

Translation, adaptation and validation of Food Allergy Quality of Life

Questionnaire - Child Form into Greek

Health Psychology Research

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Supplementary material

Table S1. Descriptive characteristics of the children involved in the cross-sectional validation study of the Greek translation of the FAQLQ-CF; n (% of children) unless otherwise stated; D: demographic.

Participants	110 (100)
Gender (D1)	
Male	83 (75.5)
Female	27 (24.5)
Age; years (D2)	
minimum – maximum	7.5 – 12.3
mean (SD)	10.0 (1.4)
7 – 7.9	13 (11.8)
8 – 8.9	20 (18.2)
9 – 9.9	20 (18.2)
10 – 10.9	24 (21.8)
11 – 11.9	27 (24.5)
12 – 12.9	6 (5.4)

What food are you allergic to? (D3)

Nuts	57 (25.2)
Fish	52 (23)
Egg	22 (9.7)
Legumes	19 (8.4)
Milk	13 (5.8)
Walnut	10 (4.4)
Fruits	10 (4.4)
Peanut	8 (3.5)
Seafood	8 (3.5)
Wheat	7 (3.1)
Cashew nuts	5 (2.2)
Soy	3 (1.3)
Sesame	3 (1.3)
Dairy products	1 (0.4)
Turkey	1 (0.4)
Carrageenan	1 (0.4)
Chicken	1 (0.4)
Cube Knor	1 (0.4)
Vegetables	1 (0.4)
Dark chocolate	1 (0.4)
Rice	1 (0.4)
Liver	1 (0.4)
TOTAL	226 (100)
Average per child	2.1 (=226/110)

How many foods are you allergic to? (counted in D3)

1 food	44 (40)
2 foods	33 (30)
3 "	22 (20)
4 "	7 (6.4)
5 "	3 (2.7)
6 "	0 (0)
7 "	1 (0.9)
TOTAL	110 (100)
Mean (SD)	2.1 (1.2)
Median (IQR)	2 (1, 3)

How many foods are you unable to eat because of your food allergy? (FAIM IM1)

almost none	9 (8.2)
very few	14 (12.7)
a few	36 (32.7)
some	22 (20)
many	24 (21.8)
very many	5 (4.5)
almost all	0 (0)
TOTAL	110 (100)

How much does your food allergy affect things you do with others? (FAIM: IM2)

don't actually notice	20 (18.2)
very little	23 (20.9)
a little	22 (20)
moderately	16 (14.5)
a good deal	6 (5.5)
a great deal	14 (12.7)
a very great deal	9 (8.2)
TOTAL	110 (100)

What symptoms did you have during the most severe allergic reaction you have suffered? (D4)

Difficulty breathing	46 (41.8)
Worsening eczema	44 (40.0)
Swelling of the skin	40 (36.4)
Itchy skin	40 (36.4)
Red rash	32 (29.1)
Tightening throat	32 (29.1)
Itchy throat	32 (29.1)
Vomiting	30 (27.3)
Cough	20 (18.2)
Swollen lips	20 (18.2)
Difficulty swallowing	18 (16.4)
Hoarseness / Hoarse voice	17 (15.5)
Red eyes	17 (15.5)
Sick to your stomach	16 (14.5)
Hives	15 (13.6)
Blocked nose	11 (10.0)
Stomach cramps	10 (9.1)

Swollen tongue	9 (8.2)
Runny nose	8 (7.3)
Itchy lips	8 (7.3)
Itchy tongue	8 (7.3)
Sneezing	8 (7.3)
Itchy mouth	7 (6.4)
Inability to stand	5 (4.5)
Dizziness	6 (5.5)
Watery eyes	5 (4.5)
Collapse	3 (2.7)
Shortness of breath	3 (2.7)
Itchy ears	3 (2.7)
Wheezing	2 (1.8)
Diarrhoea	1 (0.9)
Loss of consciousness	1 (0.9)
TOTAL	519 (471.8)

Note: no feeling heartbeat fast or arrhythmia, loss of vision, light-headedness, and itchy eyes were reported.

