-enough care, and these numbers are predicted to increase drastically because of the aftermath of the COVID pandemic and wars raging in several parts of the world. We show that three conditions are essential: safe, stable, and shared care (Triple S care). Safe care means a caregiving environment free from child abuse or neglect; stable care implies a minimum number of separations from caregivers; and shared care entails support from a small network of 'alloparents' to alleviate caregiving tasks. With empirical and meta-analytic results from our studies over more than 30 years on institutionalization we demonstrate that institutions, including small ones like SOS Children Villages, cannot provide safe, stable, and shared care, and lead to substantial delays in development, not only for physical health but also for mental health and neurocognitive growth. The good news however is that children can recover from the setbacks of institutional care when they move to family-based environments, such as foster or adoptive care, kinship care, or Kafalah. Abolition of institutions does not automatically lead to better care. De-institutionalization can only succeed if the transition to family-based care is supported by policies that promote safe, stable, and shared alternative care. Facilitating and monitoring the transition to family-based care should be paramount in policies for children and youth without parental care.

Keywords: Institution, Residential care, Foster Care, Adoption, Alternative Care, SOSCV.



Introduction

For the physical and mental health of children, growing up in stable and safe family-based care arrangements is essential. In support of this statement we review what is known about child development in residential care, foster/kafalah care, and adoptive families. Whenever possible, we rely not (only) on single empirical studies but on meta-analyses, that is, the combination of available empirical research into a specific topic. Such meta-analytic results are based on many more children than individual studies, produce more robust results, and are a prerequisite for translation of research to policy and practice [1].

Child development: experience-expectant and experience-dependent

Children need others to survive and develop. Human children are said to be born 'prematurely' at a gestational age of 9 months. Ideally their gestation should be 21 months, but our upright position hinders mothers to give birth to an infant who with another year of intrauterine growth would be too big to pass the small passage between mothers' hips [2]. As a consequence, human infants have an extra-long period of total dependency on caregivers before they are able to move around or feed themselves. The advantage of this birth timing is that human infants' brains are in full development at birth and can absorb environmental input from the caregiving environment. From birth to the age of 12 months, head circumference increases 23%. At the same time, human brains also need environmental input to develop. Brains can adapt to environmental experiences even into adulthood, but the plasticity of the brain is not limitless and some necessary environmental input should occur in (early) sensitive periods [3]. This is why child development is said to be both experience-expectant and experience-dependent.

Experience-expectant development refers to common experiences of a species and is associated with a sensitive period in development. When the 'expected' experiences are absent, the neural circuits do not develop. If infants are deprived of contact with caregivers and social communication, they may not be able to catch up later in life. So-called feral children, who have been reared in extreme circumstances with severe social isolation, remain mentally retarded and find it impossible to learn to talk at a later age [4, 5]. In a similar vein, previously institutionalized children who experienced serious deprivation may encounter difficulties with information processing and language [3, 6]. In contrast to experience-expectant development, experience-dependent development is not limited to a sensitive period and varies between individuals [7]. For example, variation in caregiver's sensitivity is associated with the quality of the infant-caregiver attachment relationship [8, 9], which in turn is predictive of children's social competence with peers [10].

The quality of parenting can be placed on a continuum, varying from a total lack of sensitive, supportive parenting, to ideally sensitive caregivers with stable, long-term relationships with the child, who quickly pick up child signals and needs, interpret the child's signals correctly and respond in a prompt and adequate way [11]. These are the precursors of a secure child-caregiver attachment relationship. Of course, there are more dimensions to being a (foster, adoptive, or biological) parent than only being an attachment figure responding to child (di-)stress signals. Parenting also includes taking care of the child's physical and medical needs, limit-setting, playing and teaching, to name but a few common parental activities. Obviously not all parents are experts in all of these domains, and hardly any child grows up in a situation that is ideal in all respects. But the lower limit of a 'good enough' caregiving environment should be met for children to develop their basic potentials. Developmental outcomes are not determined by our genes, as some may seem to suggest [12]. Experiences matter. In the next paragraph, we dig deeper into the characteristics of a 'good enough' caregiving environment.

Triple S care: safe, stable and shared good-enough care

The 'best interest of the child' as a standard has become ubiquitous in family court decision making with regard to child protection and custody [13]. That seems a natural and morally preferable point of view. Yet it is problematic for several reasons. First, what is optimal for the child in the here and now may not be optimal from a longitudinal perspective [13]. For example, when a parent is struggling with depression, poverty, or substance abuse, it may seem in the best interests of the child to place the child with a sensitive foster parent in an affluent neighbourhood. However, the long-term interest of the child is stability of caregivers, and remaining with their own parent with parenting support (and therapy to fight the parent's depression or addiction) may be the better alternative. Second, using the example of quality of attachment, one could argue that it is in the best interest of children to have secure attachment relationships with their caregivers. Securely attached children have better relationships with their peers, show less internalizing and externalizing behavior problems (see for meta-analytic evidence [10], better language development [14], and may even be better parents in the future (intergenerational transmission of attachment, [15]). But worldwide, only about 55% of the children are securely attached with their caregivers [16]. Would that imply that the other 45% of the children should

be provided with other, more sensitive caregivers? It is obvious that this would be a no-go. Not only are the associations between security of attachment and later development probabilistic and not that strong, but even if these associations were stronger, it would be morally indefensible to take children away from their not-so-sensitive parents [17].

