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Supplementary Materials [Tables]

Title: Correlates of help-seeking by parents for the socio-emotional development of their 3-year-old children: a longitudinal study.

Journal: BMJ Open

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Supplementary Table S1. *P*-values for interactions between the 13 factors and child gender, child ethnic background, parental age and parental education level on help-seeking (n=1507)

	Child gender	Child ethnic background	Parental age	Parental education level
	p value	*p* value	*p* value	*p* value
Child gender	-	0.877	0.537	0.751
Child ethnic background	0.877	-	0.049	0.981
Parental age	0.537	0.049	-	0.829
Parental education level	0.751	0.981	0.829	-
Parental work status	0.325	0.909	0.841	0.069
Family composition	0.226	0.078	0.887	0.194
BITSEA Problem scale score	0.419	0.373	0.074	0.969
BITSEA Competence scale score	0.414	0.853	0.406	0.100
Stressful life events	0.003	0.518	0.786	0.033
General health of the child	0.893	0.171	0.442	0.271
Parental satisfaction of child's development	0.446	0.307	0.350	0.347
Previous help-seeking behavior	0.274	0.619	0.159	0.567
Discussion of child social-emotional development in the well-child visit	0.552	0.193	0.126	0.731

Note: numbers in table are p-values of interaction of the variables in rows and columns.

Abbreviations: BITSEA= Brief Infant–Toddler Social and Emotional Assessment.

Multivariate logistic regression was adopted for interaction analyses in the full model with predisposing variables, enabling variables and need variables as independent variables. After applying Boneferroni correction for multiple testing (P=0.05/42=0.001), no statistically significant interaction was found.

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Supplementary Table S2. Non-response analyses (n = 2305)

	Total	Response to follow-up		
	(n=2305) Mean ± SD N(%)	No (n=765) Mean ± SD N(%)	Yes (n=1540) Mean ± SD N(%)	p value
Child age in months	24.6±1.8	24.8±1.6	24.5±1.8	<0.001
Child gender				0.155
Boy	1159 (50.6)	401 (52.7)	758 (49.5)	
Girl	1132 (49.4)	360 (47.3)	772 (50.5)	
Child ethnic background				<0.001
Dutch	1576 (73.3)	415 (58.9)	1161 (80.2)	
Other-western	166 (7.7)	59 (8.4)	107 (7.4)	
Non-western	409 (19.0)	230 (32.7)	179 (12.4)	
Parental age in year				<0.001
>=40	262 (22.6)	89 (11.8)	173 (11.3)	
30-39	1500 (65.9)	438 (58.2)	1062 (69.6)	
=<29	515 (11.5)	225 (29.9)	290 (19.0)	
Parental education level				<0.001
High	1175 (52.8)	282 (39.1)	893 (59.5)	
Middle	858 (38.6)	345 (47.8)	513 (34.2)	
Low	191 (8.6)	95 (13.2)	96 (6.4)	

Note: This table present non-imputed data. The missing numbers of variables are child age (n=32), child gender (n=14), child ethnic background (n=154), parental age (n=28), parental educational level (n=81).

Abbreviation: SD=standard deviation.

P values are based on Independent t-test and chi-square test for non-response to follow-up and response groups.

Supplementary Table S3. McNemar's test for homogeneity of formal sources use and informal sources use (n=341)

	Informal sources use		p value
	Yes (n=264)	No (n=77)	
Formal sources use			
Yes (n=103)	26	77	<0.001
No (n=238)	238	0	

P value is based on the McNemar's test.

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Supplementary Table S4. Characteristics of the study population by use of formal and informal sources in parental help-seeking (n=1507)

