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To Vaccinate or Not? Perceived Benefits and Social Media Exposure as Predictors of COVID-19 Booster Jab Vaccination Practices with Self-Efficacy as Moderator

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ABSTRACT

Vaccination acceptance and its rates among Malaysians have generally been shown to be high during the COVID-19 pandemic; however, statistics from the Ministry of Health Malaysia show that the uptake for booster jab vaccination among Malaysians is significantly lower than the rate of uptake when the first dose of vaccinations was offered. Thus, this study examined the perceived benefits and social media exposure of booster jab vaccination practices among Malaysians, moderated by self-efficacy. The study used the Stimulus-Response model as a theoretical basis. A quantitative method was applied by conducting an online survey and gathering 300 valid data. The study employed a non-probability sampling procedure that combined purposive and convenience samplings. The data was analysed using the structural equation modelling via Partial Least Square Structural Equation Modelling (PLS-SEM). The results affirmed that perceived benefits and exposure to social media have a positive and significant relationship with booster jab practices. Meanwhile, the moderating role of self-efficacy established a negative relationship between perceived benefits and booster jab practices, and self-efficacy does not moderate the path between social media exposure and booster jab practices. The research findings provide an opportunity for more comprehensive educational programmes that focus on consistency in providing the public with adequate knowledge and communicating consistent health messages to curb the spread of the COVID-19 virus. Conclusion, implications, and future research pathways are also discussed.

Keywords: perceived benefits, social media exposure, self-efficacy, booster jab practices, public health communication

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Introduction

The effects of COVID-19 are impacting worldwide which urged for the booster jab vaccinations to subside the severe virus's effects (Fabiani et al., 2022; C. Y. Wong et al., 2023). The virus has affected many people worldwide, leading to the urgent requirement to produce effective vaccines. Vaccine acceptance and vaccination rates among Malaysians have generally shown to be high during the

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COVID-19 pandemic (Lau et al., 2021; Mohamed et al., 2021). A study by Syed Alwi et al. (2021), which was done when vaccines were first made available in Malaysia, found an overall acceptance rate of 83.3%, and one of the factors that contributed to the high acceptance rate of vaccine information was the exposure of social media.

For instance, in 2022, nearly 85.0% of Malaysians received at least a dose of COVID-19 vaccine (Ministry of Health Malaysia, 2022). However, recent studies have indicated that the protection of the COVID-19 vaccines wanes over time (Krause et al., 2021; Mbaeyi et al., 2021). Although the number of Malaysians who have received at least a dose of a vaccine is almost 85.0%, the percentage of those who have received two doses is around 79% (Ministry of Health Malaysia, 2022). This trend shows that the vaccine uptake is dropping for subsequent doses. In 2022, although booster jab vaccination had been offered for more than six months, less than half of Malaysians received a booster jab vaccination during that period (Ministry of Health Malaysia, 2022). The rate was significantly lower than the uptake rate in the first six months when the first dose of vaccinations had been offered.

Studies indicated that the COVID-19 virus mutates regularly and the new variants are generally less susceptible, since the power of vaccines is waning (Mbaeyi et al., 2021), due to the discovery of the Omicron variant. These issues have led to the recommendation for booster jab vaccination by international bodies such as the World Health Organisation (Krause et al., 2021; Mbaeyi et al., 2021). However, the uptake for booster jab vaccination will likely be lower than for the initial vaccines due to COVID-19 fatigue and other factors (Stamm et al., 2023).

While doubts about vaccines have existed since vaccinations were invented, the last decade has seen a significant rise due to continued debate over the safety and efficacy of vaccines on social media (Cooper et al., 2018). Thus, social media has turbo-charged the spread of information, and it has become significantly easier for those with beneficial vaccination sentiments to reach and influence others; as urged by Syed Alwi et al. (2021), the acceptance rate of vaccine is high even though the primary source of vaccine information for most of the respondents was through the exposure of social media. People's opinions and readiness to take the COVID-19 immunisation were significantly influenced by their social media exposure, where people who depended on new media to learn about the outbreak were more inclined than others who depended on conventional media.

