On the Changing Image of Women a Scientific Treatise on the Professional Situation of Women with Children

Friederike Harrich[1], Van Brunschot[1]

[1]Researcher, Institut für Geschichte, Theorie und Ethik der Medizin, Neubau 17.11, Raum 01.32, (Hauspostfach 1114), Moorenstr. 5, 40225 Düsseldorf, Germany

Abstract

In its publication "Guiding principles for complementary feeding of the breastfed child", the WHO propagates that exclusive breastfeeding in the first six months post partum at normal term is essential for the development of the infant. However, the first question that arises is how to breastfeed children when the occupational situation of mothers changes to a large extent due to a change in the image of women in society. Of particular interest here is the possible difference between academic and non-academic women, which has not yet been evaluated, explicitly in a division of women into decades of childbirth in order to show a progression over time.

For this purpose, 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]

The women were interviewed with a questionnaire, followed by an oral interview using the oral history method.

The final analysis shows that women without an academic educational background return to work more often after childbirth than women with an academic educational background. The 1980s are an exception here, where academically educated women work more after childbirth. [4, 6, 7]

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

Introduction

The change in the image of women is still a present topic, explicitly with regard to re-entry into the labour market after childbirth, during pregnancy itself and in the context of breastfeeding. Women are still disadvantaged in terms of salary and professional career. This study provides a detailed breakdown of academic and non-academic women. It refers to a previous study (Harrich, F. H. M., Zum Wandel des Stillverhaltens von Müttern im Großraum Düsseldorf zwischen 1951 und 1990 - Eine Oral History Studie, p. 29, Düsseldorf, 2020) and in combination with two other studies forms a quintessence (Heininger, L., On the change in breastfeeding behaviour in the FRG between 1950 and 1990, p. 29, Düsseldorf, 2014., Freiin Teuffel von Birkensee, A. C., The breastfeeding behaviour of female academics in the period from 1950 to 1990, p. 65, Düsseldorf, 2014.).[4, 6, 7]

Material and Methods: 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.[7]

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. [6]

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]

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. The number of women participating in study A and B was not significant. [4, 6, 7]

In summary, Study A deals with the breastfeeding behaviour of academic women in the period mentioned, Study B deals with non-academic women in the period mentioned, and Study C shows a mixed study population. This and a closely aligned study design provide optimal opportunities for comparison.[4, 6, 7]

Table 1: Prenatal occupational exposure of mothers.

	Study A	Study B	Study C
Cohort 1	Occupation: 20%	Occupation: 64%	Occupation: 54,5%
	No Occupation: 80%	No Occupation: 36%	No Occupation: 45,5%
Cohort 2	Occupation: 40%	Occupation: 72%	Occupation: 45,5%
	No Occupation: 60%	No Occupation: 8%	No Occupation: 54,5%
Cohort 3	Occupation: 76%	Occupation: 100%	Occupation: 63,7%
	No Occupation: 24%	No Occupation: 0%	No Occupation: 36,3%
Cohort 4	Occupation:92 %	Occupation: 100%	Occupation: 81,8%
	No Occupation: 8%	No Occupation: 0%	No Occupation: 18,2 %

Rounding errors by the sources were compensated for in the decimal point.

With regard to workload in the prenatal phase, there are clear differences in the three studies compared over time, which are shown in Figures 8, 9 and 10. The listing of the percentages in study A shows that the percentage of working women has risen massively over time. While in the 1950s it was only 20%, it rose to 40% in the 1960s, 76% in the 1970s and 92% in the 1980s. A clear increase can thus be observed in the course of the observed period.[4, 6, 7]

When looking at the percentage values of the evaluation from study B, a clearly weaker percentage growth is recorded, but the entry value in cohort 1, i.e. in the 50s, is 44% higher than in study A. It is 64%. In Cohort 2 of Study B, this value is 72%, so it has increased by 8% compared to Cohort 1, but this is a marginal growth considering that it doubled when we jumped from Cohort 1 to Cohort 2 in Study A. In cohort 3 and 4 of study B, the values of this comparison reach a maximum of 100% in both cohorts.[4, 6, 7]

In the evaluation of Study C, there is also a growth in the percentage occupation, but also a much weaker one, than in Study A. While the percentage of women working in cohort 1 of study C was 54.5%, it rose from 45.5% in cohort 2 and 63.7% in cohort 3 to 81.8%.[4, 6, 7]

What is striking in this comparison is the low percentage in Cohort 1 of Study A in the context of the strong growth in this study across cohorts. It should be remembered that Study A looks exclusively at the breastfeeding behaviour of academic women and academic wives. This is a unique feature of this study compared to Studies B and C. Since the values mentioned clearly stand out, the question arises to what extent the growth is related to the academic level of education.[4, 6, 7]

Table 2: Postnatal occupational stress of mothers.

	Study A	Study B	Study C
Cohort 1	Occupation: 8%	Occupation: 32%	Occupation: 9,1%
Cohort 2	Occupation: 32%	Occupation: 36%	Occupation: 36,4%
Cohort 3	Occupation: 48%	Occupation: 56%	Occupation: 18,2%
Cohort 4	Occupation: 68%	Occupation: 44%	Occupation: 63,6%

The postnatal occupational stress across the cohorts is presented in the comparison of studies A, B and C. The results are similar to the comparison of the prenatal occupational stress of the mothers. With regard to the behaviour of the growth in the evaluation of studies A and C, a similar picture emerges as in the comparison of the prenatal occupational stress of the mothers.

The evaluation of the results from study A shows a growth across the cohorts of 60%.

