

Implementation of the recommendations made by the “*Gesund ins Leben*” network as found in advice leaflets on the nutrition of infants

How and how well have the recommendations been implemented two years later?¹

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Summary

Two years after publication, the recommendations on the nutrition of infants and nursing mothers have been fully and correctly implemented in 30 % of advice leaflets on infant nutrition available nationwide; 70 % still require revision of content.

Keywords: recommendations, “*Gesund ins Leben*” network, nutrition of infants, advice leaflet

Citation:

Hirsch J, Rademacher C (2014) Implementation of the recommendations made by the “*Gesund ins Leben*” network as found in advice leaflets on the nutrition of infants. How and how well have the recommendations been implemented two years later? *Ernährungs Umschau* 61(2): 27–31

This article is available online:
DOI 10.4455/eu.2014.005

Introduction

In June 2010, the “*Gesund ins Leben – Netzwerk Junge Familie*” network [Healthy Life – Young Families Network] published “*Handlungsempfehlungen zur Säuglingsernährung und Ernährung der stillenden Mutter*” [Recommendations on the nutrition of infants and nursing mothers]. Formulated with the agreement of experts, they are based on the latest scientific knowledge and present nationwide standardized recommendations on the nutrition of infants and nursing mothers [2]. They were designed to serve as the advisory standard for disseminators, such as midwives, gynecologists and pediatri-

¹This work was presented as a poster at the 50th Scientific Congress of the German Nutrition Society (DGE) in 2013 [1].

cians [3]. Whether and how these recommendations have been implemented in print media is the subject of this study.

Objective

The objective of the above-mentioned analysis was to examine the status quo of the practical implementation of the recommendations in German-language advice leaflets on infant nutrition. The central question was: “How and how well have the recommendations been implemented in advice leaflets on infant nutrition two years after publication?”.

Methodology

As part of a quantitative content analysis, 33 advice leaflets on infant nutrition available nationwide were studied (♦ Table 1). These were issued by various different publishers, such as professional societies and associations, national and state ministries, health insurance schemes, manufacturers of baby food, baby equipment suppliers and other companies in the food industry. The cut-off date for the availability of these printed media was fixed at 31 October 2012. ▶

The “*Gesund ins Leben – Netzwerk Junge Familie*” network is an amalgamation of notable institutions, professional societies and associations concerned with young families. The project is part of the National Action Plan “*IN FORM – Deutschlands Initiative für gesunde Ernährung und mehr Bewegung*” [IN FORM – Germany’s Initiative for a Healthy Diet and More Movement] created by the national government and is financially supported by the former Federal Ministry for Food, Agriculture and Consumer Protection (BMELV). Direction and strategic management is the responsibility of a steering group. It consists of representatives from the *Berufsverband der Frauenärzte e. V.*, the *Berufsverband der Kinder- und Jugendärzte e. V.*, the *Deutscher Hebammenverband e. V.*, the *Plattform Ernährung und Bewegung e. V.* (peb), the BMELV and *aid infodienst e. V.* The office and contact partner for the initiative is *aid*, which also coordinates all activities.

The network’s recommendations (“*Ernährung in der Schwangerschaft*” [Nutrition in Pregnancy], “*Säuglingsernährung und Ernährung der stillenden Mutter*” [Nutrition of Infants and Nursing Mothers] and recently “*Ernährung und Bewegung im Kleinkindalter*” [Nutrition and Movement in Infancy]) were collated from concurring statements by scientific institutions on the topics concerned. These statements were discussed by the network’s scientific advisory board and formulated into core statements [4].

The statements in the advice leaflets were compared with the recommendations. The analysis focused on the main topics provided in the recommendations with their respective core statements (◆ Overview 1). The implementation of these core statements in the advisory media was classified into three categories: “present and correct”, “present and incorrect” or “not present”. Advice was regarded as correctly implemented when all statements in the recommendations were correctly presented; it could then be classed in the category “present and correct”. None of the leaflets evaluated covered all

the main topics, therefore only the core statements relevant to the topic concerned were included in the evaluation.

Results

The recommendations are correctly and fully implemented in 10 (30 %) of the examined advice leaflets available nationwide. 23 (70 %) do not fulfill the requirements, because they incorrectly (“present and incorrect”) or incompletely (“not present”) implement the recommendations. In 15 of 23 cases the statements fall into the category “present and incorrect”



and in 8 of the 23 leaflets the classification is “not present”.

