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Relationship between Symptoms Resulting from Taking the Covid-19 Vaccine, Health and Knowledge

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A B S T R A C T

To prove the Effect of the Covid-19 vaccine and the symptoms resulting from the immune response. Questionnaires and personal interviews were taken from those vaccinated. 147 males (47.9%), 160 females (52.1%), mean and SD. Sequentially (1.48) (0.500), mean ages (10-90) years and SD sequentially (3.17) (1.413), mean and SD of sequential learning (2.96) (1.622), who received one dose was 99 (32.3%), and those who took two doses were 208 (67.8%). For those who have symptoms after vaccination, yes 141 (46.0%), no 42 (13.7%), and 124 (49.4) were unknown. And the relationship between symptoms after vaccination for gender R is (0.110), P-value = 0.054 = 0.05 which indicates a tiny relationship with symptoms after vaccination, were for age R (0.007), P-value (0.908) > 0.05, indicating no relationship between age and symptoms after vaccination, the relationship between chronic disease and appearance of symptoms, R= (0.724**), P –Value (0.000 < 0.005).

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INTRODUCTION

The Libyan health authority should improve the public health capacities and conduct strict hygienic measures in the society and vaccinate as many people against Covid-19 to minimize both the case fatality ratio and socio economic impacts of the pandemic in Libya (Mahmoud et al., 2021). The low levels of awareness, as well as the attitudes and behaviours among the public in Libya, are worrisome. This study highlighted profound gaps that may put Libyan communities at high risk of a Covid-19 explosion. Therefore, immediate action is needed to address public awareness and attitudes and to improve Covid-19 related behaviours among the Libyan public (Alhadi Jahan et al., 2021). The delay or refusal of vaccination, which defines vaccine hesitancy, is a major challenge to successful control of the Covid-19 epidemic.

The huge number of Publications addressing Covid-19 vaccine hesitancy necessitates periodic review to provide a concise summary of Covid -19 vaccine acceptance rates worldwide. In the current narrative review, data on Covid -19 vaccine acceptance rates were retrieved from surveys in 114 countries/ territories (Sallam et al., 2022). The world has a chance to see a real end to the Covid -19 pandemic. To make this possible, however, it is necessary that all groups of people are considered. Vaccination campaigns often forget the contexts of informal settlements and populations such as the homeless and migrants (Bentivegna et al., 2022). Since the Covid -19 vaccine is not currently available, Governments have imposed new precautionary measures in order to limit and slow the spread of this pandemic such as social distancing and quarantining. These measures are still insufficient and additional restrictions should be developed.

In this context, by adopting another more scientific axis to overcome this disease, many researchers have started to decipher the relations between existing vaccines and the Covid -19 infection rate (Farhani et al., 2022). The elderly in Chiang Mai, Thailand, have adequate knowledge and awareness about Covid -19 and are generally optimistic about resolving the pandemic and addressing the public concerns, raising awareness about Covid-19 vaccination as a disease-control method to prevent further deterioration of general public health due to Covid -19 (Wungrath et al., 2022a). The study participants' Vaccination acceptance rate is almost the lowest when compared to their peers A Lot of efforts should be made to correct misinformation about the vaccine and answer all questions about it, especially with a health system that has been ravaged by war for 10 years (Shibani et al., 2021).

The availability of transparent information about vaccine efficiency and safety can play a key role for everyone to be encouraged to take vaccination without any doubt. (Biswas et al., 2021). Having a viable vaccine available even a week earlier may reduce the economic costs associated with Covid-19 substantially (Hafner et al., 2020). The crowding effect reduces the impact of vaccination. (Raza et al., 2022), influenza vaccination does not affect the risk of SARS-CoV-2 infection or Covid-19 disease (Kristensen et al., 2022). Timing of effects among index patients who had been vaccinated at any time up to the date of the positive test. (Harris et al., 2021).

