

# The dark side of childhood

## An Analysis of Risks and Side Effects of the German Daycare Offensive

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750.000 children under age 3 in daycare, mainly center care, is the 2013 goal of family politics in Germany. This would mean a 47% rate of non-familial care for 0 to 2 year olds, or a rate of nearly 70% if only aimed at 1 and 2 year olds. Such a fundamental change of infants' and toddlers' environment calls for a high sensitivity in planning and a constant process of adapting legislation to the current state of psychological, medical and anthropological research. On behalf of these calls policy makers are to be accused of serious failure.

Among the industrial nations Germany, at least the western part, is a late bloomer concerning non-familial care. This, however, gives us the chance to avoid mistakes others have made, in scrutinizing foreign experiences. The United States have played a leading role. Since the 80s the US underwent profound changes in labour market and society. Globalization and increasing inequality of incomes resulted in economic hardship leading to a double earner status in families as a standard model, which in turn required to establish an extensive system of group daycare reaching down to infant age. In the United States this system upstream of *preschool* and *kindergarten* is termed *daycare*, applying to children from 0 to 4 yr of age. Today full daycare is the standard experience for children of all ages in the US.

At the same time the question if such a profound environmental change could be of harm to small children was heavily debated. Scientific research initially yielded inconsistent results. Concern resulted from a long term study in 3.000 pupils by Thomas Achenbach, developmental psychologist at Vermont University, showing a clear deterioration of socioemotional competencies. Compared to the 70s American kids 15 years later turned out to be more: withdrawn, moody, unhappy, anxious, depressive, short-tempered, distractible, aggressive and delinquent. 42 behavioral indicators deteriorated while not one single criterion improved.

To settle these debates, also termed *child care wars* at that time, a mega study was initiated. It was conducted by the renowned National Institute of Child Health and Development (NICHD). Under its supervision a group of leading specialists elaborated a sophisticated study design accounting for an extensive range of potentially relevant factors in child development at the outset of the 90s. More than 1.300 children, mainly from white, middle class families, were recruited at one month of age. Cognitive development and behaviour, parental education, socioeconomic and marital status, parent-child-interaction and numerous daycare parameters like institutional type, quality and quantity of care were repeatedly measured over 15 years. This worldwide unique data set was analyzed and published in more than 300 scientific papers up to date and is also accessible to external researchers.

The NICHD-study results were presented by Jay Belsky, psychologist from San Francisco, at the 2011 pediatric annual scientific meeting in Bielefeld. It could be shown that non-familial care does not per se have negative effects on parent-child-attachment. However, very early and extensive daycare of doubtful quality results in an increase of insecure attachment patterns, thus increasing the risk for later mental disorders. Compared to lower quality of care, high quality resulted in slightly better cognitive results in preschool and high school. The duration of daycare, however, had no significant effect on learning.

Most disturbingly the NICHD data indeed proved negative effects of center daycare on socioemotional competencies, these effects being independent of all other variables. The longer hours (cumulative) children spent in daycare, the more they displayed dissocial, aggressive behaviours like annoying, lying, disrupting class discipline, getting into fights, cruelty, meanness, bullying, physical attacks, explosive behavior or destroying things. No threshold level of risk could be identified, it rather turned out as a linear relation: the more daycare, the more aggression. A quarter of children in full daycare showed disturbed behaviour in the so called range of clinical risk when they were four years old. Significant behavioural disturbances were still found when these children had reached the age of 15 years, mainly impulsive and risk taking behavior like smoking, consumption of alcohol, drug abuse, stealing or vandalism. And another, unexpected result turned out: these behaviors were found largely independent of quality of care. Children who had attended centers of very high quality showed nearly as many negative behaviors as children in low quality care. Basically, however, it turned out that parental care had a much higher influence on development than daycare.

The NICHD authors derived policy recommendations from these results. In short these were: 1. improve quality of daycare 2. reduce duration of daycare 3. support parental education. Interestingly, politics - at best - acknowledged the first point. German politics at present marginalizes the first and third notion and turns the second into the opposite. New scientific data from the last ten years show that this is more than disquieting. They prove that the behavioral disturbances found in the NICHD-study are merely the tip of the iceberg.

