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Communicating Health: Media Framing of COVID-19
Pandemic in Sub-Saharan African Countries

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#### Abstract

The issues of health are relevant to the existence of a human being. How can communication hasten containment of a COVID-19 pandemic is crucial to mitigate its impact on human lives since issues relating to health are considered vital to all strata of persons in the society regardless of their socio-economic and political status. This study is to investigate how Addis Zemen newspaper covered and framed news stories concerning Coronavirus health concerns in Ethiopia. Using the quantitative content analysis method, the newspaper was analyzed along the lines of its news report; feature stories, editorial, opinion as well as interviews. Findings show that much coverage has been given to the spread of coronavirus, and the issue was considered prominent in the newspaper. On sources of information, about one-quarter of the stories have used government officials as its sources; on the other hand, about one-five of the reports on Coronavirus were substantiated by health experts and health organizations. Ten types of frames were found prominently emphasized in the reports while two were made salience in almost half of the total reports on the pandemic. Containment and effect frames were by far the most frequently appearing frame in the media.


Keywords: framing, COVID-19, coronavirus, pandemic, media, Africa.

## 1. Introduction

COVID-19 is an incident of huge magnitude and pertinence. Its effect has influenced various social, political and economic domains, including how the media depict the outbreak. It is having profound and significant impacts in several spheres of the entire world. The purpose of this study is to investigate how Addis Zemen newspaper framed news stories concerning Coronavirus issues in sub-Saharan African countries, Ethiopia. The research chose the newspaper as it is the only daily and widely circulated Amharic newspaper in the country and can influence other media outlets.

Background. The current novel Coronavirus pandemic, which originated in China in December 2019, becomes a substantial challenge for the entire world. COVID-19 has turned the world upside down. "Everything has been impacted. How we live and interact with one another, how we work and communicate, how we move around and travel" (ESCAP et al., 2020: 3). Every part of our lives has been influenced. The pandemic is a disaster experiencing enormous damage on humanity disrupting lives and livelihoods (Gates, 2020). The scale and severity of COVID-19 are unprecedented. This pandemic has, therefore, impressed strong media attention. It is becoming a sensitive issue of intense public interest and discourses. For this reason, how the media can play a role in containing COVID-19 and saving lives, can be a big deal to minimize its effect.

[^0]We all face a worldwide pandemic which kills people, spreads human suffering and defaces people's lives. The pandemic is beyond a health crisis. It is vividly a human, economic and social crisis all over the world. It affects all segments of the population. Especially, older persons, and people with disabilities, individuals living in poverty situations, are most vulnerable to situations. When the virus is not properly communicated and handled, the social crisis created by the pandemic might increase inequality, discrimination, global unemployment and the like (Walker et al., 2020; UN, 2020). It has become far more than a health and science story, and more than the concern of health and science journalists (Ataguba, 2020; UNCTAD, 2020).

Disease outbreaks are inescapable, and often erratic, events. The environment surrounding an epidemic is unique in all public health. Uncertainty, confusion and a sense of urgency are the noticed features of outbreaks. By and large through the media, Communication is another component of the outbreak atmosphere. Lamentably, communication failures which have delayed outbreak control, undermined public trust and compliance, and unnecessarily prolonged economic, social and political chaos attributes of the pandemic. The WHO (WHO, 2005a) claims it is presently an ideal opportunity to recognize that communication expertise has become as fundamental to pandemic control as epidemiological preparing and laboratory analysis.

From the experience, infectious diseases make a security threat that the society and the media have recently neglected. The media work as an impression of the public's concern and serve to everyone's understanding of health pandemics. The social and political settings of infectious disease pandemics are caught in the frames mass media utilize to tell stories about emerging diseases. Framing theory proposes that how the media present an issue affects how audiences feel about that issue (Shih et al., 2008; Ungar, 1998). Along these lines, investigating media framing of the pandemic provides a window for understanding public opinion and knowledge.

For one to understand how framing of news issues take place in the media, it is impertinent to draw insights from the Agenda Setting Theory. It is the process through which issues bubble up into public attention through mass media selection on what to cover, thereby causing the public to perceive these issues as salient (Severin, Tankard, 2001). Media narrow the attentions of public to certain issues by laying more emphasis on them at the expense of others to accomplish the agenda. It occurs when mass media present certain issues frequently and prominently with the intent of getting large segments of the public to perceive those issues as more important than others (Mustapha, 2012). Content analyses of media coverage of the SARS epidemic in the early 2000 s and Ebola outbreak in 2014 provide a good framework for an analysis that can be applied to the Coronavirus pandemic (Beaudoin, 2007; Luther, Zhou, 2005). The present analysis of media reports about the 2019 Coronavirus mirrored those content analyses and analyzed which of the frames were most prevalent.