In addition, previous research carried out by Banerjee et al. (2021) confirmed that many people are drawn to getting vaccinated against COVID-19 because of the expectation that the vaccine will be highly effective in precluding significant suffering and consequences from the disease, and the belief that if persons get vaccinated against COVID-19, their chances of becoming infected with the ailment or infecting others will be reduced. Thus, perceived benefits are an important construct to be included.

Besides, several past studies have indicated that self-efficacy is an important variable influencing the willingness to take the vaccine (Borah et al., 2023; Davis et al., 2022; Wu & Chiang, 2023). Davis et al. (2022) highlighted that providing information about the safety and efficacy of the COVID-19 vaccines increases vaccination intentions compared to those without information. In other words, citizens with high self-efficacy about COVID-19 will intend to get the vaccination compared to those with low self-efficacy (Sifai et al., 2022). Thus, self-efficacy plays a significant moderating effect in the study. Therefore, the current study aims to test the perceived benefits and exposure of social media as predictors of booster jab vaccination practices among Malaysian citizens, moderated by self-efficacy.

Literature Review

Theoretical Foundation: Stimulus-Response Model

This study applied the Stimulus-Response (S-R) model to explain the framework. The stimulus-response model studies how certain stimuli can contribute to the foundation of certain responses, mostly by predicting the response. The model is most likely related to 'classical conditioning' where the relationship is between the two interactions on how one action from one subject creates an appropriate justification that leads to an action from another subject (Cook et al., 2011; L. Zhang et al., 2019).

In COVID-19-related studies, numerous studies applied the SR and stimulus-organism-response (S-O-R) models (Mladenović et al., 2023; Zhan et al., 2023). Thus, the application of the S-R or S-O-R model is warranted in this study. Based on the notion, therefore, in this study, the stimulus is the perceived benefits and social media exposure, and the response is the practice of booster jab vaccination.

Booster Jab Vaccination Practices in Malaysia

Vaccination practices refer to the plan, willingness, or likelihood that an individual will take a vaccine (Al-Amer et al., 2022). It is a type of behavioural practice. Behavioural practices are largely regarded as the immediate determinants of actual behaviours and strongly predict individuals' actions (Hasan et al., 2020). Booster jab vaccination practices refer to the willingness to take periodic additional jabs to prime immunity after the initial vaccination (Rzymski et al., 2021).

Vaccination practices have been a subject of significant research interest due to the rise of vaccine hesitancy. It has been researched in Malaysia, with most studies focusing on the factors affecting the practices (Hamdan et al., 2024; Lau et al., 2021; Mohamed et al., 2021; L. P. Wong et al., 2021). In Malaysia, the study conducted by Khoo et al. (2024) found that COVID-19 booster vaccination rates among Malaysians are below 50%, which urged proactive health intervention programmes (e.g. health awareness campaigns) to highlight the severity of COVID-19 and encourage the COVID-19 booster dose vaccination. Besides, Lee et al. (2023) also found that Malaysians are willing to take COVID-19 booster doses because they believe the vaccine can reduce the risk of getting the infection. These findings are congruent with the study of L. P. Wong et al. (2022), which found that fewer concerns about the side effects of COVID-19 booster vaccination encourage the willingness to take the booster vaccination in the Malaysian context.

Hypotheses Development

According to Huynh et al. (2021), perceived benefits refer to the positive consequences of undertaking health-related actions (e.g. seeking treatment or vaccination). Thus, in this context, perceived benefits refer to the belief that the COVID-19 vaccination will reduce the risks of the virus (Zampetakis & Melas, 2021). Besides, Hidayana et al. (2022) found that perceived higher benefits of COVID-19 significantly predict vaccination intention. This finding is also aligned with numerous literature (Berger et al., 2023; Man et al., 2023; L. Shmueli, 2021; Wu & Chiang, 2023), which showed that perceived benefits significantly impact the decision on willingness to take COVID-19 vaccination. The indications in the extant literature thus support the following hypothesis:

H1: Perceived benefits will have a positive relationship with the booster jab vaccination practices.

