Mismanagement of 2019-nCoV. Lessons learned from Italy

This paper analyses the first phases of the 2019-nCoV outbreak management in Italy by exploring the combination of political, scientific, media and public responses. A fragmented communication between national and local governments, the presence of mixed scientific voices, a lack of coordination between political and scientific levels and between institutional claim-makers and the media suggest a mismanagement of the crisis during the first phases of the outbreak. The outbreak management suffered from the five communication weaknesses identified by Reynolds (2005), related to i) mixed messages from multiple messengers; ii) delay in releasing information; iii) paternalistic attitudes; iv) not responding to rumours in real time; and v) political confusion. This suggests that the communication of uncertainty around an unknown threat should be accompanied by both political and scientific cohesion. However, both political and scientific dysfunctions caused the failure of several government efforts to contain the outbreak. This paper contributes towards informing policymakers on the lessons learned from the management of the 2019-nCoV in one of the most affected countries in the world. The Italian case study offers the opportunity for other countries to improve the management of the outbreak by limiting the spread of both chaos and panic.

Keywords: coronavirus; health-crisis management; 2019-nCoV

Introduction

This paper reflects on crisis management practices by exploring the combined effort of political, media and scientific responses to the 2019-nCoV outbreak in Italy. On 31 December 2019 the Chinese authorities reported a cluster of pneumonia cases of unknown aetiology in Wuhan (Hubei Province, China) (Corman et al. 2020) and on 7 January 2020 a novel 2019-nCoV was identified

(https://www.pscp.tv/WHO/1OdJrqEvgaeGX). In one month, the 2019-nCoV outbreak was declared a Global Public Health Emergency by the World Health Organisation (WHO) and classified as a pandemic on the 11th of March (WHO 2020b). Given that the 2019-nCoV is an emerging novel pathogen, particularly during the earliest phases, scientists shared the results of ongoing research. For example, on the 23rd of January, scientists classified the infection as "more than just a cold" given its association with both severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV) (Paules, Marston and Fauci 2020). However, the trajectories of the outbreak were classified as impossible to predict, but effective countermeasures and prompt action were encouraged to contain the spread of the infection (Qun Li et al. 2020). The WHO (2020a) announced the global imperative for the research community to broadly share scientific advances and create collaborations to effectively and rapidly inform decisionmakers (Public Health Emergency of International Concern [PHEIC] 2020). Given these premises, this paper investigates the Italian case study, which is currently the second most affected country. It focuses on both the implementation of containing measures and the internal/external flow of information about the virus. Given that the trajectories of the outbreak are still under evaluation and both containment measures and transparency of information are essential to control the spread of the virus, this paper investigates the effects of emergency response strategies adopted in Italy. This is important in a risk-management perspective due to a potential spread of panic and stigmatisation of people affected (or suspected to be) by the disease. The Italian case study offers the opportunity to other countries to learn some lessons in order to avoid missteps in managing the same and future crises.

The first section reviews the literature related to crisis management. The second section reports the methods adopted to identify the main events and the actors involved in the communication process. The third section and its related sub-sections report the results in relation to the reaction of government and political forces, scientists, the media, and conflicts around some management choices. Finally, these results will be discussed to identify the elements that undermined the success of the government emergency response operation.