	Total	Use of formal sources			Use of Informal sources		
		No	Yes		No	Yes	
	(n=1507) Mean ± SD N(%)	(n=1404) Mean ± SD N(%)	(n=103) Mean ± SD N(%)	*p* value	(n=1243) Mean ± SD N(%)	(n=264) Mean ± SD N(%)	*p* value
Predisposing Factors							
Child age in month	24.5±1.8	24.5±1.9	24.5±1.6	0.920	24.5±1.8	24.5±2.0	0.593
Child gender				0.029			0.648
Boys	739 (49.4)	678 (48.6)	61 (59.8)		614 (49.6)	125 (48.1)	
Girls	758 (50.6)	717 (51.4)	41 (40.2)		623 (50.4)	135 (51.9)	
Child ethnic background				0.020			0.508
Dutch	1161 (80.2)	1093 (81.0)	68 (69.4)		966 (80.8)	195 (77.7)	
Other-western	107 (7.4)	96 (7.1)	11 (11.2)		85 (7.1)	22 (8.8)	
Non-western	179 (12.4)	160 (11.9)	19 (19.4)		145 (12.1)	34 (13.5)	
Parental age in year				0.285			0.001
>=40	166 (11.1)	155 (11.1)	11 (10.9)		149 (12.1)	17 (6.5)	
30-39	1048 (70.1)	983 (70.5)	65 (64.4)		870 (70.6)	178 (67.7)	
=<29	282 (18.9)	257 (18.4)	25 (24.8)		214 (17.4)	68 (25.9)	
Enabling Factors							
Parental education level				0.001			0.170
High	883 (59.9)	841 (61.1)	42 (43.3)		740 (61.1)	143 (54.8)	
Middle	498 (33.8)	449 (32.6)	49 (50.5)		399 (32.9)	99 (37.9)	
Low	92 (6.2)	86 (6.3)	6 (6.2)		73 (6.0)	19 (7.3)	
Parental work status				0.006			0.015
Employed	1213(81.2)	1125 (82.5)	70 (71.4)		996 (82.9)	199 (76.5)	
Unemployed	280 (18.8)	238 (17.5)	28 (28.6)		205 (17.1)	61 (23.5)	
Family composition				0.210			0.054
Two-parent family	1386 (93.8)	1297 (94.0)	89 (90.8)		1149 (94.3)	237 (91.2)	
Single-parent family	92 (6.2)	83 (6.0)	9 (9.2)		69 (5.7)	23 (8.8)	
Need Factors							
BITSEA Problem scale score				<0.001			0.021
No risk	1400 (94.0)	1319 (95.0)	81 (80.2)		1161 (94.6)	239 (90.9)	
At risk	92 (6.0)	70 (5.0)	20 (19.8)		66 (5.4)	24 (9.1)	
BITSEA Competence scale score				0.001			0.352
No risk	1300 (88.0)	1222 (88.7)	78 (77.2)		1074 (88.3)	226 (86.3)	
At risk	178 (12.0)	155(11.3)	23(22.8)		142 (11.7)	36 (13.7)	

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Stressful life events				0.048			0.001
No	749 (51.0)	708 (51.7)	41 (41.4)		641 (53.0)	108 (41.7)	
Yes	720 (49.0)	662 (48.3)	58 (58.6)		569 (47.0)	151 (58.3)	
General health of the child [a]				0.007			0.153
Good	1370 (92.2)	1283(92.7)	87 (85.3)		1135 (92.7)	235 (90.0)	
Poor	116 (7.8)	101 (7.3)	15 (14.7)		90 (7.3)	26 (10.0)	
Parental satisfaction of child's development [b]				<0.001			0.366
Yes	1380 (94.7)	1297(95.6)	83 (81.4)		1135 (94.9)	245 (93.5)	
No	78 (5.3)	59(4.4)	19 (18.6)		61 (5.1)	17 (6.5)	
Previous help-seeking				<0.001			<0.001
No	1208 (82.2)	1151 (83.9)	57 (58.8)		1039 (85.8)	169 (65.5)	
Yes	261 (17.8)	221 (16.1)	40 (41.2)		172 (14.2)	89 (34.5)	
Discussion of child socio-emotional development in the well-child visit				<0.001			<0.001
No	1196 (85.6)	1148 (88.0)	48 (52.2)		1017 (87.6)	179 (75.8)	
Yes	201 (14.4)	157 (12.0)	44 (47.8)		144 (12.4)	57 (24.2)	

Note: This table presents non-imputed data. The missing numbers of variables are parental age (n=11), child gender (n=10), child ethnic background (n=60), parental educational level (n=34), parental work status (n=46), family composition (n=29), BITSEA Problem scale score (n=17), BITSEA Competence scale score (n=29), stressful life events (n=38), general health of the child (n=21), parental satisfaction of child's development (n=49), previous help-seeking (n=38), and discussion of child socio-emotional development in the well-child visit (n=110).

Data presented as mean ± SD or number (percentage). Significant differences between two subgroups of help-seeking and non-help-seeking parents were evaluated at 0.05 level using independent T tests for continuous variables and χ2 tests for categorical variables.

a. General health of the child was measured by the 4-item subscale General Health of the Infant Toddler Quality of Life Questionnaire (47 items).

b. Parental satisfaction of child's development was measured by the 5-item subscale Satisfaction of Child's Development of the Infant Toddler Quality of Life Questionnaire (47 items).

Abbreviation: SD=standard deviation; BITSEA= Brief Infant–Toddler Social and Emotional Assessment.

The bold print indicates p <0.05.