Incorrect or ambiguously-worded messages relate in particular to the subject of the transition from exclusive breastfeeding to the introduction of solid foods (◆ Figure 1).

In the recommendations, exclusive breastfeeding is recommended for a period of 4 to 6 months. This means that an infant should be exclusively breastfed at least until the beginning of the 5th month, at most until the beginning of the 7th month [2]. This statement is incorrectly or ambiguously communicated in 16 leaflets (= 70 % of the incorrectly or ambiguously implemented leaflets). A shorter or longer exclusive breastfeeding period is recommended through statements such as “at most four months” or “at least six months” as well as vague wordings such as “breastfeed until four months”. An incorrect or ambiguous time period for the introduction of solids is mentioned by 9 leaflets (= 39 % of the leaflets classified as incorrect or incomplete). In the majority of leaflets, the recommended wording, i. e. according to the formula “at the earliest from the start of the 5th, at the latest from the start of the 7th month” [2], is not discernable.

According to the recommendations, a supplementary fluid intake in the form of drinks is as a rule only required with the third solids mush (cereals–fruit–mush) [2]. 12 leaflets (= 52 % of incorrectly or incompletely implemented leaflets) reproduced this time period incorrectly or ambiguously. A vague date such as “when food is firmer” or “with solids” was often observed.

Moreover, 11 advice leaflets (= 48 % of incorrectly or incompletely implemented leaflets) contained incorrect or ambiguous statements on providing follow-on milk. Follow-on milk should be introduced at the same time as solids, although expert com-

- nursing
- infant milk food
- solid foods
- beverages
- nutrient supplements in the first year
- nutrition for nursing mothers
- indulgence foods while nursing
- medication and nutrient supplements while nursing
- allergy prevention among children, not pertaining to nutrition and smoking

Overview 1: Main topics of recommendations

mittees agree that there is no scientific reason to recommend follow-on milk [2]. However, in the studied print media, the provision of follow-on milk is frequently recommended or the committee's recommendation to introduce it at the earliest with the beginning of solid feeding is incorrectly implemented.

The issue of allergy prevention was incorrectly treated by 6 leaflets (= 26 % of incorrectly or incompletely implemented leaflets). Out-of-date or non-scientifically backed recommendations on allergy prevention were reproduced (a minimum nursing period of six months and/or a delayed introduction of solids beyond the end of the fourth month, as well as the avoidance of common food allergens in the first year).

In addition to the incorrect or ambiguously presented statements mentioned, there is a variety of statements which are only rarely mentioned, even though the subject of the leaflets would suggest they should be.

- 1 "The first breast-feeding should, if possible, take place within the first 2 hours after the birth." [2]
- 2 "(...) the meat ingredient in the vegetable-potato-meat-mush [can

- occasionally be exchanged for (oily) fish." [2]
- 3 "The feeding plan [for the first year] also applies to children with an increased allergy risk. The avoidance or later introduction of common allergy-triggering foods offers no protection against allergies." [2]
- 4 "Every infant needs Vitamin K, Vitamin D and fluoride." [2]
- 5 "Nursing women should if possible consume saltwater fish twice a week, including oily fish at least once a week (...)." [2]
- 6 "While nursing, iodine tablets (100 µg iodine/day) should be taken additionally to iodized salt (...)." [2]

If these statements were missing in a leaflet about this topic, it was classified in the category "not present".

Discussion

The above contents analysis of advice leaflets on infant nutrition indicates that, in their advisory range for the target group, the majority of publishers have still not sufficiently reacted to the alterations in the recommendations. From the perspective of the target group wanting information on infant nutrition, this means that completely and correctly

implemented recommendations can only be found in 30 % of advice leaflets available nationwide. Publishers of these media are primarily professional societies, national and state ministries and hospitals (♦ Table 2). The leaflets published by *aid infodienst* were produced by the "Gesund ins Leben" network; it was therefore to be expected that the recommendations were correctly implemented in these cases. There is a discernable need for revision in all leaflets produced by manufacturers of infant food, baby equipment suppliers and companies in the food industry.

