ORIGINAL ARTICLE

Knowledge and Acceptance of COVID-19 (SARS CoV2) Vaccination among Foundation students in a College in Kedah, Malaysia

Sook-Ching Chan, Muhamad Shahril Aiman Azrizal, Ahmad Haziq Danial Ahmad Kamal Ariffin, Muhammad Ilham Fahmi Mohd Zukri, Muhammad Arees Mohamed Anwar, Abu Ubaidah Amir Muhamad Sharman, Muhammad Afif Shah Mohammad Aziz Shah

Community Based Department, Faculty of Medicine, Universiti Kuala Lumpur Royal College of Medicine Perak, 3, Jalan Greentown, 30450 Ipoh, Perak, Malaysia.

ABSTRACT

Introduction: To combat the COVID-19 pandemic, Malaysia started vaccination of front-liners and adults in the community. The latter group might have insufficient knowledge to accept COVID-19 vaccination, therefore this research was to assess the knowledge and acceptance of COVID-19 vaccination among youths, specifically students in a Malaysian college. **Methods:** A cross-sectional study was conducted among 481 foundation students in Kolej MARA Kulim (KMKU). The minimum sample size, using Epi Info was 214. Students answered an online questionnaire using google form which included demographic data (age, gender) and ten questions on knowledge and acceptance of COVID-19 vaccination. For knowledge questions, students answered "yes", "no" or "don't know", correct answer scoring 1. For acceptance questions, a 5-point Likert scale was used ranging from "strongly disagree" to "strongly agree". EXCEL and SPSS version 23 were used for analysis with Chi-square test done to test association (significant for p-value <0.05). **Results:** The response rate was 65.1% with 313 students, (45.4% males, and 54.6% females) aged 18-19 years. The majority (83.7%) had satisfactory to excellent knowledge scores (mean = 6.66 (SD=2.299, 95% CI 6.40-6.91), median = 7 (± IQR =3), while 16.3% obtained poor scores (≤ 4). The majority (90%) accepted vaccination. Higher knowledge scores were associated with higher acceptance rates in both genders (p-value= 0.000). Significantly more females (90.6%) than males (80.3%) had positive attitude towards vaccination (p-value = 0.009). **Conclusions:** The majority of the foundation students in KMKU were knowledgeable on COVID-19 vaccination and willing to receive the vaccination against the novel coronavirus.
Malaysian Journal of Medicine and Health Sciences (2022) 18(5): 79-85. doi:10.47836/mjmhs18.5.12

Keywords: Knowledge, Acceptance, COVID-19, Vaccination, College youth

Corresponding Author:
Chan Sook Ching, FRACGP
Email: drscchan@gmail.com, scchan@unikl.edu.my
Tel: +6017 5780089

INTRODUCTION

In December 2019, a new virus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) appeared in Wuhan, China (1). This novel coronavirus caused coronavirus disease 2019 (COVID-19) which quickly spread across other continents. The World Health Organisation (WHO) declared a pandemic in March 2020 (2). Although it has been over a year since the first outbreak, the virus shows no signs of slowing down in infecting more individuals. However, there is a hope of controlling the pandemic through mass vaccinations to achieve herd immunity (3).

At least 23 million lives were saved through vaccination against infectious diseases between 2011 and 2020 (4). Developing a vaccine requires multiple stages of trials before finally deemed safe and applicable for public use and to avoid serious adverse reactions (5). Today, newer vaccine-producing technologies are developed to deliver the best outcome with fewer adverse effects. Examples include viral vector-based vaccines and nucleic acid vaccines using plasmid DNA or RNA encoding antigens, such as messenger RNA or viral replicons (6). Vaccines provide personal protection for those who are vaccinated and protect communities by reducing the spread of diseases among the population (7).

Nevertheless, while the insertion of antigenic properties into the host system is vital to produce the much-needed immunity against pathogens, some individuals doubt these methods. Hence, they reject the idea of vaccination. In the past, the Malaysian Ministry of Health conducted many programmes including health talks and