



Additional File to the Research Letter ^a:

Parents' perspectives on prevention and risk prediction of food allergies in children: a qualitative study

^a More detailed information can also be found in the previously published study protocol:
<https://www.researchprotocols.org/2023/1/e41436>

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Topic-guide

Food Allergy Biomarker Application Consortium (NAMIBIO App) – Subproject 4
Topic-guide: Parents of children (0-3) with a) at risk of food allergy or b) already diagnosed food allergy*.

* Belonging to group a or b is asked in advance in a telephone call or by mail, parents of children with diagnosed food are asked retrospectively

Introduction

At the beginning, I would like to thank you for your participation in the interview. You give us your important perspective on the early identification of risk factors and the early prevention of food allergies in children. We strongly believe that this is your contribution to raising awareness and possibly improving the prevention of food allergies.

I am a research assistant in the NAMIBIO project and together with my colleagues at the project site in Regensburg/Magdeburg we will conduct interviews in the vicinity of Regensburg and Magdeburg with parents as well as with paediatricians and allergists.

Important notes:

- There is no right or wrong
- The interview will be recorded as mp-3 file for data analysis. Of course, we will analyse the recording in such a way that it cannot be traced back to your person (anonymised). I would now like to start the recording?

Introductory question

Today I would like to talk to you about the topic (risk of) food allergies in your child/children in your everyday family life. In doing so, I am interested in your personal perspective. I would therefore be pleased if you could tell me exactly how you are currently affected by the topic?

Topic-guide	Prompts
<p><i>How do you experience everyday family life with a child at risk of food allergy or diagnosed with a food allergy?</i></p> <ul style="list-style-type: none"> • When did you first become involved with the topic of nutrition and food allergies? • Are there other people with food allergies in your environment (e.g. friends or family members) or are you perhaps affected yourself? • How did you get the idea that your child might have a food allergy or be at risk for a food allergy? • When (with which symptoms) did you seek support/counselling? • What all happened between the suspicion of a food allergy and the diagnosis? 	<p>Previously you said that....</p> <p>Did I understand correctly that....</p> <p>Can you explain that to me?</p>
<p><i>What information needs and requirements do you have with regard to the early prediction of risks and the prevention of food allergies?</i></p> <ul style="list-style-type: none"> • Which information on prevention of allergies/food allergies are important and interesting for you? • How have you informed yourself about food allergies? • About what topic would you personally like to have more information/knowledge? 	<p>Can you tell me a bit more about this?</p> <p>Can you give me an example?</p>
<p><i>What strategies do you use to seek information and support?</i></p> <ul style="list-style-type: none"> • Where and how do you seek information? • What do you need to find information helpful? • What information do you trust? • What helps you understand health information? • When do you decide to implement a recommendation in your family life? • How do you succeed in implementing knowledge from health information in everyday life? • Where and how do you get support on (prevention on) food allergies 	<p>Is there anything else?</p> <p>Can you describe this in more detail?</p> <p>Do you have an example of this so that I can imagine it more clearly?</p> <p>What do you mean by that?</p>
<p><i>Do you use (electronic) decision support tools or information support applications for health issues?</i></p> <ul style="list-style-type: none"> • Do you use and trust digital health applications? e.g. apps...? • How would you like to use an app on food allergies in children? • How do you imagine this app? (App store/ web based) • When/how might this be helpful for you? • We want to develop an app that can predict the risk for food allergie and offer targeted recommendations for prevention ... <ul style="list-style-type: none"> ○ What do you think about this? Would this (have been) helpful? Why (not)? ○ Which information would you disclose to an app? 	<p>Who else was there?</p> <p>When did X happen?</p> <p>Where did X happen?</p>

Closing the conversation

- Make it clear that the conversation is coming to an end: e.g. From my side we have finished with the questions.
- Give the interviewee a concrete example of how his or her insights have made a contribution: e.g. We can use your personal experience on data protection directly in the app development.
- Ask the participant if there are any other questions that should be asked or topics that should be explored: e.g. We have now touched on many topics in the last xx minutes, is there anything else you want to get off your chest about the topic?
- Try to make new contacts: e.g. Can you recommend other people I should talk to?
- Remind the respondent of possible follow-up conversations with the researcher or research team: e.g. We would like to get back to you once the (pilot) app is ready. Perhaps you might want to let us know your thoughts on it again then.
- Socio-demographic questions

Last point for today....