How many symptoms did you have during the most severe allergic reaction you have suffered? (counted per child in D4)

1 symptom	11 (10)
2 symptoms	16 (14.5)
3 "	16 (14.5)
4 "	17 (15.5)
5 "	8 (7.3)
6 "	16 (14.5)
7 "	10 (9.1)
8 "	6 (5.5)
9 "	4 (3.6)
10,11,12,13,15,19	6 (4.2)
TOTAL	110 (100)
Mean (SD)	4.8 (3.1)
Median (IQR)	4 (3, 6)

Body system affected (distribution of symptoms reported in D4)

Skin	171 (32.9)
Respiratory tract	160 (30.8)
Gastrointestinal tract	75 (14.5)

Mouth	53 (10.2)
Eyes	24 (4.6)
Nose	19 (3.7)
Cardiovascular	14 (2.7)
Ears	3 (0.6)
TOTAL	519 (100)

How long ago did the severe allergic reaction described above occur? (D5)

< 1 year	13 (11.8)
1 year	11 (10.0)
2 years	8 (7.3)
3 years	11 (10.0)
4 years	14 (12.7)
5 years	10 (9.1)
> 5 years	43 (39.1)
TOTAL	110 (100)

What food was the cause of the more serious allergic reaction you described above? (D6)

Fish	25 (22.7)
Nuts	21 (19.1)
Milk	13 (11.8)
Egg	11 (10.0)
Legumes	9 (8.2)
Walnut	8 (7.3)
Peanut	6 (5.5)
Wheat	6 (5.5)
Cashew nuts	4 (3.6)
Fruits	3 (2.7)
Sesame	2 (1.8)
Dairy products	1 (0.9)
Carrageenan	1 (0.9)
TOTAL	110 (100.0)

Who diagnosed your food allergy? (D7)

Paediatrician	91 (82.7)
Allergist	14 (12.7)
I, myself	2 (1.8)
Dermatologist	1 (0.9)

Alternative practitioner	1 (0.9)
Family doctor / GP	1 (0.9)
TOTAL	110 (100)

Have you been prescribed epinephrine? (D8)

no	15 (13.6)
yes	95 (86.4)

Table S2. Discriminant ability: Significant differences of means of FAQLQ-CF, FAIM-OE, and PedsQL™ according to things done with others, eating out, chance to die, feeling angry, and age.[#]

	N	FAQLQ-CF	FAIM-OE	PedsQL™
<i>How much does your food allergy affect things you do with others? (question FAIM IM2)</i>				
< moderately	37	3.553	2.888	0.341
> moderately	53	2.570	3.905	0.724
Difference [†]		0.983	1.017	0.383
p-value ^{††}		<0.001	0.001	0.003
<i>How often do you eat out?</i>				
< fairly	61	2.734		
> fairly	28	3.188		
Difference [†]		0.454		
p-value ^{††}		0.049		
<i>How big do you think the chance is that you will die if you accidentally eat something to which you are allergic (FAIM OM3)</i>				
< fair chance	52	2.666	2.686	
> fair chance	50	3.135	3.887	
Difference [†]		0.470	1.201	
p-value ^{††}		0.028	0.000	
<i>I feel angry (PedsQL™ q11)</i>				
< sometimes	63	2.665		0.313
≥ sometimes	47	3.256		0.624
Difference [†]		0.592		0.311
p-value ^{††}		0.003		0.001
<i>Age</i>				
<10	53			0.573
10+	57			0.393
Difference [†]				-0.180
p-value ^{††}				0.035