At the end of the 90s, when the NICHD study was already well on its way, a research team around Kathryn Tout in the USA for the first time and with a new and highly reliable technique measured day profiles of cortisol, the most important stress hormone in humans, in children attending care in two whole-day centers. Contrary to the normal profile with high sample values in the morning and continuous decrease towards the evening found on days with parental care, these kids showed a continuous increase of cortisol during daycare days indicating a severe chronic stress reaction. In the first center with good quality of care almost all children had this profile, in the second center with excellent quality it was detected in almost three of four children. A meta analysis by Harriet Vermeer from Holland who evaluated nine similar scientific studies confirmed these results and indicated that these troubling distortions of the cortisol profile were found especially in children under the age of three and even in centers with very good quality of care.

Similar cortisol profiles can be found in executives with extreme workloads. These measured values are far from the mild and punctual activations of the stress system that are known to enhance development. This chronic stress load also is the cause of increased burden of disease in daycare, not only infections but also headaches or immunological disorders like atopic eczema.

The American anthropologist Meredith Small characterized stress, abuse and maltreatment as “the dark side of childhood”. From psychobiological research it is known that chronic stress is a core phenomenon in maltreated and neglected children. In these children chronic activation of the stress system often results in a gradual decrease of morning cortisol levels, the regulation shows exhaustion, it is being brought to its knees by the barrage of stress. \*\*\*Just this effect was recently demonstrated in the Vienna daycare study, especially in the under two year olds. After five months daycare of average quality these children showed severely blunted cortisol profiles, similar to values that were reported of two year olds in Romanian orphanages in the 90s. A high number of children in daycare thus are emotionally massively overstrained by the early and long lasting separation from their parents and by insufficient coping with the peer group demands.

The NICHD group around Glen Roisman recently measured morning cortisol in their 15 year old participants finding identical deviations in children who had been in early whole daycare and in children who had been emotionally neglected or abused in their families. The effect sizes were similar in both subgroups, the effects were independent of quality of care and, highly relevant, the stress effects of daycare and emotional neglect were additive, indicating that daycare did not exert a compensating or sheltering effect. This study for the first time proved that daycare also has a negative long term effect on stress regulation. And in this study, again, the widespread “mantra” that all daycare problems could be solved by quality measures alone was disproved.

In recent years an overwhelming number of studies has proven that chronic stress negatively influences brain development, foremost brain regions important for stress regulation and socioemotional development. Especially vulnerable periods also comprise the first two years of life. In these sensitive periods stress can also affect genes by inducing disordered regulation via so called epigenetic mechanisms which can even be transmitted to following generations. An extensive meta analysis by Valentina Nanni in the *American Journal of Psychiatry*, evaluating studies with over 20 000 participants, confirmed that chronic stress through child neglect and maltreatment is associated with a long term increased risk for difficult to treat depression and suicide. Apart from mental disorders stress also increases the risk for somatic disease like cardiovascular disorders, obesity, even cancer.

Infants and toddlers cannot verbalize stress burden and the indicators in their behavior may be discrete, nearly undetectable. The new techniques of stress measurement have now opened a new window on the young child’s soul. Many still find it difficult to accept the picture emerging from these new, objective data. We have gained insight that the majority of young children in whole daycare, even when conducted in beautiful rooms with stimulating toys by experienced teachers, spends the day in anxious tension, that this results in persistently disordered behavior in a certain fraction and that there are definite risks for long term mental and somatic health. We have to face the fact that emotional maltreatment not only occurs under conditions of familial or institutional deprivation, but often also – unintendedly – in the cognitively stimulating surrounding of daycare.

It is surprising that pediatric medicine in Germany has not dealt with these aspects in a more intense manner. As late as 2008 Heinrich and Koletzko in a review in *Monatsschrift Kinderheilkunde* stated that there is “not a single article in a peer reviewed journal in Germany giving a data based answer to the question to what extent early daycare increases (or diminishes) health risks”, a remarkable analysis viewing the fact that within short time

750000 children shall be exposed to this type of care. The “*Primum nil nocere*” – the first law of medical art not to harm – demands more determination to protect our youngest patients.