- Allowance for expenses
- Thank the interviewee once again

Table 1: Characteristics of the participants

Number	Sex (m/f/d) ^a	Year of Birth	Nationality	Education	Marital Status	Occupational Status	FA ^b Status of child (< 3 y/o) ^c / Risk factors
Participants with a child up to 3 years of age with FA diagnosis							
P01	m	1970-1974	German	University degree	Married, 2 children	Employed	egg, milk, gluten
P02	f	1974-1979	German	A-levels	In a relationship, 2 children	Employed	peanut, cherry, kiwi
P04	f	1980-1984	German	University degree	Married, 1 child	Employed	fish, peanut
P05	f	1980-1984	German (Born in Poland)	University degree	Married, 1 child	Employed	wheat, milk, egg, soy, sesame, all nuts
P06	f	1980-1984	German	University degree	Single parent, 1 child, pregnant	Employed	wheat, egg, soy
P07 ¹	f	1980-1984	German (Born in Russia)	University degree	Married, 2 children	Parental leave	Child/ Sibling (< 3 y/o): nut
P08	f	1980-1984	German	A-levels	In a relationship, 1 child, pregnant	Employed	nuts, milk, legumes, fish
P09	f	1980-1984	German	University degree	Married, 1 child	Part-time employed	spelt, wheat, milk, egg
P10 ²	m	1980-1984	German	A-levels	In a relationship, 1 child	Self-employed	cashew, pistachio, walnut
P11 ²	f	1985-1989	German (Born in Poland)	A-levels		Student and self-employed	
P19 ¹	f	1985-1989	German	Secondary school diploma	Married, 2 children	Parental leave	Child/Sibling (< 3 y/o): lipid transfer protein allergy - peanut, walnut, nectarine, apricot, peach, plum, cherry
P20	f	1985-1989	German	University degree	Married, 2 children	Part-time employed	egg
P21	f	1985-1989	German	University degree	Married, 1 child, pregnant	Maternity leave	milk, egg, nut
P22	f	1985-1989	German	University degree	Married, 1 child, pregnant	Parental leave	milk, wheat, soy, egg, peanut, sesame seeds
P23	f	1985-1989	German	University degree	Married, 1 child, pregnant	Maternity leave	peanut
P24	f	1985-1989	German	University degree	Married, 1 child	Employed	Food Protein Induced Enterocolitis Syndrome (FPIES)
P27 ¹	f	1990-1994	German	University degree	Married, 2 children	Parental leave	Child/Sibling (< 3 y/o): milk, egg and fish
P28	f	1990-1994	German	A-levels	Married, 1 child	Parental leave	egg, peanut, hazelnut, soy
Participants with a child up to 3 years of age at risk of FA							
P03	f	1980-1984	German	University degree	Married, 2 children	Parental leave	Family history

Table 1 continued: Characteristics of the participants

P12	f	1985-1989	German	University degree	Married, 2 children	Parental leave	Family history
P13	f	1985-1989	German	University degree	Married, 1 child	Unemployed	Family history Child: atopic dermatitis
P14	f	1985-1989	German	University degree	2 children	Employed	Family history
P15	f	1985-1989	German	University degree	Married, 2 children	Parental leave	Family history
P16	m	1985-1989	German	University degree	In a relationship, 1 child	Parental leave	Family history Child: atopic dermatitis
P17	f	1985-1989	German	University degree	Married, 3 children	Employed	Family history
P18 ³	f	1985-1989	Turkish (Born in Bulgaria)	University degree	Married, 1 child	Employed	Family history
P25	f	1990-1994	German	University degree	Married, 2 children	Employed	Family history
P26	f	1990-1994	German	University degree	Married, 1 child	Parental leave	Family history
Participants with a child up to 3 years of age with no risk of FA							
P29	m	1980-1984	German	University degree	Married, 1 child	Employed	/
P30	f	1985-1989	German	University degree	Married, 1 child, currently pregnant	Maternity leave	/
P31	f	1985-1989	Turkish	Secondary School diploma	1 child	Employed	/

