



Willingness to Get Vaccinated and Attitude Toward COVID-19 among Humanities and Social Sciences Students

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Abstract

Divergent viewpoints about COVID-19 health guidelines continue to impact the collective effort to reduce COVID-19 transmission. Thus, this descriptive-correlational study was conducted to determine if there is a significant relationship between the level of willingness to get vaccinated against COVID-19 and the attitude toward COVID-19 among sixty randomly selected Grade 12 Humanities and Social Sciences students of the University of San Carlos - South Campus in Cebu City, Philippines. Online data collection was done through two adapted and reliable Likert-type survey questionnaires. The findings indicated that the degree of willingness to be vaccinated was high ($x = 3.79$, $SD = .98$), while the level of attitude toward COVID-19 was very high ($x = 4.36$, $SD = .75$). Moreover, the correlation between the two variables was found to be significant, $r(58) = 0.48$, $p = .000104$, $p < .05$ at $\alpha = .05$. Therefore, the null hypothesis of no significant relationship was rejected, and the researchers found that there is a weakly positive correlation ($r = .48$) between the levels of willingness to be vaccinated and the students' attitude regarding COVID-19. This result indicates that their attitude toward COVID-19 improves in proportion to their vaccination willingness. This also suggests that adolescents who understand authorized COVID-19 vaccination guidelines are more eager to get the COVID-19 vaccine. The researchers recommend that more initiatives be developed to boost the public's desire and attitude toward COVID-19 immunization, and that additional research be conducted to validate results and examine trends in other communities.

Introduction

The collective response to global pandemics is a key factor to the survival of the entire human race. Now faced with the COVID-19 pandemic, scientific evidence has shown that mass vaccination and adherence to health protocols must be prioritized. Therefore, it is important to examine the attitude toward COVID-19 and the willingness for vaccination in order to successfully encourage cooperation from the public (Gagani et al., 2021).

COVID-19 vaccine hesitancy and inconsistent health protocol compliance are challenges currently faced on a global scale. The slower vaccination rollout in low and middle-income countries has also left nations unprotected against COVID-19 variants. The Philippines is no exception, with its authorities encountering obstacles in carrying out mass vaccination and in demanding health protocol compliance. For instance, vaccine inequity has affected the country, as evidenced by the unbalanced distribution of vaccines due to limited supply.

Guidry et al. (2021) conducted research on the willingness of adults to receive COVID-19 vaccination under emergency use authorization in the United States. In the study's results,

positive views about the vaccination, strong perceived behavioral control, and few barriers to the vaccine were identified as predictors of desire to take the COVID-19 vaccine. Lazarus et al. (2020) stressed further that building greater levels of confidence in government-sourced information enhances the probability of vaccination adoption. Surveying individuals from 19 countries, this study revealed that 71.5% of respondents would be very or somewhat inclined to get COVID-19 vaccination. In addition, 48.1% of respondents said they were willing to accept their employer's advice to get the vaccination.

Government agencies, according to Syed Alwi et al. (2021), should also improve their campaign and supply adequate vaccine information. A study by Wake (2021) supports this point, after discovering that factors such as attitude toward vaccines and perceived severity of COVID-19 were linked to the respondents' willingness to get the COVID-19 vaccine. Moreover, the study emphasizes that vaccination refusal could prolong the COVID-19 pandemic.

Various studies have also underscored the need to improve public cooperation amid this health emergency. A study by El-Elimat et al. (2021) examined the Jordanian population's acceptance of COVID-19 vaccines, stating that younger individuals were more likely to accept COVID-19 vaccinations. In addition to this, Azene et al. (2021) found that in Ethiopia, there have been insufficient preventive measures on COVID-19. In another study by Acharya et al. (2021) on the attitude of immigrants toward COVID-19 vaccine acceptance in South Korea, more than half of the research respondents (55.3%) were willing to get COVID-19 vaccinations, with their main concern being vaccine safety.

Individuals in the stage of adolescence were more likely to engage in risky COVID-19 protocols in compliance with infection control measures (Dardas et al., 2020). Majority of these individuals tend to put on a more positive attitude toward these preventive measures due to the influence of television and social media as sources of information regarding COVID-19. A study conducted by Abuhammad (2020) stated that parents were also more understanding when it came to COVID-19 preventive measures. Parents who had good information sources relevant to the pandemic also had appropriate attitudes to COVID-19 safety protocols. Lastly, encouragement and recommendations from healthcare professionals have greatly increased the vaccination acceptance rate among Americans, according to a study by Reiter et al. (2020). Respondents were more likely to accept the vaccine if it would be recommended by their doctors.

