

Development and validation of knowledge and attitude on COVID-19 infection and vaccination towards pregnancy questionnaire and validation of adult vaccine hesitancy scale among pregnant women

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ABSTRACT

Introduction: Pregnancy is one of the risks for severe COVID-19 infection and COVID-19 vaccination acceptance among pregnant women is still an issue. This study aims to develop and validate the knowledge and attitude questionnaire to examine the COVID-19 infection and vaccination among pregnant women. It is also to validate the adult Vaccine Hesitancy Scale (aVHS) to assess vaccine hesitancy among pregnant women in Malaysia. **Materials and Methods:** There were eight expert panels involved in content validity after the items for knowledge and attitude were identified. About 10 pregnant women were involved in the face validity followed by reliability testing involving 200 pregnant women attending at Obstetrics and Gynecology Clinic, Universiti Sains Malaysia, Kelantan. **Results:** The item-level content validity index (I-CVI) is 0.96 for knowledge and 0.99 for attitude while 1.00 for perception, demonstrating good relevance of the 20 items to assess knowledge and the 22 items used to assess attitude while 10 items used to assess perception. Item-level face validity index (I-FVI) obtained is 0.99 for knowledge, 0.98 for attitude and 0.99 for perception questionnaires, indicating that the items were clear and comprehensible. The final model of questionnaires consisted of 20 items, 19 items and 9 items for knowledge, attitude, and perception, respectively. The Cronbach alpha scores were 0.91, 0.70 and 0.93 for knowledge, attitude, and perception, respectively. **Conclusion:** This newly developed and validated Malay version of the questionnaires is a valid and reliable tool for assessing knowledge and attitude questionnaire to examine the COVID-19 infection and vaccination among pregnant women. The revised Adult Vaccine Hesitancy Scale (aVHS) for pregnant women in assessing COVID-19 vaccine hesitancy is a reliable tool to be used.