Notes: ^a (m/f/d)= (male/female/divers); ^b FA= food allergy; ^c y/o= years old; ¹ two kids < 3 y/o included; ² couple-interview; ³ age of the child at the time of interview already 4 y/o (The real age was only revealed during the interview. In consultation with the entire research team, we decided to include this parent anyway.)

Table 2: Identified deductive categories and inductive sub-categories with corresponding parental quotes

Main category <i>concept-driven</i> <i>(deductive)</i>	Subcategories <i>data-driven (inductive)</i>	Quote
<i>Information seeking</i>	Due to gut feeling	<i>"It was more like I had a strange feeling." (P23, female, Mid 30s)</i>
	Due to signs and symptoms	<i>"When he had such severe episodes of neurodermatitis, and they thought about what it could be. And that is of course the problem, it could be anything or many things, I would say. But we didn't do anything concrete about it." (P05, female, Early 40s)</i>
	Competence in seeking information	<i>"And sometimes it's just to get a keyword or to have an "aha" moment, to have another keyword to search for again." (P06, female, Early 40s)</i>
<i>Expressed information needs</i>	Food allergy as a non-issue	<i>"As I said, we were not affected by it at all and I didn't think about it at all. And of course I didn't proactively raise this issue with the midwife or anything like that." (P05, female, early 40s)</i>
	Guidance on how to take preventive measures	<i>"But something that has perhaps already been found out specifically for food allergies, which you can do as prevention, as parents. The information rarely reaches parents in any way. Actually, it only reaches parents when the child already has allergies." (P19, female, Mid 30s)</i>
<i>Sources of information</i>	Healthcare professionals	<i>"Of course I can read up, but um yes, the right, the right steps that have to be taken - that's when I approach the paediatrician." (P25, female, Early 30s)</i>
	Health education/ Patient organizations	<i>"Yes, of course you first look at health insurance companies. Yes, on official sites" (P22, female, Late 30s)</i>
	Digital and print media	<i>"[...] sometimes I get magazines also for example when I go to pharmacy or doctor, [...] I always like to read these magazines, but to be honest I rarely do so. I can honestly say. Instagram, I follow [for] more information." (P18, female, Mid 30s)</i>
	Informal exchange	<i>"I'm in the-, I'm on Facebook in an allergy, children's allergy group. Recipes are exchanged there every now and then." (P24, female, Early 30s)</i>

Table 2 continued: Identified deductive categories and inductive sub-categories with corresponding parental quotes

<i>Health care utilization</i>	Pediatricians	<i>"So of course we went to the pediatrician that was the first port of call." (P22, female, Late 30s)</i>
	Midwives	<i>"And then, in any case, talking to the midwife was the most likely thing that you could do." (P14, female, Late 30s)</i>
<i>App requirements</i>	By experts	<i>"But for me, for a user like me, it would have to be scientifically based, so to speak. Not in the sense that it has to have a scientific surface, but the background has to be scientific. And not from a Brigitte editorial team (German women's magazine) or from no idea, Geolino (science magazine for children 9+) " (P29, male, Early 40s)</i>
	Non-commercial	<i>"So I mean, if I somehow open it the next time [...] and then somehow I get an advertisement or something like that, then it's bad." (P16, male, Mid 30s)</i>
	Free of charge	<i>"Well, I would download it if there was something like that. If it was free of charge, of course." (P25, female, Early 30s)</i>
	Data economy and data security	<i>"I don't think I'm that critical when it comes to these privacy issues. That is, if it's not published somewhere or something." (P06, female, Early 40s)</i>