Statement of the problem. As the problem rapidly became a global issue, the World Health Organization declared a global health emergency on $30^{\text {th }}$ January, and on $11^{\text {th }}$ March, the pandemic. The case has continued to dramatically escalate; by 6 August 2020, there have been $19,246,679$ confirmed cases of Coronavirus, 12,350,433 recovered and 716,745 deaths. As the case is becoming complicated, media can play a pivotal role in providing the public with credible, factchecked and timely information. Besides, they can facilitate to combat COVID-19 (coronavirus) by committing to transparency, tackling misinformation and promoting health recommendations. Media could be a great way for individuals and communities to stay connected while physically separated. Examining the extent of media's coverage to fight the disease will be essential, therefore (ESCAP et al., 2020; WHO, 2005b).

The COVID-19 pandemic is not only a health crisis, but also a humanitarian and development crisis that is menacing to leave profound social, economic and political scars for years to come, particularly in countries already overloaded by delicacy, conflict and poverty (Ibrahim, 2020). Concerning communication, unreliable and false information is spreading around the world, the fake information about the coronavirus became a second pandemic. Besides, the expected behavioural change to prevent the virus cannot be successfully achieved because of disinformation, economic constraints and other related factors in Ethiopia context. It can be said the fake news become fairly common and is causing severe damage to public health and welfare. Thus, the media should play a crucial role to be a source of verifiable information. Moreover, they can be a tool to fight the virus by confronting fake news, promoting transparency and addressing health experts' advice (Iyengar, Kinder, 2010).

Framing studies (Benefo, 2004; Bloch-Elkon, 2007; Bratić, 2006; Catalán-Matamoros, 2011) have confirmed that the mass media influence public attitudes and decisions. The weight of this influence could be linked to how media structure news stories concerning health issues. It implies that how media frame news items determine the impact of such stories and the likelihood of the corresponding effects. The media play a significant role in the dissemination of information on the 2019 novel coronavirus disease (COVID-19) pandemic. Journalists and media organizations should do their most extreme to stay up with the latest with the outbreak using reliable information from respective health departments and the WHO, and that they should both fact- and reality-check information in order to remain a trusted source. This research draws its foundation from the Framing theory which is an essential tool the media uses to reduce the complexity of issues and ensure understanding among the public (Entman, 1993; Kott, Limaye, 2016).

According to J. Park (Park, 2003:145), "The window does not show the world as it is. People only see the world within the frame of the window." The differences in the reportage are informed by various factors ranging from the objectives and media of motives, the issues involved, the interests of audience; each constitutes a pulling force that shapes the output and influences the effect. The roles of mass media in communicating health related problems are anticipated to be more of social responsibilities that depict media as information guardians for societal development (Li, 2016). How mass media manage health information most often reflects the public health awareness and their sensitivities to health challenges and needs.

As far as concerning the knowledge of the researcher, there is very little research made so far regarding the coverage of the novel pandemic in Ethiopian media. Globally, M.D. Brindha et al. (Brindha et al., 2020) conducted a study to identify the role of social media platform in disseminating information about the Covid-19 outbreak among the people. Besides, C.R. Mejia et al. (Mejia et al., 2020) tried measure the perception of the media and their informative role in the face of COVID-19 pandemic entitled "The Media and their Informative Role in the Face of the Coronavirus Disease 2019 (COVID-19): Validation of Fear Perception and Magnitude of the Issue (MED-COVID-19)". Thus, it is essential to conduct a study with a purpose of finding out how the media report coronavirus health concern in sub-Saharan African countries, Ethiopia.

## 2. Materials and methods

Research Design. The choice of methods and their application are determined by the objectives of the study, the nature of the phenomenon under examination and the theory of the researcher (Babbie, Mouton, 2001). As known the nature of the research question will shape the Methodology decisions, quantitative approach was selected for its worthwhile in the area of media framing. As quantitative research is structured, logically sequential phases and deduction, a quantitative approach was employed to collect data from the newspaper about themes, sources, and frames used in stories of coronavirus issues (Cohen et al., 2007; Kothari, 2004). According to D. Wilson et al. (Wilson et al., 2008), quantitative research is a type of research designed to yield numerical data. It involves the collection of numerical data in order to explain, predict and control the phenomena of interest.

