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THE IMPACT OF THE SPREAD OF PREVENTIVE& EPIDEMIOLOGICAL INFORMATION ON THE DIFFUSION OF THE (COVID-19) IN JORDAN FIRST WAVE: A MODERATING ROLE OF THE MASS MEDIA

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Abstract:

Purpose: The purposes of this paper is to measure the Impact of Preventive &Epidemic Information spread in the Diffusion of the Novel (COVID-19) in Jordan, in addition, to explore the Moderating role of Mass Media.

Design/methodology/approach: An observational analytic one used whereby the sample consisted of 306 respondents. A self-administered questionnaire was developed with two sections. The first section consisted of the demographic variables of respondents, namely, gender, age, education, and work. The second section was devoted to the variables of the study, whereby, 12 items covered epidemic information, 12 items covered. Preventive information, 9

covered transmission of the Novel Coronavirus (COVID-19), and 7 covered mass media. The questionnaire used the 5-point Likert scale with "5" points scale.

Finding: The results showed that the two dimensions, Epidemic Information, and Preventive Information explain 91% of the variance of Transmission of Virus. They have a significant impact on the Transmission of viruses, but the Preventive Information was the most significant standardized beta coefficient which means that it's the most important predictor of transmission of COVID-19virus. Also, the results showed that mass media moderates the impact of each of Preventive information, and Epidemic Information on the transmission of the COVID-19 virus.

Research limitations/implications: There were also some limitations related to the sample, since the authors only obtained 306 responses. Therefore, the second suggestion for future investigations would be to conduct the survey on a larger number of people. This study just considers six months (first wave). A longer range of time could have a different results

Originality/value: This study provides significant finding on the impact of Preventive &Epidemic Information spread in the Diffusion of the Novel (COVID-19) in Jordan, the results will help the Jordanian government generally and especially the Jordanian Ministry health policy maker review their policies update it and effectively implement it.

Keywords: Information Diffusion, Transmission of the Novel Coronavirus (COVID-19) in Jordan, Moderating role, Mass Media

Keywords: Preventive Information, Epidemic Information, Diffusion of the Novel Coronavirus (COVID-19) and Mass Media

1. Introduction:

OnMarch 2, 2020,one case of COVID-19 was confirmed by the Jordanian Ministry of Health at Jordan,inAmman Capital. Even though from 2-14 March Jordan was free from COVID-19 and continued free after the recovery of the first infection ,from 15March and until 8 march the COVID-19 start spreading in Jordan from 12 cases on 15March reached the peak 40 cases in 26March slow down to 4 cases in 8-March ,different procuration measures were taken by the government of Jordan such as (Ares ,cities and buildings) isolation,controlling traffic, halting (education, travel, public , Religious, &Tourism events).Exceptional preventive and different measures, such as

establishing specialized admitting hospitals, increasing of hospital beds, and coordinating the shipment of preventive and control medical supplies to stop diffusion of the epidemic were taken by the Jordanian Government.(Wikipedia free encyclopedia Wikipedia, the free encyclopedia,COVID-19 pandemic in Jordan report 2020)

The Government of Jordan announced on March 29 the nationwide curfew which started March 21 was extended until April 15, 2020,it includes,disallows the movement of people and closes all shops. People who are not committed to the curfew order will be immediately trapped for up to a year.The curfew lessened On 26 March by the Jordan governmentallowing shops, supermarkets and pharmacies to open daily from 10am-6pm for pedestrians only unless otherwise announced. Vehicle traffic is prohibited so as to allow the Jordanian people to buy their necessary products.(Shanlang et.al 2020).

Several monitoring teams were transmitted by The National Health Commissionof hospitals and infection agencies to carry out on-site control. The city of Irbid also announced that it will close the city on March 26, suspend city public transportation, and strictly control the entry and exit of people in and out of the city. Subsequently, due to the progress and freedom of the Jordanian media, the appearance of COVID-19and the availability of public reports in the official media, and the disclosure of epidemiological information for this disease in a transparent manner, the Jordanian public was aware of this epidemic and its seriousness, which led to a reduction in its prevalence as happened in the other countries,through the advent of the epidemic season, the Jordanian public and media reports enter the act has become the most interesting information for dissemination of information about the COVID-19 epidemic.The traditional formal and informal media (newspapers, magazines, radio, and television) and electronic media (internet, mobile phone, social networks, etc.) continued to publish daily reports on new symptoms and preventive measures of this epidemic, in a timely and clear

manner which help the Jordanian peoples to defend themselves and lookto epidemic more objectively.

