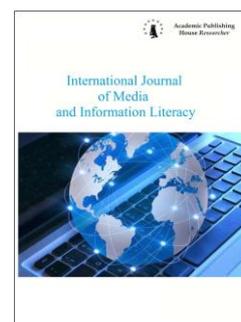


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A Comparative Analysis of the Reportage of Covid-19 During the First and Second Wave: A Case of the Egyptian and Jordanian Newspapers

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Abstract

This study investigated online newspaper coverage of COVID-19 in Egypt and Jordan, with particular attention to the depth of coverage. The main objective of the study was to examine the content of news covering COVID-19 posted online concerning Egyptian and Jordanian newspapers, to know which countries were more interested and committed to covering health crises. A content analysis of 4202 news articles by four news media organizations: *Al-Ahram*, *youth7*, *Al-Rai*, and *Addustour* was done. The findings of the study indicated that the *Al-Ahram*, *youth7* in wave one was in-depth coverage, as compared to *Al-Rai* and *Addustour* coverage. In addition, *Al-Rai* and *Addustour* used a negative panic tone in presenting COVID-19 pandemic-related stories, in contrast to the *Al-Ahram*, *youth7*. Finally, *Al-Rai* and *Addustour* focused on reporting stories and raising awareness in waves one and two more than *Al-Ahram* and *youth7*. Based on these findings: the following recommendations were made: the media should focus more on sensitising the public on the necessary steps to take in curbing the virus. They should refrain from over usage of a negative tone to panic the public in presenting the stories of the COVID-19 pandemic in both countries.

Keywords: COVID-19, pandemic, online news media, outbreak, prevention, public health.

1. Introduction

The COVID-19 pandemic began in Wuhan, Hubei Province, China, in December of 2019. In March 2020, Egypt and Jordan had their first fatality cases of the coronavirus outbreak that affected the People's in the Middle East, with initial reports indicating that the virus had originated from tourism or travellers who passed through the airports. The rapid spread of the disease was further confirmed in Egypt and Jordan, with 151,723 and 309,846 confirmed cases of COVID-19 respectively ([Worldometers, 2021](#)).

Accordingly, the media rushed to report the disease outbreak, highlighting the different aspects of the pandemic ([Tejedor et al., 2020](#)). During the period of the pandemic, online journalism platforms became the main sources of information since they present a wealth of information and also have a large impact on the public ([Mansour, 2016](#)). In the past, online newspapers in Jordan and Egypt used information as a tool to instill panic and chaos within society, but during the pandemic, the media houses played an important role to return the credibility from disinformation ([Bennett, Livingston, 2018](#)), with trust towards legacy media and politics without polarization, and the configuration of a high-choice media environment ([Van-Aelst et al., 2017](#)).

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Providing information to the public on emergent, complex and rapidly changing health threats is no easy task, even for public health experts. Previous studies found that the coverage of health topics is very complicated, especially in the Middle East because the governments did not provide information sources that enriched public awareness of the pandemic (Aalberg et al.,2013; Ahmadi, Amp, 2018). In this context, in both countries, the political information played a key role but after the pandemic, they focused on public health and not negligible, as online journalism functioned as a social link that united communities in the Middle East (Fletcher and Nielsen, 2017).

The coverage focuses on two aspects the first about Egyptian newspaper coverage pandemic, since the announcement of the first case in March 2020, the government started multidisciplinary national coordination between different ministries; they decided to stop close airport travels, schools, or universities. Moreover, Egypt started to examine all tourists coming to Egypt, and they discovered cases of COVID-19 in a cruise ship in Luxor, after that, on March 8, Egypt announced that a 60 year-old German tourist died in the touristic town Hurghada, and this was the first German fatality from the virus (Medhat, El Kassas, 2020).

The escalation in the number of cases by the first wave to be 24.985 cases, accordingly the government take more strict arrangements imposed a curfew from 7 pm until 6 am, all means of public and private transportation are suspended during curfew hours, and all sports and many social activities were also banned to prevent the spread of COVID-19 (Abdelhafiz et al., 2020).

Then the situation changed in the second wave in November 2020, the government took lighter protective measures compared with the first wave which is more widespread and dangerous, the government opened airports and hotels for domestic tourism and transferred to the citizens the responsibility for their own safety by taking their own precautionary measures. In addition, schools and universities remained the priority for education (Elemerey, 2020).

The Egyptian media have remained an essential agent in the last event of a health epidemic during the Ebola, SARS, MERS, they did not play an important role in disseminating information whenever an outbreak occurs, but now with COVID-19 pandemic, the government and media houses changed their strategy and worked on the challenges that arose from the crises, while other independent media houses created a crisis when they published high mortality during the pandemic (Marzouq, 2020).

During covid-19 outbreaks, the Egyptian media houses played a pivotal role in the documentation of the number of cases and death, and also created an avenue for political and public debate on the handling of the health crises (Elemerey, 2020). Similarly, R. Marzouq (Marzouq, 2020) noted that the sooner the media coverage of a pandemic begins, the less the public would ultimately be infected, as the media provide information about pandemic infections and deaths.

The newspapers have a vital role in getting the data to the public during emergency situations than transfer it as a news story, after that delivering the appropriate message to make the issue more prominent (Borek, 2020). In Egypt, online newspapers began reporting the Egyptian policy measures and covering topics that respond to the emergency of the situation and taking safety measurements (Hart et al, 2020).

The news coverage generally focuses predominantly on the impact of the diseases by highlighting certain features such as victims and economic impact in the country (Leask et al, 2010; Lusk, 2020). In the past, the health media coverage in June 2013, about the joint mission of the Kingdom of Saudi Arabia (KSA) and the World Health Organization (WHO) met in Riyadh to assess the situation due to a new coronavirus in the Kingdom during the beginning of the pandemic, reporters wrote uncertainties about the pandemic and compared it with another Spanish flu of 1918-19 and Middle East respiratory syndrome coronavirus (MERS-CoV)the coverage and they focusing on dramatic health stories about the number of deaths 40 have occurred in KSA rather than analysing the content (Abu Senna, 2015).