Social media exposure refers to the regularity of utilising social media. Social media exposure can be expected to affect behavioural practices (Pahnila et al., 2011). Social media exposure has been included in this study because of the prevalence of vaccine misinformation and anti-vaccination sentiments (Ahmed et al., 2022; Q. Zhang et al., 2023). In this context, it is expected that those who use social media frequently are more likely to be exposed to the benefits of vaccination and be willing to take the vaccines. The linkage between social media exposure and booster jab vaccination practices or vaccine hesitancy has been empirically explored, and the studies generally found a significant relationship (Cascini et al., 2022; Puri et al., 2020; Suhaimi et al., 2023; Xin et al., 2021). The indications in the extant literature postulated the below hypothesis:

H2: Social media exposure will have a positive relationship with the booster jab vaccination practices.

Self-efficacy can be defined as a person's subjective view of their ability to successfully undertake a given action (Huynh et al., 2021). It is a significant factor in health behaviour because people have varying views of their ability to follow through with long-term treatments or make significant changes to their behaviours (Sherman et al., 2021). For instance, diabetics, those who view themselves as capable of sticking to prescribed diets, are more likely to undertake the changes needed to comply with healthy living compared to those who view it as simply too hard for them. Self-efficacy also affects the uptake of COVID-19 vaccines. Empirical research studies have shown that self-efficacy has a positive and statistically significant effect on the booster jab vaccination practices for COVID-19 (Davis et al.,

2022; Erawan et al., 2021; Guidry et al., 2021; Huynh et al., 2021; Sherman et al., 2021). In addition, Hu et al. (2022) found that self-efficacy is the significant moderator between health belief model attributes and vaccine intentions. This further supports the notion that those with high self-efficacy about COVID-19 will intend to get the vaccination compared to those with low self-efficacy (Sifai et al., 2022). The findings of the study provide the basis for the hypothesis:

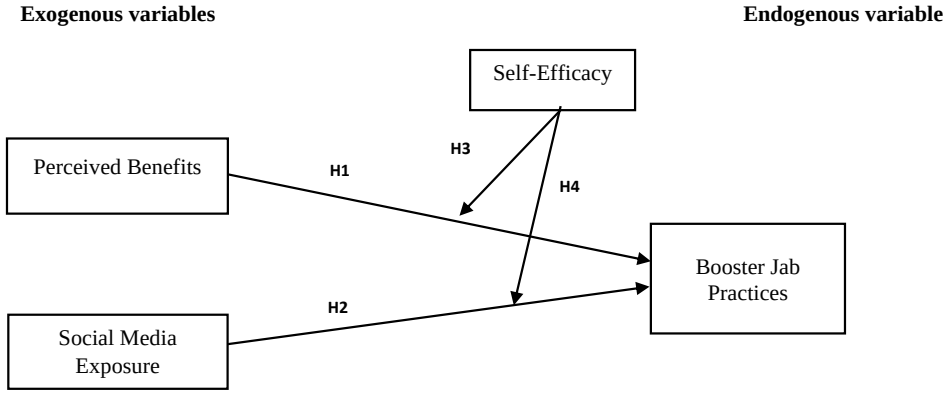
H3: The relationship between perceived benefits and booster jab vaccination practices will be strengthened when self-efficacy is high.

In addition, Xin et al. (2021) found that frequent exposure to social media and interpersonal discussions had a favourable influence on vaccination intention, and they found that vaccine efficacy can strengthen the effects of social media exposure and interpersonal discussions. Besides, as Gao et al. (2022) urged, social video platforms serve an active role in vaccination promotion among youth. This is further supported by the work of Davis et al. (2022) on COVID-19 vaccine efficacy, which resulted in a higher rate of vaccination intentions. Thus, the intention to get a booster jab will increase with high self-efficacy. Therefore, the hypothesis postulated that:

H4: The relationship between social media exposure and booster jab vaccination practices will be strengthened when self-efficacy is high.

Figure 1

Conceptual framework



Methods

Research Design

The research applied a cross-sectional survey design using the quantitative methodology. The cross-sectional survey approach is helpful because it allows data to be obtained rapidly and efficiently from a large sample. This design is also useful in testing the relationship between variables (Siedlecki, 2020). This research utilised quantitative methods, collecting statistical data and conducting a questionnaire survey to determine the research outcome.