Rather than using the 'best interest of the child' as a leading principle, it seems better to adjust the standard to good enough care. Most parents and other caregivers provide good-enough care, that is, they provide a stable, non-maltreating variety of care [1, 18]. Good-enough care is characterized by availability and stability of caregiver(s), and the absence of any form of sexual, physical or emotional abuse and neglect. Such good-enough care creates safety in the sense of protection against serious harm, although it does not always offer a secure base. There is no children's right to secure attachment (even if we would wish for as many secure infant-caregiver relationships as possible), but children should be given the opportunity to grow up in a safe environment. That is the S for Safe in Triple S care.

Stability is the second principle of Triple S care. In order to make sense of their caregiving context, children need stability of caregivers. That does not imply that one caregiver should always be present and available to the child, as has in the past be argued and is sometimes claimed by voices promoting something that is called "Attachment Parenting" but is not backed up by attachment theory or research. In fact, for the survival of a child having one caregiver that is solely responsible for the child is a big risk, and thus evolutionary improbable. The death of the caregiver, which was quite common in human history, would be deadly to the child that is left with no alternative caregiver. Second, a caregiver who is always 'on charge' would soon be overburdened and not able to provide for the child, let alone when she has more than one offspring. Sara Hrdy notes in her book *Mothers and Others* that it takes 13,000,000 calories to provide for a child from birth to independence [19]. No single caregiver could manage that. However, there may be not only a minimum to the number of caregivers who can provide stability of care, but also a maximum. It is not *the more the merrier* for developing children, because it is essential that they can form expectations and predictions about what caregivers will do, and how they will interact and respond to them. It is easy to see that such expectations and predictions form a necessary condition for human relationships. That implies that the child needs to be able to distinguish a caregiver from other adults and to have a mental representation of the caregiver. Having distinct representations of many different caregivers, with accompanying expectations about behavioral do's and don'ts with them, requires complex cognitive processes and is impossible for young children. They need stability of caregivers to enable contingency (realizing the effects of one's actions on the environment) and to establish relationships.

Once a relationship with a caregiver has been established, the loss of such a relationship causes severe suffering. In his trilogy *Attachment and Loss*, Bowlby describes how children respond to loss of a caregiver with shock, searching, disorganization and despair [20]. James and Joyce Robertson documented in their moving films of children temporarily separated from their parents (*A Two-year-old Goes to Hospital*, and *John, Aged Seventeen Months, for Nine Days in a Residential Nursery*) young children's reactions of distress when separated from their familiar caregivers in the 1950s and 1960s [21]. That is 70 years ago, but child distress in response to separation from or loss of a familiar and trusted caregiver has not changed over time. Instability of care should be avoided as much as possible, and caregiving arrangements with high instability of care are detrimental to child development.

The principle of stability may seem at odds with the principle of shared care, the third element of Triple S care. As noted above, providing care for a child as a single caregiver has been evolutionary impossible and the help of so-called alloparents is essential [19, 22]. Alloparenting is observed in most group-living primates. Close relatives such as grandparents, aunts and uncles, as well as older siblings play a caregiving role in large parts of the majority world. Alloparenting has benefits: grandparents are experienced and can set an example, inexperienced adolescents and adults can practice mothering skills, which provides the mother with time for other activities, and increases the child's chances of survival if the biological mother dies [19, 22]. In hunter-gatherer communities, kinship networks caring for young children were common [23]. Settled communities, with subsistence agricultural and peasant activities farther away from the home, show the same picture, with grandmothers, extended family members, and older siblings taking care of the young ones [24]. Note that such caregiver networks were quite stable over time, offering young children the opportunity to establish multiple relationships.

In a study conducted in Scotland in the 1960s, Schaffer and Emerson showed that the number of individuals that children used as attachment figures increased over time, first only their mothers, who were their primary caregivers, and later additional familiar persons [25]. The number attachment relationships increased with the cognitive development of the child [26]. More recently, Riem et al. showed the benefits of grandmaternal support: involved grandparents, in particular mother's own mother, constitute a protective factor for the development of maternal

postpartum mental health problems [27]. Shared care provides both child and parent a network to rely on, and helps preventing parental burnout.

Institutional care: not good enough

Safe, stable, and shared (Triple S) care defines good-enough child care. Unfortunately, virtually all types of institutional care fall short of good-enough care arrangements for the child. Stability of caregivers is necessary for continuity in social interactions with significant others, which is a core need of the developing child, and such stability is not realized in 24/7 group care. In one of our own studies in Ukraine children were reported to have had more than 50 caregivers before their fourth birthday [28]. Children at the Mitera Babies Centre in Greece had an average of 29 caregivers over a 6-month period [29]. In those situations, children do not thrive. A meta-analysis of more than 300 studies, with in total more than 100,000 children in 65 countries, demonstrated that growing up in an institution is associated with severe delays in physical growth, brain development, cognition, and attention [1, 30]; moreover, an overrepresentation of disorganized attachments is found in children in institutional care. For physical growth and for head circumference, an indicator for brain development, the effect sizes were very large ($d = 1.18$ and $d = 1.44$, respectively), indicating more than a standard deviation difference between children in institutional care and their peers.