The differences in the coverage of the COVID-19 may be due in part, to the differences in newspapers' ideology messaging on the issue by using government's newspaper-like Al-Ahram to representation a vital role in following specific strategies in order to make audiences read the news and interact to make awareness about the pandemic (Hart et al, 2020). Elemerey's (Elemerey, 2020) argue the coverage in independent media houses realised frequently to COVID-19 as a "hoax" came from China and has been dismissive of the risks posed by the virus.

In addition, the media houses party media in Egypt were more likely to spread misinformation about COVID-19 during the first wave outbreak using amplified voices of political actors in the coverage (Marzouq, 2020).

The second aspect about Jordanian newspaper coverage pandemic, the first case of COVID-19 infection in Jordan was confirmed on March 2, 2020. On March 14, the government followed WHO recommendations with a series of preventive and control strategies in the country, the government implemented total lockdown measures relating to "travel, education, religious and social events" (Altamimi, 2020; Altammemi, 2020), national emergency law was declared with strict rules and extreme fines for violations in order to limit the spread of the virus, started to implement periodically revised strict rules.

After that, on June 6, the Jordanian government announced that the level of severity in the number of local infection cases decreased by 10 cases per day, which led the country to open most of the service sectors, activities and facilities. Then on the first of November Jordan confirmed the second wave, the country witnessed an unprecedented increase in the number of case – 75,866 and deaths 866. The officials in Jordan warned of the collapse of the health sector due to the huge numbers of injured people. While a member of the country's epidemiology committee warned of the possibility that Jordan would enter an epidemic crisis and which recorded 8,000 cases per day (Eysenbach, 2020; Worldometers, January 13, 2021)

Accordingly, the government used *Al-Rai and Addustour* online newspapers during the crisis to alert citizens of the seriousness of the virus and its rapid spread. In addition, using news as a message to educate the public about how to protect themselves and measures to reduce its spread as many individuals (Habes et al., 2020).

Jordan received positive recognition internationally for the way they handled the ongoing pandemic in wave one and two, the government used media coverage to keep the public adequately informed with local, regional, state, and country's health. In addition, government success relies on mitigation measures related to drastic lockdown and cooperation with the public (Dardas et al., 2020).

Jordanian government relied heavily on promoting public awareness through collaboration with the Ministry of Health and Ministry of Information and the Crisis Center and they designed effective strategies to enhance public awareness. Information was delivered daily in televised press conferences to update the people about the ongoing pandemic. This gave updates on the latest figures (number of confirmed cases, tests, recovered patients), as well as for instructions that people should follow to reduce the exposure to COVID-19 (BalaEddy, 2020). Furthermore, the government tightened up efforts in the second wave with public attention, which could portend long-term transformations in Jordanian media habits and mark a turning point in transparency, by providing more information (Lynch, 2020).

An adequate public response to the pandemic depends on an informed community. Newspapers such as *Al-Rai and Addustour* are committed to investigating the regional responses to this crisis and the related public health issues and provides additional reporting about practical day-to-day tips and techniques for handling this quickly changing landscape includes school closures, social distancing, curfews, and working from home (Basch et al, 2020).

At the same time, the government imposed harsher limitations on journalism and the public, as a way to combat the spread of potentially false information online. In this view, government several online newspapers were blocked for spreading rumours about the virus, and the government statement carried across national newspapers raised troubling implications using cybercrime laws of those publishing any information regarding the virus's outbreak in Irbid, to combat rumours that can weaken the effectiveness of government response (Hussein, Aljamili, 2020).

For the first time in Jordan, unprecedented attention to government statements and policy also insisted the governments' visible efforts to share credible information, by effectively updating more successful policies while publishing information in the newspapers, the government has been able to overcome these early crises while retaining a high degree of citizen compliance with and support for stringent regulations (Management, 2020). The government announced that print newspapers would no longer be printed, and they implemented another alternative whereby the newspapers would be delivered electronically to subscribers, in order to minimise the transmission of infection (Abdelhafz, 2020).

The current study investigates the most popular and read Egyptian newspapers (*Al-Ahram and youm7*) and Jordanian (*Al-Rai, and Addustour*) newspapers to establish the depth of coverage of the COVID-19 pandemic during the first and second wave and which country from the sample

media coverage did more awareness with accurate information to inform public about the pandemic.

This study seeks to answer the following questions comparing between wave one and two, COVID-19 in Egyptian and Jordanian newspapers.

RQ1: What is the story format applied in the coverage?

RQ2: What is the depth of coverage?

RQ3: What are the dominant news and Journalist sources?

RQ4: What is the tone used in the coverage (positive, negative, or neutral)?

RQ5: What are the most notable themes in Egyptian and Jordanian in the sampled newspapers?

2. Materials and methods

Research design. The study employed a quantitative content analysis to assess online newspaper reportage of the COVID-19 scourge in Egypt and Jordan. A. Bryman defined content analysis as "an approach to the analysis of documents and texts, that seeks to quantify content in terms of predetermined categories and in a systematic and replicable manner" (Bryman, 2004: 177). The emphasis in most definitions has been on the systematic character of the analysis, meaning that coding is applied in a consistent manner to minimize any possible bias and to promote transparency.

B. Berelson adds the technique implies 'the objective of the quantitative description and the manifest content of communication' (Berelson, 1971: 18). Quantitative content analysis (CA) was applied to study online newspaper of the COVID-19 scourge. Four widely daily read two Egyptian and two Jordanian newspapers available online were selected for the study (see Table 1).

Newspaper sample. The Egyptian newspapers are *Al-Ahram*, founded on 5 August 1875, which is the most widely circulating; it is owned by the Egyptian government. The second newspaper is *Youm7* meaning (The Seventh Day), founded on May 2011 as independent newspaper selected to be the Forbes Middle East as having the most effective news website in the Middle East. Third, *Al-Rai* meaning "The Opinion" founded in 1971, it is an independent newspaper. Fourth, *Addustour*, meaning the "Constitution" founded in 1967 and owned by Jordan Press and Publishing Company.

The study encompassed the first wave from 15 March 2020 to 31 May 2020 and the second wave from 1 November to 3 January (see Table 1).

