

## The correlation between educational level and acceptance of booster vaccination information using satire memes on Instagram

Valva Alifia Mufida <sup>1,\*</sup> and Happy Kusuma Mulya <sup>1,2</sup>

<sup>1</sup> Department of Epidemiology, Population Biostatistic, and Health Promotion, Faculty of Public Health, Airlangga University, Surabaya, Indonesia.

<sup>2</sup> Department of Medical Sciences, Faculty of Medicine, Udayana University, Bali, Indonesia.

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### Abstract

Vaccination for Covid-19 is one way to prevent transmission of Covid-19. The government encourages the public to carry out primary and booster vaccination doses. However, many people are hesitant to get vaccinated. This condition was used by several parties to convey education about Covid-19 booster vaccination to society through various media, including satirical memes. The research aimed to find out the correlation between educational level and acceptance of booster vaccination information using satirical memes on Instagram. It is a quantitative research using a cross-sectional design with a sample of 111 people. Data collection using a questionnaire. Data analysis was carried out using Univariate and Bivariate methods. The results showed no correlation between education level and acceptance of information on the Covid-19 booster vaccination through satirical memes on Instagram with  $p = 0.75$  ( $p > 0.05$ ). Satire memes can be an alternative promotional medium for the Covid-19 booster vaccination because it is likely to be accepted by all groups, regardless of education level.

**Keywords:** Covid-19; Booster Vaccination; Satire Memes; Information; Instagram

### 1. Introduction

Covid-19 is a disease that infects the upper gastrointestinal and respiratory tract caused by SARS CoV2 (Severe Acute Respiratory Syndrome Coronavirus 2). It may be transmitted through the air. Therefore, it spreads rapidly among those in close contact [1,2]. By Presidential Decree No. 12 of 2020, the Indonesian government labelled Covid-19 a national catastrophe, so the response is carried out by a particular group, namely "Gugus Tugas Percepatan Penanganan Covid-19" [3]. Since March 31 2021, Covid-19 has been proclaimed a pandemic in Indonesia, so the government has taken several actions to avert the infection of Covid-19, such as the 5M program (wearing masks, washing hands, staying away from crowds, maintaining distance, and reducing mobility), launching the application "Peduli Lindungi" for monitoring health protocols in the community and accelerating the Covid-19 vaccination so that herd immunity can be achieved quickly [4]. Vaccination in Indonesia is carried out in stages, starting from dose 1, dose 2, first booster, and second booster. Data from the Indonesian Ministry of Health shows that the total number of people who got the first dose of vaccination was 86.88%, 74.55% had received the second dose of vaccination, 38.15% of the first booster vaccination, and 1.95% of the second booster. Vaccination. Based on these data, the target of 70% public getting the complete primary dose has been met, but the target of 50% public getting booster vaccinations has yet to be achieved. Therefore, the government encourages people to complete vaccination doses [5, 6].

Several factors affect the community's approval of the Covid-19 booster vaccination, including socioeconomic factors (income, education level, health insurance coverage, employment) and public trust [7]. The community has a role in receiving the co-19 booster vaccination, so efforts from various parties are needed to reduce people's doubts about

\* Corresponding author: Valva Alifia Mufida

getting vaccinated [7, 8]. Public doubts are generally caused by vaccine safety (65.2%), vaccine quality (42.3%), and vaccine efficacy (37.7%), as well as mild post-immunization adverse events (KIPI), such as pain, swelling, fever, and fatigue, to severe KIPI which can cause death [9]. It happens because there are many hoax news related to the dangers and side effects of vaccines that some people believe [10]. Therefore, health promotion efforts are needed to disseminate information regarding the benefits of booster vaccines.

Information about Covid 19 booster vaccination is essential for the community because it is used to make decisions regarding participation in vaccination. Delivering messages or information to the public requires suitable media for effective communication [11]. Good health media can provide health information according to the target level so that people become aware, willing, and able to change their behaviour according to the message conveyed [11]. The Covid-19 vaccination has been promoted through various media, such as billboards, banners, and public service advertisements (ILM) in the form of videos, posters and other audio-visual documents on the Internet [12]. Currently, the communication media used is experiencing a shift and is starting to be replaced by online media, as evidenced by the way the promotion of the Covid-19 vaccination is the most popular and effective for conveying messages is audio-visual content via social media [11, 12].

The existence of social media makes it easier for someone to obtain health information quickly and updated because the reach of social media is expansive [11]. One type of social media that is popular among Indonesian people is Instagram. Instagram is one social media that can share audio-visual content with 89.15 million active users in Indonesia [13]. Instagram is often used to publish information about the Covid-19 pandemic in pictures, videos, music and text posts [14]. On Instagram, you can often find satirical posts like memes discussing political, social and health issues, including Covid-19. Satirical content is an art that shows deficiencies in human behaviour in a satirical, entertaining style and reaches a broad audience. Satirical content also conveys something that means the opposite and attracts people's attention to receive information in that content [14, 15]. Sending satires is considered adequate for giving messages during crisis conditions. During the Covid-19 pandemic, satirical content became a medium to educate the public and make people aware of the spread of the virus[15].

