The difference between male and female attitudes toward COVID-19 vaccination

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Abstract

It is essential to achieve herd immunity in order to control the COVID-19 pandemic, and this requires a high level of vaccination rate. Despite the importance of vaccination, hesitancy and unwillingness in receiving the COVID-19 vaccine still exists. It is therefore crucial to comprehend the intentions of adults regarding COVID-19 vaccination, which is beneficial for establishing community immunity and an efficient future pandemic response. The aim of this study to examine the difference between men and women attitudes towards coronavirus vaccine. Methods cross-sectional survey is conducted in this study and (nonprobability convenience sampling technique) is used for collecting data. Total samples of (349) adult person has been taken in (150) participants were taken from Al-Diwaniyah Teaching Hospital, (75) participants were taken from Public Health Center, (45) participants were taken from Orouba Preparatory School and (80) participants were taken from Al-Qadisiyah University the current study. The samples are assessed attitudes adult community towards the COVID-19 Vaccination through a questionnaire. The results of the current study have their no different between male and female in their attitudes toward Corona Vrus vaccine.

Keywords: attitudes, adult community, covid-19 vaccination

Introduction

The emergence of the novel coronavirus disease 2019 (COVID-19) was initially observed in Wuhan city, China, in late 2019, and it rapidly spread to become a global pandemic (S. Ghosh, 2022) [1]. Confirmed cases and deaths have been reported in over 200 countries worldwide. According to the World Health Organization (WHO)'s report as of May 23, 2023 by that point there had been over 766 million cumulative cases and over 6.9 million deaths globally due to COVID-19 (B.O. Botwe *et al*., 2022) [2].

This pandemic has resulted in significant losses and widespread socioeconomic distress across the globe quarantine, and travel restrictions, among others. As part of the ongoing measures to restrict the spread of the COVID-19 pandemic, vaccination played a crucial role in curbing and resolving the COVID-19 pandemic [12-14]. Thus, shortly after the outbreak of the disease was declared, there was an urgent call for COVID-19 vaccine research and development by the WHO (K. Dou *et al*., 2022) [3].

The COVID-19 pandemic has spurred unprecedented efforts in vaccine research [16-18] and development in terms of speed and scale, resulting in the approval of several vaccines by the WHO, such as Moderna, Pfizer/BioNTech, and AstraZeneca. Despite this progress, vaccine hesitancy remained a widespread issue, with vaccine refusal observed globally, hindering the high vaccination rates necessary to achieve herd immunity (A. Moini *et al*., 2023) [4].

Immunization programs have significantly reduced morbidity and mortality worldwide, Studies have shown that 2.5 million lives around the world are saved by vaccination against tuberculosis, poliomyelitis, diphtheria, tetanus and measles every year (Verulava *et al*., 2019).

There is an urgent need to produce safe and effective vaccine to immunize as large as possible number of population to protect the entire global society from the serious of morbidity and mortality from severe corona virus (Corey L *et al*., 2020).

Vaccinations become the most important public health intervention for reducing the spread and harm caused by dangerous diseases and complications, many studies showed that vaccine hesitancy was higher in women, younger age groups and those with lower education levels (Robertson E *et al*., 2021).

The seriousness of COVID-19 emerges among old age people who have chronic diseases such as hypertension, diabetes mellitus, chronic respiratory and other health problems that affect negatively on immune system and present complications. In addition to that, mutilations of virus produce confusion related management of infection that increase complications and mortality rate (Lippi G *et al*., 2020).

Materials and methods

Design of the study

Cross-sectional (survey study) has been conducted in the current study. It has male and female the private attitudes toward COVID-19 vaccination in Al-Diwaniyah City starting between 10th August to 2023.

Sample and sampling of the study

Non probabilitya sampling technique (Convenience) samples of (349) adult person has been taken in (150) participants were taken from Al-Diwaniyah Teaching Hospital, (75) participants were taken from Public Health Center, (45) participants were taken from Orouba Preparatory School and (80) participants were taken from Al-Qadisiyah University the current study.

Ethical consideration

Participants have received information about the study and its objectives, and their consent to be volunteers has been taken with consideration of confidentiality. Permission for conducting this study has been obtained from the ethical committee in Faculty of medicine, this is one of the most basic principles before gathering the data, to protect the participants values and dignity.

The study instrument and data collection

To achieve the aims of the study, Instrument was developed after reviewing the relevant studies that concerning with attitudes toward COVID-19 vaccination, and this questionnaire has two parts, which are explained in the following Questionnaire, The Questionnaire consists of two parts:

Part 1: Demographic data

This part is concerned with participants socio- demographic data. A demographic data sheet, that consists of (7) items, which contain (age, marital status, educational level, monthly income, residency, gander, occupation).

Part II: Attitudes toward COVID-19

This part is concerned with the collection of general information about COVID-19 vaccination, consist of 35 items including attitudes adult community towards the COVID-19 vaccination (Al-Sanafi at el., 2021).

Statistical Analyses

Descriptive statistics: (Frequency and percentage tables; mean and standard deviation). Inferential Statistics: (Chi-square test to retest).