No one can exactly predict the development of a certain, single child in daycare. There are simply too many factors influencing child development. Besides the crucial family environment genetic make up is of importance shaping resilience under stress load. Experts, however, have to provide parents and policy makers with appropriate information regarding statistical risks of early daycare. This risk is moderate pertaining to behavioural abnormalities but is very high concerning impairment of emotional wellbeing. Moreover an increased risk for later mental disorders has to be pointed out as chronic early life stress is known to increase the risk for e.g. depression. Incidentally increased stress load and behavior abnormalities have also been found in first systematic studies on family daycare. The hope for improved social behavior, leading some parents to consider daycare, cannot be supported by studies. A significant, moderate improvement of learning can only be expected with very high quality care, which up to date is practically non existent in Germany. The high rate of registration in *Gymnasium* (the secondary school type leading to college in Germany) among children with early center care experience, advertised by *Bertelsmann Stiftung* (an industrial foundation), is therefore obviously more due to parental claim than to children’s cognitive gains.

Instead of continuously devaluating parental care parents should be made aware of the decisive role that their loving and stable presence plays in the healthy mental development of their children especially during the first years. In this respect, the assignment of family tasks may well be reconsidered. While mothers due to birth and breast feeding normally are the primary attachment figure during the first phase of life, fathers should be encouraged and supported to more often take over this role from toddler age on. Keeping in mind the described health risks of daycare it is, however, mandatory that parents can make the early care decisions free from economic restraints. In this respect the guide line “The money goes with the child” should be applied. A true choice for parents could be assured by a child basic income or a substantial child care subsidy paid to all parents as it is the rule in Scandinavian countries who pay out considerably higher amounts than the rather symbolic (if not ridiculous) amount announced for German parents. Parents could then decide if they favour parental care or hand over child and money to an non-familial care arrangement and pursue employment.

Disengaging daycare is, of course, not equivalent to setting aside early education for the smaller group of children with certain social or biological developmental risks. Studies, however, show that these children, too, should preferentially receive early educational support within their families, in presence of their primary attachment figures. This can be achieved by systems of early mobile assistance, by family midwives, parenting programs, family centered early education programs, family care through social institutions or community based toddler playgroups with attendance of a parent. These are measures with proven effectiveness.

The German “daycare offensive” can be traced to massive political and media lobbying by economic pressure groups. In view of the demographic development the economy seeks to recruit working power among young parents. Publications by economy related institutions try to define the term “family friendly” mainly by the extent of provided non-familial child care. The *Bertelsmann Stiftung*, operative branch of Europe’s biggest media trust, for years has prepared ground for the trust’s expansion into the profitable and trade-cycle-independent education business. It pursues opinion leadership in matters of early education, marginalizing critical voices and producing own “studies” in order to support the trust’s purposes. Daycare

industry also campaigns for extensive non-familial care expecting reliable growth chances through public subsidies. Publishers hope for market expansions by opening up a new publication sector. And universities and colleges await additional tax money to establish new training courses. We will have to vigilantly counteract the dynamics of such processes. Our youngest and most vulnerable childrens' health and wellbeing must be protected against these threats.

Based on the NICHD results and most recent data of stress research a developmental medicine proposal for an evidence based recommendation was presented at the last pediatric congress in Bielefeld: 1. No center based daycare under age two 2. No more than half daycare between second and third birthday 3. After third birthday whole daycare possible (depending on individual disposition) 4. high standards of quality in every type of daycare. Necessary, moreover, is the implementation of scientific daycare studies in Germany as well as the continuous update of recommendations according to research data. The stress load of employed parents with young children and of employees in early daycare, neglected so far, also has to be taken into focus.

Chronic stress in childhood is the biological signature of maltreatment. Exposing young children to chronic stress is unethical, an offense against human rights, leads to acute and chronic disease. A democratic state advocating extensive early daycare is obliged to prove that children in these conditions don't suffer from chronic stress. Public guardianship demands to exclude hazards to child wellbeing even in public institutions. The German state should therefore refrain from initiating al legal claim for daycare after the first birthday.

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