

The Evaluation of COVID-19 Booster Vaccination Results for Health Workers at a AP Private Hospital in North Jakarta

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Abstract: Providing remedies in an effort to combat and prevent the spread of covid-19. To evaluate AEFI and effectiveness of booster covid-19 vaccine among health workers in a private hospital. Method Hospital health professionals x were surveyed utilizing the cross-sectional approach employing social media (WhatsApp) and a google form platform. Convenience sampling, which must satisfy the inclusion requirements, is the sampling approach used. In this research, The number of respondents that met the inclusion criteria reached up to (n=102). The results of this study with validity and rehabilitation values (0.741) Health workers had AEFI fever (54.9%), pain in the injection area (58.8%), cough (58.8), flu (9.8%), dizziness (13.7%), drowsiness (18.6%), menstrual disorders (15.7%), x health workers exposed to covid-19 (8.8%) Significant correlations existed between AEFI, Infection with covid-19, menstruation abnormalities following administration of booster immunizations to hospital health workers x hospital health employees exposed to covid-19 (8.8%) after covid vaccination, 15.7% of women reporting menstruation problems. Nine individuals who received the third dosage of Booster and were exposed to covid-19 (8.8%) were self-isolating (100%). Conclusion most of the patients pain in the injection area and cough after booster vaccination and only few people got covid-19 infection after booster vaccination.

1 INTRODUCTION

The international community, including Indonesia, uses social media to socialize with other communities (Silalahi & Ginting, 2022).

In December 2019 in Wuhan, Hubei province of China, it was discovered that pneumonia instances of this sickness were not recognized to be the origin of the disease, which rapidly spread to provinces around China and even the world. (Romadhan et al., 2022)

Who stated that, as of 20 June 2022 at 5:40 p.m., there were 536,590,224 confirmed cases of COVID-19, including 6,316,655 deaths? As of 20 June 2022, a total of 11,912,594,538 doses of vaccination had been administered to the community (Emerging Infections of the Ministry of Health of the Republic of Indonesia. 2022).

At 15:00 on April 29, 2022, there were 6,046,467 confirmed cases of COVID-19, followed by the recovery of 5,882,062 cases (97.3%), the death of 156,240 patients (2.6%), and the occurrence of 8,165 active cases. (Emerging Infections of the Ministry of Health, Republic of Indonesia, 2022)

Initially, the patient complained of mild, moderate, and severe (critical) symptoms, as well as a variety of additional complaints typical of his patients, including fever, headache, cough, and difficulty breathing, as well as weakness and gastrointestinal symptoms. (Yanti, 2020) The majority of patients have a favorable prognosis, and only a small proportion of those in critical condition will perish. (Lilyawati et al., 2019) It is believed that the immune response contributes to the pathogenesis of the disease and offers protection during its remission. (Safira et al., 2021)

Implementing the 5M health routine, which includes washing hands, wearing masks, maintaining a safe distance, minimizing movement, and avoiding crowds. In addition, there is a policy enforcing a new routine (New Normal) of working from home (WFH) (South et al., 2022). Then preventive measures must still be taken, including the COVID-19 vaccine campaign (Lebang et al., 2022). Vaccination is one among the measures that can be taken to combat the spread of covid-19. The application of the covid-19 vaccination is disseminated to the entire community,

and vaccinations are administered for the prevention and spread of the covid-19 virus, resulting in a large number of individuals receiving the vaccine. (Dr. Vladimir, 1967)

Vaccine is a liquid contained in the body that will be injected into humans, who will actively create their immunity in the body for a vaccine in order to defend the body against virus attacks (Widjaja, 2021)

The vaccination should not be rejected because the Covid-19 vaccine intends to protect not just the individual but also the community as a whole, i.e., to create herd immunity. (Digital & Conference, 2021)

CoronaVac vaccine, AstraZeneca vaccine, and Moderna vaccine in Indonesia (Lestari et al., 2022). According to (Ministry of Health RI, 2020), the government has concluded that the following vaccines would be used in the future in Indonesia:

This sort of sinovac vaccination collaborates with government entities in Indonesia and internationally. (Widjaja, 2021)

This type of AstraZeneca vaccination was tested on 20,000 volunteers and was shown to have no adverse effects when stored at room temperature. (Widjaja, 2021).