Government agencies should actively promote the effectiveness and importance of vaccination while addressing concerns about vaccine safety in public; Health initiatives also need to enhance the level of knowledge about Covid-19 vaccines through various media channels (Quattrocchi et al., 2022). Ethiopia's Ministry of Health announced the introduction of the Covid-19 vaccination at a high-level national event where frontline health workers were vaccinated to kick off the vaccine campaign (Suthar et al., 2022). Vaccination of health care workers was associated with a substantial reduction in Covid-19 cases in household contacts consistent with an effect of vaccination on transmission (Shah et al., 2021).

Covid-19 vaccination with two doses in elders improves the perception of Covid-19 infection consequences (Alarcon-Ruiz et al., 2022). Framing Covid-19 vaccination uptake as a behaviour allows us to draw upon decades of research aimed at understanding factors that affect what people think, feel, decide, and ultimately do (Crawshaw et al., 2021). While addressing concerns about vaccine safety in public; Health initiatives also need to enhance the level of knowledge about Covid-19 vaccines through various media channels (Zheng et al., 2022). The use of HPV vaccines that protect against HPV6 and HPV11 infection in vaccination programs has led to a reduction in the incidence of JoRRP through the elimination of the maternal source of infection (RY Seedat, 2022). The acceptance of vaccines against Covid-19 is vital to fight this pandemic (Wake, 2021). Concerns about side effects of the vaccine were independently associated with vaccine hesitancy and vaccine resistance.

THEORETICAL REVIEW

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METHODOLOGY

The place of implementation and conduct of the search the research was conducted on everyone who took two doses of the covid-19 vaccine inside the city of Derna and at all different ages and the timing of the search in the period between 2020 and 2022. The sample that was selected includes 310 individuals of all ages, including those with chronic diseases. The questionnaire with interviews consisted of It included various questions asked about The effect of the vaccine Symptoms after the vaccine, concerns about the effect of the vaccine and the benefits, the safety of the vaccine in the future, and the effectiveness of the vaccine. Online questionnaire by google form also included previous various questions, the collected data were transferred to excel and then to spss. Distribute the questionnaire to the sample members of Hospitals, universities, as well as places to receive the vaccine, visit doctors and places of isolation, through media platforms, educational Facebook pages. Collecting and classifying questionnaires and then emptying them into statistical tables according to statistical programs, type SPSS, updated 26.using the frequency, percent, mean, SD, and correlation.

RESULTS

The Reliability Statistics of data was (0. 905) < (0.40) that`s indicates to reality of data.

Table 1. Demographic Parameters of Who have Doses of Covid-19 Vaccination

Demographic parameters	Frequency	Percent %	Mean	SD
Gender				
Male	147	47.9	1.48	0.500
Female	160	52.1		
Age				
10 - 20 years	19	6.3		
21 - 30 years	106	34.5		
31 - 40 years	72	23.5		
41 - 50 years	54	17.6	3.17	1.413
51 – 60 years	30	9.8		
61 – 70 years	23	7.5		
71 – 80 years	2	0.7		
80 – 90 years	1	0.3		
Education				
Secondary School	76	25.0		
High Diploma	54	17.8		
Bachelors	84	27.4		
Middle Diploma	18	5.9	2.96	1.622
Master	49	16.0		
PhD	26	8.5		
Total	**307**	**100.0**		

Table 2. Questions and Answers about Symptoms Resulting from Taking the Covid-19 Vaccine on the Health of Libyan Citizens

Questions	Answer n (%)		
	Yes n (%)	No n (%)	Don`t Know n (%)
Who know about COVD-19	296(96.4)	9 (2.9)	2(0.7)
Who suffer from chronic diseases such as, diabetes or stress, or other diseases	97(31.6)	82(26.7)	128(41.7)
Who have information about the COVID-19 vaccine	203(66.1)	71(23.1)	33(10.7)
Who think the corona vaccine will be safe in the future	203(66.1)	71(23.1)	33(10.7)
Who believe in the benefit of the vaccine against the Corona virus	209(68.1)	58(18.1)	40(13.0)
Who think that the Corona virus is a laboratory-made virus	136(44.3)	109(35.5)	62(20.2)
Who take the precautionary measures to prevent the spread of the Corona virus seriously	238(77.5)	36(11.7)	33(10.7)