Table 1. Newspapers' sample

Type of newspapers		First wave from 15 March to 31 May	Second wave from 1 November to 3 January
Egyptian newspapers	Al-ahram http://gate.ahram.org.eg/	598	694
	youm7 https://www.youm7.com/	594	619
	Jourdan newspaper		
	Al- Rai www.alrai.com	205	233
	Addustour www.addustour.com	597	662

Techniques for selecting the stories. An online search using social bakers to download the news by keywords including 'COVID-19', 'Pandemic', 'Coronavirus in Egypt', 'Coronavirus in Jordan', 'death rates of Coronavirus', 'intervention on Coronavirus', 'policy measures in Egypt and Jordan'.

Unit of analysis. This study examined a total 4.202 newspaper articles (see Table 2).

Table 2. Types

Journalistic	‘news with video’, ‘editorials’, ‘feature’, ‘opinion’ ‘interview’, ‘report’, and ‘investigative’.
Headline	Informative, expressive, or appellative
photos/ videos	Archive image/ image, Videos, info Graphic, and Logo
Source Newspaper Sources	Agencies, Reporters, Repts Arab media outlets, and Foreign media
Journalist sources	Government, Local county agencies and local public health Departments, International Health Organizations, and Internal media platform or source
Newspaper tone	Positive, Negative, and Neutral
The main major frames around the content	Cases in Egypt and Jordan (who is contracted COVID-19 or those who treated, and Death rates) <ul style="list-style-type: none"> • Government measures using the Ministry of Interior to apply the precautionary measures (lockdown schools and university / sectors of the institutional) • Public enlightenment through online newspapers messages about the (risk, wearing face mask, social distancing, washing of hands, and using hand sanitizer) • The abuses that occur by the people towards the precautionary measures • Healthcare risk (inadequate isolation and treatment hospital / the cost in the hospital)

Data analysis. Data were further analyzed using SPSS Statistics for Windows, to descriptive statistics involving frequencies and percentages, to represent the sampled article characteristics. Assuredly, the data were collected subjected to T-Test and Chisquare, set at 0.05 significance level. Conclusively, all data were presented in the form of tables.

Table 3. Coverage of COVID-19

Newspaper	Waves		Total	Z test	
	wave 1	wave 2		Z value	p- value
Al-Ahram	598	694	1292	Z value	-1.101
	30.00	31.40	30.70	p- value	0.312
youm7	594	619	1213	Z value	1.25
	29.80	28.00	28.90	p- value	0.21
Al Rai	205	233	438	Z value	-0.29
	10.30	10.60	10.40	p- value	0.773
Addustour	597	662	1259	Z value	-0.03
	29.90	30.00	30.00	p- value	0.976
Total	1994	2208	4202		
	100.00	100.00	100.00		

3. Discussion

This study examined the Egyptian and Jordanian newspaper coverage of Covid-19 during the first and second waves. The findings of the study indicated that the media reported 4202 news articles the first wave (1994) and second wave (2208) stories.

With regards to the story format used in the coverage, we found that more than a third of the total news with video was used in the coverage and it was the first time all of the newspapers

incorporated video in order to attract the public. This finding is consistent with the study by A. Elemerey (Elemerey, 2020). Consequently, the Egyptian newspapers used video news more than interviews to report the news about COVID-19 with percentage (88 %).

During the coverage, *Al-Ahram and youm7* used informative headlines to report the information about the pandemic in waves one and two. During the coverage, the newspapers play an important role to deliver the stories about COVID-19, for example Egypt has witnessed increased cases but the original data were not published for fear of creating panic, unlike in Jordan's newspapers which worked to create terror among the citizens by using headlines bearing the meanings of financial fines, curfews, breaching the curfew and imprisonment for those who violated the curfew. The regular strategy adopted in the newspaper has been to make fine-grained descriptive distinctions using different types of news headlines to interact with the public. This result concurs with D. Dor (Dor, 2003) who noted that newspaper headlines help readers to get the maximum out of this informational flood—for the minimal cognitive investment, as *Al-Rai and Addustour* provide the readers with an optimally relevant presentation of their stories, they guide readers to those specific stories about COVID-19, which would be worth reading.

The newspapers from both countries used photos and videos in the coverage of the COVID-19. In addition, we found that more than half of the total percentage used infographics to support their stories for the first-time infographics witnessed a boom in the newsroom's use of infographics to describe visualizations that use various graphics to display data and ideas about pandemic especially in youm7 adding graphics along with the text, which brings in perspectives and depth to the news story. This result concurs with by A. Elemerey (Elemerey, 2020). during an outbreak of a pandemic infographics play an important role in shaping public opinion more than news text.

Researchers indicate that the public understands risks and crosses better when the media houses presented the news with visuals (AbuSenna, 2015; Hart et al., 2020; Marzouq, 2020), as they fear that they have limited threat about the pandemic, as well as the fear of being hazardous to the family (Zidan, 2020). Also, other research affirmed that the public can change their attitude and behaviour when they see visuals news shape about COVID-19 (Mahmoud, 2020; Abdelhafz, 2020).

With regards to newspaper coverage, most of the stories used 500 words and above (long articles), especially in wave two, which reflects in-depth writing to explain the details and cover different aspects of the pandemic. This is consistent with research by C. Rachul and T. Caulfield (Rachul, Caulfield, 2015) that analysed Canadian newspaper coverage of health policy decisions and found that the news articles covered diseases (22.6 %) with long articles to explain the discussion of a range of conditions and issues relevant to diseases, conditions, or access.

Prior research has shown that news and journalist sources play an important role in the coverage. In this study, we found that in the news sources coverage, newspapers depend on foreign media in the first wave, then they shifted the depth to agencies during the second wave. We observed that the least sources were newspaper reporters during wave one and Repts Arab media outlets articles in the second wave. Moreover, about the journalist sources, most of the newspapers sourced from the government, and then the percentage was almost the same at Local county agencies and local public health, departments, International Health Organizations, and internal media platform.

This result is slightly different from A. Zidan (Zidan, 2020) who found that Repts Arab media outlets are the most generally cited sources in the media coverage. We reason that youm7 in wave one reported "Egyptian channels have provided comprehensive coverage and a responsible message between directing and mobilizing in the face of danger" by using Repts Arab media outlets (Saeed, 2020). In addition, the most telling part of analysis concerns the tone, given the immense focus on "Neutral tone" to support increasing access to healthcare, *Addustou* in wave two used "Negative tone". This is represented in Jordanian government which implemented the curfew, and whoever violates this ban would be punished by imprisonment.