It has been argued that the comparison between children in institutional care and their non-institutionalized peers is complicated by confounding factors. Children in group care would be less healthy since birth, more constitutionally compromised or genetically disadvantaged than their peers. Although that might be the case, empirical evidence shows that such potential differences do not tell the whole story. Our study in Ukraine, together with Natasha Dobrova-Krol, may serve as an example although we emphasize that the study has been conducted almost 20 years ago, and much has changed in Ukraine in terms of circumstances (war) and policies promoting de-institutionalisation supported by the Olena Zelenska Foundation [31, 32]. In this study we compared children with and without perinatal HIV-1 infection who either lived in institutional care or with their families [33]. All HIV-infected children were born to seropositive mothers and had acquired the infection perinatally. Their families struggled with poverty, alcohol and/or drugs abuse, unemployment and, in some cases, criminal records. Medical care was more adequate in the institutional care settings than in these struggling families. At birth, both groups of HIV-infected children had lower supine length at birth than their uninfected counterparts. But at six months the two groups of family-reared children (with and without HIV infection) had normal height-for-age, while the two groups of children in group care were around two standard deviations below average, and the delay in growth remained until their fourth birthday, the last measurement point of our study. Similar delays in cognitive development were found. On a non-verbal intelligence test, the average IQ score of the family-reared non-infected children was 99, while the family-reared infected children scored on average 79. Both groups of institutionalized children had lower average scores, 69 and 64 in the groups without and with HIV-infection, respectively, see Figure 1. On all developmental outcomes, the family-reared children did better than the children who lived in institutional care, indicating that even compromised family life is more supportive of child development than organized group care with sufficient food and medical care, and a not-so-bad 1:5 caregiver-to-child ratio.

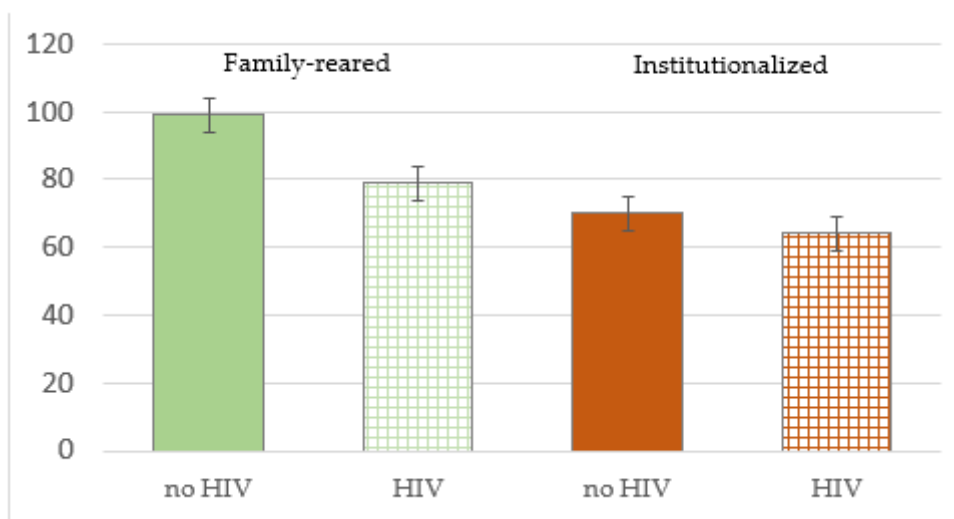


Figure 1. IQ scores (Mean, SE) of children without and with perinatal HIV-1 infection living with their families (in green) or in institutions (in red)

A second argument for the influence of institutional care is the dose-response associations that we found meta-analytically. The longer children remained in institutional care, the larger the delays in various developmental domains [30]. Such dose-response associations between duration of institutionalization and delays in developmental outcomes point to the devastating effects of spending time in residential care facilities, in spite of the availability of healthy food and medical care. This supports the idea that the developmental delays are associated with the structural neglect that is inherent to institutional care with its multiple shifts and frequent change of caregivers [34].

Thirdly, after placement in family-based care, children show developmental catch-up. Even for characteristics that are commonly considered mostly genetically influenced, such as height-for-age and IQ, the change in caregiving arrangement brought about large effects (meta-analytic effect sizes were $d = 1.05$ for growth and $d = 0.57$ for IQ, [30]). As these effects are partly based on comparisons between children who transitioned into family-based care and children who remained in institutional care, one might wonder whether the effects may be inflated when the most healthy and bright children would be selected for foster care or adoption, leaving the ‘worst cases’ in the comparison institutional care group. But these meta-analytic effect sizes converge with the findings in the Bucharest Early Intervention Project (BEIP), a unique study in Romania (<https://www.bucharestearlyinterventionproject.org/>). At the time, no foster system existed in Romania. As part of the BEIP project, foster families were sought and trained, and children in institutional care were randomly assigned to either placement in a foster family or remain in their group care setting [35]. Because the random assignment counters any selection mechanism, differences between the two groups in their development over time must be ascribed to the different care arrangements. Over the past 15 years, many papers from the BEIP project have demonstrated the positive effects of placement in family-based foster care (see, e.g., [36]). The convergence between the meta-analytic results and the findings from BEIP indicates that the documented effects are not due to selection mechanisms.

