

National prevalence and sociodemographic determinants of social delay among children below 5 years old in Malaysia

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Introduction

Developmental delay occurs when a child does not achieve their expected development milestones compared to their same-age peers. A developmental delay in the social domain, is referred to as social delay. Children with social delays might face challenges in various areas as they grow up such as cognitive impairments, poor academic performance, relationship issues, isolation, behavioural disorders, or psychological issues in later life¹.

In Malaysia, the prevalence of social delay among children was 1.2%, as reported in the National Health and Morbidity Survey 2016². Knowledge on the updated prevalence of social delay and its underlying determinants is essential for gaining insight into the extent of the delay, as well as for developing targeted prevention strategies.

Objective

This study aims to describe the recent prevalence as well as sociodemographic determinants of children with social delay in Malaysia for the year 2022

Results

1. In 2022, the prevalence of social delay among children in Malaysia was 4.1%.
2. Social delay were found to be higher among boys.
3. By age group, social delay were seen higher among children aged 24 months and below:



Age 24-35 months
(unable to remove clothes independently)
(6.4%)



Age 36-47 months
(unable to put on clothing independently or engage in pretend play)
(5.1%)



Age 48-59 months
(unable to go to toilet independently or interact with other children)
(4.9%)

Table 1. Prevalence social delay among children aged 6-59 months, Malaysia, N = 15,238

Sociodemographic profile	Unweighted Count	Estimated Population	Prevalence (%)	95% Confidence Interval	
				Lower	Upper
MALAYSIA	636	86,159	4.1	3.51	4.69
Location					
Urban	450	60,563	4.0	3.37	4.74
Rural	186	25,597	4.2	3.20	5.53
Sex					
Boys	393	53,022	4.8	4.14	5.67
Girls	243	33,137	3.2	2.55	4.06
Age Group					
6 - 11 months	27	3,939	1.8	0.99	3.36
12-23 months	38	3,758	0.8	0.51	1.25
24-35 months	233	32,468	6.4	5.22	7.72
36-47 months	170	23,521	5.1	4.01	6.41
48-59 months	168	22,473	4.9	3.86	6.13
Ethnicity					
Malay	473	47,690	3.6	3.15	4.17
Chinese	40	15,422	5.2	3.32	8.19
Indian	24	3,489	3.6	2.04	6.25
Others	98	19,438	4.7	3.18	6.86
Citizenship					
Malaysian	612	78,750	4.0	3.48	4.64
Permanent resident or non-citizen	24	7,409	4.6	1.99	10.08
Household Income Group					
B40	489	64,131	3.9	3.34	4.63
M40	118	16,800	4.2	3.07	5.84
T20	23	4,375	5.1	2.37	10.48

Table 2. Multivariable logistic regression for factors associated with social delay among children aged 6 to 59 months in Malaysia, 2022

Sociodemographic profile	p-value	Adjusted odds ratio	95% Confidence Interval	
			Lower	Upper
Location				
Urban	0.696	0.936	0.672	1.304
Rural	Ref	-	-	-
Sex				
Boys	0.001	1.543	1.183	2.012
Girls	Ref	-	-	-
Age Group				
6 - 11 months	Ref	-	-	-
12-23 months	0.024	0.415	0.193	0.892
24-35 months	0.000	3.492	1.827	6.672
36-47 months	0.004	2.694	1.382	5.248
48-59 months	0.004	2.695	1.378	5.271
Ethnicity				
Malay	0.711	1.126	0.601	2.108
Chinese	0.180	1.625	0.799	3.303
Indian	Ref	-	-	-
Others	0.296	1.468	0.714	3.017
Citizenship				
Malaysian	0.947	0.968	0.376	2.494
Permanent resident or non-citizen	Ref	-	-	-
Household Income Group				
B40	Ref	-	-	-
M40	0.727	1.061	0.760	1.483
T20	0.596	1.234	0.566	2.690

Discussion

1. The increase in the prevalence of social delay among children in Malaysia, rising from 1.2% in 2016 to 4.2% in 2022, warrants serious attention from relevant stakeholders and authorities².
2. Immediate preventive actions to promote healthy social development in children must be taken without delay, to ensure the children's well-being and future success³.
3. Preventive strategies against social delay should be initiated before the children reach the age of 24 months, and must be continued the following years, while taking into account that children of Chinese ethnicity, children residing in households with high income levels (T20 income group), boys as well as children residing in rural area deserve greater attention.
4. A more comprehensive understanding can be attained through further research aimed at studying the contributing factors associated with the development of social delay among children in Malaysia.
5. This effort aligns with Sustainable Developmental Goals 4.2.1, which focuses on assessing the proportion of children under five years of age who are developmentally on track in terms of health, learning, and psychosocial well-being⁴.

Method

STUDY DESIGN

This was a cross-sectional study

DATA SOURCE

This study used data from National Health and Morbidity Survey (NHMS) 2022: Maternal & Child Health

SAMPLING DESIGN

The NHMS 2022 used a two-stage stratified random sampling design encompassing all states and federal territories in Malaysia

STUDY DURATION

Data collection for NHMS 2022 was conducted from August 9th to October 31st, 2022

STUDY SAMPLE

This study used data for children aged from six months to five years old

STUDY TOOL

Sociodemographic data were collected through a face-to-face interview with the children's guardians.

Social delay was assessed through developmental assessments conducted by trained nurses, based on the Denver Development Screening Chart, according to the child's chronological age.

Children exhibiting any deviation from their age-appropriate social development milestones were classified as having social delay.

ANALYSIS

Complex sample descriptive analysis and multiple logistic regression analysis were carried out using SPSS version 23 to get the prevalence and sociodemographic determinants for social delay.

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