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in conjunction with

9TH MEDICAL RESEARCH SYMPOSIUM

ABSTRACT BOOK

INTEGRATING MISSION ORIENTED RESEARCH IN MEDICAL SCIENCES



WED & THU

11 & 12 SEPT 2024



TIME

8:00AM - 5:00PM



VENUE

AC HOTEL BY MARRIOTT
KUANTAN, PAHANG, MALAYSIA

S012

Development and Validation of a Questionnaire to Assess Healthcare Professionals' Attitudes Towards Antenatal Pertussis and Influenza Vaccinations in Malaysia

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Introduction: Despite the established benefits of antenatal pertussis and influenza vaccinations in protecting both mothers and their infants, uptake rates remain suboptimal in many regions, including Malaysia, where the government has yet to implement free antenatal vaccination programs. Understanding healthcare professionals' attitudes towards these vaccinations is crucial for addressing barriers and enhancing vaccination rates. This study aims to develop and validate a questionnaire to assess healthcare professionals' attitudes towards antenatal vaccination. **Materials and method:** The questionnaire items were developed based on an extensive review of the literature, vaccination guidelines, and expert suggestions. Content and face validity were assessed by nine and 30 reviewers, respectively. A pilot study was conducted with 196 respondents, and reliability, item-model fit, and the questionnaire's ability to discriminate between positive and negative attitudes were assessed using Rasch analysis. Principal component analysis (PCA) was performed using Rasch analysis and exploratory factor analysis (EFA) to evaluate the questionnaire's dimensionality. **Results:** The initial attitude questionnaire consisted of 11 items, with a person separation index of 1.77 (reliability 0.76) and an item separation index of 7.00 (reliability 0.98). After removing three items due to concerns over their fitness indices, the refined questionnaire included eight items with improved metrics: a person separation index of 2.10 (reliability 0.81) and an item separation index of 7.07 (reliability 0.98). The Kaiser-Meyer-Olkin (KMO) measure was 0.859, and Bartlett's test of sphericity yielded $\chi^2 = 917.60$, $p < 0.0001$. The final eight items accounted for more than 59% of the variance when PCA was performed using both Rasch analysis and EFA. **Conclusion:** The developed questionnaire is a reliable and valid tool for assessing healthcare professionals' attitudes towards antenatal pertussis and influenza vaccinations in Malaysia, as demonstrated by Rasch measurement model and EFA results.

Keywords: Attitude; antenatal vaccination; exploratory factor analysis; rasch analysis