Fragmented care may be one of the main determinants of the negative outcomes for children in institutional care. In a study in one of the big cities of India, we examined the daily life experiences of young children in an orphanage [37]. During 5 weeks, spot observations of 20 randomly chosen toddlers were done. Between 09:00 a.m. and 14:00 p.m., a child was observed every 10 minutes for 1 minute, resulting in 620 spot observations for 20 children. In a spot observation, a research assistant stepped into the room, videotaped in a nonintrusive way the part of the room where the target child was, and after a minute stepped out of the room and completed the observation form. During filming, the assistant avoided eye contact or interaction with the children and caregiver(s). The observations showed 80% of the time children did not interact with a caregiver or peer. Involvement in routines, including feeding and bathing, was observed 9% of the time, 49% of the time was spent on nonmeaningful activities. For two thirds of the time (66%), the caregivers did not speak at all. They spoke to another adult (10% of the time), to another child (21%), to the group in general (2%), or to the target child (1% of the time). Only 1% of the time did the target child speak to a caregiver, see Figure 2. It is no wonder that socio-emotional and language development are delayed in such conditions.

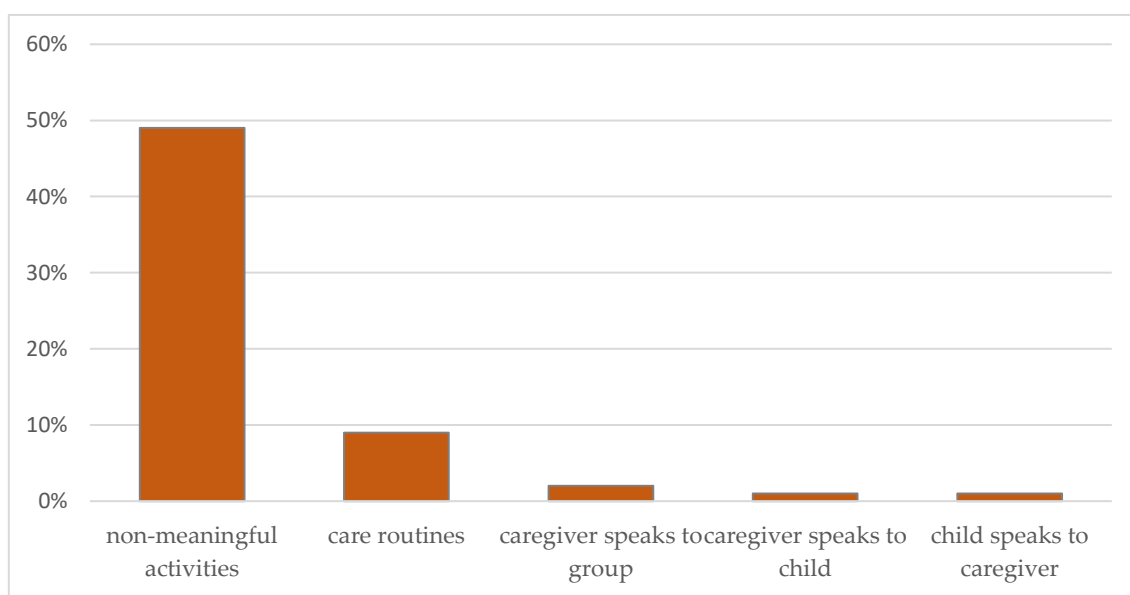


Figure 2. Daily experiences of toddlers in institutionalized care (India), based on 620 spot observations
 Note. Percentages of total observation time

Small group homes: no alternative

One might expect that child developmental outcomes are better in small group homes, such as SOS Children's Villages, the largest NGO globally in support of children in alternative care. The motto of SOS Children's Villages (SOSCV) is *Every child deserves to grow up in a family, with love and respect* (<https://www.sossouthafrica.org.za/our-work/quality-care/alternative-care>). SOSCV uses small group housing in an effort to mimic a family-like child-rearing environment. They argue that their approach of family-like housing of small numbers of children with a more or less permanent mother figure would facilitate development and be in the best interest of children without parental care (SOS Children's Villages International [38]). Unfortunately, the evidence does not support the idea that small group care is a good alternative to family-based care for children.

In the 70 years that SOS Children's Villages exist, eight studies on the effects of this type of care on children's development have been conducted. A meta-analysis of these studies, comparing SOS children with peers reared in typical larger institutions and with peers growing up in family-based care shows that children in small group care do better than children in large institutions in terms of their mental health ($d = 0.92$), but worse than children in large institutions in terms of their physical growth ($d = -0.40$). On both dimensions, mental and physical development they lag behind children in family care. For mental health the effect size was $d = -0.61$, and for physical growth $d = -1.05$, pointing to serious delays in the children in small group care [39, 40].

Moreover, reports revealed serious sexual, physical and emotional abuse in SOS Children's Villages in all SOS villages that were part of the examination (Independent Special Commission, June 2023). "...ISC confirms that serious allegations of incidents of child sexual and physical abuse ... have occurred in several MAs (SOS Children's Villages) in Africa, Asia and Central America..." and "that there are high incidents of pregnancies and substance abuse within SOS villages across the Federation". This investigation, conducted in a time period of only 1 year, probably uncovered only the tip of an iceberg. It is a sad confirmation of what we also found in group care settings in The Netherlands, namely a large increase in the risk of physical and sexual abuse in youth in institutional care compared to their peers in family-based care [41, 42].

We must conclude that small group homes are no feasible alternative for children without parental care. Some essential features are shared by large institutions and small group care: the staff turnover (still 24/7 care by professionals) and instability, and the absence of a network for the transition to adulthood. Triple S care is not provided in small group homes, and, importantly, they are expensive, draining funds from building an infrastructure for a real family-based (adoptive, foster, or kafalah) care.