Sampling Procedure

The study samples were collected via the non-probability sampling technique that combined purposive and convenience samplings. The study used the purposive sampling technique, which allowed the researchers to select samples based on certain criteria (Campbell et al., 2020). The sample of this study consists of Malaysian citizens who have received at least the first jab of COVID-19 vaccination as a criterion before the response can be considered valid, followed by convenience sampling. Researchers utilised the G-power analysis to find the designated sample, as the sampling frame of the study was not secured. With reference to the power analysis (Predictors: 5, effect size: 0.15, power: 0.95), the minimum sample required is 138. The current study has 300 respondents; hence, the sample is adequate.

Measurement

Section A consists of demographic information. There are 11 questions, and all are close-ended questions. The questions in this section include: age, gender, nationality, race, education level, income, have you contracted COVID-19 before, have you received the first jab of the COVID-19 vaccine, how often do you use social media, and how often do you receive the COVID-19 related news/information on social media.

Section B contains items related to the respondents' perceptions regarding the perceived benefits, which have been adapted from (Guidry et al., 2021; Sherman et al., 2021). Section C contains five items related to exposure to social media adapted from Erawan et al. (2021) and Puri et al. (2020). Section D contains information related to the booster jab vaccination practices, which was adapted from Mohamed et al. (2021) and Rzymski et al. (2021), and Section E focuses on the items of self-efficacy, which were adapted from Erawan et al. (2021) and Huynh et al. (2021). The variable was measured using a 5-point Likert-type scale, ranging from 1 = strongly disagree to 5 = strongly agree.

Data Collection

The questionnaire was distributed online through a Google Form link so that the respondents could answer the survey. The questionnaire was distributed until the target sample size was reached. The reason for using online surveys is that face-to-face distribution was not encouraged amid the COVID-19 pandemic. The research promised the respondents anonymity and confidentiality. The data was collected from 23 March 2022 – 27 March 2022, approximately one week.

Findings

Based on Table 1, majority of the respondents are between 21-29 years old (94.3%), which represents the young adult group, where this group is technology savvy and well-versed with social media. Besides, there is almost the same number of respondents for gender, with males (46.3%) and females (53.7%). For education, more than half of the respondents have a bachelor's degree (66.0%), indicating that they are educated and can make wise judgments. Nearly half of the respondents always use social media (53.0%) and sometimes look for COVID-19-related information on social media (40.0%).

Table 1

Respondents' Profile (n=300)

Variable(s)	Category	Frequency	%
Age	21 – 29 years old	283	94.3
	30 – 39 years old	10	3.3
	40 – 49 years old	4	1.3
	50 – 59 years old	2	0.7
	> 60 years old	1	0.3
Gender	Male	139	46.3
	Female	161	53.7
Nationality	Malaysian	300	100.0
Race	Chinese	273	91.0
	Malay	10	3.3
	Indians	13	4.3

	Others	4	1.3
Education	SPM / STPM	24	8.0
	Diploma	73	24.3
	Bachelor's Degree	198	66.0
	Master's Degree	5	1.7
Income	< RM1000	111	37.0
	RM1000 – RM2000	55	18.3
	RM2000 – RM5000	116	38.7
	> RM5000	18	6.0
Have you contracted COVID-19 before?	Yes	76	25.3
	No	224	74.7
Have you received a 1st jab of COVID-19 vaccine?	Yes	300	100.0
How often do you use social media?	Sometimes	51	17.0
	Almost always	90	30.0
	Always	159	53.0
How often do you receive COVID-19-related news/information on social media?	Sometimes	120	40.0
	Almost always	105	35.0
	Always	75	25.0

Measurement Model Assessment

The measurement model was checked through Cronbach's Alpha (CA) and composite reliability (CR), while convergent validity (AVE) and discriminant validity were used to ascertain the validity. Thus, based on Hair et al. (2022), the Cronbach's alpha value should be higher than 0.7. As depicted in Table 2, Cronbach's Alpha for all variables was higher than 0.7. Besides, Hair et al. (2022) also stated that the CR and the AVE should be greater than 0.7 and 0.5, thus the convergent validity is met.