Meanwhile, so as to assess the framing of coronavirus on newspaper, content analysis has as well been used in the study. As F. Kerlinger (Kerlinger, 2000) defines content analysis as "a method of studying and analyzing communication in a systematic, objective and quantitative manner to measure variables". B. Berelson (Berelson, 1952: 18) had similar perspectives. Besides, according to A.A. Berger (Berger, 1998: 23) content analysis is a method that targets estimating the extent of an issue "in a representative sampling of some mass mediated popular art form." content analysis is also useful to recognize the goals, communication patterns of an individual, group or institution.

Sample and Sampling Technique. Newspaper selection that covered the social, political, health issues of the country and its circulation were taken it to account to choose. As a result, Addis Zemen Newspaper was chosen as the subject of the study, and it is the only daily Amharic government newspaper. This newspaper is widely circulated and has the ability to influence other media outlets. Besides, it may give adequate coverage of the pandemic and it is also available in online version.

It would be unreasonable to set a specific time frame for getting a higher number of articles dealing with the pandemic; starting from Ethiopia confirmed its first case on 12 March 2020 up to

11 May 2020 ( 90 articles of 3 months editions) were taken as a sample. Each article was considered a unit of analysis. All articles that were based on facts (news, features, editorial, opinion and interviews) that deal with the pandemic of any kind were included for analysis.

Instrumentation, Unit analysis and Data Analysis procedures. Document Analysis is the major means of data collection used to extract information and facts (inputs) for the study. Because this method is very convenient and usually means of data collection for researched compiled on media framing (Cohen et al, 2007; Kothari, 2004).

The focus was on both the headline and the body of the news. When the headline of a news story contains issues of COVID-19, it would be selected for the frame analysis. The whole body or part of the body of a news stories contains or describes the coronavirus issue; it qualifies to be included as a unit of analysis. R.D. Wimmer and J.R. Dominik (Wimmer, Dominik, 2013) note that the unit of analysis might be a single word or symbol, a theme or an entire article or story in a written content. The search for related news stories would be done manually by accessing softcopies of sampled newspaper. All stories in the editions of the sampled newspaper within the period already specified would be checked in order not to miss out any story that could add-up to the data. The main angle of a story was determined by referring to the headline, lead sentence, and most at times all elements of the article such as words/vocabularies.

The coding book that I prepared was adopted from the previously made researches and prepared to be able to analyze the dominant frames used; modifications were also made to make it fit for the novel coronavirus issues (Hallahan, 1999; Nisbet et al., 2003; Shih et al., 2008). This coding sheet is of a massive merit to assess the article types, locations, themes, sources, frames and media function of articles about the pandemic. As journalists build stories' content, the most emphasized of the stories' angles then become the central theme or the frame upon which others news angles revolved. The coding of news stories about the pandemic was subjected to some frame typologies, and some of the most salient news angles in the sampled news contents that do not fall within the adopted frames were given new frame codes to ensure that all the news reports about coronavirus issues were treated.

Inter code reliability. The most widely used reliability coefficient was used. Cohen's kappa (к) was run to determine and confirm if there was un agreement between two coders of 10 per cent of the texts data from the sample newspaper ( 92 news stories on coronavirus). The coders are trained independent coder who has graduate media and communication and the author. Two coders had strong agreement when it came to identifying the type of frame and genres of the story $\kappa=.783$ and $\kappa .949$ respectively. The agreement was even stronger when identifying the location of the story $\kappa=.982$, and size of the story, which had zero disagreement between the coders, $\kappa=$ 1.000. With regards to the sources cited, the two coders had equally strong agreement $\mathrm{k}=.922$. These results show all of variables coded have the inter-coder reliability coefficients that was greater than the minimum value required ( $\kappa>0.7$ ) with a percentage of inter-coder agreement (Freelon, 2013). The results fall within the recommended inter-coder reliability coefficient value for the liberal index employed (Lombard et al., 2010).

## 3. Discussion

Types, Size and Depth of stories. The results indicate that significant attention was given to all types in news, feature, editorial, opinion, and interview articles with high frequency by Addis Zemen newspaper in the sampled publication period. News is a significant criterion to identify prominence to an issue in press media (Boukes et al., 2020; Buchanan, 2009). Thus, the newspaper was better in giving prominence to the pandemic. Since Coronavirus outbreak has been an international health issue, it demands the concerns of all nations of the world including their media. The status of the outbreak in any country can be determined the level of involvement of its media. The content analysis of newspaper reports of Coronavirus within the period of the rampage, therefore, shows that much more attention was given. It is an indication of most of the reports in Ethiopia framed the issue as proactive towards the pandemic by comparing the level of managing the situation with other affected countries. There are similarities between how coronavirus reports in the newspaper was covered and framed Ethiopia, and in the globe (Ogbodo et al., 2020).