Incorrect or ambiguously-worded messages can be found in more than half of advice leaflets, where statements relating to the transition from exclusive breastfeeding to supplementary solid feeding are noticeably often poorly implemented. In consequence, two years after the publication of the recommendations, the revision of a greater proportion of the media is still outstanding. Hitherto the acknowledged objective – to communicate concurring statements and to create clarity for the target group – has not been achieved. Wherefore it is important to determine that a period of two years should be sufficient for the revision of leaflets. ▶

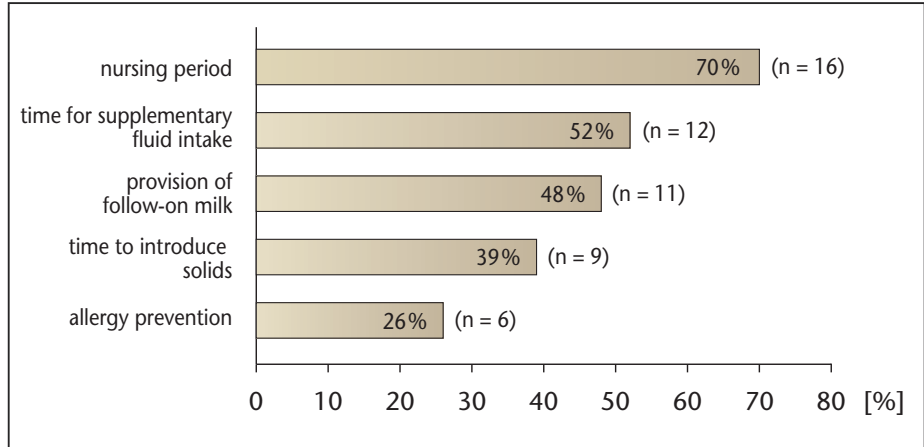


Fig. 1: Frequency of incorrect or ambiguous representation of certain aspects of infant nutrition in the deficient advice leaflets (n = 23)

Leaflet publisher	Title of the leaflet	Year
aid infodienst Ernährung, Landwirtschaft, Verbraucherschutz e. V. (aid)	Das beste Essen für Babys	2012
aid infodienst Ernährung, Landwirtschaft, Verbraucherschutz e. V. (aid)	Stillen – was sonst?	2012
aid infodienst Ernährung, Landwirtschaft, Verbraucherschutz e. V. (aid) Deutsche Gesellschaft für Ernährung e. V. (DGE)	Ernährung von Säuglingen – Empfehlungen für das erste Lebensjahr	2012
AOK Die Gesundheitskasse WDV Wirtschaftsdienst OHG	Babyernährung - Gesund und lecker	2003
Arbeitsgemeinschaft Freier Stillgruppen Bundesverband e. V.	Beikost für Stillkinder	2010
BARMER GEK	Die ersten Schritte ins Leben. Ein Ratgeber rund um die ersten 18 Lebensmonate	2011
BKK Wolters Kluwer Deutschland Information Service GmbH	Gesund durchs erste Lebensjahr	2012
Bundesanstalt für Landwirtschaft und Ernährung (BLE) Geschäftsstelle Bundesprogramm Ökologischer Landbau	Ernährungskalender für Eltern	2010
Bundeszentrale für gesundheitliche Aufklärung (BZgA)	das baby – Informationen für Eltern über das erste Lebensjahr	2012
Deutsche Angestellten-Krankenkasse	Babys erste Kost. Tipps für die Ernährung von Säuglingen und Kleinkindern	2011
Deutsche Gesellschaft für Kinder- und Jugendmedizin e. V. (DGKJ)	Gesunde Ernährung für mein Baby	2008
Forschungsinstitut für Kinderernährung Dortmund (FKE)	Empfehlungen für die Ernährung von Säuglingen	2012
HiPP GmbH & Co. Vertrieb KG	Viel Liebe, viel Glück und viele Fragen. Ein Ratgeber zum Thema Stillen und Milchnahrung	2011
HiPP GmbH & Co. Vertrieb KG	Von Anfang an die richtige Ernährung. Ein Ratgeber rund ums Thema Baby-Ernährung	2011
Humana GmbH	Willkommen, Baby! Kalender und Berater für Schwangerschaft und das erste Jahr	2010
IKK gesund plus, LexisNexis Deutschland GmbH	Mein Baby bleibt gesund	2009
KKH-Allianz MediaGuide GmbH	Mein Baby Guide. Der Elternratgeber	2010/ 2011
MAPA GmbH/NUK Babyartikel	Die NUK Ernährungsfibel. Ein Ratgeber für die Säuglingsernährung nach der Stillzeit	2010
MAPA GmbH/NUK Babyartikel	Die NUK Fibel rund um Muttermilch, Stilltechniken und den Stillalltag zu Hause	2010
milupa GmbH	Jetzt gibt's was auf den Löffel!	o. J.
milupa GmbH	Rund um Babys Fläschen	o. J.
Ministerium für Arbeit, Soziales und Gesundheit des Landes Schleswig-Holstein	Stark von Anfang an – Kinderkost leicht und lecker	2010
Ministerium für Ernährung und Ländlichen Raum Baden-Württemberg	Von Anfang an mit Spaß dabei – Essen und Trinken für kleine Kinder	2011
Nestlé Alete	Jetzt gibt's was auf den Löffel. Kleiner Ratgeber für den Beikoststart	o. J.
Nestlé Alete	Ratgeber Ernährung – Schritt für Schritt gesund ins Leben	o. J.
Nestlé Alete	Ratgeber Stillen – von Anfang an das Beste	o. J.