Regarding the most notable themes used in the coverage, the study observed that most of the stories induced panic among the public, while others raised awareness among the people.

4. Results

The story format applied in the coverage in Egyptian and Jordanian newspapers (comparing between wave one and two, COVID-19)

Tables 4 and 5 are presentations of the story format of online newspaper coverage of the COVID-19, comparing between wave one and two. Coronavirus-related information occupies wave one (38.4 %; 37.3 %; 36.5 %; 36.0 %) and wave two (31.1 %; 35.3 %; 24.0 %; 20.0) of the news with video. Precisely, editorials (25.9 %) in the wave one in *Al-Ahram*, more than wave two (17.0 %). On the other hand the percentage was the same with *Al-Rai* in the wave one and *youm7*; *Al-Rai*; *Addustour* (10.7 %). In addition, *Al-Rai*, and *Addudtour* did not focus on the investigative except, while *Al-Ahram* in wave two focused on the pandemic spared in Egypt more than wave one (1.4 %) also *youm7* did not release that in wave one (2.5 %).

To compare the Egyptian and Jordanian newspapers coverage first and second wave, in the *Al-Ahram* and *youm7* newspaper (N= 2465; M=2.95; SD; 2.127) and *Al-Rai* and *Addustour* (N= 1651; M= 3.55; SD; 2.301), the differences significant for *Al-Rai* and *Addustour* (T=-8.571; DF= 4114; p< 0.000). To realize the depth of coverage between *Al-Ahram* and *youm7*, first wave (N=1192; M=2.60; SD= 1.865) in the second wave (N=1273; M=3.28; SD=2.299), we pointed out that most of the journalists for the second wave T=-7.994; DF=2463, p< 0.000.

To point the depth of coverage between *Al-Rai* and *Addustour* in the first wave (N= 802; M=3.36; SD= 2.324), in the second wave (N=849; M=3.73; SD=2.265) & (T= -3.339; DF=1649, p< 0.000), so the differences for the second wave. Furthermore, to recognize the coverage on the first wave, *Al-Ahram* and *youm7* (N=1192; M=2.60; SD=1.865) than *Al Rai* and *Addustour* (N=802; M=3.36; SD=2.324) the differences for the second wave (T=-8.014; DF=1992, p< 0.000). In the second wave, *Al-Ahram* and *youm7* (N=1313; M=3.28; SD= 2.299) than, *Al-Rai* and *Addustour* (N=849; M=3.73; SD=2.265) the differences significant to *Al-Rai* and *Addustour* (T=-4.496; DF=2120, p< 0.000). We can observe that the most common of the newspapers used video to interact public, then editorials have high profound insight and context about the pandemic. On the other hand, most of the newspaper did not focus on feature especially *Al-Ahram* in wave one *youm7*; *Al Rai* and *Addustour* in wave two.

Table 4. Story format (first wave coverage)

Newspaper	news with video		editorials		Feature		opinion		interview		investigative		report		Total
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
Al-Ahram	230	38.4	155	25.9	25	4.1	63	10.5	32	5.3	43	7.1	50	8.3	598
youm7	222	37.3	143	24.0	122	20.5	33	5.5	22	3.7	15	2.5	37	6.2	594
Al Rai	75	36.5	22	10.7	14	6.8	15	7.3	16	7.8	18	8.7	45	21.9	205
Addustour	215	36.0	66	11.5	74	12.3	55	9.2	45	7.5	41	6.8	101	16.9	597
Chi2= 21.1621 & DF= 18 & p- value= 0.000 & Pearson's R= 0.139 & p- value= 0.023															

Table 5. Story format (second wave coverage)

Alahram	216	31.1	118	17.0	126	18.1	33	7.4	36	5.1	10	1.4	115	16.5	694
youm7	219	35.3	68	10.9	56	9.0	55	8.8	35	5.6	55	8.8	131	21.1	619
Al Rai	56	24.0	25	10.7	22	9.4	31	13.3	15	6.4	16	6.8	67	28.7	233
Addustour	133	20.0	134	20.2	45	6.7	122	18.4	20	3.0	32	4.8	131	19.7	662
Chi2= 215.14 & DF = 18 & p- value= 0.000 & Pearson's R= 0.1 & p- value= 0.021															

Headlines are very important for the readers, their location on the online page colour, type and size of the title contributes to underlining the topic that includes a lot of information. In relation to these Tables 6 and 7, most of the headlines were informative especially in *Al-Ahram* and *youm7* (65.5 % & 67.8 %) in the second wave (65.5 %) but in the first wave, *youm7* got (52.1 %) *Al-Ahram* (34.2 %) compared with Jordanian newspapers *Addustour* (46.8 %) *Al-Rai* (130 %) in the second wave; half of the percentage decreased with *Al-Rai* (31.7 %) in the first wave. This means that *Al-Rai* newspaper found disease risk to have increased in the second wave, and the rates of warnings with fear-topped the headlines. Both the Egyptian and Jordanian newspapers used headlines of an appellative nature to raise awareness about the pandemic, in wave one more than wave two.

The expressive headlines are one of the most important elements of the newspaper; as attention is paid in order to make them more colourful, intriguing and catching (Oden, 2019). The percentage was almost the same with expressive in *Al-Ahram* and *Addustour* in wave one (24.2 %; 23.9 %) than the percentage change in wave two *Al-Ahram* dropdown with 100 points, and the percentage was almost the same with *youm7* and *Al-Rai* (21.0 %; 22.7 %). This reduced number emphasizes that the newspapers in both countries did not draw more attention to the public because this might fear emotions. To compare the Egyptian and Jordanian newspapers coverage of the first and second wave, in the *Al-Ahram* and *youm7* newspaper (N=2585; M = 1.72; SD= 0.851) and *Al-Rai* and *Addustour* (N=1651; M=1.76; SD= 0.818), (T=-1.5073; DF=4234; p< 0.1318|), signifying no significant difference in the nationality of the newspapers of the headlines. To realize the depth of coverage between *Al-Ahram* and *youm7*, first wave (N=1192; M=1.91; SD=0.877) in the second wave (N=1393; M=1.56; SD=0.794) T=-10.572; DF=2583, p< 0.000 so that the different for the first wave.