Institutions are no 'good place to grow'

Challenging the verdict on institutional care Henderson (2024) argued that in fact institutions would be a good place to grow. He feels that the current public, policy, and scientific opinion about institutional (or residential) care is plainly hostile toward such care, evaluating such care as 'irrevocably bad', showing an 'unambiguous animus' and importantly such attitudes would be based on 'prejudice', 'quasi-religious belief', and 'ideology', not supported by the available evidence. The implications of abolition of the institutions for children without parental care would be 'draconian', because without access to high-quality institutional care many children and youth would be deprived of the chance to have stable relationships with professional caregivers [43].

The bellicose approach of Henderson's sketchy review of the literature on institutionalisation does not help to make it a convincing rebuttal. Crucially, his treatise is a narrative review of research on (de-)institutionalisation over the past 70 years, meaning that the review is not reproducible or replicable [44]. A transparent search and coding system for pertinent literature is missing. Because of their non-replicable nature narrative reviews have much less evidence weight in scientific debates than quantitative syntheses of research. Rapid or scoping reviews might be useful to propose potentially fruitful hypotheses for further systematic quantitative scrutiny, but they cannot be a replacement for such scrutiny in high-stakes cases such as institutional care. Children and youth without parental care have the right to the best scientific evidence to support decisions about their lives, subjective expressions of personal opinions fall short of such translational use [1]. After the extensive set of carefully conducted meta-analyses on more than 300 empirical studies from more than 60 countries in our Lancet Psychiatry paper on (de-)institutionalisation [30] an adequate rebuttal would be based on a similarly careful independent replication of this study. Single studies [45, cf. 46], rapid and scoping reviews [47] or other types of narrative reviews [43] fail to meet the bar of replicable contributions to the scientific debate. Unfortunately, cutting corners to criticize the best available evidence is seductive for some stakeholders (e.g., SOSCV) but children's rights require more substantial replicable counterarguments. If the translational stakes are high the bar for (counter-)evidence should be high as well.

Fostering security in stable family care

Rather than trying to improve institutional care, it seems more rational to invest all efforts and resources in family-based care. The empirical evidence of at least 50 years of research shows the damage done to child development in large and small institutions, and the catch-up on virtually all domains of development after placement of children in family-based care.

One type of stable family care is adoption, that is, legally accepting another's child and bringing it up as one's own. Meta-analyses on the effects of adoption use two types of comparison groups for adopted children: their former peers, who remained in the setting the adopted children left (mostly institutional care, sometimes foster care), or their current non-adopted peers, who were raised in their biological family since birth.

The comparison with their former peers results in large effect sizes, for example $d = 1.17$ for cognitive development [48], indicating an advantage of on average 17.5 IQ points in adopted children. The effect size for the comparison with their current, non-adopted peers was only $d = -0.13$, showing almost complete catch-up in cognitive development. For attachment security, adoptees were as securely attached as their current non-adopted peers when they were placed before 12 months of age (a minimal difference emerged, $d = -0.08$); but adoptees placed after their first birthday showed less attachment security ($d = -0.80$) [49]. Other indicators for socio-emotional development, such as behavior problems, show modest effect sizes for the comparison with their current peers on internalizing problems ($d = 0.16$), and externalizing problems ($d = 0.24$) [50], but no difference in self-esteem ($d = 0.01$) [51]. Notably, for the socio-emotional outcomes the comparison with former peers often cannot be made due to lack of data on the former peers. Only for self-esteem some studies were available for the comparison between adoptees and their peers left behind. Self-esteem differed significantly with higher scores for the adoptees ($d = 0.58$) [51].

In general, we see large effect sizes for the comparison with the former peers (when data are available), and small effect sizes for the comparison with the current peers. These findings demonstrate children's ability to catch-up, that is, to recover from severe developmental delays due to early adverse conditions. Yet, catch-up is more complete for children who are placed in stable family care at a younger age.

Unfortunately, family-based foster care for children and youth without parental care is not a guaranteed stable arrangement. A meta-analysis on placement breakdowns in long-term foster care showed that between 20% to 50% of the children experience unforeseen disruption of their placement with the foster family [52]. Older age at placement was a significant predictor of instability. Kinship foster care was not more stable than non-kin care, and the presence or absence of contact with the biological parents did not play a role in foster care breakdown. Adoption may be more stable than foster care because of its legal safeguards against early breakdown and the perception by both parents and children as a definite placement. Palacios et al. estimated the percentage of breakdowns in adoption to be around 12%, considerably lower than the rate of disruptions in foster care [53]. A quasi-experimental study in Sweden compared the developmental trajectories of siblings in out-of-home care until the age of 13 years. In each sibling pair, one sibling was adopted as young adolescent while the other siblings remained in foster care arrangements. Educational and social outcomes in adulthood were clearly in favour of the adopted siblings. Adopted siblings did better in terms of general health, mental health, social adaptation, and substance abuse outcomes. They used less psychiatric care and committed fewer suicides (or suicide attempts) than their siblings who remained in the foster system [54]. Monitoring quantitative indicators for deinstitutionalisation is crucial: maltreatment rates (safety), number of alternative care break-ups (stability), and size of the supportive network around both child and family (shared care) should be recorded at regular intervals to implement effective deinstitutionalisation [55].

