Sapporo Medical Journal
Volume 55, Issue 07, July 2021

Women University Student's Attitude towards vaccine and Intension against COVID-19

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Abstract— **Background:** COVID-19 first appeared as a cluster of pneumonia patients with no known cause in Wuhan, Hubei Province, China**. Objectives**: The study aimed to identify the attitude of women university student's towards vaccine and intension against COVID-19**. Methodology:** A descriptive study design was constructive to achieve the objectives of the present study for the period of (1-12-2020) throughout (25-2-2021),used to identify the attitude of Women University Student's towards vaccine and Intension against COVID-19. The setting of the study is carried out in Iraq. In University of Mosul is a public university situated in Mosul. The sample of the study a probability (simple random sample) of (N=100) undergraduate women student in different specialties would be selected.Data obtained by interview technique and analyzed by descriptive statistics such as number, mean, frequency, standard deviation. **Results:**the study finding indicated that themost respondents' attitudes levels towards vaccine and Intension against COVID-19 were moderate attitude (32%),(57%)poor attitude, and (11%) good attitude level**. Conclusion:**This study found that women university students do not have a sufficient basic attitude toward the COVID-19 vaccine, and that there is a need to explain topics relevant to the COVID-19 vaccine. In this regard, professional and non-governmental organizations should collaborate.

Keywords: **University Student's, Attitude, vaccine , Intension, COVID-19**

Introduction:

On December 31, 2019, COVID-19 first appeared as a cluster of pneumonia patients with no known cause in Wuhan, Hubei Province, China [(1)]. The causal agent was discovered to be a new coronavirus that had never been observed in humans before [(2)]. The World Health Organization has given the pandemic sickness caused by this virus a new name:“COVID-19", on January 30th, the epidemic was declared a (PHEIC). [(3)].COVID-19 spread quickly and became a pandemic, posing a significant public health danger. Iraq, a populous Asian country with a huge population, may be relationship with a significant risk of COVID-19 transmission and mortality.[(4,5,6)].Because there is currently no known cure, efficient infection control techniques are the major strategy for limiting the virus's transmission in bothgeneral public and the health care settings [(7)]. Public awareness of how to treat infectious respiratory disorders is critical in reducing the transmission of infection, especially in low- and middle-income countries [(6)].Although the vaccine is now accessible, it will take a long-time for the entire public to obtain therefore crisis management is heavily reliant on individuals adhering to the prescribed guidelines.[(8)].The current pandemic, on the other hand, is occurring against a backdrop of broad global skepticism about vaccination safety and effectiveness [(9)].This is concerning because vaccine uptake is tied to public perceptions of vaccine safety, importance, and effectiveness[(10)(11)].As a result, a negative attitude toward COVID-19 is linked to an increased likelihood of developing the virus. Furthermore, this circumstance may have a negative impact on students' attitudes toward

vaccines and COVID-19 prevention, as well as the propriety of their medical decisions[12].The importance of this study is in a few publications and researches that focus on attitude of women university student's towards vaccine and intension against COVID-19, there is no clear picture about prevalence of COVID-19 between women collegians at university in Mosul.The current study aimed to identify the attitude of women university student's towards vaccine and intension against COVID-19.

Methodology:

A descriptive study design was constructive to achieve the objectives of the present study for the period of (1-12-2020) throughout (25-2-2021),used to identify the attitude of Women University Student's towards vaccine and Intension against COVID-19. The setting of the study is carried out in Iraq. In University of Mosul is a public university situated in Mosul. It's one of the largest educational and research centers in the Mosul City, and the second largest in Iraq, behind the University of Baghdad. Contain of 22 colleges in different specialties divided in to four colleges in the University of Mosul's Engineering, Sciences, Medicine and Education College. Mosul University is located in the north side of the center of Mosul City at the right braid of the Tigris River. The sample of the study a probability (simple random sample) of (N=100) undergraduate women student in different specialties would be selected. The study sample will be recruited from (4) colleges in the University of Mosul's Engineering, Sciences, Medicine and Education Colleges. The data are collected from the collegians through the utilization of the study instrument. Each collegian spends approximately (15) minute to have the questionnaire completed.The questionnaire consists of two parts, part one demographic variable includes: age, marital status,specialty and residential unit. Part two about theAttitudes and intentions about vaccination, the 12-item “Vaccination Attitudes Examination (VAX) Scale”[13] was used to assess negative general attitudes regarding vaccines. It is categorized into six main points, with one indicating "strongly agree" and six indicating "strongly disagree." The four subscales below were calculated: 1) doubts about vaccination's effectiveness, 2) concerns about unknown future effects, 3) profiteering for profit, 4) Natural immunity is preferred, all of which had previously been obtained 17. Low (1-2score), moderate (3-4 score),and high(5-6 score)levels of unfavorable attitudes toward the environment were assigned to each of the four subscales. Data is analyzed using the "Statistical Package for Social Science" software for Windows (Ver: 23). One approaches are employed for the data analysis which includes: Descriptive Statistical Data Analysis Approach:(Percent, Mean, Standard division (SD).