This vaccine is a 94.5% effective vaccine production rate Moderna type, according to the manufacturer. moderna is a vaccine that meets the US Food and Drug Administration's emergency usage standards (FDA). (Widjaja, 2021).

The effectiveness of the Pfizer vaccination against the corona virus has been demonstrated to be 95%, and it poses no risk to human health. (Widjaja, 2021). The government-run immunization program has no positive and negative effects on the community. (Sihidi et al., 2022)

2 METHODS

This study employed the Cross-Sectional research design. Hospital x health staff were invited to participate as volunteers by completing an online survey. At the outset of the questionnaire, participants were told of their readiness to serve as study participants. Responen will be given a questionnaire to complete out.

2.1 Sampling Techniques

Technique of sampling utilizing Convenience Sampling, which must meet inclusion requirements. Sampling is conducted using non-probability sampling with the quota sampling approach, which is

a sampling strategy that sets a certain quantity as a target to be met in sampling data from a population.

2.2 Data Collection

Collect data in hospitals x by distributing surveys using social media (WhatsApp) using the google form platform. With a total of 102 answers and 24 questions, the evaluation of the results of the covid-19 booster vaccine on health professionals in hospitals x with a *cronbach alpha* value of 0.741% will be conducted.

2.3 Sample

All health workers at Hospital X who have obtained booster vaccinations and are willing to participate in the study meet the inclusion criteria for this study. All medical personnel at Hospital X who have not gotten a booster vaccination are excluded from this study. Health professionals that decline to participate in the study, All Health Workers in Indonesia with cancer, HIV/AIDS, tuberculosis, or autoimmune disease.

2.4 Population

A total of 102 health care employees were vaccinated with a booster at Hospital X for the purpose of this study.

2.5 Data Analysis

To determine whether there is a correlation between the evaluation of COVID-19 vaccine results on healthcare workers in hospitals and running the Chi-square test, it is necessary to first analyze the data on the distribution of the questionnaire. This can be done with the aid of *Excel software and the SPSS 2.5* application.

2.6 Ethical Consent

Ethical approval of this study with number No.47 / KEPKUTA45JKT / EC / EXP / 07/2022.

3 RESULTS AND DISCUSSIONS

Table 1: Characteristics of Respondents.

Variables	Frequency	Percentage
Gender		
a. Man	32	31,4%
b. Woman	70	68,6%
Age		
a. Juveniles (18-24)	30	29,41%
b. Adulthood (25-45)	72	70,59%
Profession (Occupation)		
a. Nurse	55	53,9%
b. Non Nurse	47	46,1%

On the basis of Table 1, we determined the sociodemographic profile of the 102 participants in this study, namely their gender 32 men (31.4%) and 70 women (68.6%) with adolescent age 18-24 years 30 respondents (29.41%), adulthood 25-45 years 72 respondents (70.59%), by profession (occupation) 55 respondents (53.9%) and non-nurses 47 respondents (46.1%).

This differs with the study (Pengetahuan et al., 2021), in which the majority of respondents were men (51 respondents, or 51 %) and the fewest were women (49 respondents, or 49 %). Moreover, by occupation, there were 55 nurses (53.9%) and 47 non-nurses (46.1%).

In accordance with a previous study (Pratama et al., 2022), the majority of research subjects in this study (72%) were health care professionals, such as nurses and midwives.