Literature Review

The literature recognises a fundamental value played by the interrelationships between the media, authorities and public perception in crisis/disaster management (Schultz, Utz and Göritz 2010). Communication strategies are an essential component of disaster planning, response, and recovery (Houston et al. 2014). Four main forces might affect the communication of a crisis related to its perception, process and metabolization of information, tendency to put greater attention on losses than gains, and trust-building processes (Covello et al 2001; Glik 2007). These processes are strongly interconnected and can determine the success of a crisis response operation. In fact, the literature highlights that crisis-communication must be "timely, accurate, direct, and […] give people hope" (Glik 2007). Therefore, differently from other types of risk communication, which includes a set of consolidated general practices to deal with certain situations, a crisis/disaster communication deals with an emergency (Seeger, Sellnow and Ulmer 1998) and involves huge and scared audiences (Sandamn 2003). Specifically, a disaster can be defined as a time-delimited collective experience that is potentially traumatic (McFarlane and Norris 2006). This means that when an unexpected health crisis occurs, governments, scientists and the media deal with uncertainty, public fear and rely on reciprocal support/coordination. Previous case studies, such as e.g. anthrax risk in 2001 (Robinson and Newstetter 2003), spread of West Nile Virus (see e.g. Covello et al. 2001; Fine and Layton, 2001), SARS outbreak in 2003 (Brug et al. 2004; Washer 2004) and H1N1 in 2009 (Durodié, 2011; Klemm, Das and Hartmann 2016) offered the opportunity to define effective crisis communication standards (Glik 2007). The severe acute respiratory syndrome (SARS) in 2003 affected 26 countries and resulted in more than 8000 cases and 774 deaths with a fatality rate of 9.6% (WHO, https://www.who.int/ith/diseases/sars/en/). Soon after the SARS crisis, between 2003 and 2015, the H5N1 virus affected 826 individuals and caused 440 fatalities (WHO 2015). In 2009, the H1N1 influenza was alarming because it was mainly affecting young people with high mortality rates. For the first time a global effort was initiated by implementing the plans designed after the SARS outbreak and H5N1 flu (Keil 2011). However, compared to these previous outbreaks, the 2019-nCoV resulted to be more contagious. On January, 22580 cases were recorded globally, on March 11 the number of affected was 126214 and the number of deaths 4628 (https://www.worldometers.info/coronavirus/coronavirus-cases/#cases-growth-factor). The literature highlights that the spread of panic is one of the most frequent causes of failure of crisis communication, and can result from several factors related to the

uncertainty surrounding an unknown threat, incapacity of leaders to channel people fears into specific actions, speculation and multiple contrasting messages sent to the public (Covello et al. 2001; Robinson and Newstetter 2001), lack of transparency and information and lack of trust and credible claim-makers (Fessenden-Raden, Fitchen and Heath 1987; Peters, Covello, and McCallum 1997; Renn and Levine 1991; Reynolds 2005). Given these premises, the first research question (RQ) relates to the role of both government and scientists in managing the communication of the emergent 2019-nCoV crisis, and it is split in two sub-questions:

RQ1a: How did Italian governmental agencies manage the communication of an emergent and unknown health crisis?

RQ1b: Did Italian scientists represent a unique voice in reporting scientific advances related to the 2019-nCoV ?

During health/disaster crises the use of both mainstream media and the Internet increases exponentially (Glass 2002). Eriksson (2018) identifies some lessons that show the importance of combining the use of both traditional media and social media in time of crisis. Even though several studies highlight that traditional media are considered more credible sources of information (see e.g. Eriksson 2018; Schultz, Utz and Göritz 2010), social media and blogs often provide real-time updates (Husain et al. 2014; Liu 2010), which in turn can influence the content of mainstream media (Houston et al. 2014). Accordingly, social media have been increasingly integrated in planning crisis/disaster management to anticipate public reaction (Fraustino, Liu and Jin 2012; Freberg, Palenchar and Veil 2013; Keim and Noji 2011; Taylor and Kent 2007). Therefore, a second research question relates to the use of the media by institutional voices to inform the public.

Q2: How did institutional actors (e.g. government representatives, political voices and scientists) use the media to manage the crisis?

The literature identifies four main frames used by the media during crises to help the public interpret the situation (Cho & Gower, 2006; Liu 2010; Neuman, Just, & Crigler, 1992). These frames include the attribution of responsibility, representation of conflicts, economic impact and human interest. Therefore, these elements are investigated by the following research questions:

Q3a: Who are the actors represented as responsible for managing the crisis?

Q3b: What are the aspects identified as causing conflicts in managing the crises?

Q3c: What are the consequences on the economic asset?

Q4d: What are the consequences on humans?

Answering these questions will help explore the effectiveness of an emergency response strategy resulting from the interrelationships between political institutions, scientists and the media during the emergence of the 2019-nCoV crisis in Italy. The analysis will be guided by the five elements identified by Reynolds (2005) as potential threats to the success of an emergency response operation. These are: i) Mixed messages from multiple messengers; ii) delay in releasing information; iii) paternalistic attitudes; iv) not responding to rumours in real time; and v) political confusion.