Leaflet publisher	Title of the leaflet	Year
Nestlé Alete	Säuglingsmilch von Alete – abgestimmt auf die Babyverdauung	o. J.
Peter Kölln KGaA	Von der Beikost zur Familienernährung	o. J.
PaedNetz®Bayern e. V.	Baby-Kompass® Bayern	2012
pronova BKK LexisNexis Deutschland GmbH	Gesund durch's erste Lebensjahr. Ernährung, Vorsorge und Impfung	2008
Techniker Krankenkasse	Stillen. Babys erste Wahl	2010
Techniker Krankenkasse	Von der Milch zum Brei – Ernährung im ersten Lebensjahr	2012
Verbraucherzentrale Hamburg e. V.	Gesunde Ernährung von Anfang an – Stillen, Säuglingsnahrung, Breie und Gläschenkost	2012

Tab. 1: Studied advice leaflets on infant nutrition (n = 33, sorted alphabetically)

Leaflet publisher	Title of the leaflet	Year
aid infodienst Ernährung, Landwirtschaft, Verbraucherschutz e. V. (aid)	Das beste Essen für Babys	2012
aid infodienst Ernährung, Landwirtschaft, Verbraucherschutz e. V. (aid)	Stillen – was sonst?	2012
aid infodienst Ernährung, Landwirtschaft, Verbraucherschutz e. V. (aid) Deutsche Gesellschaft für Ernährung e. V. (DGE)	Ernährung von Säuglingen – Empfehlungen für das erste Lebensjahr	2012
BARMER GEK	Die ersten Schritte ins Leben. Ein Ratgeber rund um die ersten 18 Lebensmonate	2011
Bundesanstalt für Landwirtschaft und Ernährung (BLE) Geschäftsstelle Bundesprogramm Ökologischer Landbau	Ernährungskalender für Eltern	2010
Bundeszentrale für gesundheitliche Aufklärung (BZgA)	das baby – Informationen für Eltern über das erste Lebensjahr	2012
Forschungsinstitut für Kinderernährung Dortmund (FKE)	Empfehlungen für die Ernährung von Säuglingen	2012
Ministerium für Ernährung und Ländlichen Raum Baden-Württemberg	Von Anfang an mit Spaß dabei – Essen und Trinken für kleine Kinder	2011
Techniker Krankenkasse	Von der Milch zum Brei – Ernährung im ersten Lebensjahr	2012
Verbraucherzentrale Hamburg e. V.	Gesunde Ernährung von Anfang an – Stillen, Säuglingsnahrung, Breie und Gläschenkost	2012

Tab. 2: Advice leaflets on infant nutrition, which implement the recommendations from the "Gesund ins Leben – Netzwerk Junge Familie" network correctly and completely (n = 10, sorted alphabetically)

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Conflict of Interests

The authors declare no conflict of interests according to the guidelines of the International Committee of Medical Journal Editors.

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DOI: 10.4455/eu.2014.005