Moreover, much of the reports on Coronavirus were framed important than other pressing issues (the conflict of Grand Renaissance dam and General Election) in Ethiopian at the time by
the newspaper. More spaces allotted to COVID-19 stories than usual ratio of health reports to allow detail treatment of interest news angles is an indication of framing strategy.

Placement of the story. In the lens of placement, the researcher categorized the location of articles in front, inside and back page in relation to the pandemic in order to examine their prominence (Boukes et al., 2020; Vandendaele, 2018). News placement is another measurement indicator for the degree of prominence attached to newspaper report of an issue (Buchanan, 2009). The placement of articles on Coronavirus indicates the prominence given to the issues in the newspaper. Articles which are placed on the front page of a newspaper are considered as to be the most prominent issues of the edition than those which are placed somewhere in the inside pages. A Coronavirus report appeared on the front page in every edition of the newspaper.

Furthermore, an article placed at the back page of a newspaper is also marked as newsworthy. The number of front-page articles in the Addis Zemen newspaper is found to be very high. There are also a number of articles in an inside page. Thus, one can deduce that issues on COVID-19 were prominent to the Addis Zemen newspaper. As An editorial is a commentary article that reflects the stand of a newspaper with respect to the present policy, strategies or recent issues, it is assumed to be written by the editor-in-chief of the newspaper. Consequently, the result of the study indicates that the newspaper consistently did place this health issues on its editorial pages. Again, at least one COVID-19 report appeared on the front page in every edition of Addis Zemen newspaper during the rampage.

Sources used in producing the articles. In the same fashion, media frame issues by authenticating the news angle they want to emphasis with credible sources, more importantly expert in order to influence the level of importance that audience attach to the report (Gabore, 2020; Jung Oh et al., 2012). The newspaper attempted to use diversified sources in addressing the issues. Health experts, Individuals, NGOs, research findings, and various media agencies were employed as sources.

The more commonly used sources in the Addis Zemen are government officials. It may help to provoke the issue and can create an impression that solutions to health problems; however, the over-reliance of authority sources once again underlines the influence of news values in the coverage of news stories. The more prominent a source, the more newsworthy he or she is considered. By relying so much on this approach, journalists covering health stories run the risk of always covering events from the point of view of authorities which may at times be misleading. This further compromises the 'balance' (of information in stories) which is another news value. E. Goffman (Goffman, 1974) also argued that by reporting stories based on frames given by the elite or political class (authorities), the media serve as protectors of the status quo, serving the interests of the ruling class. The findings of this study were consistent to H.J. Gans (Gans, 2004) claims that media frames often tend to favour the elites.

On the other hand, About one-quarter of the reports on Coronavirus were authenticated by health experts including health organizations and research finding to the reports quoting or citing the health experts was also strategic to lay emphasis on some news angles, most often on preventive measures, containment mechanisms as well as on setting the record straight regarding misinformation about the virus and the statistics surrounding its spread and fatality. However, government also constitutes the bulk of the news sources as a justification for the vested interest of the government to overcome the outbreak (Lee, 2013).

On the same token, stories which were not substantiated with any news source indicate it is hard to find trustworthiness, articulateness, and productivity. H.J. Gans (Gans, 2004) claims that journalists should pay attention for source selection and authentication for their news stories production. Having suitable stories in past, ability to supply a lot of information without undue expenditure, keeping reliable sources whose information requires the least amount of checking, making reporter points concise are the element to be considered take while authenticating the sources.

Frames employed in the stories. This study found out that ten major frames were employed by the newspaper, Addis Zemen, while reporting COVID-19 pandemic in Ethiopia. The frames are the central news angles through which the newspaper presented and tried to combat the dissemination of the virus. Each of the news angles is regarded as a frame such as: awareness, containment, panic, conspiracy, and political influence (Jo, Chang, 2020). Others are; effect, mobilization, support, misinformation, and boycott frames. Containment was the most frequently used frame which is in line with the countries' health policy to prevent the pandemic and
precaution to be followed towards controlling the crisis (Minister of Health, 2004). Three out of the ten frames (panic, misinformation and boycott frame) identified in the newspaper reports of COVID-19 are newly generated while the remaining seven correspond with framed employed in other health issues by some newspapers of other countries as established in (McComas, Shanahan, 1999). It shows that there is not much difference between how coronavirus reports in the newspaper was framed and how other health issues like Ebola, Cholera, H1N1 influenza, Coronavirus by other researchers were framed in many newspapers across the globe (Bolsen et al., 2020; Gössling et al., 2020; Habersaat et al.,2020; Nisbet et al., 2003; Nwakpu et al.,2020; Shih et al., 2008).

