The Impact Of Friday Nationwide Lockdown In Reducing Covid-19 Spread In Jordan

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Abstract

Background : COVID-19 is a global pandemic that has resulted in a large number of deaths and infected people. To slow the spread of the COVID-19 virus, governments have imposed limits on outdoor activities or even a population-wide quarantine. (Al-Tammemi, 2020).

Objectives: This study aims to identify the effect of Fridays ban on the prevalence of the disease and if it has any effect in decreasing the wide spread of the pandemic in Jordan .

Methods: The present study is a cross sectional study that were employed a community-based nationwide questionnaire survey in Jordan. It was conducted on university students based on voluntary participation and all population in Jordan.. Respondents will complete a self-administered questionnaire of 29 questions about socio-demographic information and all information needed about COVID19 for our study. it was conducted for one month long and It was consisted of (967) participants, and they were randomly selected from the population of the study.

Results: Based on the results in the the tables, we come up with the findings that Friday's lock-down did not reduce the number of covid cases.

Conclusion: We wanted to investigate if the Friday ban had any effect on reducing the number of Coronavirus cases, so we counted cases in October, November, December, January, February, and March and compared the numbers. We discovered that the Friday lock-down had no effect on the number of Coronavirus cases.

Recommendation: We recommend that there is no need of Friday lockdown in reducing case numbers.

Limitation : Our primary limitation was lack of information sources

Key Words : COVID-19, coronavirus, , quarantine, Friday ban, vaccines.

Introduction

The new coronavirus (2019-nCOV), which first appeared in Wuhan, China, quickly spread to other continents and became a pandemic. This virus is spread by respiratory tract fluids, and there are no clear symptoms. To combat it, treatments or vaccines are being created. As a result, some traditional public health interventions, such as social distancing and quarantine, are being used to prevent the disease from spreading.**(de Lima et al., 2020).**

Quarantine is a significant public policy measure that can conflict between personal liberty and the benefits of larger societies, spanning the realms of public health, law, and international relations. Throughout history, quarantine has been an important topic**.(Huremović, 2019)**

Since the start of the Covid-19 epidemic in Jordan in early March 2020, the charges ranged from a complete closure and ban for several weeks to local closures and lockdowns in some regions of the Kingdom for limited periods in areas and places where the disease is a hotbed. But, Due to economic, social and psychological pressures, the government halted these measures and began implementing the strategy of Friday and Saturday closure and partial ban.

This strategy lasted from October 9 to October 30, 2020, and since then, the Saturday ban has been lifted while the Friday ban remains in effect until January 20, 2021. On Friday, January 15, the ban was lifted and extended until Friday, February 19, 2021, after which it was restored on Friday, February 26 through April 30.**(alkharabsheh,2021.).**

In this study, we wanted to see if the Friday ban had any effect on reducing the number of Coronavirus cases, so we undertake the number of cases in

October, November, December, January, February, and March, and observe the difference, we found that there is a difference in the number of cases before and after the Friday ban.
We found that the number of cases in October reached 60,772, while the number of deaths reached 768, the number of cases in November was 150,966. In contrast, the number of fatalities reached 1994. In December, the number of cases reached 75064, while the number of deaths reached 1083, while in January, there were 32,361 cases and 477
deaths. After removing the Friday ban, we found that the number of cases in February was 64,235. In March, The number of cases increased to 220,487 after the government reinstated the ban.

On the other hand, the Friday ban has a significant psychological impact on the Jordanian population. Varying degrees of fear, anxiety, anger, and depression is suspected in the COVID19-infected population during quarantine (Samrah et al., 2020) especially on women and children (Malkawi et al., 2020), However , Friday considers an important day in Jordanian lives as a lot of social activities were undertaken through this day to relieve stress and anxiety through hanging out with family and friends or working out. Strict measures have been put in place to limit these occurrences and limit the possibility of spreading the disease within society in this day . **(Al-Tammemi, 2020).**

Methodology

This is a cross-sectional study that focuses on Jordan's general population. For this analysis, a web-based questionnaire was created and distributed to those who could access the online form through convenience sampling . To be completely engaged, respondents had to be a Jordanian citizen aged 18 or older, and willing to fill the online questionnaire. Potential participants were sent the form, along with a brief overview of the study, via social media platforms like of the study, like Facebook, WhatsApp, Twitter, between the period of 21th March 2021-1st of May. The survey link was distributed to the Yarmouk university's academic staff and was sent to the university students' emails. In addition, respondents were told to submit the questionnaire connection to their friends and their family members.