Conclusions

Family matters. Safe, stable, and shared family-based care provide the necessary conditions for children to develop their basic potentials. In such conditions, secure and insecure attachments might develop. Although one would want to give all children the opportunity to establish secure attachment relationships with their caregivers, it has been argued that secure attachment might be not the best preparation for future life in some (harsh) environments. Good-enough care may prepare the child for a specific future niche to which the child is expected to adapt [56]. However, institutional care falls short on all dimensions of good-enough care and should be considered structural neglect [1]. Sadly, it is not a small number of children who live in such dire conditions, the number of children worldwide that are housed in institutions is estimated at 7.5 million children [57]. We should do everything at the local, national, and global levels to prevent family break-up, to stop the stream of children entering 24/7 non-parental care [58]. The detrimental effects of institutional care, both in large and small group settings, has been amply documented. Alternative care for children and

adolescents without parental care needs to be family-based as provided in foster, adoptive or kinship care, and to promote safe, stable, and shared care in those families, parenting support is needed to prevent the most vulnerable human beings from (repeated) placement breakdown experiences.

References

1. Van IJzendoorn, M.H., & Bakermans-Kranenburg, M. J. (2024). *Matters of Significance. Replication, Translation, and Academic Freedom in Developmental Science*. London: UCL Press. ISBN: 9781800086500.
2. Bluestone, C.D. (2005). Humans are born too soon: impact on pediatric otolaryngology, *International Journal of Pediatric Otorhinolaryngology*, 69(1), 1-8. <https://doi.org/10.1016/j.ijporl.2004.07.021>.
3. Zeanah, C. H., Gunnar, M. R., McCall, R. B., Kreppner, J. M., & Fox, N. A. (2011). Sensitive periods. *Monographs of the Society for Research in Child Development*, 76(4), 147–162.
4. Davis, K. (1940). Extreme social isolation of a child. *The American Journal of Sociology*, 45(4), 554–565.
5. Rymer, R. (1993). *Genie: A scientific tragedy*. New York: HarperCollins.
6. Nelson, C. A., Bos, K., Gunnar, M. R., & Sonuga-Barke, E. J. S. (2011). The neurobiological toll of early human deprivation. *Monographs of the Society for Research in Child Development*, 76(4), 127–146.
7. Greenough, W. T., Black, J. E., & Wallace, C. S. (1987). Experience and brain development. *Child Development*, 58, 539–559.
8. Bakermans-Kranenburg, M.J., Van IJzendoorn, M.H., & Juffer, F. (2003). Less is more: Meta-analyses of sensitivity and attachment interventions in early childhood. *Psychological Bulletin*, 129, 195-215. DOI: 10.1037/0033-2909.129.2.195
9. Van IJzendoorn, M.H., Schuengel, C., Wang, Q., & Bakermans-Kranenburg, M.J. (2023). Improving parenting, child attachment, and externalizing behaviors: Meta-analysis of the first 25 randomized controlled trials on the effects of Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline. *Development and Psychopathology*, 35(1), 241-256. doi:10.1017/S0954579421001462
10. Groh, A.M., Fearon, R.P., Van IJzendoorn, M.H., Bakermans-Kranenburg, M.J., & Roisman, G.I. (2017). Attachment in the early life course: meta-analytic evidence for its role in socioemotional development. *Child Development Perspectives*, 11, 70-76. <https://doi.org/10.1111/cdep.12213>
11. Ainsworth, M.D.S., Bell, S., Stayton, D., 1974. Infant mother attachment and social development: socialization as a product of reciprocal responsiveness to signals. In: Richards, M.P.M. (Ed.), *The integration of a child into a social world*. Cambridge University Press, pp. 99–135.
12. Plomin, R. (2018). *Blueprint: How DNA Makes Us Who We Are*. Penguin Books. <https://doi.org/10.1042/bio20200084>
13. Forslund, T., Granqvist, P., Van IJzendoorn, M. H., Sagi-Schwartz, A., Glaser, D., Steele, M., ...Duschinsky, R. (2021): Attachment goes to court: child protection and custody issues, *Attachment & Human Development*, 1-52. doi 10.1080/14616734.2020.1840762
14. Dagan, O., Schuengel, C., Verhage, M. L., Madigan, S., Roisman, G. I., Bernard, K., Duschinsky, R., ...Aviezer, O., & (2024). Configurations of mother–child and father–child attachment relationships as predictors of child language competence: An individual participant data meta-analysis. *Child Development*, 95, 50-69. <https://doi.org/10.1111/cdev.13998>
15. Verhage, M.L., Schuengel, C., Madigan, S., Fearon, R.M.P., Oosterman, M., Cassiba, R., Bakermans-Kranenburg, M.J., & Van IJzendoorn, M.H. (2016). Narrowing the transmission gap: A synthesis of three decades of research on intergenerational transmission of attachment. *Psychological Bulletin*, 142(4), 337-366. <https://doi.org/10.1037/bul0000038>