Who think that the quarantine has a role in limiting the spread of the virus	193(62.9)	89(29.0)	25(8.1)
Who infected with Corona virus	139(45.3)	77(25.1)	91(29.6)
who trusted to store the vaccine well	156(50.8)	71(23.1)	80(26.1)
Who have two doses of the COVID-19 vaccine	208(67.8)	99(32.2)	0(00.0)
Who have any symptoms before taking the vaccine	97(31.6)	68(22.1)	142(46.3)
Who have any symptoms after taking the vaccine	141(45.9)	42(13.7)	124(40.4)
Who have antipyretic after vaccination	179(58.3)	68(22.1)	60(19.5)
Who suffered from high temperature or changes in blood sugar or any convulsions after receiving the Covid-19 vaccine	137(44.6)	77(25.1)	93(30.3)
Who have COVID-19 after receiving the vaccine	52(17.1)	115(37.8)	137(45.1)
Have you been hospitalized after receiving the COVID-19 vaccine	52(16.9)	114(37.1)	141(45.9)
Who have different types of vitamins to improve the immune system	234(77.2)	36(11.7)	34(11.1)
Who have COVID-19 infection after receiving the vaccine	52(16.9)	118(38.4)	137(44.6)
Those who recover from COVID-19 have good immunity without getting vaccinated	112(36.5)	126(41.0)	69(22.5)
Who have eating foods rich in zinc strengthen the immune system	235(76.5)	40(13.0)	32(10.4)
Infected by the COVID-19	105(34.5)	82(27.0)	117(38.5)
who died after receiving the COVID-19 vaccine	82(26.7)	123(40.1)	102(33.2)