From here the idea research developed through following question. Could the media, through its dissemination of epidemiological and preventive information, help continue to stop diffusion of the epidemic? Couldgrasp the effect of the dissemination informationin transmission of epidemics in improving epidemiological predictions and find defensiveactions to slow the diffusion of diseases? Therefore, the purpose of this study is to study the role of mass media as a moderating variable in decreasing the effect of dissemination informationin the diffusion of COVID-19

2. Theoretical background and Hypotheses

2.1 Theoretical background

in the 21st century different epidemic versus appearsspread across all the worldsuch as (SARS, avian influenza, novel H1N1 influenza and Ebola), the public hasbeen graduallyworriedalmost the infectiveviruses existing, this cause that a lot of studies conducted to solve this problem, (Mao& Yang, 2012)The social dynamic environment helps in spread the disease, and cultural norms, peer behavior and media reports wereguided by individual health behavior decision-making, (Kim et. al 2019)·To develop a new vaccine for such infectious disease is so difficult and it takes a long period, (Stohr, &Esveld. 2004).Before getting vaccinesapreventive precaution should be taken for instance, masks wearing, hands washingoften, drugs taking, with patients avoiding contact, etc.(Kleczkowski, et.al .2011). A personal behavior is the core of preventive operation in diffusion of coronavirus diseasethe researchers starts investigating the disease spread including individual's behavior. Theseinvestigationshelp in developing strategic decisions to control spread of disease and determine the individual role security measures in adjusting many spreads, including the Ebola outbreak West Africa in 2014 (Fast, et.al 2015) &(Ahmad et.al 2009) The SARS diffusion in Hong Kong in 2003 and the H1N1 diffusion in central Mexico in 2009 (Springborn, et.al 2015)

The informationtransmissionrelationship with the diffusion of COVID-19 studies showed that New Coronavirusspread, the diffusion of COVID-19 was decreased by diffusion of information after controlling cities, time and other variables (Shanlang.et. al 2020).The results of regression were still strong when Wuhan was excluded from the sample. Secondly, the spread of COVID-19 is further reduced after two health tests to classify information and new completeanalyses through the spreading of epidemic information and preventive information. This shows that the accuracy and accountability of diffusion information play an important role in the prevention and control of the epidemic. (Saunders-Hastings,et.al.2017). Personal protective measures effectiveness was investigated in preventing the diffusion of pandemic influenza in humans; the research on the diffusion of COVID-19from the viewpoint of dynamics spread is also started (Sun et.al 2020). Different modelswere consideredand investigated the relationship of media transmission with the protection function and assumed that the media decrease the transmission rate of disease diffusion. These studies showed that the number of infected people decrease by media (Sun et.al 2011) or both with the number and the rate of spread (Xiao, et.al.2015).

Few aspects related to business and economic recession of the world economy and the Indian economy as of before, during and afterCOVID-19. Such, (economic recession, inconsistency of gold market, stock market, industrial progress, international trade, agricultural produces and the role of social quarantine& service sector) during the COVID-19.The social distancing and separation of people and the efforts of departments such as police, health, communications and other service departments help to be successful in difficult situations (Gunaseelan. &Kesavan. 2020)

On the other hand, all the current research focuses only on the expansion of the disease in the complex network, as well as the impact of precautionary measures on the diffusion of the disease. The spread disease-related information studies still rare or few, and only a few are performed using statistical analysis (Collinsonet.al 2015) due to a rapid development of mass

media (internet, social media, broadcast, and television channels etc..) showedinformation diffusion plays a critical role in controlling epidemic.At the same time, the publicity role of Jordan crises management center daily summary provideshow media information diffusion impact the disease transmission. This paper will investigate the impact of Information diffusion on the transmission of the Novel Coronavirus (COVID-19) in Jordan: and moderating role of mass media is investigated.BE research microbiology papers and well-known information about SARS-CoV-2 to provide feasible and Realizable guidance.Cross the environmental media path. They believe that this information will help companies and public managers, as well as individuals responsible for building and environmental services help them make decisions about the extent and duration of social disagreement measures during a virus and epidemic (Leslie, et.al.2020).

