INTRODUCTION
COVID-19 still become a concerning problem of health and it is endemic globally. This virus can infect humans quickly through breathing so it has a high potential to infect others. Individuals affected by the coronavirus can cause symptoms ranging from mild to severe, so this condition is very dependent on the immunity or immune system. Generally, the coronavirus causes symptoms like severe acute respiratory syndrome, these symptoms are the highest cause of death in coronavirus infection.1

According to data from the World Health Organization (WHO) as of June 6, 2021, it was explained that the number of newly confirmed positive patients reached 3 million cases and there were 73,000 deaths. This data has decreased compared to the number of COVID-19 cases in the previous week.2 Meanwhile in Indonesia, new confirmed cases of positive patients until June 6, 2021, have reached 5,832 new cases, it reaches 1,856,038 while the recovered cases are 4,187 cases and the total has reached 170,597. Meanwhile, the death cases have reached 163 cases, until now the total number of death cases is 51,612 cases and the number of patients undergoing treatment or self-isolation today is 98,455 people.3 In the East Java Region, new cases of positive confirmed COVID-19 patients increased by 276 cases bringing the total to 156,326, while recovered cases increased by 201 to a total of 142,928. Meanwhile, death cases increased by 23 people bringing the total to 11,553 cases, and patients who are still undergoing treatment for 1,845 people.4 Meanwhile, in the Probolinggo Regency area, the number of confirmed positive cases of COVID-19 reached 3,215 with 6 people undergoing treatment, 3,016 recovered cases, and 193 deaths due to Covid-19.5

Along with the increasing daily cases number of patients who are confirmed positive for COVID-19, the government has made various efforts. As for the efforts that have been implemented to suppress and prevent the transmission of COVID-19, such as imposing restrictions on social activities, socializing to maintain hand hygiene through washing hands, maintaining distance, using masks, applying to cough and sneezing etiquette correctly, decontaminating objects after carrying out activities, and self-isolate. This series of efforts gave effective results as indicated by the number of daily cases of positive confirmed patients starting to decline.6 However, the current condition of the COVID-19 pandemic has experienced a spike in cases every day since April 2021, which has occurred in several countries. The existence of the second wave of this pandemic has prompted the government to make various efforts to suppress cases of COVID-19, one of that is through the COVID-19 vaccination activity. COVID-19 vaccination is carried out to provide protection to the body that can stimulates and activates specific immunity in the body, the impact can reduce the effects of Covid-19.7

Considering the purpose of the
COVID-19 vaccination, the government encourages all levels of society to participate in vaccination activities without exception for nursing students. Nursing students who are also included in the group of health workers also have a high risk and have the potential to experience exposure to COVID-19. Given these conditions, nursing students are encouraged to immediately receive the COVID-19 vaccine. However, in the implementation of vaccination, there are still doubts about the effectiveness of different vaccinations. This condition indicates that belief factor in the individual can be expected to be one of the factors that can affect the acceptance of vaccinations in nursing students.

Belief is defined as the main indicator that underlies individuals in acting. Belief is an assumption that is held in oneself so that it can affect words, actions and decision making on something. As research conducted by Lueck & Spiers (2021) describes that most individuals have positive beliefs about the COVID-19 vaccine. They view that the COVID-19 vaccine can provide protection for themselves, their families, and the community from exposure to COVID-19. The COVID-19 vaccine is also very safe for the body. On the other hand, the results of research by Islam et al (2021) reveal that there are some individuals who refuse the COVID-19 vaccination. This is because they think that the COVID-19 vaccine is a foreign object so that if it enters the body it can cause side effects. This condition shows that the effectiveness of the COVID-19 vaccine is decreasing. Thus, based on the description of the problem, the researchers wanted to examine in more detail of belief in the acceptance of the COVID-19 vaccination in nursing students.

**METHODS**

**Study Design**
The research method is a cross-sectional design. This research was conducted one-time measurement which was carried out on June 14 to 21, 2021 at the Institute of Health Science Hafshawaty Islamic Boarding School Zainul Hasan. In this study, there were two variables, namely the independent variable in the form of belief, while the dependent variable was the acceptance of the COVID-19 vaccination in nursing students. The population of this study was all nursing students at the Institute of Health Science Hafshawaty Islamic Boarding School Zainul Hasan. This study uses a purposive sampling technique based on inclusion criteria so that the research sample was 145 nursing students.

**Data Collection**
The method used in this study was a questionnaire. The questionnaire used to assess beliefs consisted of 18 questions, and her acceptance of the COVID-19 vaccine by a nursing student used a Likert scale from "strongly disagree" to "strongly agree". It consists of 13 question items. Questionnaire questions have a positive trait in the rating system, from a "I totally disagree" value of 1 to a "Completely agree" value of 4. "I agree at all" and "I agree at all" were selected with 1 point, and "I do not agree at all" with 4 points. In Google Forms, researchers explained the intent and goals of the study in advance, outlined the steps for completing the questionnaire, and attached a consent form to become a respondent or informed consent.