It consisted of (967) participants and they were randomly selected from the population of the study. The main questionnaire consists of two sections: the first includes socio-demographic characteristics about nine questions. The second section will include asking about all information needed about our study about COVID19 about 20 questions.Approval from the Institutional Review Board (IRB) from Yarmok University was received before the initiation of this study. Participants have the option to end the survey at any moment. The poll was anonymous, and the information was kept private.

The survey's first page contained introductory information. The study's goal and domains were explained in the introduction. Informed consent statements for inclusion in the research and data confidentiality were also included. Furthermore, respondent's involvement would be fully anonymous. Besides that, their responses will be kept private. Based on the surveyor's remarks, respondents were told that the survey would take 3 minutes to complete.

Ethical Consideration

All participants gave informed consent since reading the following statement: "Completing the questionnaire would be considered consent to participate." The Faculty of Medicine at Yarmok University in Jordan authorized permission to conduct this study. Participants were informed that the study would not declare any personal information and that their data would only be stored under lock and key with only the research team connecting directly to it.

Flow of the Survey Questions

quarantine, their contribution to preventing the spread of the disease, and their thoughts somewhat on COVID-19 pandemic's future.

Statistical Analysis

The Statistical Package for Social Sciences (SPSS) system was used to analyze the data. To conduct this study, descriptive statistical measures and indices were estimated.

The second set of questions focused on respondents' experience, commitments, and expectations for the COVID-19 pandemic in the future. It explored their understanding of the COVID-19 pandemic and data. It aimed to determine about their gender, age, and academic field and degree. This survey had about 27 questions, with the very first group of questions focused on socio-demographic

Result:

The sample of the study:

It was consisted of (967) participants, and they were randomly selected from the population of the study. Table (1) shows the sample distribution according to the personal variables.

Table (1) shows that:

- For Age variable the highest percentage was (62.3 %) for "18-29 years", but the lowest percentage was (2.9%) for "60-85 years".
- For gender variable the highest percentage was (54.9%) for "female", but the lowest percentage was (45.1%) for "male.".
- For job variable the highest percentage was (46.5%) for "student", but the lowest percentage was (3.5%) for "retired".
- For educational level variable the highest percentage was (64.0%) for "bachelor", but the lowest percentage was (8.1%) for "secondary or lower".
- For cigarette smoker status variable the highest percentage was (81.8%) for "non smoker for cigars", but the lowest percentage was (18.2%) for "smoker for cigars".
- For hookah smoker status variable the highest percentage was (82.8%) for "non smoker for hookah", but the lowest percentage was (17.2%) for "smoker for hookah".
- For Marital status variable the highest percentage was (59.4%) for "single", but the lowest percentage was (2.3%) for "Divorce".
- For the number of family members in the house variable the highest percentage was (54.6%) for "4-6", but the lowest percentage was (2.0%) for "10 and more".
- For the working in the health sector variable the highest percentage was (15.0%) for "worker", but the lowest percentage was (85.0%) for "non worker".

Variable	Category	Frequency	Percentage
age in years	18-29 years	602	62.3
	30-39 years	163	16.9
	40-60 years	174	18
	60-85 years	28	2.9
	Total	**967**	**100.0**
Gender	Male	436	45.1
	Female	531	54.9
	Total	**967**	**100.0**
Job	Student	450	46.5
	Work full time	331	34.2
	Part time work	58	6.0
	House wife	50	5.2
	Unemployed	44	4.6
	Retired	34	3.5
	Total	967	100
educational level	Secondary or lower	78	8.1
	Bachelor	619	64.0
	Postgraduate	270	27.9
	Total	967	100
Are you a cigarette smoker ?	Yes	176	18.2
	No	791	81.8
	Total	967	100
Are you a hookah smoker?	Yes	166	17.2
	No	801	82.8
	Total	967	100
Marital status	Single	574	59.4
	Married	371	38.4
	Divorce	22	2.3
	Total	967	100
How many people are in your house (including you) ?	1-3	180	18.6
	4-6	528	54.6
	7-9	240	24.8
	10 and more	19	2.0
	Total	967	100
Are you a worker in the health sector?	Yes	145	15.0
	No	822	85.0
	Total	**967**	**100**