In the evaluation of the data from study B, this percentage is only 12% across the cohorts. In study C, this value is 54.5%.[4, 6, 7]

It can be seen that Study B, the only study from which female academics were explicitly excluded as study participants, shows a low growth in the percentage described. This suggests the hypothesis that women without an academic degree have returned to work less and with a lower percentage over time in terms of the development of working after childbirth.[4, 6, 7]

Table 3: Occupational sectors of the women interviewed in study B.

	Factory work	Agriculture	Office activity	Housework	Other
Cohort 1	12 %	16 %	28 %	36 %	8 %
Cohort 2	20 %	20 %	16 %	12 %	32 %
Cohort 3	12 %	8 %	40 %	0 %	40 %
Cohort 4	0 %	0 %	45 %	0 %	55 %

No information was given on this in study A. The item "civil servant employment" was not asked about.

It is noticeable that the chosen occupational sectors are diverse in cohorts 1 and 2 of study B, while this is reduced in cohort 3 of that study, which continues in cohort 4. 36% of the women in Cohort 1 of Study B were housewives, 28% had an office job, 16% worked in agriculture, 12% were factory workers and 8% had another occupation. The aforementioned diversity becomes clear, with housewifery and office work making up the largest share.[4, 6, 7]

Table 4: Occupational sectors of the interviewed women from study C (before the first pregnancy).No information was given on this in study A.

	Factory work	Agriculture	Office activity	Housework	Other	Civil servant employment
Cohort 1	20 %	10 %	10 %	40 %	20 %	0 %
Cohort 2	0 %	0 %	45 %	9 %	36 %	9 %
Cohort 3	0 %	0 %	55 %	0 %	36 %	9 %
Cohort 4	0 %	0 %	36 %	0 %	27 %	36 %

When looking at the evaluation of the occupational sectors of the interviewed women from study C, it becomes clear that the mentioned diversity of cohorts 1 and 2 from study B in study C is exclusively shown in cohort 1.[4, 6, 7]

40% of the women interviewed from Cohort 1 of Study C were employed as housewives. 20% were engaged in factory work, 10% worked in agriculture, 10% worked in an office job and another 20% were engaged in another occupation not further defined in the study. In the evaluation of cohort 2 of this study, it is evident that the diversity of occupational sectors is declining. 45% of the women in this cohort work as office workers, 36% in an occupation not further defined here. This picture continues in similar, though not equal, percentages in the following cohort. The same applies to cohort 4 of study C, although it is noticeable in the evaluation of this cohort that civil servant employment as an occupational sector of the study participants predominates here as the only cohort, with 36% compared to the percentage of civil servant employment in cohorts 1, 2 and 3.[4, 6, 7]

A direct comparison of cohorts 1 of studies B and C reveals how similar the breakdown of occupational sectors still is in the 1950s. Non-academics (Study B) and academics and non-academics (Study C) seem to differ only slightly in their choice of occupational

sectors in the decade indicated, indicated here by the occupational sector "other". The percentages of the occupational sectors differ in the comparison, but by a maximum of 18% in the area of office work.

If the two cohorts 2 of studies B and C are compared with each other, as shown in figure 18, a difference in the percentages of the occupational sectors between non-academics (study B) and academics and non-academics (study C) becomes apparent.Participants in Study B were engaged in agriculture with a percentage of 20, as well as factory workers with 20%. In Study C, 0% were in both sectors. The sectors "other" and "domestic work" differed by study comparison of cohorts 2 with only 4% and 3%. It is noticeable that there is a civil servant employment with a percentage of 9 in cohort 2 of study C, which cannot be explained by the fact that the mentioned sector was not recorded in study B, because the difference of the sectors "other" does not explain this. However, since the mentioned sector "other" is not defined in more detail, this cannot be ruled out with a probability bordering on certainty either, although it seems unlikely.A comparison of the occupational sectors of studies B and C of cohorts 2 shows an approximate homogeneity in the percentages of the results of the evaluation of the sectors "other" and "office work" with differences of 4% and 15%. These two sectors dominate the overall picture of the occupational sectors in both studies and thus represent a common feature of non-academics (Study B) and academics and non-academics. Being a female academic does not seem to be a relevant factor in the evaluation of the 1970s with regard to the occupational sector "office work". The situation is different for other sectors. The non-academic women (Study B) from Cohort 3 were more likely to be factory workers with a rate of 12% and to work in agriculture with a rate of 8%. Neither occurred in the same cohort of Study C, which included female academics. The percentage here was 0. It seems that the selection of the occupations "factory worker" and "farmer" are related to academic status. This is supported when looking at the results of cohort 2, where 9% of the women were employed as civil servants. This is an evaluation of a sector that was not asked about in Study B. The number of different occupational sectors represents the number of women in the cohort.[4, 6, 7]

The number of different occupational sectors is lowest in cohorts 4 of studies B and C in comparison to all cohorts of the two studies. The occupational sector "other" accounted for 55% in cohort 4 of study B, with the remaining 45% stating that they worked in an office. Women in the same cohort of Study C reported having a civil service job at a rate of 36%. The same rate of study participants worked in an office and 27% of women from the said cohort reported "other" as their occupational sector. The 36% rate of civil servants in Cohort 4 of Study 3 can be explained. On the one hand, in Study B this sector was not included in the survey, as only non-academic women were interviewed; on the other hand, in the evaluation of Cohort 4 from Study B, a higher percentage is found in the area of the sector "Other", which is not explained in more detail in Study B, with a difference of 28% to Cohort 4 from Study C.[4, 6, 7]

Conclusion

An ondulating change in the image of women may complicate the conditions to feed an infant according to WHO specifications.[4, 6, 7, 13]

Women without an academic educational background are more likely to return to work after childbirth compared to women with an academic educational background. The 1980s are an exception here, where academically educated women work more after giving birth.

Conflict of Interests:

Friederike Harrich is the lead author

Denise Özdemir - van Brunschot is the second author

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