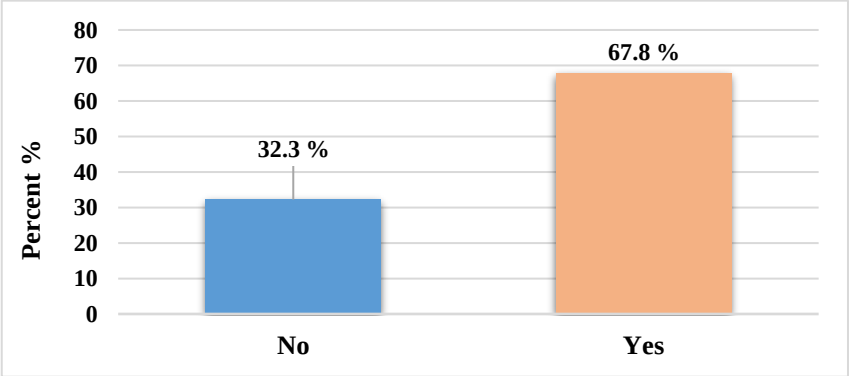

Figure 1. Frequency and Present of Who have Two Doses of the Covid-19 Vaccine

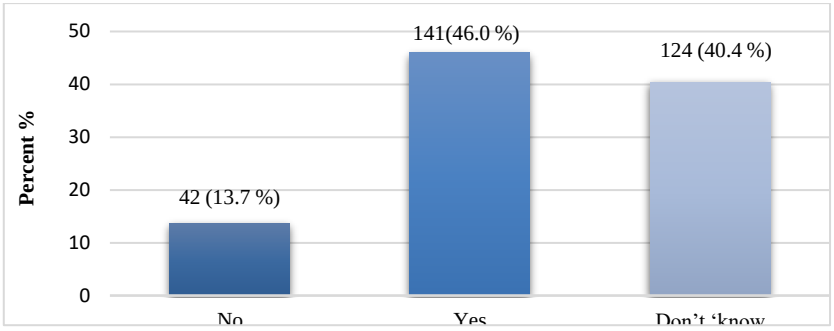

Figure 2. Frequency and Present of have any Symptoms after Taking the Vaccine

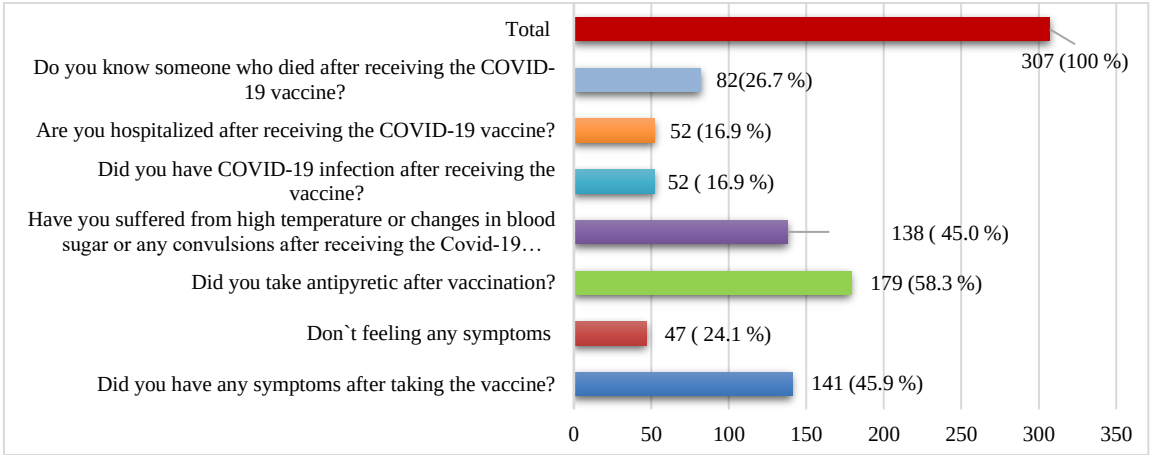

Figure 3. Frequency and Present of Symptoms after Taking the Vaccine

Table 3. The Correlations between Gender Symptoms after Vaccination

Correlations	Symptoms After Vaccination	
Gender	R	0.110
	P – Value	0.054
	N	307

Table 4. The Correlations between Age Symptoms after Vaccination

Correlations	Symptoms After Vaccination	
Age	Correlation (R)	-0.007-
	P – Value	0.908
	N	307

Table 5. The Correlations between Education and Who had Doses of the Covid-19 Vaccine

Correlations	**Who had doses of the COVID-19 vaccine**	
Education	Correlation (R)	0.202**
	P – Value	0.000
	N	307
**. Correlation is significant at the 0.01 level (p-value).		

Table 6. The Correlations between Symptoms after Vaccination and Who had Doses of the Covid-19 Vaccine

Correlations	**Who had doses of the COVID-19 vaccine**	
Symptoms after Vaccination	Correlation(R)	0.741**
	P -Value	0.000
	N	307
**. Correlation is significant at the 0.01 level ((p-value).		

Table 7. Correlations between Who Died after Receiving the Covid-19 Vaccine?

Correlations	**Who died after receiving the COVID-19 vaccine**	
Who have two doses of the COVID-19 vaccine	Correlation(R)	0.418**
	P – Value	0.000
	N	307
**. Correlation is significant at the 0.01 level (p-value).		

Table 8. Correlations between Suffer from Chronic Diseases & Symptoms after Receiving the Covid-19 Vaccine

Correlations		**After Vaccine**
Who suffer from chronic diseases such as, diabetes or stress, or other diseases?	R	0.724**
	P - Value	0.000
	N	307
** Correlation is significant at the 0.01 level (P-value).		

DISCUSSIONS

The Reliability of data Statistics was (0. 905) < (0.40) which indicates the reality of the data. The place of implementation and conduct of the search the research was conducted on everyone who took two doses of the covid-19 vaccine inside Derna City and at all different ages and the timing of the search in the period between 2020 and 2022. The selected sample that was includes 310 individuals of all ages, including those who have chronic diseases, Table (1) shows the demographic parameters of those who have doses of Covid-19 Vaccination, gender male 147(47.9 %), female 160(52.1 %), Mean & SD sequentially (1.48) (0.500), ages between 10 – 90 years Mean & SD sequentially (3.17)(1.413), about Education, the levels were Secondary School, High Diploma, bachelor, Middle Diploma, Master's, and PhD, Mean & SD sequentially (2.96) (1.622). Table (2) illustrates the answers to questions about Symptoms Resulting from having the Covid-19 vaccine on the health of Libyan citizens, the answers were yes, no, and don't know.