Methods

To explore the combined efforts of politics, science and the media in informing people and containing the spread of the 2019-nCoV, one of the most read Italian newspaper (both print and online), *La Repubblica* (Pasqaré and Oppizzi 2012; https://www.statista.com/statistics/730125/top-online-news-sources-in-italy/), guided the identification of the main events characterising the first phases of the outbreak management. In fact, *La Repubblica* dedicated an online page to update news about the 2019-nCoV hour by hour (Stabile and Matteucci 2020). The time period included in the analysis is between 22 February and 11 March 2020. On the 21st of February around 20 cases were identified in Italy and the day after the Government isolated the most affected areas. On the 10th of March the entire country was locked down and on the 11th the WHO declared the spread of the virus a global pandemic. The events were analysed by exploring their political, media and scientific representation. The sources referenced by *La Repubblica* were verified and the national law-decrees were analysed to identify Government's efforts to contain the spread of the virus. The analysis of such events makes it possible to understand how the country managed the preliminary phases of the outbreak.

Results

Italy represents the second country with the highest number of 2019-nCoV cases in the world after China. The first two cases were identified on January 31 in Rome. The Italian Government declared the "state of emergency" in relation to a potential spread of the 2019-nCoV. On February 22, the government enforced restrictions to contain the outbreak, which included quarantine for over 50000

people in 11 towns of northern Italy (Gazzetta Ufficiale, 2020a). On February 25, 12 cities were on 2019-nCoV lockdown, the cases were around 230 and 7 people died from the disease. In three weeks (21 February-11 March), the virus caused 12462 cases and 827 fatalities. (https://www.worldometers.info/coronavirus/coronavirus-cases/#case-dayly-outchina). The restrictions applied to halt the spread involved imposing fines on anyone entering or leaving outbreak areas, suspension of every kind of public events, stopping people gatherings, closure of schools and Universities, suspension of public services and public transport and closure of "not essential" shops. In the same days, new cases of people who visited Italy were found in other countries and an increasing number of restrictions were taken within and outside the country. Several countries either envisaged (or forced) 14 days self-isolation for people returning from northern Italy. Other countries suspended flights to the affected areas. To answer the RQs the following sub-sections identify the main steps in the crisis management in terms of governmental and political efforts (Q1a), scientific contribution (Q1b), media communication (Q2), and attribution of responsibility (Q3a), raise of conflicts (Q3b), economic(Q3c) and human consequences (Q3d).

Governmental agencies efforts and political debate

On February 22, the government approved the first law-decree to manage the crisis. Draconian measures were adopted such as the lock down of 11 towns in the North of Italy. Between the 23rd and the 24th of February several governmental representatives sent reassuring messages about the government readiness to deal with the crisis. The Minister of Health stated that the virus could only be contracted by a direct contact with an affected person. Both the Minister of Economy and the Minister of Infrastructure and Transport announced efforts to contain the economic damage. The Department of Civil Protection confirmed that the victims of the virus presented a compromised health status. The Minister of foreign affairs, Luigi Di Maio, started a dialogue with neighbouring countries. However, from the 25th of February a misalignment between regional decisions and government's guidelines generated confusion in the management. The Prime Minister, Luigi Conte, invoked internal cohesion and guaranteed that hospitals were following the necessary procedures. From this point, a

fracture between official communications, fake news and local reactions can be identified. Internal and external pressures increased in the following days and required several official statements by ministers. For example, on February 27, Di Maio invited foreign countries to trust the data published by the Civil Protection Department. In fact, only 0.01% of the territory was locked down and there was no reason to suspend flight connections with other regions. In this confusion, the Lombardy governor appeared on a Facebook live with a protective mask after that one of his collaborators resulted positive to the virus. Scientists condemned this action as setting a wrong example because the protective mask was not necessary. Moreover, the mask used by the governor was non-conformed to the EU standards. On February 28, a second decree was approved and included economic support to people and businesses in the affected areas. While the virus spread to other regions, some schools re-opened, and some initiatives were organised by bars and shops to attract customers. On March 2, a third decree classified three areas as "red" (locked down), "yellow" (medium-high risk), and a low risk zone. On March 4, all schools of the country were closed. A decree approved on the 8th of March locked down the Lombardy region and additional 14 provinces of the North of Italy (Gazzetta Ufficiale, 2020b) and imposed social distances. People should keep a physical distance of 1 meter and over 65 people were envisaged to stay at home. Finally, another decree entered in force on the 10th of March (Gazzetta Ufficiale, 2020c) and imposed the lockdown of the entire country.