This study is anchored on the Theory of Reasoned Action (Fishbein & Ajzen, 1975) and the Health Belief Model (Becker, 1974). The Theory of Reasoned Action claims that one's attitudes (beliefs about an action) can influence one's own behavior. Given that this theory suggests that people act based on pre-existing attitudes and behavioral intentions, it helps explain the link between people's attitude toward COVID-19 and the corresponding actions they perform. On the other hand, the Health Belief Model claims that the likelihood of a person's adoption of healthy behavior will depend on two assessments: (1) the threat of a health problem, and (2) the pros and cons of taking action. Six constructs are said to predict health behavior in the Health Belief Model (HBM), and these are: risk susceptibility, risk severity, rewards to action, obstacles to action, self-efficacy, and cues to action (Jones et al., 2015). The approach is founded on the idea that a person's willingness to change their health practices or behavior is largely determined by their health views or perceptions (Boskey, 2020).

Following a review of relevant literature, the researchers were able to identify these research gaps: (1) a lack of studies focusing on students' willingness to get vaccinated specifically in Cebu; (2) a lack of studies centered on the relationship between the willingness to get

vaccinated against COVID-19 and attitude toward COVID-19; and (3) a lack of studies focusing on teenagers' attitudes toward COVID-19 in Cebu City, Philippines.

Due to these gaps, the researchers decided to focus their investigation on determining the relationship between the willingness to get vaccinated against COVID-19 and the attitude toward COVID-19 among Humanities and Social Sciences (HumSS) students at the University of San Carlos - South Campus (USC-SC) during the academic year 2021-2022. The researchers hypothesized that there was no significant correlation between the two variables. Moreover, only Grade 12 HumSS students at USC-SC were included in this research. Students, instructors, and healthcare staff in general may all benefit from increased awareness of the levels of vaccination willingness and attitude toward COVID-19, as well as the association between these two factors. The information that was gathered may be utilized to enhance the COVID-19 programs and policies that are already in place, as well as to urge a rigorous adherence to health procedures. The results of this study, as well as its conclusions and suggestions, may be used by other researchers to further verify the findings.

Methods

This research used a quantitative non-experimental descriptive-correlational method for its data collection and analysis. The purpose of this study was to determine whether or not there is a correlation between the level of attitude toward COVID-19 and the level of willingness to get vaccinated against COVID-19 among sixty (60) Grade 12 Humanities and Social Sciences (HumSS) students for the academic year 2021-2022. Respondents were from the HumSS program at the University of San Carlos in Cebu City, Philippines. They were selected using a simple stratified non-proportionate random sampling method. The Society of the Divine Word (SVD), which is a Roman Catholic missionary religious organization, is in charge of the administration of this private and religiously affiliated institution. The total number of people that participated in the study is shown in Table 1.

Table 1. Respondents of the Study

HumSS Strand	f	rf (%)	Gender	f	rf (%)	Age	f	rf (%)
Block A	21	35%	Female	34	56.67%	17	15	25%
Block B	20	33.33%	Male	26	43.33%	18	37	61.67%
Block C	19	31.67%				19	8	13.33%
Total (n)	60	100%		60	100%		60	100%

The COVID-19 Vaccine KAPC Questionnaire by Kumari et al. (2021) and the Attitudinal Statements Regarding COVID-19 Questionnaire by Al-Hanawi et al. (2020) were the two 5-point Likert type survey questionnaires that were adapted and used to collect data. On the 5-point scale, the intervals utilized were as follows: 1.00-1.80 for "Very Low," 1.81-2.60 for "Low," 2.61-3.40 for "Moderate," 3.41-4.20 for "High," and 4.21-5.00 for "Very High." Even though the instruments had previously been shown to be valid and trustworthy, they were put through pilot testing to ensure that they were appropriate for the present environment and respondents. Both pilot testing and final data collection methods made use of Google Forms. The pilot test obtained a reliability coefficient of 0.76, which is interpreted as acceptable (George, 2011).

Simple percentage, mean, and standard deviation were used in the analysis of the gathered data. Since all of the variables were interval and continuous in form, the correlation between the levels of vaccination willingness and attitude toward COVID-19 was determined using Pearson's r. The original 5-point Likert scale was ordinal in nature but was later converted into an interval scale (Blanco et al., 2020).

Results and Discussion

Based on the gathered data, table 2 presents the level of willingness to get vaccinated against COVID-19.