Table (1) : Frequency and percentage for the participants according to study personal variables (n=967)

Statistical treatment:

The following statistical treatments through statistical software packages (SPSS) version 25 for data analysis were used:

- Frequencies and percentage for personal variables.
- frequencies and percentages were extracted for questions of the study.
- Means and standard deviation were extracted for injuries and deaths in months (October, November, December , January, February ,March)

Data analysis

1) During the Friday prohibition period, has the percentage of you leaving the house and mixing with people grown on Saturday and Thursday?

.Category	Frequency	Percentage
Yes	445	46.0
No	522	54.0
Total	**967**	**100.0%**

Table (2) : Frequencies and percentage for "percentage of your the house and mixing with people increased on Saturday and Thursday during the Friday ban period

2) Did your exit rate increase on Friday during the removal of the ban period?

Category	Frequency	Percentage
Yes	258	26.7
No	709	73.3
Total	**967**	**100.0%**

Table (3): exit rate increase on Friday during the removal of the ban period.

3) Which of the following preventive measures in dealing with people were you most interested in throughout the week?

Category	Frequency	Percentage
Washing hands	308	31.9
Use sterilizer	560	57.9
Physical contact	599	61.9
Wearing a mask	864	89.3
Social distancing	619	64.0

Table (4): Frequencies and percentage for preventive measures were you dealing with during the days of the week in dealing with others

Category	Frequency	Percentage

3) Have you received the corona vaccine since it was started in Jordan?

Category	Frequency	Percentage
Yes	109	11.3
No	858	88.7
Total	**967**	**100.0%**

Table (5): Frequencies and percentage for "received the corona vaccine since it was started in Jordan

4) How convinced are you about the effectiveness of the Corona virus vaccine?

Category	Frequency	Percentage
Strongly disagree	100	10.3
disagree	91	9.4
Neither agree no r disagree	328	33.9
agree	278	28.7
Strongly agree	170	17.6
Total	**967**	**100.0%**

Table (6): Frequencies and percentage for convinced are you about the effectiveness of the Corona virus vaccine

5) Are you or any of your relatives affected economically due to the Friday ban?

Category	Frequency	Percentage
Yes	621	64.2
No	346	35.8
Total	**967**	**100.0%**

Table (7): Frequencies and percentage for affected economically due to the Friday ban

6) Did your interaction with your neighbors increase during the Friday ban?

Category	Frequency	Percentage
Yes	245	25.3
No	722	74.7
Total	**967**	**100.0%**

Table (8): Frequencies and percentage for interacting with your neighbors increase during the Friday ban

7) **Did the number of people you know who have been diagnosed with the Coronavirus increased during the Friday ban?**

Category	Frequency	Percentage
Yes	551	57.0
No	416	43.0
Total	**967**	**100.0%**

Table (9): Frequencies and percentage for number of people you know who have been diagnosed with the Coronavirus increased during the Friday ban

8) **Do you think that prayers increase the spread Coronavirus?**

Category	Frequency	Percentage
Strongly disagree	376	38.9
disagree	278	28.7
Neither agree nor disagree	170	17.6
agree	98	10.1
Strongly agree	45	4.7
Total	**967**	**100.0%**

Table (10): Frequencies and percentage for prayers increase the spread Coronavirus

9) **Did shopping on Thursday increased after announcing the Friday ban?**

.Category	Frequency	Percentage
Yes	600	62.0
No	367	38.0
Total	**967**	**100.0%**

Table (11): Frequencies and percentage for shopping on Thursday increased after announcing the Friday ban

10) **Do you think that there is a commitment to health standards during prayers?**

Category	Frequency	Percentage
Strongly disagree	41	4.2
disagree	92	9.5
Neither agree nor disagree	226	23.4
agree	321	33.2
Strongly agree	287	29.7
Total	**967**	**100.0%**

Table (12): Frequencies and percentage for "commitment to health standards during prayers"