Framing is the way of discarding a few elements of perceived reality and amassing a narrative that highlights connections among them to encourage an interpretation (Entman, 1993). More than one-third of the aggregate news stories on COVID-19 that were published in Addis Zemen newspaper under study is on containment frame. It remains the most focus news angle in more than one-third of the news stories; this perhaps was meant to reap the society off the virus. Making the frame predominant in many of the news stories reflects the social responsibility role and the interest of the newspaper towards controlling the outbreak. Many of the stories reported on Coronavirus also focused on the effect of the outbreak on both social and economic facets (Wang et al., 2020). The support and the mobilization frames are the third and the fourth frequently used frames, respectively. The panic frame stands fifth in its frequency.

## 4. Results

Types of the Story. The articles that were found to have the issue of on COVID-19 published genres of news, features, editorials, opinion, and interviews. Of the total 912 articles were, 441 news, 356 features, 57 editorials formats and 19 were opinions published in Addis Zemen newspaper.

As the data portrayed from Figure 1, 441 (48.3 \%) fall in to the news genre which is almost half of the total articles, 356 ( $40.02 \%$ ) articles were features and $57(6.3 \%)$ articles were editorial, 19 ( $2.1 \%$ ) articles were opinion and 39 ( $4.3 \%$ ) articles fall in to the genre of interviews. The news and the feature articles took $88 \%$ of the whole issues. It seems to indicate that issues on COVID-19 were considered as newsworthy in relation to other social, political, and economic affairs. Particularly, issues of the pandemic were found in the most of editorial pages of newspaper. It vividly suggests attention was given in each genres of the newspaper.


Fig. 1. Genre of Articles on COVID -19
Placement of Articles. The front-page and non front-page articles have got different attention by the target audience. The place where articles are situated in newspaper indicates how much attention is given to the issues.

Moreover, it discloses how the media/press made the issue their agenda, which perhaps aims at making it a public agenda, too. It, therefore, happens that stories which are found to be the most important and have great newsworthiness are placed in the front page; those stories with less important news value, in contrast, are placed somewhere in the inside or back pages.


Fig. 2. Placement of the stories on the Newspaper
Accordingly, it is evident from figure 2, out of the total 912 articles, 203 (22.26 \%) articles were placed on the front page of the Addis Zemen newspaper and 691 ( $75.77 \%$ ) articles were placed in the inside pages; and $18(1.98 \%)$ articles were situated at the back of the pages.

Size of the Articles. The space given and the length of articles indicate how much attention is provided to the topic. In other words, the number of words of each article was measured and categorized into scales namely short, medium, and large. The word count can indicate the extent to which the articles are long and the depth of coverage given to the topic in question, COVID-19.


Fig. 3. Length of the Articles
As it is apparent from the chart, about $60 \%$ of the article had large size; $25 \%$ of the articles were medium sized in of the newspaper which used in between 200 and 400 words, whereas only $15 \%$ of them are short stories. These findings revealed that Addis Zemen newspaper gave ample space for the coverage of COVID-19 issues.

The researcher believes that articles with large number of words take more space, and they are more descriptive and elaborative than those with short and medium sized articles. Thus, the findings indicate that the novel coronavirus are presented and represented in an elaborative way and high frequencies of the articles published by the newspaper has got extensive coverage. Readers of the newspaper can relatively have a comprehensive understanding of the content of the articles on people about coronavirus better.

News Sources used for coronavirus stories. News source is another indicator of how newspaper framed and making agenda of coronavirus stories.

| News sources | Frequency | Percentage (\%) |
| :--- | :---: | :---: |
| Health professionals/ experts | 103 | $11.29 \%$ |
| Victims/ Relatives of the victims | 2 | $0.21 \%$ |
| Government officials | 210 | $23.02 \%$ |
| News Agency | 97 | $10.63 \%$ |
| National/ International Health organization | 101 | $11.07 \%$ |
| Organizations/ NGOs | 72 | $7.89 \%$ |
| Community members | 123 | $13.48 \%$ |
| Researchers/ researches | 57 | $6.25 \%$ |
| No specified sources | 147 | $16.11 \%$ |
| Total | 912 | $100 \%$ |

Fig. 4. News-sources used for Coronavirus stories
What news sources did the newspaper use for the authentication of COVID-19 news stories, and how credible were the news sources? Journalists attribute their stories to sources in order to confirm the genuineness of the stories to media audience. Journalists also quote sources when reporting stories that require the authentication of the experts.

