

Maternal and Child Factors as Determinants for Stunting Among Under Five Children in Kuantan, Pahang

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Introduction: Stunting is the most prevalent form of malnutrition among the under 5 children population, both globally and locally. It refers to low height-for-age children. Prevention of stunting is critical before their growth status deteriorates further. The present data showed that 20% of Malaysian children were at risk for stunting. It is crucial to identify the maternal and child factors with the potential to be the determinants of this public health problem.

Aim: to determine the association of stunting with maternal and child factors among children aged 6 to 59 months old and their caregivers in Kuantan, Pahang.

METHODOLOGY

- ✓ **CASE-CONTROL STUDY**
- ✓ **Ratio:** 1 case: 3 control
- ✓ **Case:** 40 children aged 6 to 59 months diagnosed with stunting (low height-for-age)
- ✓ **Control:** 120 children with normal height-for-age
- ✓ **Where:** 7 purposely selected public health clinics in Kuantan district, Pahang
- ✓ **When:** August to October 2021
- ✓ **How:** using interviewer-guided questionnaire

RESULTS



With an increase of one kilogram in **birth weight**, there is **80.0% reduction** in the risk of becoming stunted (OR: 0.2 [95% CI 0.1-0.7], p-value: 0.009)



With an increase of one week in **delivery week**, there is **40.0% reduction** in the risk of becoming stunted (OR: 0.6 [95% CI 0.4-0.9], p-value: 0.035)



With an increase of one centimeter in **maternal height**, there is **11.0% reduction** in the risk of becoming stunted (OR: 0.89 [95% CI 0.82-0.98], p-value: 0.016)

Conclusion: Strategies to prevent childhood stunting must include improvement in maternal nutritional status and provision of early intervention from the antenatal period to prevent low birth weight as well as optimizing the delivery weeks. This study may offer an opportunity to review the current strategies, target the significant determinants which had been identified, and empower the community and healthcare providers for early identification and intervention to break the vicious cycle of stunting.

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Variables	Stunting					
	Yes, n=40 (mean ± SD)	No, n=120 (mean ± SD)	Crude OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value
Delivery week (week)	37.5 ± 1.4	38.3 ± 1.6	0.7 (0.6-0.9)	0.006	0.6 (0.4-0.9)	0.035*
Birth weight (kg)	2.6 ± 0.5	3.0 ± 0.5	0.2 (0.1-0.5)	<0.001	0.2 (0.1-0.7)	0.009*
Maternal height (cm)	151.0 ± 5.1	155.4 ± 5.9	0.9 (0.8-0.9)	<0.001	0.89 (0.82-0.98)	0.016*