Table 2

Measurement Model Assessment

Variables	Items	Loadings	Cronbach's alpha	CR	AVE
Booster jab practices	BJP1	0.755	0.855	0.857	0.634
	BJP2	0.811			
	BJP3	0.769			
	BJP4	0.823			

	BJP5	0.821			
Perceived benefits	Ben1	0.727	0.818	0.822	0.577
	Ben2	0.781			
	Ben3	0.780			
	Ben4	0.758			
	Ben5	0.750			
Self-efficacy	Eff1	0.767	0.863	0.866	0.648
	Eff2	0.722			
	Eff3	0.829			
	Eff4	0.869			
	Eff5	0.830			
Social media exposure	SME1	0.739	0.857	0.859	0.637
	SME2	0.831			
	SME3	0.830			
	SME4	0.778			
	SME5	0.810			

The Heterotrait–Monotrait ratio (HTMT) is applied to examine the discriminant validity (Henseler et al., 2015). Kline (2011) suggested that the HTMT values should be less than the threshold of HTMT.$_{85}$. Thus, discriminant validity is ascertained (see Table 3). Besides, collinearity was examined using a variance inflation factor (VIF) with a threshold value of 3.3 (Diamantopoulos & Siguaw, 2006) (see Table 4); thus, no serious collinearity problems were detected in this study.

Table 3

HTMT Ratio

	BJP	**Ben**	**Eff**	**SME**
BJP				
Ben	0.565			
Eff	0.756	0.514		
SME	0.452	0.491	0.340	

Structural Model

Table 4 and Figure 2 demonstrated the results for perceived benefits (β = 0.201, t = 3.367, p = 0.00), social media exposure (β = 0.186, t = 3.853, p = 0.000) were found to have a positive and significant relationship with the booster jab practices. Thus, H1 and H2 were supported. Besides, for the moderating effect, the study found that self-efficacy was able to moderate the relationship between perceived benefits and booster jab practices; however, the relationship is negative (β = -0.152, t = 3.050, p = 0.000), while self-efficacy did not moderate the relationship between social media exposure and booster jab practices. Hence, H3 and H4 were rejected. The R^2 value of 0.520 indicated that all constructs were able to explain 52.0% of the variance in booster jab practices.

Table 4

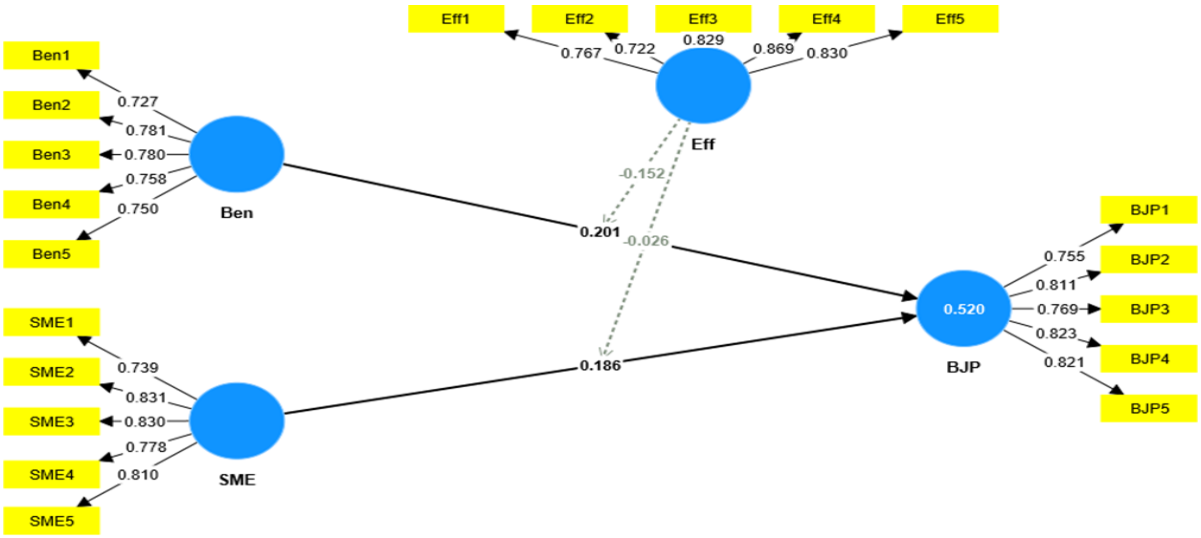
Hypothesis Testing (Direct Effects)