As the data portrayed from Figure 4, about one-fourth of the aggregate of coronavirus stories reported in the newspaper was attributed to the government officials, $210(23 \%)$ of them found from government officials within the period under study. Unexpectedly, $147(16.1 \%)$ of the stories were not substantiated with any news-source; much of the stories in this category are not straight news. The individual person (community member) was the third largely used sources which presenting 123 ( $13.5 \%$ ) of the articles. Health professionals/experts also contribute 103 (11.3 \%) of the sources used to substantiate or authenticate newspaper stories on the pandemic which is the fourth third largely used sources.

National/International Health Organizations such as Minister of health and Ethiopian public health Institute, World Health Organisation (WHO), and Centre for Disease Control US, CDC) contribute 103 ( $11.3 \%$ ) of the sources while news agencies and NGOs contribute 97 ( $10.63 \%$ ) and 72 ( 7.9 \%) respectively. Besides, 38 ( $6.3 \%$ ) articles were identified from research and research findings, and $147(16 \%)$ of the stories were not acknowledged any of specific sources, however.

Frame of COVID-19 in the Newspaper. Frame relates to the way/how something is presented to the reader. Frames are supposed to impact the perception of the news by the audience. Three major variables (News-angle, News prominence, and News credibility) with numbers of constructs under each were used to examine how Addis Zemen newspaper framed the coronavirus pandemic stories.

On the basis of the data collected, the news items show that ten major frames are identifiable in the newspaper reportage of COVID-19 issue. The frames are considered in the coronavirus stories based on the most emphasized angle (salient) of each story.

Accordingly, the dominant frame used throughout the analyzed articles is containment frame. News stories within educative and precaution frame category discuss how the virus could be prevented from spreading, and the level of its containment. This frame dominated the stories since the first case confirmed in Ethiopia. More than one-third (34.9 \%) of the total stories reported by sampled newspaper within the period under study. Some of the stories that focus on the frame addressed various efforts to be made by the people and health experts, precaution to be followed towards controlling the pandemic.

Effect frame, as the data portrayed, the second most frequently used frame in the articles. It comprises reports on the effect of the pandemic on economy, social and cultural interactions, education, health, international relations and diplomacy, sporting activities, entertainment industry and other areas of human development. Out of the total stories on the pandemic, $171(18.75 \%)$ of the stories emphasized the effect of coronavirus. More attention was given on economic consequences of the outbreak both within and outside the county. A lot of allocation from the supplementary budget which could have been used for other developmental purposes was spent on combating the virus. Moreover, the effect on education, socio-cultural and religious activities were highly emphasized in the newspaper coverage of COVID-19 pandemic.


Fig. 5. Frame Typology used in articles by the newspaper
Stories under support frame which was reported 121 ( $13.3 \%$ ) of the total articles discuss the financial and material aids towards the containment of the pandemic. Stories on either financial or material support towards the fight against coronavirus were very common. The proportion of newspaper reportage of various supports (from individuals, industries, professional bodies, NonGovernmental Organizations, and international bodies) to curb the spread of the virus signified that many hands were on stretch for early containment. Besides, mass media acted as the central coordinator of the various efforts; prioritised the most significant aids needed and linked the consequences of various health. Stories on monetary donation were more uncontrolled while stories on material donation and voluntary health services also constitute stronghold themes of the frame.

As the data portrayed, mobilization frame comprises stories that were reported to educate the public. The stories were also reported with the intent to drive people towards the prevention of the virus which is ranked the fourth most salient news angle 79 ( $8.7 \%$ ) among the ten major frames identified in the coronavirus stories reported in the newspaper. Some of the newspaper reports of the pandemic were deliberately used to stimulate public cooperation and intensive effort towards combating this novel pandemic.

As it is apparent from the figure, 72 ( $7.9 \%$ ) of news stories that raised tension as a result of number of infected cases as well as the rise in the Coronavirus death toll and consequences it generated from members of the public were comprised in the category. This panic can be managed by mass media not to make the pandemic aggravate tensions or contacting the virus appear a death penalty. The frame was not given much as mass media attentions to containment.