Who have any symptoms after taking the vaccine 141 (45.9%), who have antipyretic after vaccination 179 (58.3%), Who suffered from high temperature or changes in blood sugar or any convulsions after receiving the Covid-19 vaccine 137 (44.6%), Who have Covid-19 after receiving the vaccine 52 (17.1%). Who has

been hospitalized after receiving the Covid-19 vaccine 52 (16.9%), Who have Covid-19 infection after receiving the vaccine 52 (16.9%), died after receiving the Covid-19 vaccine 82 (26.7%), Figure (1) illustrates those who have doses of the Covid-19 vaccine, which received a single dose 99 (32.3 %) and those who took two doses 208 (67.8 %).

It is apparent from the results in Figure (2) that the those who have symptoms after taking the vaccine, which answered by yes 141(46.0 %), by no 42(13.7 %), and by don't know 124 (49.4 %), It can be seen in figure (3) that the symptoms after having the vaccine. The highest percentage for those who take antipyretics after the vaccine is 179(58.3%), and the lowest percentage for those who hospitalization after a vaccine and who have been re-infected by a virus after the vaccine by 52(16.9%). In the table (3) it is noticeable that the relationship between Gender Symptoms after Vaccination was, (R) that (0.110), P– value 0.054 = 0.05 this means that there is a simple relationship between the type and symptoms after taking the vaccine. It can be seen in table (4) that the relationship between age and Symptoms after Vaccination was (R) (-0.007-),

P – Value (0.908) > 0.05, this shows that there is no relationship between age and the type of symptoms after taking the vaccine. Because (R) result was negative and p-value > 0.005. The obtained results in a table (5) prove that there is a strong relationship between education and who had doses of the Covid-19 vaccine that the P-Value 0.000 < 0.005 is sig nificant at the 0.01 level, and (R) 0.202. In table (6) As for the relationship between taking doses of the Covid-19 vaccine and symptoms, the results showed R (0.741), P – Value < 0.000 the Correlation is a significant effect of vaccine and the appearance of symptoms. Table (7) indicates the relationship between Symptoms after Vaccination and who had doses of the Covid-19 vaccine, (R) (0.741**), P –Value (0.000). (R) For those who died after receiving the Covid-19 vaccine the correlation was 0.418, P – Value 0.000, < 0.005. Table (8) indicates the relationship between chronic disease and appear of symptoms after vaccination because the correlation was R= (0.724**), P –Value (0.000 < 0.005). Compared with the results in previous studies, we found that there is an agreement with the results of this research, from previous.

CONCLUSIONS AND RECOMMENDATIONS

The symptoms resulting after taking the Covid 19 vaccine are not evidence of the seriousness of the vaccine and have nothing to do with age or gender and have a strong relationship to chronic diseases. Where citizens' awareness helps in receiving the Covid-19 vaccine. The Libyan health authority should improve the public health capacities and conduct strict hygienic measures in the society and vaccinate as many people against Covid-19 to minimize both the case fatality ratio and socio economic impacts of the pandemic in Libya (Mahmoud et al., 2021). The low levels of awareness, as well as the attitudes and behaviours among the public in Libya, are worrisome. This study highlighted profound gaps that may put Libyan communities at high risk of a Covid-19 explosion. Therefore, immediate action is needed to address public awareness and attitudes and to improve Covid-19 related behaviours among the Libyan public

FURTHER STUDY

Therefore, immediate action is needed to address public awareness and attitudes and to improve Covid-19 related behaviours among the Libyan public (Alhadi Jahan et al., 2021). The delay or refusal of vaccination, which defines vaccine hesitancy, is a major challenge to successful control of the Covid-19 epidemic. The huge number of Publications addressing Covid-19 vaccine hesitancy necessitates periodic review to provide a concise summary of Covid-19 vaccine acceptance rates worldwide. In the current narrative review, data on Covid-19 vaccine acceptance rates were retrieved from surveys in 114 countries/ territories (Sallam et al., 2022). The world has a chance to see a real end to the Covid-19 pandemic. To make this possible, however, it is necessary that all groups of people are considered.

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