Hypothesis	Std. Beta	Std. error	T value	P	D	LLCI (5%)	ULCI (95%)	R^2	f^2	VIF
H1: Ben -> BJP	0.201	0.060	3.367	0.000**	S	0.104	0.302	0.520	0.060	1.410
H2: SME -> BJP	0.186	0.048	3.853	0.000**	S	0.102	0.261		0.054	1.328
H3: Eff X Ben -> BJP	-0.152	0.050	3.038	0.001**	NS (-)	-0.231	-0.068		0.038	1.235
H4: Eff X SME -> BJP	-0.026	0.047	0.564	0.286	NS	-0.102	0.052		0.001	1.332

**p < 0.01, *p < 0.05; S= Supported; NS = Not supported
LLCL= Lower Level Confident Interval; ULCL=Upper Level Confident Interval
1-tailed test

Figure 2

Structural Model Assessment



In predicting the model, variables can be replaced when the study evolves, and the researchers aimed to investigate the out-sample prediction (Hair, 2020; G. Shmueli et al., 2019). Hence, PLS prediction assessments were utilised (G. Shmueli et al., 2016). Thus, the majority of the new values and outcomes of (PLS-SEM_RMSE – LM_RMSE) are lower, as shown in Table 5, thus indicating that the current model has medium predictive power to predict booster jab practices in the future.

Table 5

PLS Predict Assessment

Items	Q^2predict	PLS-SEM_RMSE	LM_RMSE	PLS-SEM - LM	Interpretation
BJP1	0.343	0.545	0.544	0.001	
BJP2	0.326	0.754	0.789	-0.035	
BJP3	0.246	0.812	0.854	-0.042	Medium
BJP4	0.305	0.729	0.740	-0.011	
BJP5	0.315	0.740	0.772	-0.032	

Discussion

The findings reveal that there is a positive significant relationship between perceived benefits and the booster jab vaccination practices among Malaysians, which aligned with the past studies of Berger et al. (2023), Man et al. (2023), L. Shmueli (2021) as well as Wu and Chiang (2023). The perceived health advantages of the COVID-19 vaccination might be high or low, depending on one's perception of the vaccine's effectiveness. People's confidence in vaccine safety and immunisation benefits is echoed by these findings. Thus, individuals who considered the vaccination's advantages outweighed its risks were more likely to take the booster shot.

Specifically, perceptions about health issues, perceived advantages of behaviour, and self-efficacy all explain an individual's participation (or failure to engage) in wellness activities. In addition to recognising the advantages of vaccination, an action signal must also be available to induce the health-promoting action to occur. Many people are drawn to getting vaccinated against COVID-19 because of the expectation that the vaccine will be highly effective in precluding significant suffering and consequences from the disease, as well as the belief that their chances of becoming infected with the ailment or infecting others will be reduced.

Besides, the findings also revealed that there is a significant positive relationship between exposure to social media and booster jab vaccination practices among Malaysian citizens, which supported the studies of Cascini et al. (2022), Puri et al. (2020), Suhaimi et al. (2023), and Xin et al. (2021). People's opinions and readiness to take the COVID-19 immunisation may be influenced significantly by social media usage and exposure. It was shown that people who depended on new media to learn about the outbreak were more inclined to get vaccinated than others who depended on conventional media.

However, the current results showed that self-efficacy moderates the relationship between perceived benefits and booster jab practices negatively. Hence, the results are different from the previous studies (Banerjee et al., 2021; Hu et al., 2022; Sifai et al., 2022) that found self-efficacy as the significant moderator between health belief model attributes and vaccine intentions. Besides, the study also found an insignificant moderating role of self-efficacy on social media exposure and booster jab practices. The possible explanation could be that the current study is mainly made up of young adults aged 20-29 years old, whose awareness of the serious impact of COVID-19 may still need improvement. This particular age group is not categorised as a high-risk group that has serious illnesses (e.g. diabetes, cardiovascular diseases, etc.). Thus, the perception that they will recover from COVID-19 is high. Thus, the self-efficacy in preventive COVID-19 might have decreased as it already entered the post-pandemic phase, where it might not be categorised as a public health emergency (Sarker et al., 2023).

Conclusion

In conclusion, the study affirmed that perceived benefits and exposure to social media have a positive relationship with booster jab practices. Meanwhile, the moderating role of self-efficacy established a negative relationship between perceived benefits and booster jab practices; however, self-efficacy did not moderate between social media exposure and booster jab practices.