Scientific responses

In terms of scientific voices who spoke for the emergency, a constellation of actors provided contrasting and fragmented information throughout the process. An Italian physician and Professor of Virology at the San Raffaele Hospital in Milan, Roberto Burioni, immediately warned that the outbreak was serious. On both his Twitter account (more than 172k followers) and national TV, the expert often gave indications on the restrictive measures needed to contain the outbreak. Both the Spallanzani hospital and the Superior Institute of Infective diseases stated that the mortality was connected to underlying serious illness and older age of people affected. The Civil Protection ensured that around 50% of the cases did not need hospitalisation and were treated at home. Moreover, other experts, such as e.g. the director of the microbiology department of the Sacco Hospital in Milan stated that the virus was slightly more serious than a flu in

terms of affected people and fatalities (https://www.la7.it/laria-che-tira/video/coronavirus-myrta-merlino-alla-virologa-maria-rita-gismondo-pensa-ancora-che-sia-poco-piu-di-04-03-2020-311139). Burioni counter-stated that the virus had nothing to do with a flu and needed aggressive containment measures. These contrasting voices inflamed the debate around what to do on both social media and national TV. In addition to these internal forces, external pressures were represented by the WHO and the European Centre for Disease Prevention and Control (ECDPC), which not only increased the level of alert in the country, but also started an investigation around the procedures followed by a hospital in Codogno to deal with the first cases. Therefore, Italian scientists and doctors had to deal with several issues related to: i) curing patients; ii) informing policymakers; iii) informing people; iv) advancing research; v) dealing with a lack of equipment, personnel and structures; and iv) contrasting rumours. Several times a misalignment between political and scientific statements was reported by *La Repubblica*. For example, when the governor of Lombardy appeared on Facebook wearing a protective mask, scientists had to release a statement for two reasons. First, several times they repeated that protective masks should be only used in case of symptoms or high-risk exposure. Second, that mask was not approved by the European regulation. This is also connected to a lack of protective equipment and illegal selling of overpriced and unchecked products. In fact, the increasing panic caused assaults to supermarkets and pharmacies. Therefore, necessary products were no longer available to those in need. Another example is represented by the choice of closing all schools in the country. The scientific committee instituted by the government dissociated themselves from this decision. However, the day after, the SIH stated that the closure of the schools was necessary for containing the spread. However, after the publication of a new decree on March 8, scientists univocally asked people to stay at home because of a lack of infrastructures and personnel to deal with the increasing number of affected people. In fact, in three days (March 6-8) the number of patients in need of intensive care increased from 462 to 650. Doctors and nurses released statements and posted on social media that the health system was due to collapse (see e.g. https://www.facebook.com/photo.php?fbid=10221963451383805&set=a.10200987625721273&type=3).

Media Reaction

La Repubblica reports that throughout the crisis, the discussion on coronavirus massively populated both traditional and social media. The day after the identification of the first case in Codogno, the hashtag #coronavirusitalia became the second trending hashtag with 31thousands of tweets at 4pm. On March 4, Mediamonitor.it reported that the main national radio and tv used the word "coronavirus" once every two minutes since the 20th of February. Governmental agencies and government representatives used social media such as Facebook and Twitter to point people to official sources of information and inform them about government decisions. However, despite these efforts to control the flow of information, fake news and rumours spread on the Web. During the first days of the outbreak a fake logo of the newspaper VeneziaToday was used to support the identification of a case in Venice. Moreover, given the scarce availability of protective equipment and sanitising products the Internet and social media became the ideal platform to sell overpriced products. Despite the persecution of these acts as criminal offences, both fake news and illegal selling of sanitising products happened throughout the outbreak.

Social Media also became platforms for political debates. In fact, throughout the crisis the leader of the Lega Nord party (currently the first party in Italy), Matteo Salvini, accused the Government to do too little too late. On February 24, he posted on Facebook that the restrictions were implemented when the problem was already out of control; on the 26th, he disapproved the investigations into the Codogno Hospital relative to the management of the first case of coronavirus; on the same day he accused the government of incompetence by advancing the hypothesis of new elections; on the 28th, he condemned the government for limiting the implementation of economic concessions to the red areas. In a similar attempt to destabilise the government, the leader of the Viva Italia party (part of the Government) and former Prime Minister, Matteo Renzi, attacked the government for both its miscommunication with regions and the investigation into Codogno hospital. Renzi also held the government responsible for destroying the national economy. Every time both Salvini and Renzi posted accuses against the Government, other political actors replied to these provocations by further inflaming the debate. For example, the Minister of Transport accused Salvini to use the coronavirus as a propaganda tool. Moreover, Salvini interviewed by *El Pais*, condemned the governmental management and asked the Government to provide economic support to parents. In turn, these debates were echoed and reported by both social and national mainstream media, e.g. by giving space to the disagreement between