On May 7, the Jordanian government announced that personal license plate policies for drivers in Amman, Zaka, Baqa and Salt will continue to take effect. Unless otherwise specified by the government, private cars will be driven every few days between 8:00 AM and 7:00 PM according to the last number on the license plate. Cars with odd number plates may move in one day, while cars with even number plates may move the next day, and zero is even (Regular briefing on the Corona virus in Jordan 7.March)

2.2 Diffusion of COVID-19 in Jordan

Table (1): the diffusion of COVID-19 in Jordan

Date	#of new cases	# of death cases	**#of Recover**
2020-03-02	1		
2020-03-13	0		
2020-03-14	0		
2020-03-15	11		
2020-03-16	17		
2020-03-17	11		
2020-03-18	16		

2020-03-19	13		
2020-03-20	15		
2020-03-21	15		
2020-03-22	13		
2020-03-23	15		1
2020-03-24	26		
2020-03-25	19		1
2020-03-26	40		16
2020-03-27	23		
2020-03-28	11	1	
2020-03-29	13	2	
2020-03-30	9	2	8
2020-03-31	6		4
2020-04-01	4		
2020-04-02	21		15
2020-04-03	11		13
2020-04-04	13		16
2020-04-05	22		36
2020-04-06	4	1	16
2020-04-07	4		12
2020-04-08	5		12
2020-04-09	14	1	11
2020-04-10	nil		9
2020-04-11	9		7
2020-04-12	9		24
From 13-30.5.2010	From 2-8	0-1	2-20
From 1-27.5.2020	1-21	0-1	0-8
Totaluntil 28.5.2020	720	9	486

Source:Wikipedia, the free encyclopedia,COVID-19 pandemic in Jordan report (2020)

Table 1 shows the diffusion of the virus corona in Jordan started on 2nd of March when the Prime ministry of Jordan stated the first case of coronavirus in Jordan which was for a Jordanian who returned from Italy, until 14th March

no cases were reported and Jordan continued coronavirus-free after the recovery of the first infection. In the period of 10 -14 Jordanian government took different preventive measures from closing land, sea crossing ,Pause on travel to/from Arab, Asian and Europe countries, imposed quarantine at home for 14 days for all who return back to Jordan. The crisis of diffusion in Jordan starts on 15 March when the Minister of Ministry of Health reported 11 new cases ,the Jordanian government start more restrict measures ,halting all educational institutions operations for two weeks, all air travel from/to the Kingdom will be halted effective Tuesday 17th March 2020 until further notice, except for commercial cargo. HaltingPublic events, Religious events, Tourism plus isolation on 15th March The government has decided to impose a curfew in Jordan from21st March, as part of its measures to fight corona-virus.The peak diffusion of coronavirus was on 26th March when 40 cases reported by the Minister of MOH and as seen in the table (1), (Jordanian Ministry of HealthCorona Site 2-26 march 2020).

Also table (1) shows that from6 April until the 6 May the new cases registered vary between 2-14cases and the maximum new cases registered in 9.4.2020 was 14, also the Jordan registered zero cases from 28.April to 6.may at all its Governoratesand what registered cases were for truck drivers on board land crossing either at Jabber or Al Omari crossing ,these results comes from a restrict measures were taken bythe JordanianCrisis Management Center team (Jordanian Ministry of Health Corona Site 2-30 May2020)..

The above results also showed that the measures were taken by the Ministry of Health that included isolating infected areas at (Irbid, Mafrak, Ramthat and Amman), and quarantine for its residents for a period of three weeks, in addition to taking random samples from all Jordanian governorates, led to controlling the spread of the COVID-19 .If the first shock comes from a wedding in IrbidGovernorate the second shock comes 7.May when al Khanasrah truck driver don’t committed with quarantine 14 days home imposed on him,whom was tested negative upon entering land border crossings (Jabber), fourteen days from the date of his back home, he felt the

pain that led him to a visit more than one hospital, and after his tested he was confirmed to be infected with the Coruna virus, unfortunately this man infected more than 80 relative and irrelative person until writing this paper, this force the government to tighten restrictions through imposing Quarantine to all truck drivers crossing the Jordanian land borders at a special isolation places either on land borders or in other aria at Jordan.(Regular briefing on the Corona virus in Jordan7. May), in 28.05.2020 the minister of health reported that the total cases of COVID 19 at Jordan are 720 and the number of recover are 486.