The depth of coverage between *Al-Rai* and *Addustour* in the first wave (N= 802; M=1.87; SD=0.859) in the second wave (N=849; M=1.66; SD=0.765) & (T= 5.2743; DF=1649, p< 0.000), so the differences for the first wave. Furthermore, the coverage on the first wave: *Al-Ahram* and *youm7* (N=1192; M=1.91; SD=0.877) than *Al Rai* and *Addustour* (N=802; M=1.87; SD=0.859) There are no significant differences (T=9842; F=1992, p<0.3251). In the second wave, *Al-Ahram* and *youm7* (N=1313; M=1.56; SD=0.794) than *Al-Rai* and *Addustour* (N=849; M=1.66; SD=0.765) the differences significant to *Al-Rai* and *Addustour*.

The main characters that appear infographic on the coverage [Table 8](#) and [Table 9](#) show important differences between the Egyptian and Jordanian newspapers, for the first time all of the newspapers depend on the infographic to describe the story about COVID-19 with an overwhelming number of facts, figures, statistics, scientific data and medical advice sprawled across the newspapers.

Table 6. Headline (first wave coverage)

Newspaper	Informative		Expressive		Appellative		Total
	#	%	#	%	#	%	
Al-Ahram	205	34.2	145	4.2	248	41.4	598
youm7	310	52.1	122	0.5	162	27.2	594
Al Rai	65	31.7	55	6.8	85	41.4	205
Addustour	288	48.2	143	3.9	166	27.8	597

Chi2= 63.084 & DF= 6 & p-value= 0.000 & Pearson's R= 0.175 & p-value= 0.000

Table 7. Headline (second wave coverage)

Al-Ahram	455	65.5	120	7.2	199	26	694
youm7	420	67.8	130	1.0	69	11.1	619
Al Rai	130	55.7	53	2.7	50	214	233
Addustour	310	46.8	203	0.6	103	155	662

Chi2= 105.062 & DF= 6 & p-value= 0.000 & Pearson's R= 0.212 & p-value= 0.000

The highest percentage with *youm7* (54.3 %) *Addustour* (55.4 %) in wave one, they used different types of visuals proving successful message data visualizations, charts, maps, and cartoons. Then the percentage change in wave two with *Al-Rai* (30.0 %) which used important content to the public with infographics, animations, and illustrations.

The newspapers also used video in the fight against COVID-19 in second place, in wave two more that wave one (46.1 %; 53.7 %; 51.5 %). *Addustour* realized that in the second wave, the image is very important and absorbs the most attention they used celebrities with public figures (25.6 %) and *Al-Ahram* used logo in the second wave (17.2%) this aspect emphasizes the importance type to give information and awareness of the pandemic.

To compare between Egyptian and Jordanian newspaper, *Al-Ahram* and *youth7* are (N=2557; M=2.71; SD=1.053) and *Al Rai* and *Addustour* (N=1695; M=2.69; SD=1.089) T=0.555; DF=4250, and $p < 0.579$, significance, there are no significant level between Egyptian and Jordanian coverage. In addition, about *Al-Ahram* and *youth7* coverage in the first wave (N=1244; M=3.05; SD=1.006) and in the second wave (N=1313; M =2.39; SD; 0.997) So T=16.478; DF=2555, $p < 0.000$ significance level. But *Al-Rai* and *Addustour* coverage in the first wave (N=802; M=3.01; SD=1.010) second wave (N=893; M= 2.40; SD= 1.076) So T=11.957; DF=1693, and $p < 0.000$ significance level, to observe the difference for first wave.

In considering all the newspaper coverage during the first wave, *Al-Ahram* and *youth7* coverage (N=1244; M=3.05; SD; 1.006) and *Al-Rai* and *Addustour* coverage (N=802; M=3.01; SD; 1.010) So (T=0.7307; DF=2044) and $p < 0.465$ significance, there are no significant differences. Moreover, the coverage in the second wave *Al-Ahram* and *youth7* coverage (N=1313; M=2.39; SD; 2.39) and *Al-Rai* and *Addustour* coverage (N=893; M=2.40; SD; 1.076) So T= 0.252; DF=2204 and $p < 0.801$, there are no significant differences were found.

Table 8. Photos and videos (first wave coverage)

Newspaper	Image		Videos		Logo		Info graphic		Total
	#	%	#	%	#	%	#	%	
Al-Ahram	33	.5	20	6.7	5	.19	90	8.4	98
youth7	13	.1	244	1.0	6	1.1	23	4.3	94
Al Rai	11	.3	02	9.7	3	6.0	9	8.7	05
Addustour	13	.1	30	38.5	3	.8	31	5.4	97

Chi2= 76.91 & DF= 9 & p- value= 0.000 & Pearson's R= 0.19 & p- value= 0.000

Table 9. Photos and videos (second wave coverage)

Al-Ahram	153	2.0	20	6.1	20	7.2	01	4.5	94
youth7	60	.9	33	3.7	5	.2	81	9.2	19
Al Rai	22	.4	20	1.5	9	.20	0	0.0	33
Addustour	170	5.6	45	7.0	00	5.1	47	2.2	62

Chi2= 151.214 & DF = 9 & p- value= 0.000 & Pearson's R= 0.253 & p- value= 0.000

The depth of coverage in Egyptian and Jordanian in the sampled newspapers (comparing between wave one and two, COVID-19)

Tables 10 and 11 examined the percentage words per article. Words per article was analysed and categorized as long, medium and short, in order to know what information includes COVID-19. We observed that most of the stories described using 500 words and above (long articles), as well as 300-499 (medium articles). *Al-ahram*; *youth7*; and *Addustour* got the same percentage in wave one (35.1 %; 35.8 % and 41.8 %) but the percentage increased in wave two, with 100 points (44.6 %; 53.3 %; 70.8 %; and 50 %) with long words. The lowest percentage *Al- Rai* described using 1-299 (short) 199 words (9.8 %) had shorter stories in the second wave.