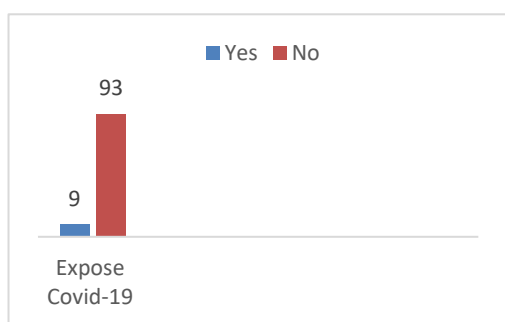


Figure 1: Expose Covid-19 After Booster Vaccination.

Based on Figure 1, it can be seen that there are 9 health workers who were exposed to covid-19 after the booster vaccine. based on different research results from (Zaenal et al., 2020) there are 31 people (10.8%) who are exposed to covid-19.

Table 2: AEFI After the 3rd Dose of Covid-19 Vaccination.

No.	Variables	Frequency and percentage
1.	Fever	56 Respondent (54.9%)
2.	Pain In The Injection Area	60 Respondent (58.8%)
3.	Cough	60 Respondent (58.8%)
4.	Sleepy	10 Respondent (9.8%)
5.	Menstrual Disorders	14 Respondent (13.7%)
6.	Flu	19 Respondent (18.6%)
7.	Dizzy	16 Respondent (15.7%)

Based on table 2, it was determined that AEFI was typically experienced by all respondents of this study who received the sinovac, astrazeneca, pfizer, and moderna booster vaccines, and that there was AEFI following covid-19 immunization in this study, namely fever following covid-19 immunization 54.9%, injection area following covid-19 immunization 58.8%, cough has following covid-19 immunization 58.8%, flu has following covid-19 immunization 9.8%, dizziness has following covid-19 immunization 13.7%, drowsiness has following covid-19 immunization 18.6%, menstrual disorders have following covid-19 immunization 15.7%.

According to this study, the adverse effects of the phase I vaccine on light symptoms are 22 (17.74%), moderate symptoms are 49 (39.51%), and severe symptoms are 1 (0.80%), which is consistent with the study of Safira et al. from 2021. Mild symptoms made up 20 (16.12%) of the phase II vaccine's side effects, while moderate symptoms made up 54 (43.54%) and severe symptoms made up 3 (2.41%). The analysis of the data allows us to draw the conclusion that the drajat AEFI at Imanuel Hospital has the biggest administration (43.54%) of the Coronavac vaccination. In the research, 102 completely immunized participants got questionnaires about their experiences with vaccine adverse effects. Menstrual abnormalities are the most frequent adverse effects of fever and the injection site, with a frequency (yes, 16 and not 86) and percentage (yes, 13.7% and not 84.3%).

Table 3: Health Workers Exposed to Covid-19 Experience Symptoms When Exposed to Covid-19.

No.	Variables	Frequency and percentage
1.	Symptoms when exposed to covid	Yes 9 Respondent (8.8%)
2.	Isolation at the time of exposure to covid	Self-isolation 9 Respondent (100%)
3.	Loss of smell and taste when exposed to covid	Yes 9 Respondent (8.8%)
4.	Difficulty breathing when exposed to covid	Yes 9 Respondent (8.8%)
5.	sore throat when exposed to covid	Yes 9 Respondent (8.8%)
6.	fever when exposed to covid	Yes 9 Respondent (8.8%)
7.	Headaches Exposed to covid	Yes 9 Respondent (8.8%)
8.	Treatment when exposed to covid	Yes 9 Respondent (8.8%)

According to Table 3, Symptoms when exposed to covid 8.8%, Self-isolation when exposed after 100% frequency booster vaccine%, loss of smell and sense of exposure after booster vaccination has 8.8%, difficulty breathing after exposure after booster vaccination has 8.8%, cough and sore throat after exposure after booster vaccination has 8.8%, fever after exposure after booster vaccination has 8.8%, headache after exposure after booster vaccination has 8.8%, treatment when exposed to covid 8.8%.

