

Relationship Between Breastfeeding Behaviour and Psychosocial Family Burdens

Summary

- Prevalence of breastfeeding in the KiD 0-3 Study is 79.5%.
- Every second child is breastfed for at least six months (50.1%), almost every sixth for longer than one year (17.1%).
- Mothers with a lower educational level tend to breastfeed their children less and for a shorter period than mothers with a higher educational level.
- Mothers with a migration history generally show a higher level of breastfeeding (87.2% vs. 77.0%). The effect of a lower educational level on a shorter breastfeeding period is less prevalent among mothers with a migration history.
- Mothers who breastfeed generally report a higher level of stress caused by the crying, eating, and sleeping patterns of their babies, but less overall stress or depression.
- One particularly positive effect is that breastfeeding mothers report less feelings of anger.

Introduction

The first representative study on breastfeeding in Germany was carried out as part of the German Health Interview and Examination Survey for Children and Adolescents KiGGS (Kinder- und Jugendgesundheitsurvey, KiGGS), which retrospectively studied children born between 1985 and 2005 [1]. According to the results of this study, 81.5% of all children born in Germany were breastfed at least temporarily. The study also revealed considerable differences in the willingness of women to breastfeed their children and the duration of breastfeeding, depending on the social status of the family. Also, the age of the mother, her migration status, her place of residence in East Germany or West Germany as well as her smoking habits during pregnancy and postnatal problems of the child proved to be statistically significant.

In line with the recommendations of the WHO [2], the German National Breastfeeding Committee [3] suggests that

newborns should be breastfed exclusively during the first six months of life. After that, breastfeeding should continue as required. The reasons behind these recommendations are manifold: In addition to the well-documented positive effects of breastfeeding for the health of both mother and child [4, 5], studies have provided sufficient evidence that breastfeeding positively affects the cognitive development and intelligence as well as the performance capacity of children [4, 6]. Further, a number of studies [7, 8] discovered a positive overall effect on the mother-child relationship as well as in particular on maternal sensitivity. There are also some reports that there are fewer cases of child abuse among mothers who breastfeed [9]. Thus, breastfeeding may have a preventative influence.

The prevalence study Children in Germany – Aged 0-3 (Kinder in Deutschland – KiD 0-3) by the National Centre for Early Prevention (Nationales Zentrum Frühe Hilfen, NZFH) surveyed parents concerning their breastfeeding behaviour. Further,

the study provided numerous findings concerning psychosocial family burdens and risk factors for child abuse and neglect; these are reported in the following with respect to breastfeeding behaviour.

Methods

The KiD 0-3 study assessed 8,063 families with at least one child up to the age of three during a child development examination at the family's pediatrician, using a questionnaire on their general living conditions including psychosocial risk factors and family burdens [10].

The overall willingness of the parents to breastfeed their child was included in the question "Is or was your child breastfed?" If the child was no longer being breastfed at the time of the interview, the parents were also asked how long the child had been breastfed: "Up to what age was your child breastfed?" However, no distinction was made between exclusively breastfed children and those who received auxiliary fluids or supplementary food. It is therefore not possible to differentiate between occasional, partial, and exclusive breastfeeding practices.

Extent and Duration of Breastfeeding

A total of 79.5% of the families reported having breastfed their child in the past or present; 20.5% reported no breastfeeding. It remains unclear how large the percentage of mothers was who had intended to breastfeed their child and failed to do so or were unable to carry through. Whether and how long the child was breastfed was especially dependent on the educational level of the mother (acc. to the International Standard Classification of Education, ISCED). The prevalence of breastfeeding among the group of mothers with a lower educational level was 60.6%, the rate among mothers with an intermediate educational level was 77.9% and it was 92.4% among mothers with a higher educational level.

If we compare only those families whose children were already at least one year of age, we find the following distribution of (completed) breastfeeding behaviour: 22.0% had not breastfed their children at all; 27.9% had breastfed for less than six months; one third (33.0%) for six to twelve months; and another 17.1% reported having breastfed their child beyond the age of one year. The percentage of mothers who had breastfed their children for at least six months was 25.6% in the group of mothers with a lower educational

level, 46.3% in the group of mothers with an intermediate educational level, and 70.1% in families where the mother had a higher educational level (cf. Table 1).