After all these successes by the Jordanian government in combating the COVID 19 virus, unfortunately Jordan has entered the second stage of the spread of the COVID 19 which called the social spread on July, August and September months,where the number of cases rose to figures not witnessed in Jordan as the last update statistics information about Coronavirus is, Cases: 3,528, Deaths:26, Recovered: 2,255 until 15.9.2020 and sure these numbers will be changed in new coming days .(Wikipedia free encyclopedia Wikipedia, the free encyclopedia, COVID-19 pandemic in Jordan report 2020)

In general, we can say that the measures which still taken by the Jordanian government have succeeded in managing the Corona pandemic virus crisis and controlling its spread, throughcontrolling all information directly about the sources of infections, arias of infected persons and carrying thousand tests randomly in all Jordan Governorate

3. Theoretical Framework:

The research consists of variables as below whereby the researchers have adopted the well-recognized dimensions of each variable:

1. Independent Variable:

a. Epidemic Information: it includes all information regarding disease information guide through mass media such as disease symptom of temperature, cuff and fatigue, disease diffusion (touch, kiss, hand shaking and other relationship), disease incubation period

b. Preventive Information: it includes all protection measures taken by the Jordanian government such as isolation treatment and traffic control, Halting all educational institutions operations, halting prayer in all the Kingdom's mosques and churches , , guide through JMOH website preventive measures (wearing masks ,gowns, using Higgins soap, leaving saving distance 2m, sty home), Halting Public events, Religious events and Tourism, Halting all air travel from/to the Kingdom.

2. Dependent variable: Transmission of the Novel Coronavirus (COVID-19).

3. Moderator Variable: Mass Media this includes: Print Media (News Paper, Magazine and Billboards)Electronic Media: (Television and Radio) and New Age Media: (Mobile Phones ,Computers and Internet)

Reviewing the work of previous researchers, the authors adopted the dimensions of the variables as shown in Figure 1. ShanlangLin, et.al (2020)suggested two dimensions of information, epidemic information and protection information, (Vardavas,,et al 2017) showed the people role of measures protection the role of individual protection measures in adjusting many dufusion of viruses such as Ebola (Fast et al., (2007), the SARS diffusion ,Saunders et al. (2017),Sun et al. (2020),Sun et al.,(2011),Xiao et al., (2015) and Collison et al.,(2015),

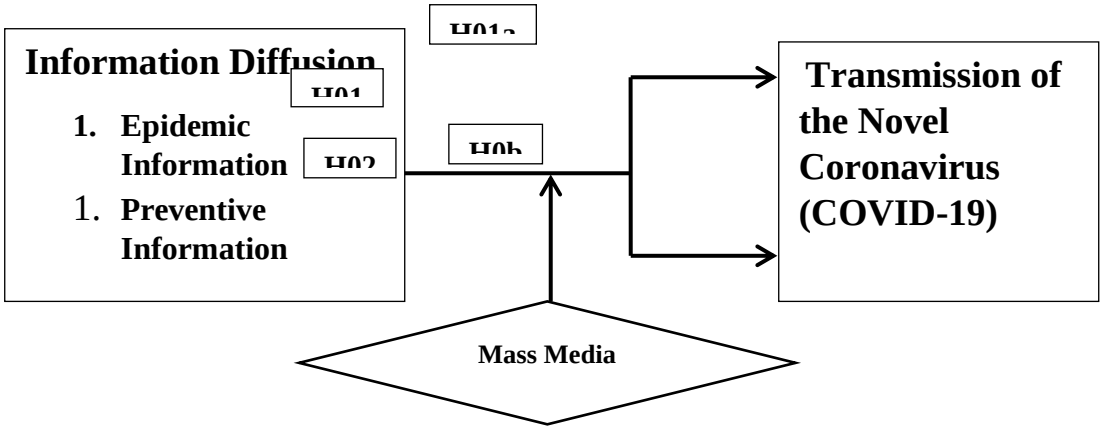

Figure (1) conceptual Model developed by Authors

4. Hypotheses of Research:

The following main hypotheses are stated and will be tested with the purpose of achieving the aim of the study