Table 2. Level of Willingness to Get Vaccinated Against COVID-19

Items	Mean	SD	Description
2. I believe COVID-19 vaccine will be useful in protecting me from the COVID-19 infection.	4.55	0.75	Very High
9. I think it will help in eradicating COVID-19 infection.	4.32	0.83	Very High
10. My role models/political leaders/senior doctors/scientists have taken COVID-19 vaccine.	4.30	0.91	Very High
6. I believe that taking COVID-19 vaccine is a societal responsibility.	4.28	0.98	Very High
5. I feel the benefits of taking the COVID-19 vaccine outweigh the risks involved.	4.27	0.86	Very High
3. COVID-19 vaccine is available free of cost.	4.25	1.07	Very High
1. I think there is no harm in taking COVID-19 vaccine.	4.18	0.93	High
8. Many people are taking COVID-19 vaccine.	4.10	0.82	High
7. There is sufficient data regarding the vaccine's safety and efficacy released by the government.	3.95	0.91	High
13. COVID-19 may be faulty or fake.	3.92	1.08	High
4. My healthcare professional/doctor has recommended me.	3.78	1.09	High
11. COVID-19 vaccine might not be easily available to me.	3.57	1.23	High
16. COVID-19 vaccine is being promoted for commercial gains of pharmaceutical companies.	3.00	1.13	Moderate
15. I might have some unforeseen future effects of the COVID-19 vaccine.	2.95	1.17	Moderate
12. I might have immediate serious side effects after taking the COVID-19 vaccine.	2.68	1.03	Moderate
14. COVID-19 vaccine was rapidly developed and approved.	2.55	0.91	Low
Overall Mean Rating	3.79	0.98	High

The table shows that the level of willingness to get vaccinated against COVID-19 was rated high ($\bar{x} = 3.79$, $SD = .98$). The result aligns with the Health Belief Model's assumption that people's health views and perception have an influence on their willingness to change their health practices and behavior (Jones et al., 2015). Item 2, the highest-rated item which involved the COVID-19 vaccine's usefulness for protection against the COVID-19 infection, was rated

very high ($\bar{x} = 4.55$, $SD = .75$). The item with the second-highest rating was item 9 which focused on the belief that the COVID-19 vaccine aided in eradicating the COVID-19 infection, and this item was also rated very high ($\bar{x} = 4.32$, $SD = .83$). These results indicate that the students considered the COVID-19 vaccine as an effective tool to help shield themselves from the COVID-19 infection.

Furthermore, item 7 which discusses the government’s release of sufficient data about the COVID-19 vaccine’s safety and efficacy was rated high ($\bar{x} = 3.95$, $SD = .91$). In relation to this, a study by El-Elimat et al. (2021) states that individuals who do not trust any information source on COVID-19 vaccines are less likely to accept the aforementioned vaccines. Given that the overall rating of the students’ willingness to get vaccinated against COVID-19 is also high, it is seen that the students have exhibited trust for COVID-19 vaccine information sources.

Moreover, item 16 which discusses COVID-19 vaccine promotion for pharmaceutical companies’ commercial gains garnered a moderate rating ($\bar{x} = 3.00$, $SD = 1.13$). This rating indicates that the students still hold a sense of worry about the possible focus on commercial gains from the COVID-19 vaccines. In addition to this, item 15 was given a moderate rating as well ($\bar{x} = 2.95$, $SD = 1.17$), and this item tackled the students’ views on the possibility of the COVID-19 vaccine’s unforeseen future effects. Item 12 which dealt with the students’ views on the immediate serious side effects of the COVID-19 vaccine was also given a moderate rating ($\bar{x} = 2.68$, $SD = 1.03$). These ratings indicate the students’ concern about the possible side effects brought by the COVID-19 vaccine.

The item with the lowest rating in the list was item 14. This item dealt with the students’ perception of how rapidly the COVID-19 vaccine was developed and approved, and this item was rated low ($\bar{x} = 2.55$, $SD = .91$). This rating indicates that there is no widespread belief among the students that COVID-19 vaccines are rapidly produced.

Table 3. Level of Attitude Toward COVID-19

Items	Mean	SD	Description
2. Washing hands is essential to protect myself from COVID-19.	4.72	0.64	Very High
3. To protect myself from COVID-19 exposure, I should stay home if I am sick, unless I am receiving medical care.	4.70	0.59	Very High
1. It is important to keep my distance from others, to avoid spreading SARS-CoV-2.	4.60	0.67	Very High
6. Compliance with the Ministry of Health precautions will prevent the spread of COVID-19.	4.43	0.67	Very High
4. COVID-19 will eventually be successfully controlled.	4.23	0.83	Very High
5. The Philippines’ strict measures can help win the battle against COVID-19.	3.50	1.07	High
Overall Mean Rating	4.36	0.75	Very High

In totality, the level of attitude toward COVID-19 was rated very high ($\bar{x} = 4.36$, $SD = .75$). This result is supported by the Theory of Reasoned Action with the assumption that the students’ attitudes can influence their behavior (Fishbein & Ajzen, 1975). According to the results shown above, five items were rated very high by the students. Item 2, the highest-rated

item which was about the practice of handwashing for self-protection against COVID-19, was rated very high ($\bar{x} = 4.72$, $SD = .64$). In addition to this, item 1 which involved the importance of social distancing to prevent COVID-19 transmission also garnered a rating of very high ($\bar{x} = 4.60$, $SD = .67$). These ratings demonstrate the students' belief in the value of following science-based procedures to effectively handle the COVID-19 pandemic.