To compare between the Egyptian and Jordanian coverage, *Al-Ahram* and *youth7* coverage (N=2505; M=2.18; SD=0.797) and *Al-Rai* and *Addustour* coverage (N=1737; M=2.27; SD=0.789) & T= 3.673012; DF=4240, and $p < 0.000$ significance, and yet the difference between the one group Jordanian coverage. Then, to compare between *Al-Ahram* and *youth7* coverage in the first wave (N=1192; M=2.08; SD=0.787) and second wave (N=1313; M=2.27; SD=0.796) T=-5.838; DF=2503, and $p < 0.000$ significance. Then *Al-Rai* and *Addustour* coverage, in the first wave (N=802; M=2.13; SD=0.846) second wave (N=935; M=2.39; SD=0.715) T=-7.107; DF=1735, and $p < 0.000$ significance. There is a no statistically significant difference between the newspapers during the second wave.

Moreover, about Egyptian, and Jordanian coverage during the first wave, *Al-Ahram and youm7* coverage (N=1192; M=2.08; SD=0.787) and *Al-Rai and Addustour* coverage (N=802; M=2.13; SD=0.846) T=-1.202; DF=1992, and p<0.2296 significance, there is a no statistically significant difference between the newspapers. During the second wave (N=1313; M=2.27; SD=0.796) *Al-Rai and Addustour* coverage (N=935; M=2.39; SD=0.715) T=-3.85; DF=2246, p<0, set at 0.0001 significance, yet the difference between the Jordanian newspaper is not statistically significant.

Table 10. Words in the articles (first wave coverage)

Newspaper	500 words above (long articles)		300-499 (medium articles)		1-299 (short articles)		Total
	#	%	#	%	#	%	
Al-Ahram	10	35.1	215	35.9	73	28.9	598
youm7	13	35.8	231	38.8	50	25.2	594
Al- Rai	5	46.3	60	29.2	0	24.3	205
Addustour	50	41.8	155	25.9	92	32.1	597

Chi2= 31.721 & DF= 6 & p- value= 0.000 & Pearson's R= 0.125 & p- value= 0.000

Table 11. Words in the articles (second wave coverage)

Al-Ahram	10	4.6	01	8.9	83	6.3	694
youm7	30	3.3	85	9.8	04	6.8	619
Al- Rai	65	0.8	6	9.7	2	.8	233
Addustour	31	50	66	40.1	05	5.8	662

Chi2= 87.106 & DF= 6 & p- value= 0.000 & Pearson's R= 0.193 & p- value= 0.000

The dominant news and Journalist sources in Egyptian and Jordanian in the sampled newspapers (comparing between wave one and two, COVID-19)

By analyzing the newspaper sources' reports pandemic, [Tables 12](#) and [13](#) examined, *Addustour* and *youm7* depend on foreign media 30.1 % & 29.1 %) in wave one. Then *youm7*, and *Addustour* used agencies, (22.7 % & 22.3 %) in wave one, but in wave two the percentage increased with *youm7* (40.3 %). *Al-Ahram* depend on reporters during wave two with, followed by Republic of Arab media outlets with *Al-Ahram* and *youm7* (25.9 % & 25.7 %) during wave one, while *Addustour* got (24.0 %) in wave two.

To compare between Egyptian and Jordanian newspapers coverage, *Al-Ahram and youm7* (N= 2487; M=2.47; SD; 1.141) and *Al-Rai and Addustour* (N= 1697; M=2.55; SD; 1.141) T=-2.298; DF=4182, and p< 0.0216) so the difference between Jordanian coverage is not statistically significant. To realize the depth of coverage between *Al-Ahram and youm7*, during the first wave (N=1174; M=2.67; SD=1.131) and second wave (N=1313; M=2.29; SD=1.120).

To understand the depth of coverage between *Al-Rai and Addustour*, in the first wave (N=802; M=2.63; SD=1.124) and second wave (N=895; M=2.47; SD=1.076), (T=3.0508; DF=1695, p< 0.0023), there is not statistically significant.

With regards to the coverage of the first wave, *Al-ahram and youm7* (N=1174; M=2.67; SD=1.131) than *Al Rai and Addustour* (N=802; M=2.63; SD =1.124) there no significant differences were found. (T=0.6488; DF=1974, p< 0.5166), second wave, *Al-ahram and youm7* (N=1313; M=2.29; SD=1.120) than *Al Rai and Addustour* (N=895; M=2.47; SD=1.076) the differences for the *Al Rai and Addustour* (T=-3.852; DF=2206, p< 0.0001).

Table 12. News sources (first wave coverage)

Newspaper Sources	Agencies		Reporters		Reps' Arab media outlets		foreign media		Total
	#	%	#	%	#	%	#	%	
Al-Ahram	22	0.4	35	2.5	55	5.9	86	1.1	598
yom7	33	2.3	11	8.6	153	25.7	79	0.1	594
Al Rai	0	9.5	7	7.8	45	21.9	3	0.7	205
Addustour	36	2.7	22	0.4	165	27.6	74	9.1	597

Chi2= 9.912 & DF= 9 & p- value= 0.358 & Pearson's R= 0.071 & p- value= 0.358

Table 13. News sources (second wave coverage)

Al-ahram	55	2.3	10	4.6	20	7.2	09	5.7	694
yom7	50	0.3	00	6.1	5	15.3	74	8.1	619
Al Rai	5	9.3	5	3.6	5	27.8	8	9.1	233
Addustour	60	4.1	10	1.7	59	24.0	33	0.0	662

Chi2= 195.032 & DF= 9 & p- value= 0.000 & Pearson's R= 0.285 & p- value= 0.000

Tables 14 and 15 indicate the journalists' sources of reports. The intention was to realize the most important sources government with *Al-Ahram* and *Addustour* (30.7 %; 31.4 %) the common percentage in wave two *Al-Ahram*, *yom7*, and *Addustou* (289 %, 252 %, and 215 %). However, *Al-Ahram* got the same percentage (International Health Organizations) (20.5 %). Most of the *Al-Ahram* and *Addustour* depend on internal media platform (28.8 % & 26.5 %) in wave two.