Conspiracy frame comprises 57 ( $6.25 \%$ ) of the total news stories. The contents focus on individuals, bodies or government activities (local or foreign) that disrupt the efforts towards containing the outbreak. It also includes reports that lay emphasis on unwholesome way of benefiting from the spread or effect of the outbreak. In addition, Political influence frame that centers on reports concerning government activeness through its policies, political rivalry, and its international diplomacy or bilateral relations with other governments/countries on coronavirus issue like a state of emergency has got attention. It shows that governments were more proactive before it gets worse. Political influence frame articles took 51 ( $5.6 \%$ ) of the whole issues. The reports seemed to show that the government played some corresponding roles until the virus has been contained.

As it is evident from the chart, 26 ( $2.8 \%$ ) of the news items that fall within this category of the frame discuss the origin and mode of transmission of COVID-19, its signs and symptoms as well as alerting members of public the unknown nature of the pandemic. Majority of the stories that featured this frame were meant to alert the public of the epidemic and to prepare them for the challenges that the epidemic tagged along by framing coronavirus stories around public awareness. It is reasonable to claim Addis Zemen newspaper ringed the news stories in the early stage of the
pandemic in Ethiopia more around awareness creation about the virus and how it spread than other frames or other themes by taking lesson from other countries.

It can be seen, Misinformation frame $14(1.53 \%)$ of the total stories that expose the lies, rumours, myths, and all forms of information mismanagement about the spread, treatment, or effect of the virus, either from social media or from unscrupulous individuals and set the records straight. Making this theme center of discussions is not significant perhaps because rumours concerning the outbreak were less. Another frame that contains news stories on stigmatisation and discrimination against victims and their relations or reports on the boycott of the affected communities, states or countries. The least proportion of newspaper stories emphasized this theme. Only 3 ( $0.32 \%$ ) of the aggregate newspaper stories considered in this study focused on the frame. It seems to indicate the theme is not as significant as others.

## 5. Conclusion

In consistent with the findings of the study, conclusions were drawn. Much coverage was given for the issue of media and the crisis is frequently placed on the editorial pages of the newspaper. It implies that the issue is newsworthy more than other topics. This helps to significantly shape people's understanding of the pandemic. Regarding placement, the pandemic occurred in its front page as a news first or second lead story. This shows newsworthiness and prominence of the pandemic. As a result, the newspaper gave a high level of prominence to the novel pandemic.

On sources of information, about one-five of the reports on Coronavirus were substantiated by health experts and health organizations to the reports. Quoting the health experts was also strategic to lay emphasis on some news angles, most often on preventive measures and containment mechanisms. On the other hand, about one quarter of the stories have used government officials as its sources, which is the dominant one, in the Addis Zemen publications. Too much focus on government officials involved in most cases outshined the analyses of the health topic, and it can also trivialize the main issue. This leads the focus has been diverted to the reputability of the officials, and affect the trustworthiness the report to combat the pandemic.

One-six of the stories is reported without authenticated any specified source. It is reasonable to say that the coverage of the pandemic may depart from reality to a greater or lesser extent in relation to the reliability of the sources as journalist lack specialized medical knowledge.

In terms of frame types, ten types of frames were found prominently emphasized in the reports while two (containment and effect frames) were made more salience in more than half of the total reports on the pandemic. Thus, it is reasonable to conclude that the much capitalization on containment frame portrayed the newspaper purposive interest to free the society of the pandemic, a reflection of the media social responsibility role. Most of the reports framed to be proactive towards the pandemic by comparing the level of managing the situation before get worse.

The use of effect frame underpins the importance of this element in weighing the economic and social impacts of the pandemic. For this reason, Media frames help people to construct reality about COVI9-19 that developed correlative news by linking different angles of the story to bring the outbreak under control as quickly as possible, with as little social disruption as possible.

## References

Armstrong, Naylor, 2019 - Armstrong, P.W., Naylor, C.D. (2019). Counteracting health misinformation: a role for medical journals? Jama. 321(19): 1863-1864.

Ataguba, 2020 - Ataguba, J.E. (2020). COVID-19 pandemic, a war to be won: understanding its economic implications for Africa. Applied Health Economics and Health Policy. 18: 325-328.

Beaudoin, 2007 - Beaudoin, C.E. (2007). SARS news coverage and its determinants in China and the US. International Communication Gazette. 69(6): 509-524.

Benefo, 2004 - Benefo, K.D. (2004). The mass media and HIV/AIDS prevention in Ghana. Journal of Health and Population in Developing Countries: 1-18.

Berelson, 1952 - Berelson, B. (1952). Content analysis in communication research. Free Press.

Berger, 1998 - Berger, A.A. (1998). Media research techniques. Sage Publications.

Bernadas, Ilagan, 2020 - Bernadas, J.M.A.C., Ilagan, K. (2020). Journalism, public health, and COVID-19: some preliminary insights from the Philippines. Media International Australia.