the national and regional governments on the course of action to be implemented. On a national radio Renzi held the government responsible for the economic failure of the country and stated that the situation was worse than the post 11/09 (http://www.ansa.it/sito/notizie/politica/2020/03/02/coronavirusrenzipeggio-di-11-settembre_9b93453b-54a8-4312-ab5c-77695f63393b.html). Other public controversies raised between the mayor of Codogno who accused the Government to abandon the town, and both Lega Nord governors of Veneto and Lombardy and the central government.

Social media and online magazines also reported disagreements between scientists and decisionmakers. The virologist Burioni attacked the political choice to open museums in Florence on the online magazine *Medical Facts*. A conflict on Facebook involved the Professor of Microbiology and Virology at the San Raffaele Hospital, who posted that the virus was slightly more severe than a flu and the Councillor for Welfare Giulio Gallera, who expressed his indignation for such underestimation of the problem.

Finally, first in a press conference on February 25, then repeatedly throughout the crisis, the prime minister, Conte, ensured that all hospitals in Italy were following specific procedures and invited journalists to avoid inflaming controversies on the measures implemented by the Government (Corriere della Sera, 2020). He also invited the country to be united in tackling the problem, implicitly inviting the media to support decision making without spreading alarmism. Representatives of the Government asked several times to stop sterile political debates on the media and to put aside political rivalry. However, a member of the Rai Supervisory Commission (national tv) and member of Viva Italia party, stated that the prime minister could not ask the media to deescalate the tones since he was the first one to create alarmism on media platforms.

Attribution of responsibility, raise of conflicts, economic and human consequences

The results connected to the RQs3 related to i) attribution of responsibility, ii) raise of conflicts, iii) prediction of economic and human consequences, should be explored in the light of both internal and external pressures.

Attribution of responsibility

In terms of attribution of responsibility, the events described in the previous sections show a general internal political chaos. Even though the government followed the procedures recommended by the WHO to manage outbreaks, several issues emerged in

the communication between the central government and regional authorities, between the government and scientists, and between the government and the public. The previous sections highlighted an initial misalignment between government decisions and regional implementation of restrictions. On February 26, the Governor of Marche authorised the closure of schools without government approvals. A mayor in Calabria (South of Italy) closed the town boarders to people arriving from the North of Italy. The governor of Sicily asked people from northern Italy not to visit the region. This suggests that even though several times the government asked for internal cohesion, some political actors tried to undermine its credibility. Furthermore, other regional governors and political representatives inflamed controversies in several occasions. For example, the leader of the Fratelli di Italia party (right-wing party) accused the Prime minister on national tv to be a criminal for the management of the crisis (https://www.ilfattoquotidiano.it/2020/03/05/coronavirus-meloni-su-la7-giuseppe-conte-e-un-criminale-ha-responsabilita-gravissime-myrta-merlino-la-riprende-e-lei-rettifica/5726787/). The day after, the prime minister had to reply to this statement during a press conference (https://www.ilfattoquotidiano.it/2020/03/05/coronavirus-conte-a-meloni-io-criminale-parole-gravi-dannose-per-il-paese-e-uno-schiaffo-a-tutti-i-cittadini-a-cui-abbiamo-chiesto-sacrifici/5726935/). Therefore, paradoxically, the government was held responsible for tackling the emergency, but constantly criticised for the decisions taken throughout the process. Moreover, some choices taken by local and regional governments to support local businesses (such as e.g. promotion of aperitives and cultural/entertainment events) were strongly criticised by scientists on social media. Even some government representatives, such as Nicola Zingaretti, Governor of the Lazio region and leader of the main governmental political party, demonstrated to be not completely aware of the severity of the situation. In fact, even though Zingaretti supported the government throughout the process, he also promoted initiatives such as #Milanodoesn'tstop and #ItalyIloveyou, which invited people to socialise and consume aperitives Milan. Soon after these events, given the acceleration of the outbreak, Zingaretti supported the implementation of restrictive measures, and, around ten days later, he resulted positive to the virus.