TABLE 1: Differences in the duration of breastfeeding acc. to educational level of the mother

Duration of breastfeeding	Lower educational level	Intermediate educational level	Higher educational level	Total
breastfeeding at all	56.6	76.7	91.7	78.0
> 3 months	44.7	66.6	86.1	69.0
> 6 months	25.6	46.3	70.1	50.1
> 9 months	16.3	26.8	46.4	30.9
> 12 months	11.1	14.9	24.3	17.1

N = 2,989. Age of child at survey > 12 months. All results expressed in %.

Source: KiD 0-3, main study 2015

Possible Influence of Migration History

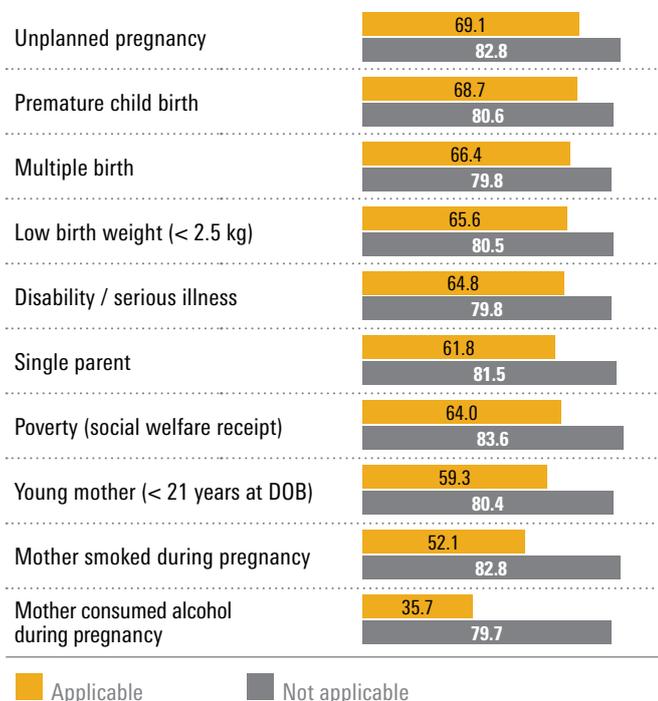
Mothers with a history of migration¹ had a greater rate of breastfeeding than mothers without a migration history (87.2% vs. 77.0%). In addition, the effect of educational level on breastfeeding behaviour was greatly reduced among mothers with a migration history: 78.3% of mothers with a history of migration and a lower educational level were breastfeeding. Among mothers without a history of migration but with a lower level of education, only 47.2% were breastfeeding. With respect to the duration of breastfeeding, mothers with a migration status tended to breastfeed their child for longer than one year (23.3% vs. 14.4%, respectively).

Influence of Various Factors

Further factors relevant to breastfeeding behaviour are shown in Figure 1, which reveals that medical peculiarities and complications of the child (premature birth, multiple birth, low birth weight, disability or serious illness) led to a lower rate of breastfeeding, as did socioeconomic risk factors (single mother, family in receipt of social welfare, very young mother). Moreover, the breastfeeding rate was considerably lower if the mother had regularly consumed alcohol or tobacco during pregnancy (0.3% and 10.2% of the sample).

¹ A migration history is defined as when the person in question does not have German citizenship or when the person or at least one of the person's parents was born outside of Germany.

FIGURE 1: Effect of risk factors on breastfeeding



Rate of breastfeeding mothers in %

Bivariate analyses. All differences statistically significant at $p < .001$

Source: KiD 0-3, main study 2015

With the exception of medical peculiarities and alcohol consumption during pregnancy, the factors depicted correlated significantly with the educational level of the family: Families with a lower educational level reported more frequent about risk factors like unplanned pregnancy or premature child birth (cf. Figure 1). In this sense, the lower rate of breastfeeding in families with a lower educational level may not be the result of their lack of knowledge of the positive effects of breastfeeding, but a direct consequence of the stressful life circumstances they experience.