**Data Analysis**
After the data is collected, then data analysis is carried out to analyze the relationship between belief and acceptance of the COVID-19 vaccine in nursing students. Analysis of the data used in this research is to use the Spearman Rank Test with a value of alpha (α) = 0.05.

**RESULTS**

**Demographic Characteristics of Participant**
This study uses 145 nursing students who are currently studying in semesters 2, 4, 6, and 8 with an overall average age of 20.43±1.32 years. most of the respondents are female (88.3%).

**Belief and Acceptance of COVID-19 Vaccination**
Most of the participants had positive beliefs about COVID-19 vaccination with an average value of 31.9 ± 3.530. In the subscale of beliefs towards COVID-19 vaccination, the results obtained are high average scores, namely perceived susceptibility and severity 9.59 ± 10.496, perceived benefits 8.94 ± 1.602, Perceived barriers 8.12 ± 1.333, and an average which is relatively low, cues to action 6.96 ± 1.073. Regarding vaccine acceptance, respondents had a high acceptance rate with an average score of 50.28 ± 5.241.

**Vaccination Belief in correlation with Vaccination Acceptance**
In general, COVID-19 vaccination belief was significantly associated with vaccination acceptance (p = 0.000). COVID-19 vaccination beliefs were significantly associated with vaccination acceptance across the three subscales. The three subscales are perceived benefit (p = 0.000), perceived disability (p = 0.000), and action cue (p = 0.000). The perceived susceptibility and severity subscales were not associated with COVID-19 vaccination (p = 0.087).

**DISCUSSION**
Various efforts have been made by the government to prevent the spread of COVID-19 cases, including socialization and education to the public about COVID-19 and its prevention, lockdown at the beginning of the pandemic, and large-scale restrictions (PSBB). However, in reality, these efforts have not yielded maximum results as evidenced by the increasing daily cases of COVID-19 in Indonesia. Without an effective vaccine or antiviral therapy, this pandemic will only continue. WHO and various countries in the international world have established a COVAX facility to support countries that are developing a COVID-19 vaccine. Currently, the Indonesian government has imported vaccines from various countries, but the amount is not sufficient for all Indonesian people, one of them are health students.

This study aims to determine the relationship between beliefs towards COVID-19 vaccination and acceptance of the COVID-19 vaccine among nursing students. It is known that the vaccines that have been circulating have gone through clinical trials, but some people still have doubts about vaccinating. According to Kominfo (2021), there are various kinds of false issues circulating in the community, one of that is number of deaths after...
vaccination, so this also plays a role in community decision making to receive the COVID-19 vaccination.

From the results of the research that has been obtained, participants have a high mean score on acceptance of the COVID-19 vaccination. From the results of the analysis of the questionnaire that has been given, most of the students stated that the COVID-19 vaccine is safe to use and can prevent the transmission of the COVID-19 virus. Several studies similar shows different results in some countries. Wang et al. (2020) reported that there was a low acceptance rate and a high level of doubt about COVID-19 vaccination among health professionals (doctors, nurses, dentists etc.), including those who vaccinate patients. In Egypt, almost half of students said they were hesitant to get vaccinated, while in India there were 10% of students who said they were hesitant to get vaccinated. This doubt is due to the high perception among students about the increased risk of being infected with COVID-19.7,14

On the variable beliefs towards COVID-19 vaccination, overall the results of this study indicate that most students have a positive level of beliefs towards COVID-19 vaccination. Another study conducted by Huynh et al (2021) showed the same results. The study used the HBM in developing an instrument to measure confidence in the COVID-19 vaccination. The HBM showed that vaccination behavior was influenced by perceived threat of the illness, perceived benefits, barriers to vaccination, and cues to action.10

Results showed an association between belief in COVID-19 vaccination and acceptance of COVID-19 vaccination (p = 0.000). Acceptance of this vaccination was more positive than perceived benefit (p = 0.000). Since the subject of this study is nursing students, the researchers assume that students know about COVID-19, the benefits and importance of COVID-19 vaccination. Level of knowledge influences desire to obtain COVID-19 vaccine. Previous studies have shown that students with higher levels of knowledge about vaccination showed a greater desire to be vaccinated than those with lower levels of knowledge.15,16

The barriers to vaccination and cues to action subscales also showed a significant relationship with acceptance of the COVID-19 vaccine (p = 0.000). Participants consider that there is no need to spend money to vaccinate because the COVID-19 vaccination in Indonesia is carried out free of charge. Most of the participants stated that they wanted to be vaccinated immediately to improve their health in accordance with the recommendations made by health workers and the government. Huynh et al (2021) conducted a similar study but showed different results. The results of this study indicate that there is no significant relationship between barriers to vaccination and acceptance of the COVID-19 vaccination (p > 0.05).10

The perceived susceptibility and severity subscale shows that there is no relationship with acceptance of the COVID-19 vaccination (p = 0.087). Most of the participants stated that they had a low risk of being exposed to Covid-19 and believed they would not be exposed to COVID-19 in the near future. This indicates the need for adequate education for nursing students regarding susceptibility to COVID-19.