[#] Many more checks were done. Namely by: gender; age (<9 vs >10); number of allergic foods (1 vs 2+, 2 vs 3+, 3 vs 4+), number of allergic symptoms during the most severe allergic reaction (3 vs 4+, 3 vs 5+), number of cardiorespiratory symptoms during the most severe allergic reaction (≥2 cardiovascular [i.e., anaphylaxis, Flokstra de Blok, 2008: methods] vs the rest, ≥1 cardiovascular vs rest, ≥1 respiratory vs rest, ≥1

cardiorespiratory vs rest, ≥ 2 cardiorespiratory vs rest); years passed from the most severe allergic reaction (<1 vs 1+, <2 vs 2+, <3 vs 4+); number of foods unable to eat because of food allergy (FAIM IM1) (<3 vs 4+); epinephrine prescription (no vs yes); how often eating out (<4 vs 4+, <3 vs 4+); having read the phrase "May contain traces of ..." in a food package (no vs yes); and affected things done with others (FAIM IM2; <moderately vs >moderately) with the rest of FAIM (four OE plus IM1). In all these cases the difference was statistically and clinically not significant.

[†] In bold clinically significant differences, i.e., greater than the minimal clinical importance difference (MCID) of 0.5 in the scales FAQLQ-CF and FAIM-OE,⁹ and greater than a MCID of 4.36% in the 0–100 scale,¹⁶ (i.e. 0.1744 in the 0–4 Likert scale used for scoring in this paper here).

^{††} Based on two independent samples t-test with equal (if Levene's test p-value > 0.05) or unequal (if < 0.05) variances

Table S3. Spearman's correlation coefficient of the total FAQLQ-CF score and its domains and questions with the FAIM questions and total and with the PedsQL™ domains and total.

FAQLQ-CF	FAIM questions and total						
	E01	E02	E03	E04	IM1	IM2	Total
<i>Total</i>	.346**	.296**	.308**	.413**	.057	.486**	.509**
<i>Allergen Avoidance</i>	.355**	.256**	.268**	.334**	-.033	.389**	.426**
4 read labels	.221*	.219*	.054	.218*	.010	.406**	.306**
6 stay for a meal	.272**	.147	.299**	.204*	.131	.327**	.371**
7 try fewer things	.257**	.047	.062	.158*	.133	.202*	.223**
8 tell beforehand	.154	.136	.154	.180*	-.124	.256**	.204*
9 check yourself	.266**	.243**	.291**	.333**	-.144	.158*	.337**
10 hesitate eating	.337**	.301**	.313**	.151	-.062	.273**	.357**
15 explain around	.097	.004	-.005	.267**	-.059	.214*	.133
<i>Risk accidental exposure</i>	.347**	.205*	.261**	.264**	.009	.409**	.395**
11 touching foods	.297**	.216*	.135	.082	-.097	.178*	.196*
13 ingredient change	.261**	.231**	.179*	.252**	-.061	.393**	.321**
14 label 'traces of . . .'	.198*	.019	.109	.112	.034	.280**	.199*
16 people forget	.189*	-.039	.167*	.022	.065	.228**	.177*
17 others can eat	.168*	.254**	.187*	.353**	.092	.289**	.351**
<i>Emotional impact</i>	.277**	.332**	.382**	.438**	.100	.409**	.519**
19 allergic reaction?	.239**	.348**	.276**	.283**	.044	.230**	.373**
20 eating wrong	.100	.316**	.272**	.284**	.034	.232**	.325**
21 never before	.200*	.142	.225**	.169*	.216*	.297**	.336**
22 never get rid	.273**	.270**	.253**	.318**	-.024	.322**	.376**
23 not taking account	.199*	.248**	.155	.298**	.103	.321**	.338**
24 have food allergy	.254**	.228**	.318**	.426**	.104	.332**	.450**
<i>Dietary Restriction</i>	.166*	.226**	.196*	.377**	.185*	.456**	.419**
1 always watch	.072	.141	.052	.200*	.152	.215*	.190*
2 eating fewer things	.121	.201*	.126	.269**	.139	.299**	.299**
3 limited in buying	.071	.128	.104	.202*	.266**	.302**	.282**
5 refuse food	.178*	.183*	.178*	.280**	.041	.307**	.313**
12 don't get treats	.115	.111	.111	.329**	.217*	.404**	.326**
18 don't know taste	.086	.084	.065	.187*	.000	.288**	.184*
FAQLQ-CF	PedsQL™ domains (subscales) and total					Total	
	PF	EF	SF	ScF			
<i>Total</i>	-.138	-.320	-.082	-.136	-.224		
<i>Allergen Avoidance</i>	-.092	-.336	-.128	-.108	-.217		
<i>Dietary Restriction</i>	-.245**	-.269**	-.061**	-.132**	-.226**		
<i>Emotional Impact</i>	-.068	-.232	-.039	-.096	-.154		
<i>Risk accidental exposure</i>	-.088	-.301	-.081	-.151	-.224		