Study results

Table 1: Descriptive statistic study sample demographic data (n=349)

Items	Sub-groups	Frequency	Percentage
Age/years	18-25	179	51.3
	26 – 33	79	22.6
	34 – 41	29	8.3
	42 – 49	31	8.9
	50+	31	8.9
	Total	349	100.0
Gender	Male	123	35.2
	Female	226	64.8
	Total	349	100.0
Marital status	Married	158	45.3
	Single	158	45.3
	Widowed	11	3.2
	Divorced	6	1.7
	Separated	16	4.6
	Total	349	100.0
Monthly income	Less than 300000	79	22.6
	300000-600000	159	456.
	900000-601000	64	18.3
	901000 -1200000	7	2.0
	1200000 -1500000	10	2.9
	1501000and more	30	8.6
	Total	349	100.0
Residence	Urban	203	58.2
	Rural	146	41.8
	Total	349	100.0
Levels of education	Unable to read and write	63	18.1
	Read and write	37	10.6
	Elementary school graduate	32	9.2
	Middle school graduated	77	22.1
	High school graduate	62	17.8
	Diploma	41	11.7
	Bachelor degree and above	37	10.6
	Total	349	100.0
Occupation	Governmental employee	68	19.5
	Unemployed	103	29.5
	Housewife	44	12.6
	Retired	6	1.7
	Student	128	36.7
	Total	349	100.0

Table 2: Association between overall attitudes of male and female toward covid-19 vaccination and their demographic data (n=490)

Demographic data	Chi-square value	D.F.	*p* value	Sig/N. Sig.
Age/Years	46.622	12	.000	S
Gender	6.695	3	.082	N
Marital status	53.134	12	.000	S
Residence	18.927	3	.000	S
Economy	97.688	15	.000	S
Education Levels	60.491	18	.000	S
Occupation	94.070	12	.000	S

DF: Degree of freedom, *p*: Probability value; NS: Non-significant at $p \geq 0.05$, S: significant at $p < 0.05$.

Table (2) demonstrates that a statistical association between all the respondents' demographic data and their attitudes at $p < 0.05$.

Discussion

Throughout the course of the data analysis of the current research, the results display that the highest percentage of the age of the subgroups of adult community are: adult with ages (18-25) years old with (51.3%). Because the places where the sample was collected, most of them are students, so their ages range between (18-25). This result agrees with the previous study that was performed by (Alalmaei Asiri *et al*., 2023) [7], Regarding the gender, the results of study reveals that the female adult community percentage was (64.8%) while male adult community' percentage was (35.2%) because most of the sample were women and always have views and share to know more details about the COVID-19 vaccination, which is more in women. This result agrees with the previous study that was conducted by (Valero-Martínez *et al*., 2023) [8], regarding to residence, the current study found that the percentage of study sample who live in urban areas was about (58.2%). Perhaps as a result of the high population density in urban areas and the migration of people from rural areas to towns, this image of Iraqi society is more plausible. This result is consistent with the previous study conducted by (Salama *et al*., 2023) [9], Regarding the marital status, adult who are married were (45.3%). This finding maybe since the age are participants matched with marriage, and this age is considered as suitable in our culture for marriage. This result agrees with (Yohannes *et al*., 2023) [10], regarding the level of education, adult community are showing middle school graduated were (22.1%), this result is agreement with the result of (Muluneh *et al*., 2023) [11], In this study, the monthly income shows that the adult community with roughly (300000-600000) monthly income recorded (45.6%). This result is agreement with the result of (Al-Qerem *et al*., 2022) [12]. Table (2) association between overall attitudes of male and female toward covid-19 vaccination and their demographic data: The present study shows the association between the overall attitudes of adult community toward COVID-19 vaccination and their demographic data were a significant association ($p < 0.05$) except: gender in which there was a non-significant association ($p > 0.05$) with attitudes of adult community toward covid-19 vaccination. Regarding age, the attitudes level is significantly among the group (18-25) year, compared to other groups. This outcome can be interrupted as: this category does not have enough knowledge about how to attitudes COVID-19 vaccination. The study is similar with (Stead *et al*., 2021) [13] with relation to gender, females had a non-significantly about to attitudes COVID-19 vaccination higher level than males. This agrees with the study (Sonmezer *et al*., 2022) [14], regarding to the marital states, this finding corresponds with a cross-sectional study conducted by (Al-Qerem *et al*., 2022) [12] regarding residence, the majority of respondents (58.2%) reside in urban areas had significantly with attitudes toward COVID-19 vaccination. This finding corresponds with a cross-sectional study conducted by (Omar *et al*., 2021) [15], regarding income the results a significant with attitudes toward COVID-19 vaccination. This finding corresponds with a cross-sectional study conducted by (Emire *et al*., 2023) [16] regarding education the results a significant with attitudes toward COVID-19 vaccination. This finding corresponds with a cross-sectional study conducted by (Martinez *et al*., 2022) [17], Regarding Occupation the results a significant with attitudes toward COVID-19 vaccination. This finding corresponds with a cross-sectional study conducted by (Yohannes *et al*., 2023) [18].

Conclusion

Their no different between male and female in their attitudes toward Corona Vrus vaccine.

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