11)**Do you have a permission to go out on Friday?**

Category	Frequency	Percentage
Yes	118	12.2
No	849	87.8
Total	**967**	**100.0%**

Table (13): Frequencies and percentage for having a permission to go out in Friday

12) **How many people in your family have a permission to go out on Friday?**

Category	Frequency	Percentage
0-5	951	98.3
6-10	11	1.1
11-20	2	0.2
20 and more	3	0.3
Total	**967**	**100.0%**

Table (14): Frequencies and percentage for number of family members having an exit permit on Friday

13) **Do you think that there is a commitment to health standards through prayers?**

Category	Frequency	Percentage
Strongly disagree	41	4.2
disagree	92	9.5
Neither agree nor disagree	226	23.4
agree	321	33.2
Strongly agree	287	29.7
Total	**967**	**100.0%**

Table (12): Frequencies and percentage for commitment to health standards through prayers

14) **Do you postpone Friday's events to other days of the week?**

Category	Frequency	Percentage
disagree	156	16.1
Neutral	174	18.0
agree	637	65.9
Total	**967**	**100.0%**

Table (16): Frequencies and percentage for postponing Friday's events to other days of the week

Have you infected with Covid-19?

Category	Frequency	Percentage
Yes	352	36.4
No	615	63.7
Total	**967**	**100.0%**

Table (17): Frequencies and percentage for infected with Corona.

15) Did you confirm your infection using PCR examination?

Category	Frequency	Percentage
Yes	283	29.3
No	684	70.7
Total	**967**	**100.0%**

Table (18): Frequencies and percentage for confirming infection using PCR examination

In case your answer was yes, on which days of the week was the infection confirmed?

Category	Frequency	Percentage
Sunday	31	3.2
Monday	138	14.3
Tuesday	49	5.1
Wednesday	58	6.0
Thursday	36	3.7
Friday	11	1.1
Saturday	29	3.0
I was not injured	615	63.6
Total	**967**	**100.0%**

Table (19): Frequencies and percentage for which days of the week was the infection confirmed

16) Do you think increasing lockout hours reduces number of cases?

Category	Frequency	Percentage
Strongly disagree	356	36.8
disagree	213	22.0
Neither agree nor disagree	165	17.1
agree	138	14.3
Strongly agree	95	9.8
Total	**967**	**100.0%**

Table (20): Frequencies and percentage for increasing lockout hours reduces number of cases

17) Do you support the Friday ban?

Category	Frequency	Percentage
Strongly disagree	512	52.9
disagree	204	21.1
Neither agree nor disagree	90	9.3
agree	72	7.4
Strongly agree	89	9.2
Total	**967**	**100.0%**

Table (20): Frequencies and percentage for "supporting the ban on Friday"

Means and standard deviation were extracted for injuries and deaths in months (October, November, December, January , February , March):

Month	Injuries/ deaths	Mean	Standard. Deviation
October	**Deaths**	24.77	13.04
	Injuries	1960.387	892.13
November	**Deaths**	64.32	14.30
	Injuries	4869.87	1080.78
December	**Deaths**	34.94	12.77
	Injuries	2421.42	827.55
January	**Deaths**	15.39	6.17
	Injuries	1043.90	277.08
February	**Deaths**	13.75	5.52
	Injuries	2294.10	1193.68
March	**Deaths**	69.58	25.87
	Injuries	7112.48	1737.74

Table (21) : Means and standard deviation for injuries and deaths in months (10,11, 12 , 1,2,3)

- **That the highest Deaths means reached (69.58), in March**
- **That the highest injuries means reached (7112.48), in March .**

Discussion:

Based on the results in the previous tables, we come up with the findings that Friday's lock-down did not reduce the number of covid cases. Also, the number of people who got the corona vaccine increased" as well as not many people support Friday's ban".

Two Other studies were made in Jordan state that there is no impact to Friday lockdown, one study state that the Friday lockdown decision cause an uncertainty in Jordanian society, with people challenging the epidemiologic rationale for such decisions and the public-government trusteeship is afflicted. This decision (frequent on-off curfew policy) was linked to anxiety and chaos on weekends and throughout the week, resulting in overcrowding at some times of the day. (Al-Tammemi et al., 2021).The other study states that the number of cases has increased due to Friday.(alkharabsheh,2021)

In this study, we wanted to see if the Friday ban had any effect on reducing the number of Coronavirus cases, so we undertake the number of cases in October, November, December, January, February, and March, and observe the difference, we found that Friday's lock-down did not reduce the number of covid cases.