Moreover, item 5, which covers how the Philippines' strict measures help in battling against COVID-19, was rated high by the students ($\bar{x} = 3.50$, $SD = 1.07$). Although this item received a relatively low rating compared to the other items found on the list, it still garnered a high overall rating. This result implies that the students recognize the Philippine government's capability to combat COVID-19. In connection with the students' level of attitude toward COVID-19, a study by Acharya et al. (2021) states that adequate knowledge about COVID-19 health protocols should be ensured to promote positive attitudes in battling the pandemic. Since the students' level of attitude toward COVID-19 is very high, it is observed that the students possess awareness about COVID-19 health and safety measures, and they believe in the importance of adhering to the stated health protocols.

Table 4. The Correlation between the Levels of Willingness to Get Vaccinated Against COVID-19 and Attitude Toward COVID-19

Correlations			
		Willingness to Get Vaccinated Against COVID-19	Attitude Toward COVID-19
Willingness to Get Vaccinated Against COVID-19	Pearson Correlation	1	.484**
	Sig. (2-tailed)		0.000
Attitude Toward COVID-19	Pearson Correlation	.484**	1
	Sig. (2-tailed)	0.000	
N = 60. **. Correlation is significant at the 0.01 level (2-tailed).			

The correlation between the levels of willingness to get vaccinated against COVID-19 and attitude toward COVID-19 among Grade 12 HumSS students was found to be significant, $r(58) = .484$, $p = .000104$, $p < .05$ at $\alpha = .05$. Thus, the researchers reject the null hypothesis stating that there is no significant relationship and conclude that there is a weakly positive correlation ($r = .48$) between the levels of willingness to get vaccinated against COVID-19 and attitude toward COVID-19. This means that the more the students are willing to get vaccinated against COVID-19, the better their attitude toward COVID-19.

The Health Belief Model and the Theory of Reasoned Action were used in this study. These theories have served as guides in the research process and have supported the findings of the study. First, the Health Belief Model was used to determine how the students' health views affected their willingness to change their behavior regarding health practices such as vaccination (Jones et al., 2015). Moreover, the Theory of Reasoned Action was used to examine the connection between the health attitudes that the students held and the corresponding health-related actions they carried out (Fishbein & Ajzen, 1975). Based on the Health Belief Model, the students' positive health views in dealing with the COVID-19 pandemic helped improve their willingness to get vaccinated against COVID-19. Furthermore, in line with the Theory of Reasoned Action, the researchers observed that the students' health

attitudes influenced them to perform health-related actions that adhered to the protocols recommended by the government.

Moreover, a study by Tahir et al. (2021) also supports this study's findings regarding the significant correlation ($r = .48$) between the levels of willingness to get vaccinated against COVID-19 and attitude toward COVID-19. According to the study, the positive attitude toward COVID-19 protocols had a significant connection with vaccine acceptance. Specifically, the study's findings show that the majority of the participants were willing to get vaccinated against COVID-19 due to the attitude they had toward issues brought by the COVID-19 pandemic. This aligns with this study's results on the significant correlation between the levels of vaccination willingness and attitude toward COVID-19, thereby supporting the findings of this study.

Conclusion

Based on the findings of the study, there is a significantly weak positive correlation ($r = 0.484$) between the level of willingness to get vaccinated against COVID-19 and the level of attitude toward COVID-19 among Humanities and Social Sciences students. This means that the higher the willingness to get vaccinated against COVID-19, the better the attitude toward it. This result also implies that students who understand approved health protocols are more likely to get vaccinated. Evidently, the students' vaccination willingness was rooted in varied beliefs. The vaccine's usefulness for protection against infection proved to be the majority's main consideration. Openness to practices such as handwashing and social distancing was also expressed by the students. Lastly, the belief that COVID-19 will eventually be controlled successfully contributed to the students' positive outlook toward the disease. Thus, the researchers recommend the implementation of more programs to increase the public's vaccination willingness and attitude toward COVID-19. Heightened risk awareness and health protocol compliance should be promoted through these programs as well. Lastly, future researchers should conduct studies centered on the public's experiences and viewpoints after COVID-19 vaccination. Doing so aids in effectively examining the patterns and possible changes in COVID-19 risk perception levels across different stages of the pandemic. Studies focusing on people from other vulnerable populations and age groups, such as the elderly, should also be prioritized to facilitate their cooperation with health authorities.

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