16. Madigan, S., Fearon, R. M. P., Van IJzendoorn, M. H., Duschinsky, R., Schuengel, C., Bakermans-Kranenburg, M. J., ...Verhage, M. L. (2023). The first 20,000 Strange Situation Procedures: A meta-analytic review. *Psychological Bulletin*, 149(1-2), 99-132. <https://doi.org/10.1037/bul0000388>
17. Bakermans-Kranenburg M.J. & Van IJzendoorn, M.H. (2025). Attachment in pediatrics: No such thing as a child. In M. H. Bornstein and P. E. Shah (Eds), *APA Handbook of pediatric psychology, developmental-behavioral pediatrics, and developmental science: Vol. 1. Developmental science and developmental origins of risk and resilience in childhood and adolescence* (pp. 205-226). American Psychological Association.
18. Van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., Duschinsky, R., & Skinner, G. C. (2020). Legislation in search of “good-enough” care arrangements for the child: a quest for continuity of care. In J.G. Dwyer (Ed.), *The Oxford Handbook of Children and the Law* (pp. 129-153). Oxford, UK: Oxford University Press.
19. Hrdy, S. (2009). *Mothers and Others: The Evolutionary Origins of Mutual Understanding*. Belknap Press. <https://doi.org/10.2307/j.ctt1c84czb>
20. Bowlby, J. (1975). *Attachment and loss: Vol. 3. Loss: Sadness and depression*. Basic Books.
21. Juffer, F. & Steele, M. (2014). What words cannot say: the telling story of video in attachment-based interventions, *Attachment & Human Development*, 16(4), 307-314. <http://dx.doi.org/10.1080/14616734.2014.912484>
22. Hrdy, S. B. (1976). Care and exploitation of nonhuman primate infants by conspecifics other than the mother. In J.S. Rosenblatt, R.A. Hinde, & C. Beer (Eds.), *Advances of the study of behaviour* (Vol. 6). New York: Academic Press
23. Smith, P. K. (1980). Shared care of young children – alternative models to monotropism. *Merrill-Palmer quarterly journal of developmental psychology*, 26, 371-389.
24. Kaye, B (1962). *Bringing up children in Ghana*. London: George Allen & Unwin.
25. Schaffer, H.R. & Emerson, P.E. (1964). The development of social attachments in infancy. *Monographs of the Society for Research in Child Development*, 29(3), 1-77
26. Bakermans-Kranenburg, M. J. (2021). The limits of the attachment network. *New Directions for Child and Adolescent Development*, 2021, 117–124. <https://doi.org/10.1002/cad.20432>
27. Riem, M.M.E., Bakermans-Kranenburg, M.J., Cima, M., & Van IJzendoorn, M. H. (2023). Grandparental support and maternal postpartum mental health. *Human Nature*, 34, 25-45. <https://doi.org/10.1007/s12110-023-09440-8>
28. Dobrova-Krol, N. A., Bakermans-Kranenburg, M. J., Van IJzendoorn, M. H., & Juffer, F. (2010). The importance of quality of care: Effects of perinatal HIV infection and early institutional rearing on preschoolers’ attachment and indiscriminate friendliness. *Journal of Child Psychology and Psychiatry*, 51(12), 1368–1376.
29. Stevens, A.G. (1971). Attachment behaviour, separation anxiety, and stranger anxiety. In HR Schaffer (Ed.), *The origins of human social relations*. London: Academic Press.
30. Van IJzendoorn, M.H., Bakermans-Kranenburg, M.J., Duschinsky, R., Goldman, P.S., Fox, N.A., Gunnar, M.R., Sonuga-Barke, E.J.S. (2020a). Institutionalisation and deinstitutionalisation of children I: A systematic and integrative review of evidence regarding effects on development. *The Lancet Psychiatry*; 7, 703-720. [https://doi.org/10.1016/S2215-0366\(19\)30399-2](https://doi.org/10.1016/S2215-0366(19)30399-2).
31. Kryvachuk, L. (2018). Transformation of social services in Ukraine: the deinstitutionalization and reform of the institutional care system for children. *labor et Educatio*, 6, pp. 129 - 150. doi: 10.4467/25439561LE.18.009.10237
32. UNICEF (2023). The best interests of the child as a priority for Ukraine. <https://www.unicef.org/ukraine/en/press-releases/the-best-interests-of-the-child>
33. Dobrova-Krol, N. A., Van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., & Juffer, F. (2010b). Effects of perinatal HIV infection and early institutional rearing on physical and cognitive development of children in Ukraine. *Child Development*, 81(1), 237–251.