Finally, the Government was not able to communicate a sense of responsibility to citizens. This confusion at multiple levels generated two opposite public reactions. On the one hand, an underestimation of the problem caused that some bars and skiing facilities did not respect the restrictions, thus contributing to the spread of the virus.

Several people were investigated for leaving the red area; illegal parties were organised in several cities; a private nursery school in Sicily continued ordinary activities after the government's order to close schools; a couple of older people were found positive in Trentino after they leaved Codogno for holidays; patients with fever visited ERs forcing the hospitals to shut down in several areas. The situation was aggravated by several prison riots across the country due to a ban on family meetings, which culminated with the death of 6 people (Radighieri 2020).

On the other hand, some panic reactions increased the exposure of the South of the country to the virus. The content of the government plan to lockdown the entire Lombardy region leaked on the 7th of March. The CNN published the content of the decree draft (https://edition.cnn.com/asia/live-news/coronavirus-outbreak-03-08-20-intl-hnk/h_f28ad3a7c6c653b1fe04a628870946d1), as well as the Italian media. This jeopardised the government attempts to deal with the crisis - thousands of people assaulted train stations to flee to the south and forced other regions to implement more restrictions. The new decree (Gazzetta Ufficiale 2020b), in force from March 8, locked down the Lombardy region plus additional 14 provinces in the North of Italy. In this chaotic flow of information, some regional and local government representatives supported the restrictions while some others continued to publicly complain about the too severe measures, such as the President of the Veneto Region and the mayor of Asti (Piemonte). Despite these conflicts, the lockdown of the economic core of the country coincided with the raise of a collective voice, represented by policymakers, politicians, scientists, celebrities and social media users who started to ask people to respect the rules despite huge sacrifices. This is also testified by the increasing use of the hashtag #Istayathome. Therefore, to stop the outbreak, contain internal disobedience and preserve the image of the country, on March 10 the government was forced lock down the entire country (Gazzetta Ufficiale 2020c)

In terms of attribution of responsibility by external actors, Italy soon became responsible for the crisis. A member of the WHO, Walter Ricciardi, claimed that Italy made a mistake in stopping direct flights from China (Berberi 2020), without both stopping those that could arrive from China through multiple connections and arranging isolation for people who were already in the country (La Stampa 2020). Moreover, the fact that the WHO started an investigation into the management of the first cases increased the external perception of a chaotic management. An article published by the *New York Times* identified the Italian "furbizia" (capacity to break the rules in a clever

way) as the cause of the Italian failure in managing the crisis (Horowitz and Bubola 2020). This is also connected to a second point related to the raise of conflicts.

Raise of conflicts

Internally, not only the management was conditioned by political rivalry, but also by debates related to football, persecution of illegal offences and investigation into fake news. Football teams and supporters questioned the necessity to suspend football matches by accusing some teams (e.g. Juventus) to pollute the Serie A results. The internal conflictual situation and the impossibility of controlling the flow information gave an image of fragmentation outside. This progressively contributed towards limiting movements of people inside and outside the country and imposing quarantine for Italian citizens in foreign countries. This hostility was further inflamed by discriminatory statements released by some institutional voices. The governor of Lombardy advocated stricter controls of immigration flows in the future; some areas denied access to Chinese tourists; the president of Veneto, Luca Zaia, asked to stop people arriving from the countries that did not accept Italian people; Zaia also held China responsible for the global disaster because, he stated, "we have all seen the Chinese eat live mice" (https://video.repubblica.it/dossier/coronavirus-wuhan-2020/luca-zaia-president-of-veneto-region-we-have-all-seen-the-chinese-eat-live-mice/354888/355455).
Another critical aspect related to the Health care system capacity to tackle the more urgent cases. In 8 days, the intensive care unit in Lombardy increased its capacity from 50 to 244 beds. Additional 150 spaces were also created in the Lazio region. on March 8, the Lombardy region was forced to move some patients to other regions. Hospitals suffered from a lack of personnel. Doctors and healthcare personnel started to release statements, video and interviews about the unbearable conditions in the hospitals in Lombardy. The Chinese Government and several Chinese enterprises donated equipment to help manage the crisis (The Straits Times 2020). By contrast, some countries such as France and Germany suspended the export of protective masks (Guarascio and Blenkinsop 2020). Therefore, even though Italy immediately became a case study to produce knowledge about the virus and how to manage it, the government had to repeatedly request support from the EU to the point that the director of the EU crisis management commission, urged EU countries to cooperate and to "put solidarity above national interests" (Associate Press 2020).