This is consistent with the study's finding that the most prevalent symptoms of COVID-19 are fever, cough, myalgia or weariness, and shortness of breath (Banjarnahor, 2020). other unusual signs, such as headache and diarrhea. Fever (77%), cough (81%), cough with phlegm (56%), headache (34%), myalgia or weariness (52%), diarrhea (8%), and hemoptysis (3%), are the most prevalent symptoms. Only two individuals (3%) out of all patients admitted to the hospital had breathing difficulties. In this instance, it is consistent with the research (Iswanti et al., 2021) whose findings indicated the experience of nurses when confirmed with COVID-19 as many as 6 (six)

most critical risk factors are direct contact with Covid-19 sufferers. (10) Whether it involves sharing a residence or a history of visiting a region affected by a pandemic. One of the people who are most at risk of getting SARS-CoV-2 is the medical profession.

Table 4: The existence correlation of a between the sexes and AEFI flu.

Variable	Percentage Frequency (%)		P-value
	Man	Woman	
Gender of AEFI flu after booster vaccine	13 Respondent (23.3%)	19 Respondent (41.3%)	0.005 *

*Chi-square

According to this study, AEFI and gender factors are related. The booster vaccine is the difference between gender and AEFI that is frequently received by women compared to men who have the flu after booster vaccination was found with men 13 people with a frequency of 23.3% while for women it was found with a figure of 19 people with a percentage (41.3%) and value of 0.005 out of a total of 102 respondents whose questions have been tested using the chi square set e test. This is consistent with the study (Romlah & Darmayanti, 2022) in which, following the vaccination, a small percentage of respondents, namely 7 people (15.9%), experienced a high fever (>390C), and half of respondents who experienced AEFI, namely 22 people (50%) experienced other types of AEFI such as soreness at the injection site, flu, inhibiting menstruation, dizziness, sore throat, pain, anosmia.

Table 5: There is a correlation between profession and AEFI.

Variable	Frequency/Percentage (%)		P-value
	nurse	non nurses	
AEFI profession fever	38 Respondent (69.1%)	18 Respondent (38.3%)	0.002*
Professions often sunbathe	Yes 50 Respondent (90.9%)	Yes 32 Respondent (68.5%)	0.004*
Professions in which vaccines are located	Yes 48 Respondent (87.2%)	Yes 25 Respondent (53.2%)	0.000*

*Chi-square

Based on this study, the variables have a correlation between Profession and AEFI from a total of 102 respondents whose questions have been tested using the chi set test after booster vaccine, as for the difference between Profession and AEFI which is widely received by nurses and non-nurses, nurses who have a fever after booster vaccination was found by nurses with the number 69.1% and non-nurses found 38.3% with a p value of 0.002, Nurse respondents frequently sunbathed were identified with a figure of 90.9%, while non-nurses were identified with a figure of 68.5% with a p value of 0.004, and nurse respondents had different experiences with booster vaccinations were identified with a figure of 87.2%, while non-nurses were identified with a figure of 53.2% with a p value of 0.000. According to research (Romadhan et al., 2022) the most common time of AEFI was 12 hours after vaccination for 17.8% of respondents, with the majority of AEFI occurring in the form of pain at the injection site for 85.7% of respondents, or 90 respondents. The majority of responders (40%) reported having discomfort for two days, while 22.9% reported having pain on a scale of seven. The majority (46.2%) of the 52 respondents with AEFI fever had a fever that lasted 12 to 24 hours, and one respondent (1.9%) had a fever that lasted five days. The majority of the time, the post-vaccination temperature is between 37.6°C and 38°C (40%).

4 CONCLUSIONS

The evaluation of covid-19 booster vaccination results for health workers at a private hospital can draw the conclusion from the study's findings that the AEFI suffered by respondents who received the booster vaccine is a common AEFI, such as fever, pain in the injection area, cough, flu, dizziness, drowsiness. Women who worked as nurses reported experiencing the highest AEFI following the covid vaccination. Health workers who have been vaccinated with the booster were still exposed to Covid-19. There is a link between the vaccine and AEFI, the effects of menstruation, and the exposure of healthcare professionals to COVID-19 after receiving the booster shot.

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