

# Indicators of socio-economic status associated with risk of psychosocial problems in 2-year-old children

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## Introduction

- **Psychosocial problems** among young children, especially infants (0-3 years), often go overlooked.
- **Socioeconomic status (SES)** is strongly associated with psychosocial health among children.
- The results of the association studies are inconsistent due to differential indicators of SES.

## Method

### SES indicators:

- Maternal educational level/ethnic background/work
  - Paternal ethnic background/educational level
- Risk of psychosocial problems:** Brief Infant-Toddler Social-Emotional Assessment (BITSEA)
- Problem subscale: risk of socio-emotional problems
  - Competence subscale: risk of competence delay

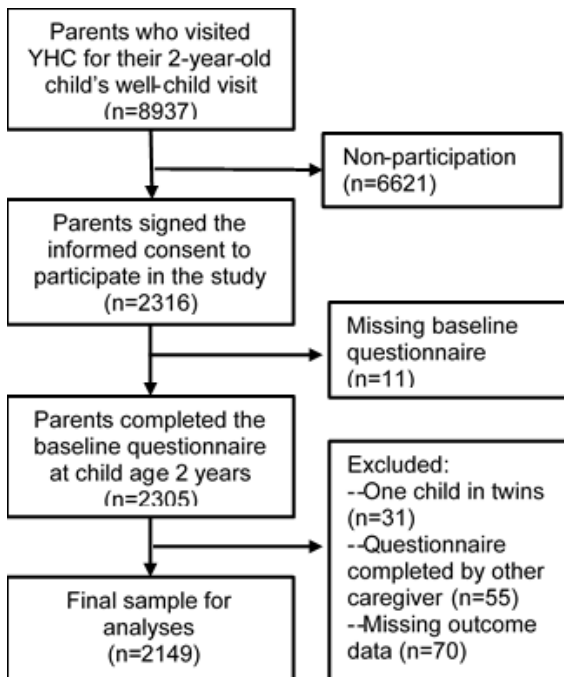


Figure 1. population for analysis

## Objective

This study aims to explore the association between a broad range of SES indicators and psychosocial problems among 2-year-old children in a general population.

## Results

	Total (n=2149)	At risk of psychosocial problems		P values
		No (n=1711)	Yes (n=438)	
<b>Family characteristics</b>				
Parental age in years [31]	33.2±5.3	33.1±5.1	33.3±6.0	0.477
Respondent of questionnaire				0.050
Mother	1902 (88.5)	1526 (89.2)	376 (85.8)	
Father	247 (11.5)	185 (10.8)	62 (14.2)	
Maternal educational level [58]				<0.001
High	1113 (53.2)	944 (56.4)*	169 (40.6)*	
Middle	796 (38.1)	605 (36.1)*	191 (45.9)*	
Low	182 (8.7)	126 (7.5)*	56 (13.5)*	
Paternal educational level [128]				<0.001
High	960 (47.5)	818 (50.3)*	142 (35.9)*	
Middle	788 (39.0)	613 (37.7)*	175 (44.2)*	
Low	273 (13.5)	194 (11.9)*	79 (19.9)*	
Maternal work status [329]				<0.001
Full-time	261 (14.3)	216 (14.7)	45 (12.7)	
Part-time	1136 (62.4)	950 (64.8)*	186 (52.7)*	
Unemployed	423 (23.2)	301 (20.5)*	122 (34.6)*	
Paternal work status [1917]				0.029
Full-time	177 (76.3)	135 (76.7)	42 (75.0)	
Part-time	32 (13.8)	28 (15.9)	4 (7.1)	
Unemployed	23 (9.9)	13 (7.4)*	10 (17.9)*	
Maternal ethnic background [84]				<0.001
Dutch	1401 (67.8)	1189 (71.9)	212 (51.6)	
Non-Dutch	664 (32.2)	465 (28.1)	199 (48.4)	
Paternal ethnic background [95]				<0.001
Dutch	1456 (70.9)	1225 (74.4)	231 (56.8)	
Non-Dutch	598 (29.1)	422 (25.6)	176 (43.2)	
Family composition [54]				<0.001
Two-parent household	1916 (91.5)	1557 (92.9)	359 (85.7)	
Single-parent household	179 (8.5)	119 (7.1)	60 (14.3)	
<b>Child characteristics</b>				
Age in months [13]	24.6±1.8	24.6±1.8	24.5±1.8	0.096
Gender [8]				<0.001
Girl	1072 (49.9)	913 (53.6)	159 (36.4)	
Boy	1069 (50.1)	791 (46.4)	278 (63.6)	
Previous care use [67]				<0.001
No	1656 (79.5)	1373 (82.4)	283 (68.2)	
Yes	426 (20.5)	294 (17.6)	132 (31.8)	

Table 1. characteristics

In total, 8.7% of 2149 children (age=24.6±1.8 months, 50.1% boys) were at risk of socio-emotional problems, and 13.8% were at risk of competence delay. The characteristics of population were shown in the Table 1.

The associations varied between maternal ethnic backgrounds (Dutch vs non-Dutch). The results of multivariate logistic regression were shown in the Table 2 within two subgroups.

	Dutch		Non-Dutch	
	risk of socio-emotional problems OR (95%CI)	risk of competence delay OR (95%CI)	risk of socio-emotional problems OR (95%CI)	risk of competence delay OR (95%CI)
<b>Maternal educational level</b>				
High	Ref	Ref	Ref	Ref
Middle	1.22 (0.73-2.04)	1.80 (1.20-2.71)**	0.55 (0.30-1.01)	1.32 (0.80-2.16)
Low	1.50 (0.62-3.58)	1.52 (1.25-5.06)*	1.03 (0.47-2.26)	1.12 (0.51-2.49)
<b>Paternal educational level</b>				
High	Ref	Ref	Ref	Ref
Middle	2.62 (1.44-4.76)**	1.17 (0.36-1.38)	1.70 (0.91-3.18)	0.87 (0.51-1.46)
Low	3.13 (1.48-6.60)**	0.71 (0.36-1.38)	1.85 (0.84-4.07)	1.22 (0.66-2.28)
<b>Maternal work status</b>				
Full-time	Ref	Ref	Ref	Ref
Part-time	2.22 (0.80-6.14)	0.93 (0.52-1.65)	1.51 (0.66-3.46)	0.86 (0.48-1.55)
Unemployed	2.50 (0.76-8.20)	1.27 (0.65-2.48)	1.84 (0.87-3.91)	1.30 (0.66-2.59)
<b>Paternal ethnic background</b>				
Dutch	Ref	Ref	Ref	Ref
Non-Dutch	1.17 (0.61-2.25)	0.97 (0.55-1.72)	2.24 (1.14-4.41)*	1.66 (1.04-2.65)*

Table 2. multivariate logistic regression models

## Conclusion

Parental educational level and parental ethnic background are associated with 2-year-old children's risk of psychosocial problems.

More research is needed into the mechanisms regarding the association between socioeconomic status and child psychosocial problems.



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