Results:

Table (1): Mean, percentage and frequency of Collegians at university during the demographical characteristics

Collegians at university	Number %	Mean ±SD score
(A):Age		
18-21 Years	24(24%)	24.6±0.79
22-25 Years	66(66%)	
26-29 Years	10(10%)	
(B) Martial status		
Signal	85(85%)	
Married	14(14%)	
Widowed	1(1%)	

(C) Residential unit		
House owner	80(80%)	
House rent	20(20%)	
(D) Types of Study		
Medicine groups	17(17%)	
Engineering groups	15(15%)	
Scientific groups	44(44%)	
Humanity groups	24(24%)	

Table 1 shows that the study participants were 100 students between 18 - 29years old, and the overall mean age for the participants was 24.6 (SD = 0.79).Regarding other demographic characteristics, most of the participants for the were single (85%) and house owner (80%).

Table(2): Classification of socioeconomic classes according to Kuppuswamys Score.

Class	Total Score	Frequency	Percentage
Upper Class	26-29 score	15	15%
Upper middle class	16-25 score	19	19%
Lower middle class	11-15 score	13	13%
Upper lower class	5-10 score	44	44%
Lower class	Less than 5	9	9%

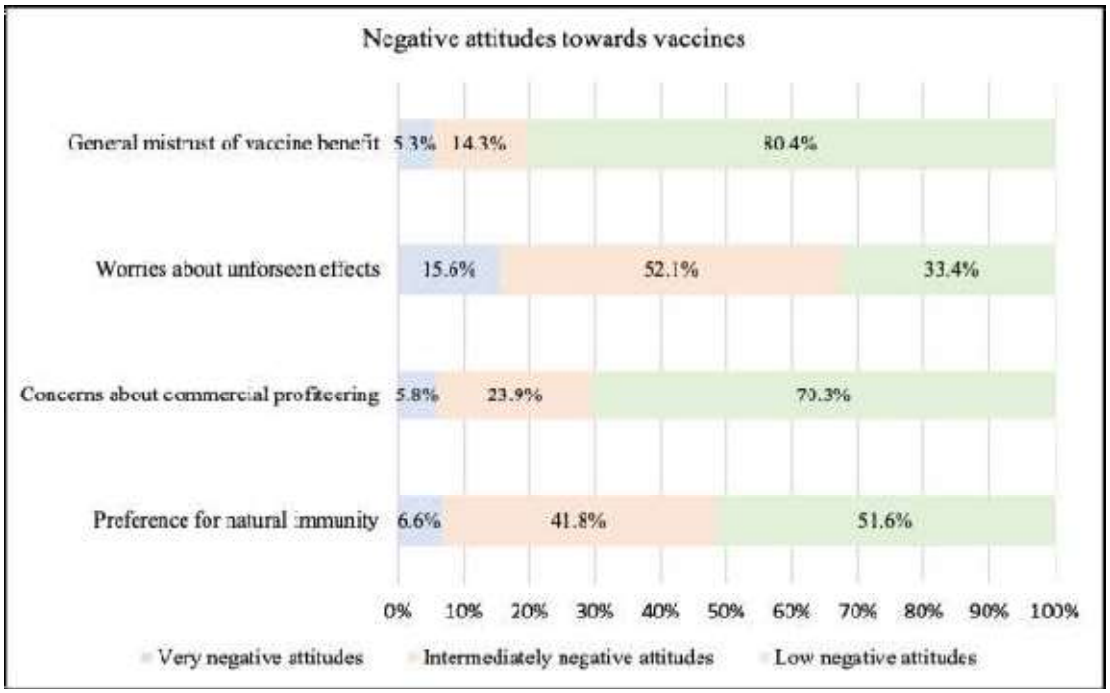
Total score distributes according kuppuswamys: upper class(26-29) upper middle class(16-25); lower middle class(11-15); upper lower class(5-10); lower class less than 5.

This table shows that the majority of participants in study were upper lower class according to Kuppuswamy's scale approximately (44%), while, and less percentage was (9%).This indicates that the family's income is weak between students.

Table (3). Assessment of the University Student's Attitude towards vaccine and Intension against COVID-19

Attitude level	Frequency	Percent
Poor Attitude	57	57%
Moderate Attitude	32	32%
Good Attitude	11	11%
Total	100	100%

Table 3 showed that the most respondents' attitudes levels towards vaccine and Intension against COVID-19 were moderate attitude(32%) ,(57%)poor attitude, and (11%) good attitude level



