

A seven-year study of parental vaccine hesitancy in Pasir Mas district, Kelantan

Noor Nazli Din¹, Mohd Hazwan Baharuddin¹, Nur Dalilah Zin², Munira Hj Mahmud¹, Nik Aida Nik Adib¹, Nur Shuhaiza Supian¹, Najihah Mahfuzah Zakria¹

¹Pasir Mas District Health Office, Pasir Mas, Kelantan, Malaysia, ²Department of Community Medicine, School of Medical Sciences, Health Campus, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

ABSTRACT

Introduction: Despite extensive endeavours to promote and implement the National Immunization Programme, Malaysia is encountering a growing prevalence of parental vaccine hesitancy, leading to outbreaks of vaccine-preventable diseases. Similarly, Pasir Mas has also experienced a rise in parental vaccine hesitancy, ranking second highest in Kelantan over the past four years. This research aims to elucidate the epidemiology of parental vaccine hesitancy in Pasir Mas from 2016 to 2022 and examine the factors associated with the persistent parental vaccine hesitancy for childhood immunization. **Materials and Methods:** From 15th May 2023 to 31st May 2023, a cross-sectional study was undertaken by reviewing the vaccine refusal records in the database of the Pasir Mas Maternal and Child Health Unit between 2016 and 2022. The data was entered and analysed utilizing IBM SPSS version 26. The associations between factors were determined through Multiple Logistic Regression analysis. **Results:** A total of 97 instances of parental vaccine hesitancy were documented in Pasir Mas over the course of the past seven years. Among these parents, 32% had refused childhood immunization for more than one of their children. Consequently, 139 children faced delays or outright refusals of at least one childhood immunization, resulting in an incidence rate of 7.55 per 1000 live births. The highest number of parental vaccine hesitancy cases was observed at Health Clinic Rantau Panjang, accounting for 29.9% of the total cases. The average age of the parents was 29.8 years (SD 6.06), with most of them being unemployed (87.6%) and having completed up to secondary level education (74.2%). Most parents gave multiple reasons contributing to their vaccine hesitancy. The contributing reasons encompassed concerns related to the halal and haram status of vaccines (63%), worries about the safety of vaccine ingredients (23%), influence from family members or friends (19%), and fear of potential side effects (17%). Among the various reasons for vaccine hesitancy, only influence from family members or friends demonstrated a significant association with persistent parental vaccine hesitancy for subsequent children (AOR: 0.20, 95% CI 0.42-0.95, $p=0.042$), as revealed by the study findings. **Conclusion:** Parental vaccine hesitancy in Pasir Mas has shown an upward trend over the past seven years. The influence of family and friends has emerged as a key factor in shaping persistent parental vaccine hesitancy. These study findings can serve as an initial framework for devising health education strategies and interventions specifically targeted at high-risk groups of parents.