34. Van IJzendoorn, M. H., Palacios, J., Sonuga-Barke, E. J. S., Gunnar, M. R., Vorria, P., McCall, R. B., ... & Juffer, F. (2011). Children in institutional care: Delayed development and resilience. *Monographs of the Society for Research in Child Development*, 76(4), 8–30.
35. Nelson, C. A., Fox, N. A., & Zeanah, C. H. (2014). *Romania's Abandoned Children: Deprivation, Brain Development, and the Struggle for Recovery*. Harvard University Press. <https://doi.org/10.4159/harvard.9780674726079>
36. Wade, M., Parsons, J., Humphreys, K. L., McLaughlin, K. A., Sheridan, M. A., Zeanah, C. H., Nelson, C. A., & Fox, N. A. (2022). The Bucharest Early Intervention Project: Adolescent mental health and adaptation following early deprivation. *Child Development Perspectives*, 16(3), 157–164. <https://doi.org/10.1111/cdep.12462>
37. Juffer, F., Van IJzendoorn, M.H., & Bakermans-Kranenburg, M.J. (2017). Structural neglect in orphanages: physical growth, cognition, and daily life of young institutionalized children in India. In A.V. Rus et al. (Eds.), *Child Maltreatment in Residential Care* (pp. 301- 321). Springer International Publishing. doi:10.1007/978-3-319-57990-0_14
38. SOS Children's Villages International. *International Annual Report*. 2018. Available from: <https://www.sos-childrevillages.org/Publications/Reports/Annual-Report-2018>
39. Van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2021). 'Tear down your institutions'. Empirical and evolutionary perspectives on institutional care in SOS Children's Villages. *PsyArXiv*. <https://psyarxiv.com/ye7jh/>
40. Van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2022). Tearing down or fixing up institutional care for abandoned children? Comment on Rygaard (2020). *American Psychologist*, 77(1), 135–137. <https://doi.org/10.1037/amp0000912>
41. Euser, S., Alink, L.R.A., Tharner, A., Van IJzendoorn, M.H., Bakermans-Kranenburg, M.J. (2014). Out of home placement to promote safety? The prevalence of physical abuse in residential and foster care. *Children and Youth Services Review*, 37, 64-70.
42. Euser, S., Alink, L.R.A., Tharner, A., van IJzendoorn, M.H., & Bakermans-Kranenburg, M.J. (2015). The prevalence of child sexual abuse in out-of-home care: Increased risk for children with a mild intellectual disability. *Journal of Applied Research in Intellectual Disabilities*, 29(1), 83-92. DOI: 10.1111/jar.1216.
43. Henderson, B.B. (2024). *Challenging the conventional wisdom about residential care for children and youth. A good place to grow*. Routledge.
44. National Academies of Sciences, Engineering, and Medicine. (2019). *Reproducibility and Replicability in Science*. National Academies Press. <https://doi.org/10.17226/25303>
45. Whetten K, Ostermann J, Whetten RA, Pence BW, O'Donnell K, et al. (2009) A Comparison of the Wellbeing of Orphans and Abandoned Children Ages 6–12 in Institutional and Community-Based Care Settings in 5 Less Wealthy Nations. *PLoS ONE* 4(12): e8169. doi:10.1371/journal.pone.0008169
46. Bakermans-Kranenburg, M.J. & Van IJzendoorn, M.H. (2009). No evidence for orphanages being 'not so bad'. Comments to Whetten et al. (2009). A Comparison of the Wellbeing of Orphans and Abandoned Children Ages 6–12 in Institutional and Community-Based Care Settings in 5 Less Wealthy Nations. *PLoS ONE* 4: e8169. doi:10.1371/journal.pone.0008169.
47. Porter, R., Mitchell, F., & Giraldi, M. (2021). *Function, quality and outcomes of residential care: Rapid evidence review*. CELCIS.
48. Van IJzendoorn, M. H., Juffer, F., & Klein Poelhuis, W. (2005). Adoption and cognitive development: A meta-analytic comparison of adopted and nonadopted children's IQ and school performance. *Psychological Bulletin*, 131(2), 301–316.
49. Van den Dries, L., Juffer, F., Van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2009). Fostering security? A meta-analysis of attachment in adopted children. *Children and Youth Services Review*, 31, 410–421.

50. Juffer, F., & Van IJzendoorn, M. H. (2005). Behavior problems and mental health referrals of international adoptees. A meta-analysis. *JAMA*, 293(20), 2501–2515.
51. Juffer, F., & Van IJzendoorn, M. H. (2007). Adoptees do not lack self-esteem: A meta-analysis of studies on self-esteem of transracial, international, and domestic adoptees. *Psychological Bulletin*, 133(6), 1067–1083.
52. Oosterman, M., Schuengel, C., Slot, N. W., Bullens, R. A., & Doreleijers, T. A. (2007). Disruptions in foster care: A review and meta-analysis. *Children and Youth Services Review*, 29, 53–76.
53. Palacios, J., Rolock, N., Selwyn, J., & Barbosa-Ducharne, M. (2019). Adoption breakdown: Concept, research, and implications. *Research on Social Work Practice*, 29(2), 130-142.
54. Hjern, A., Vinnerljung, B., & Brännström, L. (2019). Outcomes in adulthood of adoption after long-term foster care: A sibling study. *Developmental Child Welfare*, 1(1), 61–75.
55. Van IJzendoorn, M.H. & Bakermans-Kranenburg, M.J. (2024b). Monitoring change from residential housing care to family-based care for children. *Lancet Child and Adolescent Health*, Published Online May 14, 2024, [https://doi.org/10.1016/S2352-4642\(24\)00102-0](https://doi.org/10.1016/S2352-4642(24)00102-0)
56. Hochberg, Z., & Belsky, J. (2013). Evo-devo of human adolescence: beyond disease models of early puberty. *BMC Medicine*, 11, 113 - 113.
57. Desmond, C., Watt, K., Saha, A., Huang, J., & Lu, C. (2020). Prevalence and number of children living in institutional care: global, regional, and country estimates. *The Lancet Child & Adolescent Health*, 4(5), 370–377. [https://doi.org/10.1016/S2352-4642\(20\)30022-5](https://doi.org/10.1016/S2352-4642(20)30022-5)
58. Goldman, P.S., Bakermans-Kranenburg, M.J., Bradford, B., Christopoulos, A., Lim Ah Ken, P., Agastya, N.L.P.M., ...Sonuga-Barke, E.J.S. (2020). Institutionalisation and deinstitutionalisation of children II: policy and practice recommendations. *The Lancet Child & Adolescent Health*, 4, 606-633.