Therefore, these internal and external controversies caused consequences in both economic and human terms.

Economic and human consequences

In economic terms, devastating consequences were predicted on the tourist sector. Italy's 10-year BTP bond and the German Bund rised to 145 basis points on February 24, and Milan bourse closed 5.4% down in the same day. On the 28th, the spread between Italy's 10-year BTP bond and the German Bund raised to 180 basis points. The President of the Italian Federation of Public Exercises estimated a loss of 2billions of euros in the first 4 months of the year. *La Repubblica* reported that the tourist sector (that represents the 13% of the Italian GDP) lost 200millions in March. The agricultural consortium Coldiretti announced a decrease of 27% in demand of "made in Italy" agri-food products. On the March 9, the bourse of Milan plunged 10.8%. The bond spread to 216 basis points.
In terms of human consequences, the stigmatisation was increasingly inflamed inside and outside the country. Some Italian regions discriminated people arriving from the affected areas. In the same way, foreign countries started to restrict or stop connections with the country. In some countries, cruise ships were no allowed to dock due to the presence of Italian passengers. Visitors decreased dramatically in the country. For example, 95% of hotel bookings were cancelled in the Friuli Region. Moreover, the foreign media contributed to stigmatisation. For example, a private French tv canal (Canal +) mocked the Italian situation and the CNN identified Italy as responsible for the global crisis (https://www.ilfattoquotidiano.it/2020/03/05/coronavirus-la-cnn-pubblica-una-mappa-in-cui-litalia-e-il-principale-focolaio-del-mondo-di-maio-visione-distorta-della-realta/5726671/).

Discussion and conclusions

Following Reynolds (2005), the 2019-nCoV crisis communication in Italy failed in several directions. First, Reynolds identifies a weakness in the communication of mixed messages from multiple messengers. In Italy, this happened throughout the process. To answer QR1a related to the management of the crisis by the country, formally the government implemented all the measures recommended by the WHO and those that

helped slow the crisis in China (e.g. lockdown of areas and quarantine obligations, see She et al. 2020). However, these efforts were undermined by a lack of coordination between scientific and governmental messengers. In turn, the media reported multiple and fragmented versions of the events causing a public polarisation between "believers" and "sceptics". The literature review section highlighted that the2019-nCoV presents similarities with previous health crisis, however, this outbreak caused a shock in the global system and needed a quick and unitarian reaction by governments at all scales (from local to global levels). The first lesson learned relates to the failure of a "step by step strategy" adopted by the Italian government, which led to a spread of the virus in the entire territory. However, the Italian government was eventually forced to adopt draconian measures like those adopted in China, to contain the outbreak. In fact, the conflicting information reported by multiple messengers, plus the spread of fake news, caused a lack of respect the rules. People struggled to change their habits. Some bars and shops did not respect the restrictions and people underestimated the importance of reducing their social contacts. This reaction can be read as a symptom of a wrong management by the government that was not capable to communicate with citizens. Not only the government, but also scientists were not united in providing information. Therefore, to reply to RQ2a, a second lesson showed by the Italian case is that scientists provided mixed messages, which in turn contributed to trigger opposite public responses.

The delay in releasing information is identified by Reynolds (2005) as a second weakness, as well as the need for outlining specific patterns of action and providing accurate information (Glik 2007). The delay in implementing the decree that locked down the Lombardy region, and a leak of its content, caused chaos and panic. This chaos pushed people to flee outside the region. This is directly connected to RQ2b related to the flow of information between institutions and the media. The Italian management shows that the management of the crisis was conditioned by the need to find remedies to some public reactions generated by the chaotic media communication. The mainstream media reported a polarisation in both political and scientific terms by giving space to both contrasting voices and social media disputes between politicians and government representatives. The social media offered a fertile ground for political disputes that promoted mistrust in government and scientists. However, as highlighted by Keil (2011) in analysing the H1N1 crisis management, the media alone cannot be considered responsible for spreading panic. In fact, both traditional and social media

combine information provided by several sources (including scientists, government and global agencies). In the case of 2019-NCOV, a third lesson learned is that, even though the media contributed towards increasing confusion by e.g. emphasising potential catastrophic consequences or, by contrasts, underestimating the problem, they mirrored internal conflicts and external pressures.