Main Hypothesis:

$H_{01:}$ There is nostatistically significant impact, at significance level $\alpha = 0.05$, of information diffusion(Epidemic information &Preventive information) intransmission of the Novel Coronavirus (COVID-19)

This hypothesis has two branch hypotheses, namely:

$H_{01a:}$ There is nostatistically significant impact, at significance level $\alpha = 0.05$, of epidemic information in transmission of the Novel Coronavirus (COVID-19).

$H_{01b:}$ There is nostatistically significant impact, at significance level $\alpha = 0.05$, of Preventive informationin transmission of the Novel Coronavirus (COVID-19).

Moderator Hypothesis:

$H_{02:}$ There is no statistically significant moderating role of mass media on the impact of information diffusion (Epidemic information & Preventive information) in transmission of the Novel Coronavirus (COVID-19).

This hypothesis has two branch hypotheses, namely:

$H_{02a:}$ There is no statistically significant moderating role of mass media on the impact of Epidemic information in transmission of the Novel Coronavirus (COVID-19).

$H_{02b:}$ There is no statistically significant moderating role of mass media on the impact of Preventive information in transmission of the Novel Coronavirus (COVID-19).

Methodology

The method used was an observational analytic one whereby the sample consisted of 306 respondents. A self-administered questionnaire was developed with two sections. The first section consisted of the demographic variables of respondents, namely, gender, age, education and work. The second section was devoted to the variables of study, whereby, 12 items covered epidemic information, 12 items covered.Preventive information, 9

covered transmission of the Novel Coronavirus (COVID-19) and 7 covered mass media. The questionnaire used the 5-point Likert scale with "5" assigned for "strongly agree" and ordered downward to "1" for "strongly disagree". Data were entered toSPSS version 18 and analyzed as needed.

6 Results:

6.1 Descriptive analysis

6.1.1 Demographic variables:

The study sample comprised 306 respondents who completed the questionnaire as shown in table (2)**.** Out of the study sample 203 were males, (n=203, 66.3), and females (n = 103, 33.7%). The majority of the respondents were 20-29 years old (37.91%), whilst 2% were 50 years old and above. Amongst the participants, 40.5% obtained a masters' degree and 4.9% obtained diploma and below. The respondents were mostly working in private sector (n=115, 37.6%) and in public sector (n=113, 36.9) and 20.6% were working as a freelancers (n=63), and the least were retired (n=15, 4.9%). All these results seem to be natural and reflect the nature of the nature of Jordanian population who uses social media and interested in answering on line questionnaires.

Table(2): Demographic characteristics of the sample

Gender	Frequency	Percent
Male	203	66.3
Female	103	33.7
Total	306	100.0
Age	Frequency	Percent
Less than 20	80	26.1
20- 29	116	37.9
30-39	79	25.8
40-49	25	8.2
50 and More	6	2.0

Gender	Frequency	Percent
Male	203	66.3
Female	103	33.7
Total	306	100.0
Education	Frequency	Percent
Diploma and below	15	4.9
Bachelor	118	38.6
Master	124	40.5
Ph.D.	49	16.0
Total	306	100.0
Work	Frequency	Percent
Private Sector	115	37.6
Public Sector	113	36.9
FreeLancer	63	20.6
Retired	15	4.9
Total	306	100.0

Table (3): Summary Statistics of Variables:		
Study Variables	**Mean**	**Std. Deviation**
Preventive Information	4.24	1.30
Epidemic Information	3.77	1.11
Mass Media	3.88	1.19
Transmission of Virus	1.78	1.28

The findings of data analysis revealed that the maximum mean were for prevention information (mean= 4.34, SD= 1.30), mass media, (mean= 3.88, SD= 1.19), epidemic information (mean= 3.77, SD= 1.11), and finally transmission of virus (mean= 1.78, SD= 1.28). The results showed that the respondents were highly keen of acquiring preventive information reflecting their interest on the ways of protecting themselves of the disease. The mean of answers on transmission of virus was the least (1.78) meaning that respondents are confident that their knowledge of epidemic information and preventive information have diverse effect on virus transmission. These

conjectures are to be tested in coming sections .Also results showed various values that the answers provided by respondents were substantially different from one to another demonstrating the existence of tolerable variance in responses as shown in above table.

