

RESEARCH

Open Access

A survey on COVID-19 vaccine acceptance and concern among Malaysians



S. A. R. Syed Alwi*, E. Rafidah, A. Zurraini, O. Juslina, I. B. Brohi and S. Lukas

Abstract

Background: Vaccination is an effective way to curtail the burden of COVID-19 in which success depends on a high acceptance of the vaccine. However, addressing concerns among vaccine-hesitant individuals is essential to avoid failure of the immunisation programme. This study sought to assess the concerns and acceptance rates regarding the COVID-19 vaccine among Malaysians.

Methods: An online questionnaire was distributed to 1411 respondents via a snowball sampling method among Malaysians aged 18 years and above.

Results: The majority of the respondents were young adults (40.7%), female (62.8%), Malay (63.8%), Muslim (72.3%), married (52.9%), with tertiary education (86.8%) and without medical illness (85%). Social media (97.4%) was the primary source of information regarding COVID-19. The overall acceptance rate was high (83.3%), with the lowest rates among the elderly aged 60 years and above (63.4%) and pensioners (64.6%). Hesitance was caused by concerns regarding side effects (95.8%), safety (84.7%), lack of information (80.9%), effectiveness (63.6%) and religious (20.8%) and cultural factors related to the COVID-19 vaccine (6.8%). Respondents with diabetes mellitus (24.7%) and hypercholesterolemia (23%) were more hesitant to accept the COVID-19 vaccine, at 16.1 and 15.8%, respectively. Predictors of COVID-19 vaccine hesitance were age, religion, and current residence.

Conclusions: The results indicate a high rate of acceptance of the COVID-19 vaccine among Malaysians. Thus, the Malaysian government and other related agencies should increase their campaign and prepare to implement the COVID-19 mass immunisation programme among Malaysians. However, despite the high acceptance rate, it remains important to address concerns among hesitant individuals by building trust in vaccine safety and effectiveness through adequate information regarding the vaccine.

Keywords: COVID-19, Vaccine, Acceptance, Concern

Background

The COVID-19 pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has infected more than 108 million people in over 150 countries. In Malaysia, as of February 15, 2021, more than 261,805 confirmed cases with 958 deaths had been reported [1, 2]. The pandemic continues to threaten the healthcare system with catastrophic

economic, education, and social consequences worldwide [3, 4].

Currently, no curative treatment exists for COVID-19 infection [5–7]. Therefore, a safe and effective prophylactic vaccine is urgently needed to contain the pandemic, which has had devastating medical, economic, and social repercussions [8]. To date, several vaccines have been developed and approved for emergency immunisation [9–11]. This has given a glimpse of hope for preventing the spread of COVID-19 infection. Countries and governments worldwide have spent billions of dollars in preparing to immunise the population of their

* Correspondence: sarsalwi@unimas.my

Department of Family Medicine, Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia



© The Author(s). 2021 **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.