Implications of the Study

Various mechanisms have been designed as a cost-effective health campaign to educate the public on the various measures to curb the spread of the COVID-19 virus. The research findings provide an opportunity for more comprehensive educational programmes that focus on consistency in providing the public with adequate knowledge to curb the spread of the deadly virus.

The vaccination campaign by Chile offers the best approach for such an educational campaign. The country ranks among the most successful countries in booster jab rates, attributed to the campaign undertaken to promote vaccinations (Toro-Ascuy et al., 2022). The country's government focused on simple and consistent messaging on various platforms, emphasising the benefits of vaccinations (such as protection for the elderly and fewer chances of future lockdowns). The educational campaign in Malaysia should also be led by credible health officers who can effectively connect with the public and build trust (Tan & Liew, 2023). Chile achieved this by training local opinion leaders and pairing them with health experts. Thus, Malaysia can follow this initiative.

Limitations and Future Research Pathways

All the research has its limitations. For this study, the limitation is the use of non-probability sampling methods (purposive and convenience), which caused the data not to be generalised. Future research can utilise probability sampling if the sampling frame is granted to generalise the results. In addition, this study mainly focused on young adults. Therefore, future studies can also focus on other groups, such as the ageing population on their perception of the booster jab (Lee et al., 2024).

Besides, the study mainly consists of Malaysians; hence, international residents who resided in Malaysia during the post-COVID-19 period were not being investigated. Thus, future studies can look into this aspect, and comparisons between various Asian regions could be interesting. The current study only looks from the perspective of positivism, but future research can focus on qualitative techniques (e.g. interviews, focus group discussion) to further explore this topic and gain in-depth insight.

Lastly, the study only focused on perceived benefits, social media exposure, and self-efficacy in predicting booster jab practices. Future research can include other variables such as cyberchondria (Mayukh, 2024), demographic factors (Shahani et al., 2023; L. P. Wong et al., 2022), vaccine misinformation and hesitancy (Chan et al., 2023; Lee et al., 2023; Ruggeri et al., 2024), and psychological distress (Nga et al., 2023) to be incorporated into the framework to expand and enhance public health communication scholarship.

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Conflict of Interest

The authors have declared that no competing interests exist.

Author Contribution Statement

The author contributed to the conception, design, writing, and revision of the manuscript.

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Ethics Statements

Our publication ethics follow The Committee of Publication Ethics (COPE) guideline.

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Appendix 1

Perceived Benefits (Guidry et al., 2021; Sherman et al., 2021)

1. The COVID-19 vaccines are better than natural immunity.
2. The COVID-19 vaccines are effective at preventing COVID-19 symptoms.
3. The COVID-19 vaccines are effective at preventing transmission of the COVID-19.
4. The COVID-19 vaccination protects me from getting infected.
5. After vaccination, I can lead a normal lifestyle.

Social Media Exposure (Erawan et al., 2021; Puri et al., 2020)

1. I trust the COVID-19 vaccination information from social media.
2. I use social media to seek information about the COVID-19 vaccination.
3. Social media has increased my eagerness to take the COVID-19 vaccination.
4. I follow medical professionals through social media to know the latest developments about the COVID-19 vaccination.
5. I advise others to follow social media constantly to know the latest developments about the COVID-19 vaccination in the future.

Self-Efficacy (Erawan et al., 2021; Huynh et al., 2021)

1. I think that I can get vaccinated easily and successfully.
2. I think that I have a low probability of adverse reactions after vaccination.
3. I think that I can deal with the side effects of COVID-19.
4. I am confident about my ability to make an informed decision about the COVID-19 vaccination.
5. I have the necessary information to decide whether to vaccinate against the COVID-19 vaccination.

Booster Jab Practices (Mohamed et al., 2021; Rzymski et al., 2021)

1. I have a responsibility to be vaccinated to protect myself and others.
2. I am willing to take periodic COVID-19 booster jab vaccination to minimise the COVID-19 effects.
3. I have minimal uncertainty concerning the safety of the COVID-19 booster jab vaccination on my health.
4. I would want to take the COVID-19 booster jab vaccination based on the perceived credibility of its effects on health.
5. The benefits of taking the COVID-19 booster jab vaccination outweigh the negative effects of potential side effects.