6.1.2 Reliability of scale:

Cronbach's alphawas used and the results showed that: preventive information, 0.93; epidemic information, 0.93; mass media, 0.98; transmission of virus, 0.97, the Cronbach's alpha for all items were 0.88. and according to Hair et al.(2006)the minimum the acceptable reliability is 0.60 and above. Therefore, these results are reliable.

6.1.3 Validity of Scale:

Face and content validity were established by consulting several academicians regarding clarity of statements and their appropriateness for measuring what is to be measured. Construct validity was measured by finding the correlations between the domains of questionnaire and the whole scale. The result is given in Table (4) which shows significant correlations.

Table(4): Correlations between the domains and the Scale.

	Epidemic Information	**Preventive Information**	**Transmission of Virus**	Mass media
Scale	o.927	0.917	-0.846	0.857

6.2 Testing the Hypotheses:

6.2.1 Testing the main Hypothesis

H01: There is no statistically significant impact, at significance level α= 0.05, of information diffusion (Epidemic information & Preventive information) in transmission of the Novel Coronavirus (COVID-19)

Regression was carried out to test the impact of Epidemic Information and Preventive Information on transmission of virus. Results are shown in Table (5).

Table (5):Multiple regression

Coefficients[a]						
Model		Beta	T	**Sig.**	Tolerance	VIF
1	(Constant)		2.629	**.010**		
	Epidemic Information	-.038	-1.092	.276	.361	2.767
	Preventive Information	-.914	-32.386	.000	.361	2.767
R= 0.954 R² = 0.910, Adjusted R²= 0.909, (F=1530,* p < 0.001*), Durbin-Watson=2.02						
a. Predictors: (Constant), Preventive Information, Epidemic Information						
b. Dependent Variable: Transmission of Virus						

The study carried out multiple and hierarchical regression with the aim of identifying the impact of epidemic information and preventive information on transmission of COVID-19 virus, and to identify the moderation impact of mass media in such association. The multiple regression models with all two predictors were determined through data analysis. Correlation coefficient R = 0.954 and coefficient of determination R^2 = 0.910 meaning that the two dimensions, Epidemic Information and Preventive Information explain 91% of the variance of Transmission of Virus. Regression ANOVA showed (F = 1530, p < 0.001), indicating that the two dimensions have significant impact on Transmission of Virus. VIF is less than 5 ,and tolerance is more than 0.20 which are within the accepted limits.

Furthermore, the findings of data analysis have shown that prevention information (β = -.914, t = -32.386, p = 0.000) giving the largest negative impact and most significant standardised beta coefficient, indicating that prevention information is the most important predictor of transmission of COVID-19 virus amongst the study sample. While, epidemic information was insignificant predictor (β = -.038, t = -1.092, p = .276) which means that although epidemic information has negative impact on transmission of COVID-19 virus, but it is not statistically significant at 0.05level.Durbin-Watson value (2.02) indicates the independency of error terms,and that the

sample is adequate. Acceptable value falls between 1.5 and 2.5 according to (Norusis ,1995).

6.2.2Testing the branch hypotheses of the first main hypothesis:

$H_{01a:}$ There is nostatistically significant impact, at significance level α= 0.05, of epidemic informationin transmission of the Novel Coronavirus (COVID-19).

$H_{01b:}$ There is nostatistically significant impact, at significance level α= 0.05, of Preventive informationin transmission of the Novel Coronavirus (COVID-19).

The results as shown in Table 6 and 7 indicate that each of epidemic information and preventive information has a significant impact on transmission of (COVID-19) with (Beta=-0.773, Sig .=0.000, and t=-21.276), and (beta= -0.954 ,sig.=0.000 and t=-55.307) respectively.

6.2.3 Testing the moderator hypothesis & branches

Moderation role of Mass Media in the impact of epidemic information and preventive information on transmission of COVID-19 virus

- The impact of interaction between of epidemic information and mass media on transmission of COVID-19 Virus

Table (6) results displaythe moderation role which showed that the mass media play a mediating role between epidemiological information and the diffusion of the COVID-19 virus.