## 2. Material and methods

This study employs a cross-sectional research approach and is quantitative. The study was carried out in July–August 2022. The general public, aged 17 to 64, who are prepared to see the satirical memes displayed in the questionnaire and are not actively enrolled in school or employed in the health field, made up the population of this research. The sampling method employed was purposive sampling, and the sample contained 111 respondents. The study was carried out to see the correlation between educational level and acceptance of information related to booster vaccination using satire memes on Instagram. The data was collected through a questionnaire with closed-end questions and was created independently by researchers. This research questionnaire has a validity value of 0.83 and a reliability of 0.60. Data analysis was carried out using univariate and bivariate.

## 3. Results and discussion

### 3.1. Univariate Analysis

Data on respondents' educational level and acceptance of booster vaccination information through satirical memes on Instagram were described using univariate analysis. The data are described in terms of percentage and frequency distribution.

**Table 1** Distribution of Covid-19 history among respondents

Educational level	Frequency (n)	Percentage (%)
Intermediate (SMP/SMA)	20	18
High (Diploma/Bachelor/Master)	91	82
Total	111	100

Based on Table 1, the education level of the respondents is divided into two categories: intermediate and high. The results indicate that of the 111 respondents, the majority had higher education (Diploma/Bachelor/Master), namely 91 respondents (82%) and 20 other respondents (18%) had intermediate education (SMP/SMA). The level of education is one aspect of social determinants that need to be considered in implementing health communication or receiving health

information. The story of education can be used in determining the media for delivering health information and formulating health information to be conveyed [16]. The research results in Table 1 show that, in general, the number of respondents with higher education is greater than that of respondents with intermediate education. The level of education can affect the acceptance of health information, which includes the way of thinking or how to view a person's new information received. The more education a person has, the simpler it is for them to absorb, comprehend, process, and apply the knowledge they have attained [11].

**Table 2** Distribution of acceptance booster vaccination information using satire memes on Instagram

Acceptance Information	Frequency (n)	Percentage (%)
Yes	70	63.1
No	41	36.9
Total	111	100

Health promotion media is essential in disseminating health information to the public, making the messages conveyed more exciting and easy to understand [11]. Over time, health promotion media are increasingly varied and innovative; one example is using satirical memes on Instagram. Table 2 shows respondents received booster vaccination information using satirical memes on Instagram for respondents divided into three categories. Based on the data, there are 70 respondents (63.1%) agreed that information about booster vaccination programs using satire memes on Instagram could be well accepted, and 41 other respondents (36.9%) stated that the information is not acceptable. The research results in Table 2 show that most respondents agree that booster vaccination information using satire meme media on Instagram can be well received. Satire memes have an excellent opportunity to become alternative media for promoting the Covid-19 booster vaccination; several satirical memes on Instagram that are often discussed during the Covid-19 pandemic, including the allusion to reducing mobilization by staying at home, the satire to order people who have not vaccines to get the Covid-19 vaccine immediately, etc. [17]. Dissemination of information via Instagram or social media has the advantage of being easily accessible and can be disseminated quickly with a broad reach [11].

### 3.2. Bivariate Analysis

Bivariate analysis was utilized to describe the correlation between educational level and acceptance of booster vaccination information through satire memes on Instagram. The Chi-square test is used in the bivariate analysis; when the test conditions are not met, cell compression/merging is carried out so that the table becomes 2x2 to determine the p-value.

**Table 3** Analysis of the correlation between educational level and acceptance of booster vaccination information using satire memes on Instagram

Educational Level	Acceptance of Booster Vaccination Information					
	No		Yes		Total	
	<i>f</i>	%	<i>f</i>	%	$\Sigma$	%
Intermediate	6	30	14	70	20	100
High	35	38.5	56	57.4	91	100
Total	41	36.9	70	63.1	111	100
<i>Chi-Square</i> $p = 0.478$						

Table 3 shows that most higher-educated respondents have a good acceptance of booster vaccination information through satirical memes on Instagram, namely 56 people (57.4%). The chi-square test results revealed a p-value = 0.478 ( $p > 0.05$ ), which means that  $H_0$  is accepted, so there is no correlation between the education level of the respondents and acceptance of booster vaccination information through satirical memes on Instagram. The results of this research differ from a study [18], which concluded that there is a correlation between educational level and participation in the Covid-19 booster vaccination program.

This proves that a person's level of knowledge is not only obtained from formal education, but technological advances also influence a person to obtain information wherever and whenever so formal education is not always a factor related

to receiving information on the disarmament of the Covid-19 booster through satirical memes on Instagram. This is thought to be one of the reasons for receiving booster immunization program information through satirical memes on Instagram at the secondary education level, reaching 36.9%, meaning that even though people have a middle level of education, they show good acceptance of booster increase information through satirical memes on Instagram. People with middle educational levels accept health promotion content using satirical memes, and most likely, they are aware of the importance of booster vaccinations.

Therefore, with this research, booster vaccination information through satirical memes on Instagram can be accepted or rejected by anyone regardless of their level of education. A study [17] states that satirical memes are highly likely to be used as an alternative media for the promotion of the Covid-19 booster vaccination, and the information conveyed through meme satire can be well received by respondents.

#### 4. Conclusion

There is no correlation between education level and receiving booster vaccination information through satirical memes on Instagram, with  $p\text{-value} = 0.478$  ( $p > 0.05$ ). Suggestion: memes can be considered an alternative promotional medium for promoting and disseminating information about Covid-19 booster vaccination because it can likely be accepted by all groups regardless of education level.

#### Compliance with ethical standards

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##### *Disclosure of conflict of interest*

The authors state that there is no conflict of interest.

##### *Statement of informed consent*

All samples in this study have stated their consent to be used as samples by signing an informed consent.

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