

Sociodemographic and health care factors in determining immunization defaulters among preschool children in Petaling district, Selangor: a cross sectional study in Malaysia

ABSTRACT

Background: Immunization is an effective public health intervention to reduce morbidity and mortality among children and it will become more effective if the child can receive the full course of recommended immunization doses. The objective of this study was to determine the prevalence of childhood immunization defaulters and its associated factors among children below 5 years attending registered child care centers in Petaling District, Selangor. **Methods:** This was a cross-sectional survey among mothers with children below 5 years from 60 registered child care centers in District of Petaling, Selangor. Data was collected by a self-administered questionnaire from a total of 1015 mothers. Simple Logistic Regression, Chi-square or Fisher's exact test were performed to determine the association between individual categorical variables and childhood immunization defaulters. Multivariate logistic regression was used to determine the predictors of childhood immunization defaulters. **Results:** The study showed that the prevalence rate for defaulting immunization was 20.7%. After adjusting all confounders, six statistically significant predictors of childhood immunization defaulters were determined. They were non-Muslims (aOR = 1.669, 95% CI = 1.173, 2.377, $p = 0.004$), mothers with diploma and below educational background (aOR = 2.296, 95% CI = 1.460, 3.610, $p < 0.0001$), multiple children of 5 and above in a family (aOR = 2.656, 95% CI = 1.004, 7.029, $p = 0.040$), mothers with younger children aged 2 years and below (aOR = 1.700, 95% CI = 1.163, 2.486, $p = 0.006$), long travelling time of more than 30 min to the immunization health facility (aOR = 2.303, 95% CI = 1.474, 3.599, $p < 0.0001$) and had delayed at least one of the immunization schedule (aOR = 2.747, 95% CI = 1.918, 3.933, $p < 0.0001$). **Conclusion:** This study highlights the need of implementation of intervention programs should be intensified to improve the childhood immunization status, focusing on the Non-Muslim community, mothers with low educational level, mothers with multiple children and mothers with children aged 2 years and below. In light of the growing problem of immunization defaulters in Malaysian children, identifying mothers at risk of not completing their children immunization schedule and educating them is an important strategy to recurrent outbreaks of infectious disease in the country.

Keyword: Immunization; Defaulters; Prevalence; Malaysia