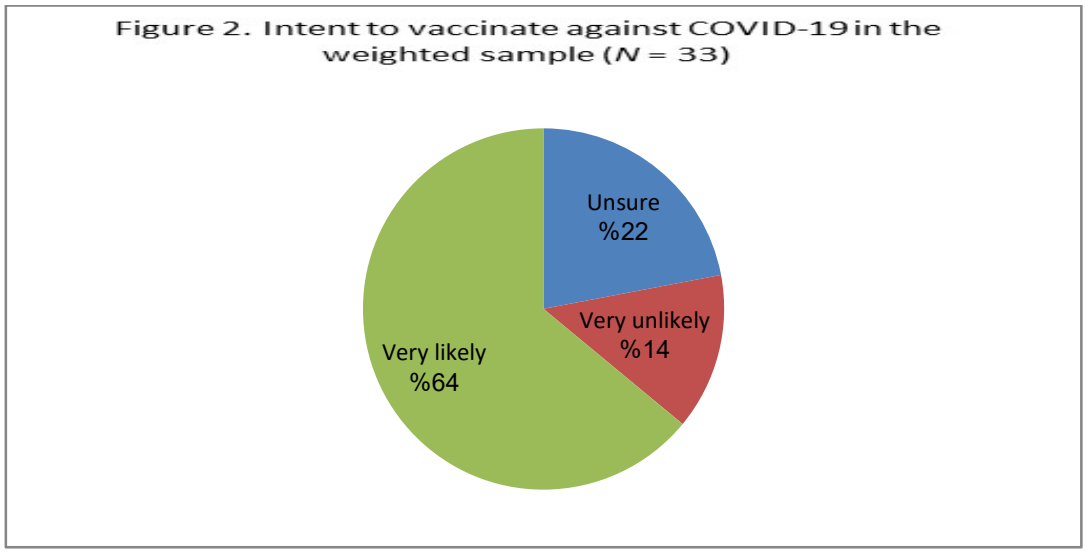


Table 4: Risk Factors associated with Intension Vaccine among students in Mosul University

Variable	Intension Vaccine		COR, 95%CI	AOR, 95%CI	*P*value
	Yes	No			
	33%	67%	2.38 (1.78, 3.19)	3.11 (2.20, 4.39)	<0.001

The rate of students' intention to use vaccines in this study is 33%, and this percentage is very low, knowing that students are vulnerable to infection with the Corona virus. This may be due to the fact that the students did not receive details and detailed information about a vaccine, its offers and benefits. Moreover, this can be attributed either to a lack of vaccinations within the university or to a lack of educational means in universities

Discussion:

This is the first analysis to look at the factors that influence unwillingness to vaccinate against COVID-19, as well as the causes of adverse vaccine attitudes[14.15.16.17] .Women university students are also more hesitant or unwilling to be vaccinated against COVID-19, according to prior study from Australia and the US. Our findings suggest that general skepticism about vaccine benefits and safety, as well as concerns about vaccine unpredictability is the most significant behavioral and attitude barriers to receiving a COVID-19 vaccine.[18,19,20] .This echoes some prior workindicating that poor vaccination trust and worries regarding the COVID-19 vaccine's uniqueness and safety are significant behavioural and attitudinal hurdles to vaccine willingness. Other significant behavioural and attitudinal impediments includeCOVID-19 government requirements are not being followed, and there is a lack of information concerning COVID-19.It has also been demonstrated in previous papers[21,22,23] .The study finding showed that the majority of the study sample were aged between 18 - 29years old, and the overall mean age for the participants was 24.6 (SD = 0.79).Regarding other demographic characteristics, most of the participants for the were single (85%) and house owner (80%).This study shows that the majority of participants in study were upper lower class according to Kuppuswamy's scale approximately (44%), while, and less percentage was (9%).This suggests that the family's income is insufficient to support both pupils. People from poorer socioeconomic backgrounds are more likely to be hesitant or afraid to get vaccinated, which could make the situation even riskier.The study demonstrated that the most respondents' attitudes levels towards vaccine and Intension against COVID-19 were poor attitude,(57%),(32%) moderate attitude, and (11%) good

attitude level. The main reason is that most students at the university are not convinced of the corona virus vaccination, because they do not have enough information about the vaccine and the method of taking the dose.In the first table, our study shows that the intention of the students to be vaccinated with the Corona virus vaccine was weak, and this has several reasons, including lack of education towards this subject, as well as no clear vision of the details of vaccination. In addition, using a Likert scale to measure vaccine intentions may have resulted in central tendency bias. It will be critical in the future to assist in public education on how vaccines operate and how their safety is determined. Educational Internet-delivered interventions, as well as dialogue-based interventions aimed at dispelling misinformation about vaccine safety in healthcare settings, have shown encouraging outcomes.Increasing vaccine confidence while reducing vaccine fear[24].Although one of the study's merits is that it focused on opinions regarding vaccines in rather than specific the COVID-19 vaccine, it did have several limitations; we can't say how much fear of a COVID-19 vaccine influenced participant responses to vaccine views.

Conclusion:

This study found that women university students do not have a sufficient basic attitude toward the COVID-19 vaccine, and that there is a need to explain topics relevant to the COVID-19 vaccine. In this regard, professional and non-governmental organizations should collaborate.

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