* / ** Correlation is significant at the 0.05 / 0.01 level (1-tailed).

EO: child's food allergy expectation outcome. IM: independent measure. EO1: How big do you think the chance is that you will accidentally eat something to which you are allergic? EO2: How big do you think the chance is that you will have a severe reaction if you accidentally eat something to which you are allergic? EO3: How big do you think the chance is that you will die if you accidentally eat something to which you are allergic? EO4: How big do you think the chance is that you can not do the right things for your allergic reaction, should you accidentally eat something to which you are allergic? IM1: How many foods are you unable to eat because of your food allergy? IM2: How much does your food allergy affect things you do with others? PF: physical functioning, EF: emotional functioning, SF: social functioning, ScF: school functioning.

Figure 1. FAQLQ-CF total mean score per child (24 questions/child). Colored bars represent reported QoL lost due to food allergy; black area beyond bars represents remaining QoL. Interpretation: Score 0–0.49: **Very good** (no child in this zone); 0.5–1.49: **Good**; 1.5–2.49: **Rather good**; 2.5–3.49: No good nor bad; 3.5–4.49: **Rather bad**; 4.5–5.49: **Bad**; 5.5–6: **Very bad** (no child in this zone).

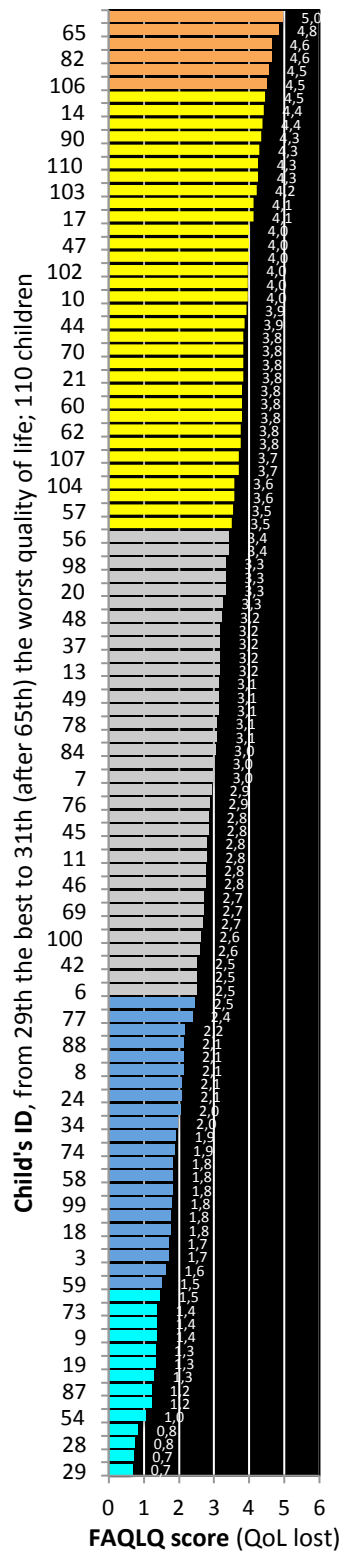


Figure 2. FAQLQ-CF question, subscale, and total mean score (110 children/item). Colors and interpretation as in Figure 1.