Moreover, paternalistic attitudes represented by a simple request of not panicking (Reynold 2005) promoted opposite reactions. Repeatedly, local authorities questioned central government's decisions without providing alternatives. Reynolds suggests that a reasonable amount of fear is inevitable. However, the fourth lesson learned is that this should be channelled in a specific course of actions. This caused e.g. assaults to supermarkets, shortage of masks and overprice of sanitising products.

Following Reynolds, not responding to rumours in real time might cause the impression that multiple interpretations exist. Moreover, if fake news or conflicts persist on social media, the mainstream media will be likely to report these rumours unless they are quickly demonstrated to be false. The spread of fake news and the disputes triggered by some political actors caused this confusion, which in turn was often reported by national television and newspapers. This is also connected to RQ3a related to the attribution of responsibility, which was both internally and externally attributed to the national government. At the same time, all decisions were strongly criticised by specific actors. Therefore, the fifth lesson is that internal conflicts (such as those created by Salvini and Renzi), plus the decision of some regional governors not to follow the national guidelines, severely undermined the management of the crisis, increased confusion in public perception about the actions needed, and created an image of chaos outside. Several times the government was forced to adjust in relation to these controversies. For example, the decision of locking down Lombardy resulted from the imprudence of people who did not respect the government recommendations to keep social distance and respect the roles. This is also connected to the sub-question related to the controversial aspects that caused conflicts. The leak of information about the imminent closure of Lombardy caused that people fled to the south and islands. In addition to this, the lack of respect of the roles (e.g. self-quarantine) forced the lock down of the entire country. Finally, a sixth lesson relates to the misalignment between the central government and regional authorities, which promoted people mistrust. The importance of public communication has become clear in several health crisis (Koplan 2003; Prue et al. 2003). For example, the West Nile virus risk communication management by New

York City showed that the misalignment between some city's decisions (spraying pesticides) and different advises given by health and environmental experts promoted mistrust (Covello et al. 2001).

This sequence of facts produced consequences in both economic (RQ3c) and human terms (RQ3c). The National Association of Italian Industries (Confindustria) predicted a loss around 7.4 billion in the trimester March-May only in the tourism sector (https://www.repubblica.it/cronaca/2020/03/01/news/coronavirus_in_italia_aggiornamento_ora_per_ora-249954540/). The chief economist at the German bank stated that the measures adopted by Italy and potentially by other European countries in the future will produce global impact (Baynes 2020). The global economic consequences will be negative but still uncertain, whereas the human consequences in terms of stigmatisation of people are happening. The attribution of responsibility to Italy for spreading the virus by other countries, such as in the case of the French canal and CNN, can trigger stigmatisation processes that might last even after the crises. In a similar way, stigmatisation of people also happened during SARS (Person et al. 2004). The literature highlights that fear associated with health problems, such as e.g. in mental illness (Schulze and Angermeyer 2003;), HIV/AIDS (Chesney and Smith 1999; Herek 2002) and other chronic conditions, causes stigmatisation. This in turn undermines public efforts to tackle the problem. In fact, to prevent stigmatisation, people at risk of either being affected by or transmitting the condition, might avoid voluntary testing (Person et al. 2004).

In conclusion, the Italian crisis has been conditioned by a mismanagement of communication (Rodríguez et al. 2007) between institutions (national and regional governments), between multiple voices (scientists), between political and scientific levels and between official claim-makers and the media. This case study suggests that governments need to direct the communication process in a more univocal direction. All five weaknesses identified by Reynolds characterise the crisis management in Italy. This case suggests that the transparency about the uncertainty resulting from the spread of an unknown threat should be supported by political and scientific cohesion. However, in the first phases of the outbreak, the country's political dysfunction, plus a "scientific war" (Ferraresi 2020), caused the failure of several government efforts to tackle the problem. Matteo Salvini's call for elections in a moment of national crisis, in addition to other attempts of some members of the government to destabilise the

political asset, shows that Italian political actors are ready to sacrifice international credibility and internal safety to prioritise individual political gains.

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