The epidemic information variable explained firstlyabout59.8 % of transmission of COVID-19 virus variance secondly the Mass media as a moderating variable whichincreased R^2about to 0.748 i.e. explained 74.8% of the variance, with significance of 0.000. Thirdly, the interaction terms wereexplained about 80.5% with anincrease by 5.7%. However, the collaboration between epidemic information and mass mediawas significant (β = 1.187, t= 9.306, p= 0.000). Results are given in Table (6)

Table (6): Moderation role of mass media on the impact of epidemic information on transmission ofCOVID-19 virus

Model		Beta	t	Sig.	R square	Adjusted R square	F
1	(Constant)		30.985	.000	.598	.909	452.682
	Epidemic Information	**-.773**	**-21.276**	**.000**			
2	(Constant)		41.342	.000	.748	.911	450.853
	Epidemic Information	-.435	-11.359	.000			
	Mass Media	**-.515**	**-13.453**	**.000**			
3	(Constant)		31.591	.000	.805	.916	414.354
	Epidemic Information	-1.082	-13.992	.000			
	Mass Media	-1.144	-15.133	.000			
	Interaction between Epidemic Information and Mass Media	**1.187**	**9.306**	**.000**			

Figure (2) indicates that mass media moderates the relation between Epidemic Information and transmission of COVID-19 virus indicating that mass media modifies the impact of epidemic information on the transmission of COVID-19 virus. Under conditions of low epidemic information, and high levels mass media, respondents reported low levels of transmission of COVID-19 virus compared to respondents with low level of mass media.

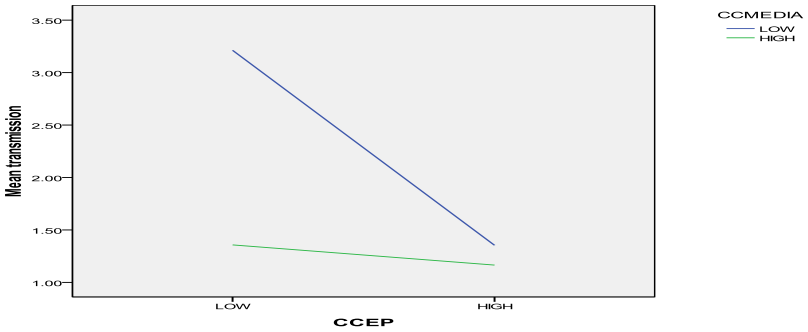

Figure (2): Impact of interaction between epidemic information and mass media on transmission of COVID-19 Virus

Table (7) results display the moderation role which showed that the mass media play a mediating role between epidemiological information and the diffusion of the COVID-19 virus.

The preventive information variable wasfirstly explained about90.9 % of transmission of COVID-19 virus variance. Mass media as a moderating variable was secondly explained about91.1% of the variance and significance level was 0.006. Thirdly, the collaboration terms were explained about 91.5% with anincrease by 4% was observed. Nevertheless, the interaction between prevention information and mass mediawas shown to be significant (β = .400, t=4.003, p= 0.000).

Table (7): Moderation role of mass media on the impact of preventive information on transmission of COVID-19 virus

Model		Beta	t	Sig.	R square	AdjustedR square	F
1	(Constant)		76.471	.000	.909	.909	3058.829
	Prevention Information	**-.954**	**-55.307**	**.000**			
2	(Constant)		74.530	.000	.911	.911	1566.774
	Prevention Information	-.888	-30.486	.000			
	Mass Media	**-.081**	**-2.768**	**.006**			
3	(Constant)		41.613	.000	.915	.915	1101.643
	Prevention Information	-1.053	-21.026	.000			
	Mass Media	-.329	-4.821	.000			
	Interaction between Prevention Information and Mass Media	**.400**	**4.003**	**.000**			

Figure (3) below indicates that mass media moderates the relation between prevention information and transmission of COVID-19 virus indicating that mass media modifies the impact of prevention information on the transmission

of COVID-19 virus. Under conditions of highprevention information, and high levels mass media, respondents reported low levels of transmission of COVID-19 virus compared to respondents with low level of mass media.

