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Treatise on the Distribution of Breastfeeding Rates of Mothers with Academic Education Compared to Breastfeeding Rates of Mothers without Academic Education

Friederike Harrich¹, Med. Friederike Harrich²

¹Researcher, Institut für Geschichte, Theorie und Ethik der Medizin, Neubau 17.11, Raum 01.32, (Hauspostfach 1114), Moorenstr. 5, 40225 Düsseldorf, Germany, ²Jülicher Straße 89, 40477 Düsseldorf, Germany

Abstract

In the publication “Guiding principles for complementary feeding of the breastfed child”, the WHO clearly argues that exclusive breastfeeding in the first six months after birth is essential for the development of the newborn. Of particular interest is the possible difference between academic and non-academic women, which has not yet been sufficiently investigated. First, however, there is the question of how children are cared for after birth, when the professional situation of mothers has changed considerably due to a changed image of women in society. Decisions in this regard are increasingly changing and are subject to strong fluctuations over time. In the context of an emancipated and constantly changing image of women, a new understanding is developing that requires statistical processing.^{4,6,7,14}

To this end, Dr. med. Friederike Harrich interviewed mothers about their situation and evaluated them in a large-scale study. This study was compared with two other studies in order to pool the data.^{1,2,3,4,6,7,8,9,10,11,12,13,14}

This study, which is part of a larger survey series, examines the distribution of breastfeeding rates of mothers with academic education compared to mothers without academic education and presents the differences and similarities depending on the mother’s level of education.^{4,6,7}

Keywords: *Breastfeeding, Breastfeeding behaviour, Breast milk, Mothers, Image of women, Gynaecology, Obstetrics, Paediatrics.*

Introduction

As a result of the many different influencing factors that depend on mothers’ pregnancy and breastfeeding habits, there are many differences in how they behave and interact with their children and in the context of pregnancy

that have not yet been studied or have not been studied sufficiently. Post-pregnancy behaviour has also not been sufficiently researched, nor has the question of whether there is a difference in behaviour depending on the level of education.

Within the framework of a large series of studies, the present work explores the question of whether there is a connection between the possible decision for or against breastfeeding and whether there is a connection with the mother’s level of education.

Corresponding Author:

Dr. med. Friederike Harrich

Jülicher Straße 89, 40477 Düsseldorf, Germany

email id: frhar101@hhu.de

Material and Method

The comparable studies are titled as follows in this meta-analysis:

Study A: “The breastfeeding behaviour of female academics in the period from 1950 to 1990” by Antonia Charlotte Freiin Teuffel von Birkensee.⁴

Study B: “On the change in breastfeeding behaviour in the FRG between 1950 and 1990 - An Orla History study” by Luisa Heininger.⁸

Study C: “On the Change in Breastfeeding Behaviour of Mothers in the Greater Düsseldorf Area between 1951 and 1990 - An Oral History Study” by Friederike Helene Margarethe Harrich.⁷

The three studies A, B and C were conducted as retrospective cohort studies. In studies A and B, a telephone interview was used to collect the data; in study C, a questionnaire was filled out in writing by the study participants alone, followed by a personal interview. Both methods have the advantage that the effect of social desirability in the form of impression management and self-deception is greatly reduced. The questionnaires, which are to be seen as a guide for the interviews, differ slightly, but also contain identical questions. All comparable surveys are compared in this meta-analysis. The study designs of the three studies to be compared are very similar, comparable but not identical. For example, it is noticeable that the time periods studied differ. While studies A and B examined breastfeeding behaviour in the years 1950 to 1990, study C investigated the same in the years 1951 to 1990. The dissertations by Ms Freiin Teuffel von Birkensee (Study A) and Ms Heninger (Study B) have the problem that the years 1960, 1970, 1980 and 1990 were duplicated in the cohort classification, which is not the case in Ms Harrich’s study (Study C). In order to prevent this duplication and still maintain equal time intervals, Study C began with a survey of women who gave birth in 1951.^{4,6,7,8}

Furthermore, the studies differ in the number of study participants. Study A and B each involved 100 women, 25 per cohort, while Study C involved 44 women, 11 per cohort. It should be noted with regard to the size of the cohorts that in study C an incomplete completion of the questionnaire or a failure to remember led to exclusion from the study, which was not the case in studies A and B.^{4,6,7,8}

In summary, study A deals with breastfeeding behaviour, birth and the time immediately after the birth of the child of academic women in the mentioned period, study B with non-academic women in the mentioned period and study C has a mixed study population. This and a closely coordinated study design offer optimal opportunities for comparison.^{4, 6, 7, 8}

Results

Table 1: Breastfeeding rate after the birth of the child.

| | Study A | Study B | Study C |
|-----------------|---------|---------|---------|
| Cohort 1 | 84 % | 84 % | 63,6 % |
| Cohort 2 | 56 % | 80 % | 72,7 % |
| Cohort 3 | 56 % | 92 % | 36,4 % |
| Cohort 4 | 96 % | 72 % | 90,9 % |

No distinction was made between full and partial breastfeeding in this comparison.

Table 2: Non-breastfeeding after the birth of the child

| | Study A | Study B | Study C |
|-----------------|---------|---------|---------|
| Cohort 1 | 16 % | 16 % | 36,4 % |
| Cohort 2 | 44 % | 20 % | 27,3 % |
| Cohort 3 | 44 % | 8 % | 63,6 % |
| Cohort 4 | 4 % | 28 % | 9,1 % |

No distinction was made between full and partial breastfeeding in this comparison.

The comparison of breastfeeding rates is an essential part of the comparative work of studies A, B and C. Studies A and C, both studies that include female academics as study participants, show a U-curve when comparing breastfeeding rates across cohorts. Study A does so with a value of $R^2=0.9941$. As the regression is close to 1, it is well suited to predict dependent variables. The goodness of fit of the model is very good.

If we look at the goodness of fit of the model with regard to studies B and C, it is in the middle range and clearly below 1.

The U-curve of the holotrational trend lines of the analyses of studies A and C show that in both studies breastfeeding was frequent in cohorts 1 and 4, while in cohorts 2 and 3 there was a decreasing trend compared to cohort 1.

Study B is the only study that did not include academics. Only non-academic women were study participants. The results of this study are the only one of the three studies compared to show the trend that breastfeeding also increased in the 1970s, even with a maximum of 92% in this study.

Conclusion

The final result of this comparison is that academic women breastfed less in the 1960s and 1970s and the trend among non-academic women was towards breastfeeding in these years.

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