



Relationship between Latrine Utilization and Stunting among Children under Five Years Old in Sotr Nikum Operational Health District (OD), Siem Reap Province, Cambodia

Kamsan Suon^{1,2}, Vannary Hun², Heng Sopheab¹, Chhorvann Chhea¹

1. School of Public Health, National Institute of Public Health, Cambodia
2. World Vision International, Cambodia

*Corresponding author: Suon K, Email: kimsan.suon77@gmail.com

Keywords: Latrine utilization, stunting, Sotr Nikum, relationship

Introduction

The prevalence of stunting, (how short children compared to their age) among children aged under 5 years in Siem Reap province is higher (36%), than the national average, while the latrine utilization in the rural areas is as low as about 40%. . The study objective is to access the relationship between the latrine utilization and stunting among children under 5 years old in the Sotr Nikum Operational Health District (OD), Siem Reap province, Cambodia.

Methods

Data from a community based cross-sectional study, conducted from the mid of November to December 2016 at the Sotr Nikum Operational Health District was used. A total of 602 mother-child paired was included in the analysis. Mothers who had children aged 0-59 months were selected from the updated census in the Sotr Nikum OD, conducted by WVI-C team. The mothers were interviewed using structure questionnaire, and children's anthropometry was measured. A forward stepwise selection multivariable logistic regression analysis was carried out to identify the relationship between latrine utilization and stunting among children under 5 at the time of the survey.

Results

Overall, 28.8% of the children were stunted and 61.1% of households had accessed to improved sanitation facility. There was no significant association between latrine use and stunting. However, child's gender and age, child with low birth weight (<2500 grams), and maternal dietary diversity food consumption at pregnancy were associated with the stunting. Boys were more likely to have higher

stunting than girls (AOR = 1.50, 95% CI: 1.01-2.23, $p=0.042$), children aged 6-23 months (AOR = 4.44, 95% CI: 1.29-15.30, $p=0.018$) and 24-59 months (AOR = 10.96, 95% CI: 3.22-37.21, $p<0.001$), children with low weight at birth (AOR = 3.47, 95% CI: 1.82-6.61, $p<0.001$), and maternal dietary diversity food consumption less than 4 food groups at pregnancy were found to be strongly associated with higher risk of stunting (AOR = 1.89, 95% CI: 1.08-3.33, $p=0.026$).

Conclusion

The study demonstrated that no relationship between latrine utilization and stunting among children aged under 5 years in Soutr Nikum OD, but there are significant association with stunting when being a male child, having lower birth weight, having older age and the maternal diversity food consumption less than 4 food groups. Further efforts to reduce the prevalence of stunting among children and increase the coverage of latrine utilization require a multi sectoral approaches. Moreover, additional research should be conducted to add the observation of latrine utilization among children.