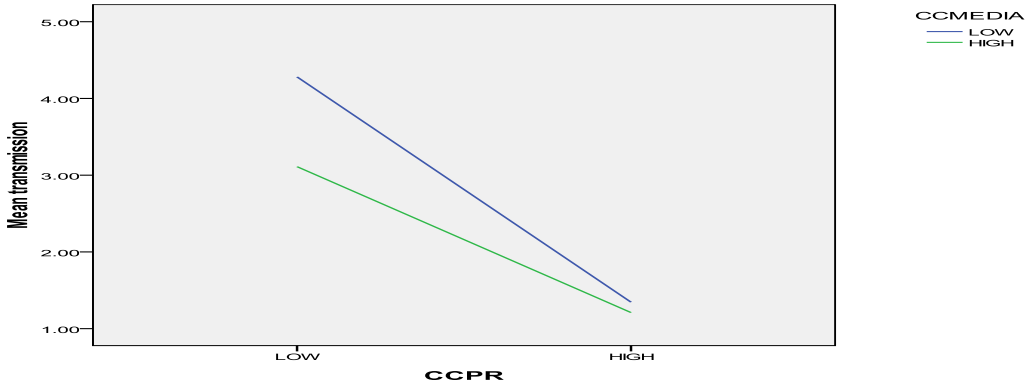

Figure (3): Impact of interactionbetween preventiveinformation and mass media on transmission of COVID-19 Virus

7. Discussion:

The results showed that the respondents were highly keen of acquiring preventive information reflecting their interest on the ways of protecting themselves of the disease .The mean of answers on transmission of virus was the least (1.78) meaning that respondents are confident that their knowledge of epidemic information and preventive information have diverse effect on virus transmission. Also results showed various values that the answers provided by respondents were substantially different from one to another demonstrating the existence of tolerable variance in responses

The two dimensions, Epidemic Information andPreventive Information explain 91% of the variance of Transmission of Virus. And they have significant impact on Transmission of Virus, but themost significant standardised beta coefficient, indicating that prevention information is the most important predictor of transmission of COVID-19 virus amongst the study sample. While, epidemic information was insignificant predictor, which means that although epidemic information has negative impact on transmission of COVID-19 virus, but it is not statistically significant at 0.05level. Durbin-Watson value (2.02) indicates the independency of error terms, and that the sample is adequate. Acceptable value falls between 1.5 and

2.5 according to Norusis (1955)The results showed that mass media moderate the relation between (prevention information, Epidemic Information)and transmission of COVID-19 virus indicating that mass media modifies the impact of prevention information on the transmission of COVID-19 virus. Under conditions of high prevention information, and high levels mass media, respondents reported low levels of transmission of COVID-19 virus compared to respondents with low level of mass media.

8. Conclusion:

From the data analysis of the results of Table (1), which indicates the number of daily cases of COVID-19 in Jordan from the beginning of its spread, we see that the strict measures taken from Jordanian government(isolation,curfew, close land, air and sea crossings, isolate infected areas, track cases of infections and those who have contact with them, perform thousands of random tests in all the governorates of the Kingdom and gradually easing these measures according to the evolution of the number of infected cases) had a prominent role in managing the spread of this epidemic and controlling it, which made Jordan(leadership & government) at the forefront of countries in fighting this epidemic and even surpassing many of the world's countries whose most advanced and wealthy. The results of the study proved that the measures undertaken by the Jordanian government represented by cell crisis (Minister of State for Information Affairs, Minister of Health & others)whom managed the crisis of the COVID-19 through the transparency that it has followed since the beginning of the crisis until now, using mass communication to disseminate the (Preventive and epidemiological information) About this epidemic and its daily spread to the Jordanian citizen from the Crisis Management Centre.

All means of mass communication in Jordan have played a prominent role in limiting the spread of this epidemic through continuous awareness of the symptoms of this disease and how to prevent it, and this is what this study demonstrated, as the role of moderator Mass media, which cause a decrease the spread of COVID-19 in Jordan. The researchers recommend that the

governments of countries should use the transparency in disseminating information using mass communication and for further future studies using different variables such as culture and stress as a moderating or mediator variables.

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