## Knowledge and attitude regarding childhood vaccination among nurses in Kota Bharu district, Kelantan

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## **ABSTRACT**

Introduction: It is vital to determine the level of knowledge and attitude of nurses regarding childhood vaccination to ensure the success of the national immunization program (NIP) in Malaysia amid the increasing trend of vaccine hesitancy and refusal by parents or quardians. Objective: The objective of this study is to determine the level of knowledge and attitude of nurses under the Kota Bharu District Health Office regarding childhood vaccination and its associated factors. Materials and Methods: This was a cross-sectional study conducted among nurses under Kota Bharu District Health Office using a proforma of sociodemographic and work-related factors and a Malay-validated Knowledge and Attitude regarding Childhood Vaccination (KACV) questionnaire. A total of 105 nurses consented to participate in this study. Multiple logistic regression was used to determine factors associated with knowledge and attitude regarding childhood vaccination using SPSS version 26.0. Results: The mean (SD) age of nurses was 44.57 (4.86) years old. The majority were female (99.0%), Malay (98.1%), married (92.4%), and diploma holders (94.3%). 63.8% were staff nurses. 17.1% had post-basic training in public health, whereas 23.8% had post-basic training in another field. The mean (SD) year in service was 19.94 (5.12). 95.2% were confident in giving information and advice about childhood vaccinations to the parents or guardians. About 82.9% had faced vaccine hesitancy and 81.0% had faced vaccine refusal by parents or quardians. Around 45.7% had a positive attitude regarding childhood vaccination, and 18.1% had high knowledge regarding childhood vaccination. There was no statistically significant association between knowledge and attitude. It was found that age (Adj. OR 1.126; 95% CI: 1.002, 1.266; p-value 0.046) had a significant association with knowledge when adjusted for post-basic training and years in service. However, there was no association found between sociodemographic and work-related factors with attitude. Conclusion: This study found a small percentage of nurses under the Kota Bharu District Health Office had high knowledge of childhood vaccination and an almost indifferent attitude regarding childhood vaccination. Age was found to have a significant relationship with knowledge. Hence, it is important to periodically refresh and update nurses' knowledge regarding vaccines and immunization programs. The objective, aim, and importance of NIP can be regularly stressed in an effort to increase nurses' positive attitudes regarding childhood vaccination. This study can be conducted nationally, utilizing qualitative methods to truly grasp nurses' knowledge and attitudes regarding childhood vaccination.