In comparing the Egyptian and Jordanian newspapers coverage, *Al-Ahram* and *yom7* coverage (N= 2505; M=2.26; SD; 1.160) and *Al-Rai* and *Addustour* coverage (N= 1697; M=2.42; SD; 1.178), there is not statistically significant (T= 4.507; DF=4200; p< 0.000). To realize the depth of coverage between *Al-Ahram* and *yom7*, first wave (N=1192; M=2.36; SD=1.111) second wave (N=1313; M=2.17; SD=1.196), we pointed that the difference for the first wave was not statistically significant (T=4.178; DF=2503, p< 0.000). The depth of coverage between *Al-Rai* and *Addustour*, in the first wave (N=802; M=2.42; SD=1.152) and second wave (N=895; M=2.43; SD=1.202) & (T=-0.154; DF=1695, p< 0.877) indicates no significant differences.

Furthermore, the coverage during the first wave, *Al-Ahram* and *yom7* (N=1192; M=2.36; SD=1.111) than *Al Rai* and *Addustour* (N=802; M=2.42; SD=1.152) indicates no significant differences (T=-1.155; DF=1992, p< 0.248), while during the second wave, *Al-Ahram* and *yom7* (N=1313; M=2.17; SD=1.196) than, *Al-Rai* and *Addustour* (N=895; M=2.3; SD=1.202), the differences for the *Al Rai* and *Addustour* (T=-5.035; DF=2206, p< 0.000).

The tone used in the coverage by the Egyptian and Jordanian newspapers

The main tone used in the coverage, as displayed in Tables 16 and 17 show important differences between the newspapers in both countries. The negative tone is the one that gets the most attention, with *Addustour* (119.3 %) wave one but the percentage increased in wave two (35.1 %).

To explain the negative tone in the first wave with both countries, for example, with the stakes are from the King of Jordan and the Egyptian President using army to intervene.

Al-Ahram focused on "The Prime Minister: The plan to coexist with the" COVID-19 includes penalties for those who are not compliant." (Hassan, 2020, May 14). , General Mohamed Farid reviews the measures of the armed forces to confront the effects of the spread COVID-19" (Salem, 2020, April 7). And "Security campaigns to control those who violate the deadlines for closing shops and commercial centers to reduce" COVID-19" (Attia, 2020, April 1). But *Youm7* online newspaper focused on injury and death rates "Health: 54 positive cases of COVID-19, 5 deaths" (Abdel Salam, 2020, March 31) and "Health: 33 new positive cases of COVID-19, 4 deaths" (Abdel Salam, 2020, March 29). On the other hand, *Al- Rai* newspaper used "An important security statement regarding compliance with the orders and instructions issued for violating the curfew" (Alrai, 2020, March 31).

Table 14. Journalist sources (first wave coverage)

Newspaper Sources	government		Local county agencies and local public health departments		International Health Organizations		Internal media platform		Total
	#	%	#	%	#	%	#	%	
Al-Ahram	184	30.7	166	27.7	123	20.5	125	20.9	598
youm7	165	27.7	146	24.5	160	26.9	123	20.7	594
Al Rai	40	19.5	90	43.9	30	14.6	45	21.9	205
Addustour	188	31.4	125	20.9	123	20.6	161	26.9	597

Chi2= 59.76 & DF= 9 & p- value= 0.000 & Pearson's R= 0.171 & p- value= 0.000

Table 15. Journalist sources (second wave coverage)

Al-Ahram	289	41.6	155	22.3	50	7.2	200	28.8	694
youm7	252	40.7	161	26.0	101	16.3	105	16.9	619
Al Rai	45	19.3	22	9.4	66	28.3	100	42.9	233
Addustour	215	32.2	245	37.0	26	3.9	176	26.5	662

Chi2= 253.238 & DF= 9 & p- value= 0.000 & Pearson's R= 0.321 & p- value= 0.000

About the Positive tone, youm7 and Addustour has got the same percentage (24.2 %) in wave one, then growing up to (46.8 %) in wave two, with Addustour and youm7. For example, the positive tone in the first and second wave reassuring related to COVID-19 to downscale the risk. For example, 'How did Egypt prepare for the second wave of the COVID-19 crisis?' (Hassan, 2020, December 12). 'Health: Manufacturing COVID-19 vaccines locally as part of the state's plan to confront the virus' (Abdel Salam, 2020, November 26), and in Jordanian newspapers, "Experts: Jordan needs a comprehensive economic plan that overcomes the consequences of the COVID-19".

Then, the neutral tone the highest percentage with youm7 (43.0 %) wave one, then Al-Ahram (37.1 %) in wave two. For example, Addustour newspaper focused on "Governmental measures to confront COVID-19, suspending educational institutions" (Addustour, 2020, March 15).

In the second wave the tone changes with Jordan more than Egypt Addustour newspaper focused on "Warning sirens sounded at 12 o'clock and once, before the start of the comprehensive curfew at 1 pm for a period of 48 hours (Addustour, 2020, October 15). About the neutral tone, the tow counter used the same way for example, "Lectures by 350 citizens who violated the instructions for wearing the muzzle" (AlBassel, 2020, April 1). And "Experts: The effect of wearing a "muzzle" is equivalent to the vaccine" (Elsaid, 2020, November 26).

In comparing Egyptian and Jordanian newspapers coverage, Al-Ahram and youm7 (N= 2387; M=1.93; SD; 0.845) and Al-Rai and Addustour (N= 1573; M=1.89; SD; 0.799), there are no significant differences (T=-1.756; DF=3958; p< 0.079). The depth of coverage with Al-Ahram and youm7, first wave (N=1074; M=2.12; SD=0.813) second wave (N=1313; M=2.17; SD=1.196) & (T=4.178; DF=2503, p< 0.000).

Then, the depth of coverage between Al-Rai and Addustour, in the first wave (N= 678; M=2.04; SD=0.775), second wave (N=895; M=1.77; SD=0.798), (T=-6.793; DF=1571, p< 0.000), we noted that the there are no statistically significant.

Furthermore, the coverage on the first wave by the Al-Ahram and youm7 (N=1074; M=2.12; SD=0.813) than Al Rai and Addustour (N=678; M=2.04; SD=0.775) indicate no significant differences (T=-1.893; DF=1750, p< 0.059), while during the second wave, Al-Ahram and youm7 (N=1313; M=1.78; SD=0.842) than, Al-Rai and Addustour (N=895; M=1.77; SD=0.798) also indicates no significant differences. (T= 0.441; DF=2206, p< 0.659).