Strengths and weaknesses

The strength of our study that it was conducted through a long period(6 months) in contrast with the previous studies that was made in Jordan as well as it was free of bias due to the type of the survey used .

On the other hand ,our mainly weakness is lack of information sources as this research consider as one of the first studies that take such a topic into consideration .

Limitations

Our primary limitation was lack of information sources as this research consider as one of the first studies that take such a topic into consideration .

Recommendations

We recommend that there is no need of Friday lockdown in reducing case numbers, but we recommend that applying a long term ban would be effective .

Conclusion

The novel coronavirus (2019-nCOV) first appeared in Wuhan, China, and soon spread to other continents, resulting in a pandemic. This virus is transmitted through respiratory tract fluids and has no obvious symptoms. Treatments or vaccinations are being developed to tackle it. As a result, certain classic public health strategies are being employed to prevent the disease from spreading, such as social separation and quarantine.

We wanted to investigate if the Friday ban had any effect on reducing the number of Coronavirus cases, so we counted cases in October, November, December, January, February, and March and compared the numbers. We discovered that the Friday lock-down had no effect on the number of Coronavirus cases.

References:

1) Al-Tammemi, A. B. (2020). The Battle Against COVID-19 in Jordan: An Early Overview of the Jordanian Experience. *Frontiers in Public Health*, *8*(May), 1–6. https://doi.org/10.3389/fpubh.2020.00188
2) Al-Tammemi, A. B., Tarhini, Z., & Akour, A. (2021). A swaying between successive pandemic waves and pandemic fatigue: Where does Jordan stand? *Annals of Medicine and Surgery (2012)*, *65*(March), 102298. https://doi.org/10.1016/j.amsu.2021.102298
3) de Lima, C. V. C., Cândido, E. L., da Silva, J. A., Albuquerque, L. V., Soares, L. de M., do Nascimento, M. M., de Oliveira, S. A., & Neto, M. L. R. (2020). Effects of quarantine on mental health of populations affected by Covid-19. *Journal of Affective Disorders*, *275*, 253–254. https://doi.org/10.1016/j.jad.2020.06.063
4) Fu, Y. chih, & Lee, H. W. (2020). Daily Contacts Under Quarantine amid Limited Spread of COVID-19 in Taiwan. *International Journal of Sociology*, *50*(5), 434–444. https://doi.org/10.1080/00207659.2020.1786636
5) Huremović, D. (2019). Social Distancing, Quarantine, and Isolation. In *Psychiatry of Pandemics*. https://doi.org/10.1007/978-3-030-15346-5_8
6) Malkawi, S. H., Almhdawi, K., Jaber, A. F., & Alqatarneh, N. S. (2020). COVID-19 Quarantine-Related Mental Health Symptoms and their Correlates among Mothers: A Cross Sectional Study. *Maternal and Child Health Journal*, *0123456789*. https://doi.org/10.1007/s10995-020-03034-x
7) Samrah, S. M., Al-Mistarehi, A.-H., Aleshawi, A. J., Khasawneh, A. G., Momany, S. M., Momany, B. S., Za'nouneh, F. J. A., Keelani, T., Alshorman, A., & Khassawneh, B. Y. (2020). Depression and Coping Among COVID-19-Infected Individuals After 10 Days of. *Psychology Research and Behavior Management*, *13*, 823–830.
8) Senapati, A., Rana, S., Das, T., & Chattopadhyay, J. (2020). Impact of intervention on the spread of COVID-19 in India: A model based study. *ArXiv*, 1–25. https://doi.org/10.1016/j.jtbi.2021.110711
9) Shah, J. N., Shah, J., & Shah, J. N. (2020). Quarantine, isolation and lockdown: in context of COVID-19. *Journal of Patan Academy of Health Sciences*, *7*(1), 48–57. https://doi.org/10.3126/jpahs.v7i1.28863

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