Table 1. Demographic Characteristics of Participant.

<table>
<thead>
<tr>
<th>Statements and subscales</th>
<th>2nd semester</th>
<th>4th semester</th>
<th>6th semester</th>
<th>8th semester</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean of Age (years ± SD)</td>
<td>19.03 ± 0.865</td>
<td>19.79 ± 0.782</td>
<td>20.77 ± 0.774</td>
<td>21.75 ± 0.866</td>
<td>20.43 ± 1.317</td>
</tr>
<tr>
<td>Women</td>
<td>25 (86.2%)</td>
<td>38 (90.5%)</td>
<td>29 (96.7%)</td>
<td>36 (81.8%)</td>
<td>128 (88.3%)</td>
</tr>
<tr>
<td>Men</td>
<td>4 (14.8%)</td>
<td>4 (9.5%)</td>
<td>1 (3.3%)</td>
<td>8 (18.2%)</td>
<td>17 (11.7%)</td>
</tr>
</tbody>
</table>

Table 2. Belief and Acceptance towards COVID-19 vaccination.

<table>
<thead>
<tr>
<th>Statements and subscales</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief</td>
<td>31.9 ± 3.530</td>
</tr>
<tr>
<td>Perceived susceptibility and severity</td>
<td>9.59 ± 10.496</td>
</tr>
<tr>
<td>Perceived benefits</td>
<td>8.94 ± 1.602</td>
</tr>
<tr>
<td>Perceived barriers</td>
<td>8.12 ± 1.333</td>
</tr>
<tr>
<td>Cues to action</td>
<td>6.96 ± 1.073</td>
</tr>
<tr>
<td>Acceptance</td>
<td>50.28 ± 5.241</td>
</tr>
</tbody>
</table>

Table 3. Belief and Acceptance towards COVID-19 vaccination.

<table>
<thead>
<tr>
<th>Statements and subscales</th>
<th>Statistical item</th>
<th>Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief</td>
<td>r</td>
<td>0.579</td>
</tr>
<tr>
<td>Perceived susceptibility and severity</td>
<td>r</td>
<td>0.143</td>
</tr>
<tr>
<td>Perceived benefits</td>
<td>r</td>
<td>0.502</td>
</tr>
<tr>
<td>Perceived barriers</td>
<td>r</td>
<td>0.350</td>
</tr>
<tr>
<td>Cues to action</td>
<td>r</td>
<td>0.607</td>
</tr>
</tbody>
</table>

CONCLUSION
This study aimed to explore student beliefs and acceptance of COVID-19 vaccination. The results show that there is a relationship between belief and acceptance of COVID-19 vaccination in nursing students. Nursing students are part of the medical staff so that the results of this study can be used as a reference for optimizing efforts to increase vaccination coverage for the younger generation. In addition, it is necessary to increase understanding through education to students about susceptibility to contracting the Covid-19 virus. Further studies are needed to assess the relationship among variables with larger sample size.

FUNDING
The authors are responsible for all of the study funding without a grant or any external funding source.

CONFLICT OF INTEREST
No potential conflict of interest relevant to this article was reported.

AUTHOR CONTRIBUTION
All authors similarly contribute to the think about from the investigate concepts, information acquisitions, information investigation, factual investigations, changing the paper, until detailing the consider comes about through publication.

ETHICAL CONSIDERATION
The investigators agreed to conduct this study in full agreement with the principles of the Declaration of Helsinki and its subsequent related amendments. This study was approved by the Ethics Committee of the Surabaya Islamic Hospital. Access to patient medical records is provided by the hospital director. All data is fully anonymized before being accessed. Patients whose medical records were selected for analysis sought treatment from September to October 2020 and whose data were accessed from March to April 2020. Letter of exemption Ref. No. 1135/EC.KEPK/UMS/2020.

ACKNOWLEDGMENTS
Thanks to Institute of Helath Science Hafshawaty Islamic Boarding School Zainul Hasan and all respondents who participated in this research.

REFERENCES

This work is licensed under a Creative Commons Attribution

ORIGINAL ARTICLE

Bali Medical Journal 2022; 11(2): 1009-1012 | doi: 10.15562/bmj.v11i2.3448

1012