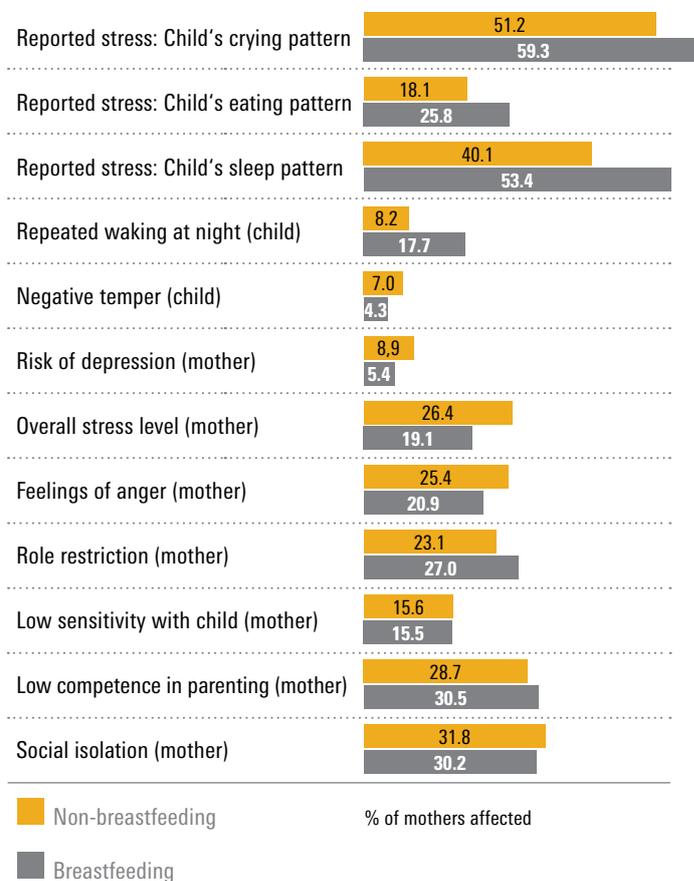
Differences in Psychosocial Risk Factors

Although the positive influence of breastfeeding on child development is considered to be indisputable, that does not necessarily mean that breastfeeding only has positive effects on the familial situation. In the KiD 0-3 study, breastfeeding mothers reported increased stress due to the crying, eating, and sleeping patterns of their babies. Although the differences between families that breastfeed and those that do not are small with respect to crying (59.3% vs. 51.2%) and eating patterns (25.8% vs. 18.1%), the differences in sleeping patterns are considerably greater (53.4% vs. 40.1%). Repeated waking

at night (three times or more) was reported by these families twice as often as by non-breastfeeding families. At a higher stress level, however, relevant differences were found only with crying patterns (13.4% vs. 10.5%). These results are consistent with those found on a subscale of the German Parenting Stress Index (“Eltern-Belastungs-Inventar”), which showed that breastfeeding mothers consider themselves significantly more restricted by their role as a parent.

However, breastfeeding had a positive influence on the mothers’ feelings of anger: Breastfeeding mothers reported significantly lower rates of anger. This result remained stable even when statistically controlled for the above mentioned risk factors. Breastfeeding mothers also tended to report less risk of depression (as measured on the “Patient Health Questionnaire PHQ-2”) as well as lower overall stress levels (as measured on the “Perceived Stress Scale, PSS-4”). They also describe the temperament of their child less often as negative (cf. Figure 2).

FIGURE 2: Variations in the frequency of selected stressors in breastfeeding/non-breastfeeding families



Source: KiD 0-3, main study 2015

Statistically significant differences in social isolation, low parenting competence, or a distant/unemotional relationship with the child (subscales of the German PSI) were not found in the study. Likewise, breastfeeding was not associated with incidents of child abuse and/or child neglect according to the parents.

Classification of the Results

The breastfeeding rate of 79.5% obtained in the KiD 0-3 Study (for children born between 2012 and 2015) are within the limits of the retrospective KiGGS data for children born in 2001/2002 (77.0%) and those born in 2007/2008 (82.5%) [11]. This provides new evidence for the discussion about an overall decrease in breastfeeding prevalence rates. However, the different research methods in both surveys should be taken into account: The breastfeeding data from the KiGGS were collected retrospectively, whereas the KiD 0-3 study reflects both recollected and contemporary descriptions of family situations. Although the validity of remembering of breastfeeding behaviour is considered high, in KiD 0-3 short-term breastfeeding is a bit more common and long-term breastfeeding a little less common than in KiGGS. Further, the comparison of breastfeeding rates in relation to sociodemographic and other risk factors is consistent with prior findings, but adds a differentiated perspective on psychosocial family burdens. Thus, these results reveal the ongoing need for support of breastfeeding among families with high rates of psychosocial risk factors (lower educational level, social welfare receipt as well as single and young mothers).

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