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Supplementary Table S5. Multivariate logistic regression model on independent factors and help-seeking with complete data (n=1168)

Block Statistics	Model 1 Predisposing variables χ2 = 22.08		Model 2 Plus enabling variables χ2 = 14.11		Model 3 Plus need variables χ2 = 93.56	
	OR	95% CI	OR	95% CI	OR	95% CI
Predisposing Factors						
Child gender						
Boy	Ref		Ref		Ref	
Girl	0.86	0.65-1.14	0.86	0.65-1.14	0.93	0.69-1.25
Child ethnic background						
Dutch	Ref		Ref		Ref	
Other-western	1.51	0.90-2.54	1.45	0.86-2.44	1.51	0.87-2.63
Non-western	1.52	1.00-2.33	1.21	0.77-1.90	1.18	0.72-1.91
Parental age in year						
>=40	Ref		Ref		Ref	
30-39	1.67	0.97-2.88	1.72	0.99-2.96	1.51	0.86-2.65
=<29	2.87***	1.59-5.18	2.53**	1.39-4.59	2.23*	1.20-4.15
Enabling Factors						
Parental education level						
High			Ref		Ref	
Middle			1.27	0.93-1.73	1.24	0.89-1.71
Low			1.00	0.52-1.94	0.93	0.46-1.87
Parental work status						
Employed			Ref		Ref	
Unemployed			1.59*	1.11-2.27	1.32	0.90-1.95
Family composition						
Two-parent family			Ref		Ref	
Single-parent family			1.66	0.91-3.03	1.46	0.77-2.75
Need Factors						
BITSEA Problem scale score						
No risk					Ref	
At risk					0.96	0.51-1.81
BITSEA Competence scale score						
No risk					Ref	
At risk					1.35	0.85-2.14
Stressful life events						
No					Ref	

Yes	1.45*	1.07-1.96
General health of the child [a]		
Good	Ref	
Poor	1.25	0.73-2.14
Parental satisfaction of child's development [b]		
Yes	Ref	
No	1.58	0.81-3.09
Previous help-seeking		
No	Ref	
Yes	2.71***	1.90-3.88
Discussion of child social and emotional development in the well-child visit		
No	Ref	
Yes	2.67***	1.82-3.92

Model 1: The model with predisposing factors as independent variables.

Model 2: The model with predisposing and enabling factors as independent variables.

Model 3: The full model with predisposing, enabling, and need factors as independent variables.

a. General health of the child was measured by the 4-item subscale General Health of the Infant Toddler Quality of Life Questionnaire (47 items).

b. Parental satisfaction of child's development was measured by the 5-item subscale Satisfaction of Child's Development of the Infant Toddler Quality of Life Questionnaire (47 items).

Abbreviation: OR=Odds Ratio; CI=Confidence Interval; BITSEA= Brief Infant–Toddler Social and Emotional Assessment.

* p <0.05; ** p <0.01; *** p <0.001.

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Supplementary Table S6. Chi-square test for homogeneity of complete data and imputed data

	Complete data (n=1168) N(%)	Imputed data (n=1507) N(%)	*p* value
Predisposing Factors			
Child gender			
Boy	569 (48.7)	744 (49.4)	0.737
Girl	599 (51.3)	763 (50.6)	
Child ethnic background			
Dutch	959 (82.1)	1202(79.8)	0.260
Other-western	83 (7.1)	113 (7.5)	
Non-western	126 (10.8)	192 (12.7)	
Parental age in year			
>=40	123 (10.5)	167 (11.1)	0.899
30-39	825 (70.6)	1056 (70.1)	
=<29	220 (18.8)	284 (18.8)	
Enabling Factors			
Parental education level			
High	717 (61.4)	901 (59.8)	0.394
Middle	391 (33.5)	511 (33.9)	
Low	60 (5.1)	95 (6.3)	
Parental work status			
Employed	958 (82.0)	1227 (81.4)	0.690
Unemployed	210 (18.0)	280 (18.6)	
Family composition			
Two-parent family	1111 (95.1)	1407 (93.4)	0.055
Single-parent family	57 (4.9)	100 (6.6)	
Need Factors			
BITSEA Problem scale score			
No risk	1103 (94.4)	1411 (93.6)	0.385
At risk	65 (5.6)	96 (6.4)	
BITSEA Competence scale score			
No risk	1045 (89.5)	1318 (87.5)	0.108
At risk	123 (10.5)	189 (12.5)	
Stressful life events			
No	606 (51.9)	769 (51.0)	0.661
Yes	562(48.1)	738 (49.0)	
General health of the child [a]			
Good	1081 (92.6)	1390 (92.2)	0.761

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Poor	87 (7.4)	117 (7.8)	
Parental satisfaction of child's development [b]			
Yes	1112 (95.2)	1428 (94.6)	0.453
No	56 (4.8)	82 (5.4)	
Previous help-seeking			
No	971 (83.1)	1236 (82.0)	0.451
Yes	197 (16.9)	271 (18.0)	
Discussion of child social and emotional development in the well-child visit			
No	1010 (86.5)	1287 (85.4)	0.430
Yes	158 (13.5)	220 (14.6)	

a. General health of the child was measured by the 4-item subscale General Health of the Infant Toddler Quality of Life Questionnaire (47 items).

b. Parental satisfaction of child's development was measured by the 5-item subscale Satisfaction of Child's Development of the Infant Toddler Quality of Life Questionnaire (47 items).

Abbreviation: BITSEA= Brief Infant–Toddler Social and Emotional Assessment.

P values are based on the independent chi-square test for complete data and imputed data groups.