Table 16. Tone used in the coverage (first wave coverage)

Newspaper tone	Positive		Negative		Neutral		Total
	#	%	#	%	#	%	
	#	%	#	%	#	%	
Al-Ahram	55	5.9	65	7.5	68	8.0	598
youm7	45	4.4	85	1.1	56	3.0	594
Al Rai	5	1.9	5	1.7	5	6.3	205
Addustour	45	4.2	205	119.3	23	0.6	597

Chi2= 49.018 & DF= 6 & p- value= 0.000 & Pearson's R= 0.165 & p- value= 0.000

Table 17. Tone used in the coverage (second wave coverage)

Al-Ahram	15	5.3	21	6.8	58	7.1	694
youm7	22	2.0	01	2.4	6	5.5	619
Al Rai	02	3.7	5	9.3	6	6.9	233
Addustour	10	6.8	33	5.1	19	7.9	662

Chi2= 144.179 & DF = 6 & p- value= 0.000 & Pearson's R= 0.248 & p- value= 0.000

The most notable themes in the Egyptian and Jordanian newspapers

This part of the study aimed to establish the main topics related to COVID-19 in both countries. [Table 18](#) and [Table 19](#) shows, Cases (who is contracted COVID-19 or those who treated, and Death rates) *Alahram* and *Addustour* got (36.0 % & 35.1 %) in wave one, then the proportion decreases with *Addustour* (18.5 %).

Moreover, the (Government measures using the Ministry of Interior to apply the precautionary measures (lockdown schools and university / sectors of the institutional), the percentage the same *Al-Ahram* (17.5 %) in wave one and two.

About the abuses that occur by the people towards the precautionary measures the percentage is the same *youm7* and *Addustour* (22.2 %) during wave one. In addition, Public enlightenment through online newspapers messages about the (risk, wearing face mask, social distancing, washing of hands, and using hand sanitizer) were the most common topics, with *Al-Ahram* and *Addustour* having (10.5 %) during wave one, then increased in wave two with *Addustour* (26.4 %).

Regarding healthcare risk (inadequate isolation and treatment hospital/the cost in the hospital), the percentage was the same for *Alahram* and *youm7* (8.5 %) then increased in wave two *Addustour* (14.1 %).

The Egyptian and Jordanian newspapers' coverage of the first and second waves, as indicated in the *Al-Ahram* and *youm7* (N= 2505; M=2.52; SD; 1.293) and *Al-Rai* and *Addustour* (N= 1697; M=2.73; SD; 1.425) showed some differences significant for *Al-Rai* and *Addustour* (T=-4.907; DF=4200; p< 0.000).

To realize the depth of coverage between *Al-Ahram* and *youm7*, first wave (N=1192; M=2.12; SD=0.813) second wave (N=1313; M=2.17; SD=1.196), we observe the difference for the first wave statistically significant (T=4.178; DF=2503, p< 0.000).

In terms of the depth of coverage between *Al-Rai* and *Addustour* during the first wave (N= 802; M=2.45; SD=1.386), as well as the second wave (N=895; M=2.98; SD=1.414) & (T= -7.763; DF=1695, p< 0.000), so that the differences of significant for the second wave.

Furthermore, the coverage on the first wave: *Al-Ahram* and *youm7* (N=1192; M=2.38; SD=1.245) than *Al Rai* and *Addustour* (N=802; M=2.45; SD=1.386) indicates no statistically significant difference between the newspapers (T=-1.178; DF=1992, p< 0. 0.239), second wave, *Al-Ahram* and *youm7* (N=1313; M=2.65; SD=1.324) than *Al-Rai* and *Addustour* (N=895; M=2.98; SD=1.414) the differences significant to *Al-Rai* and *Addustour* (T=-5.592; DF=2206, p< 0.000).

Table 18. The most notable themes (first wave coverage)

Content	Cases (who is contracted COVID-19 or those who treated, and Death rates)		Government measures using the Ministry of Interior to apply the precautionary measures (lockdown schools and university / sectors of the institutional)		The abuses that occur by the people towards the precautionary measures		Public enlightenment through online newspapers messages about the (risk, wearing face mask, social distancing, washing of hands, and using hand sanitizer)		Healthcare risk (inadequate isolation and treatment hospital / the cost in the hospital)		Total
	#	%	#	%	#	%	#	%	#	%	
Al-Ahram	210	35.1	122	20.4	152	25.4	63	10.5	51	8.5	598
youth7	152	25.5	210	35.3	132	22.2	48	8.0	52	8.7	594
Al Rai	65	31.7	55	26.8	22	10.7	30	14.6	33	16.0	205
Addustour	215	36.0	118	19.7	133	22.2	66	11.5	65	10.8	597

Chi2= 81.256 & DF = 12 & p- value= 0.000 & Pearson's R= 0.198 & p- value= 0.000

Table 19. The most notable themes (second wave coverage)

Al-Ahram	215	0.9	22	17.5	36	9.5	145	20.8	6	10.9	694
youth7	142	2.9	56	25.2	23	9.8	162	26.7	6	5.8	619
Al Rai	65	7.8	2	13.7	3	4.1	35	15.0	8	29.1	233
Addustour	123	8.5	45	21.9	25	8.8	175	26.4	4	14.1	662

Chi2= 132.344 & DF= 12 & p- value= 0.000 & Pearson's R= 0.238 & p- value= 0.000

5. Conclusion

We conclude that the Egyptian and Jordanian newspapers paid attention to coverage COVID-19 at the expense of other stories. However, the coverage during wave two was more in-depth than during wave one and most of the stories were long, had news infused with video to interact with the public. In addition, the stories focused on death and cases of COVID-19 and how governments find solutions.

This research, which is one of the first to examine newspaper coverage of COVID-19 between the said countries, contributes to the body of knowledge. Second, a comparison of media coverage in many countries in the Middle East with governmental healthcare coverage may provide further insights into whether there are any similarities between policymakers in the Middle East. Finally, the time frame analysis only covered the first and second wave, thus, it is possible that there will be a change in health issues, especially in the face of vaccinations which are taking place the world over.

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