Bloch-Elkon, 2007 - Bloch-Elkon, Y. (2007). Studying the media, public opinion, and foreign policy in international crises: The United States and the Bosnian crisis, 19921995. Harvard International Journal of Press/Politics. 12(4): 20-51.

Bolsen et al., 2020 - Bolsen, T., Palm, R., Kingsland, J.T. (2020). Framing the Origins of COVID-19. Science Communication.

Boukes et al., 2020 - Boukes, M., Jones, N.P., Vliegenthart, R. (2020). Newsworthiness and story prominence: How the presence of news factors relates to upfront position and length of news stories. Journalism.

Bratić, 2006 - Bratić, V. (2006). Media effects during violent conflict: Evaluating media contributions to peace building. Conflict \& Communication. 5(1).

Brindha et al., 2020 - Brindha, M.D., Jayaseelan, R., Kadeswara, S. (2020). Social media reigned by information or misinformation about COVID-19: a phenomenological study.

Buchanan, 2009 - Buchanan, C. (2009). Sense of place in the daily newspaper. Aether: The journal of media geography. 4: 62-84.

Catalán-Matamoros, 2011 - Catalán-Matamoros, D. (2011). The role of mass media communication in public health. Health management-Different approaches and solutions: 399-414.

Clarke et al., 2006 - Clarke, J.N., McLellan, L., Hoffman-Goetz, L. (2006). The portrayal of HIV/AIDS in two popular African American magazines. Journal of Health Communication. 11(5): 495-507.

Cohen et al., 2007 - Cohen, L. Manion. L, Morrison, K. (2007). Research Methods in Education (6 ${ }^{\text {th }}$ Ed). Routledge.

Darmon et al., 2008 - Darmon, K., Fitzpatrick, K., Bronstein, C. (2008). Krafting the obesity message: A case study in framing and issues management. Public Relations Review. 34(4): 373-379.

De Vreese et al., 2011 - De Vreese, C.H., Boomgaarden, H.G., Semetko, H.A. (2011). (In) direct framing effects: The effects of news media framing on public support for Turkish membership in the European Union. Communication Research: 38(2): 179-205.

Entman, 1993 - Entman, R.M. (1993). Framing: Toward clarification of a fractured paradigm. Journal of Communication. 43(4): 51-58.

Escap et al., 2020 - Escap, $U ., U p u, U$. (2020). World Health Organization How COVID-19 is Changing the World: A Statistical Perspective.

Freelon, 2013 - Freelon, D. (2013). ReCal OIR: Ordinal, Interval, and Ratio Intercoder Reliability as a Web Service. International Journal of Internet Science. 8(1).

Gans, 2004 - Gans, H.J. (2004). Deciding what's news: A study of CBS evening news, NBC nightly news, Newsweek, and Time. Northwestern University Press.

Gates, 2020 - Gates, B.I. (2020). Pandemic I: The First Modern Pandemic.
Goffman, 1974 - Goffman, E. (1974). Frame analysis: An essay on the organization of experience. Harvard University Press.

Gössling et al., 2020 - Gössling, S., Scott, D., Hall, C.M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. Journal of Sustainable Tourism: 1-20.

Guo, McCombs, 2011 - Guo, L., McCombs, M. (2011). Network agenda setting: A third level of media effects. Annual conference of the International Communication Association. Boston, MA. Habersaat et al., 2020 - Habersaat, K.B., Betsch, C., Danchin, M., Sunstein, C.R., Böhm, R., Falk, A., ... Fischer, E.F. (2020). Ten considerations for effectively managing the COVID-19 transition. Nature human behavior. 4 (7): 677-687.

Hallahan, 1999 - Hallahan, K. (1999). Seven models of framing: Implications for public relations. Journal of public relations research. 11(3): 205-242.

Houston et al., 2012 - Houston, J.B., Pfefferbaum, B., Rosenholtz, C.E. (2012). Disaster news: Framing and frame changing in coverage of major US natural disasters, 20002010. Journalism \& Mass Communication Quarterly. 89(4): 606-623.

Ibrahim, 2020 - Ibrahim, S.G. (2020). Sociopolitical impacts of the COVID-19 pandemic on human existence and society: A critical analysis. African Journal of Biology and Medical Research. 3(2): 204-213.

Iyengar, Kinder, 2010 - Iyengar, S., Kinder, D.R. (2010). News that matters: Television and American opinion. University of Chicago Press.

Jo, Chang, 2020 - Jo, W., Chang, D. (2020). Political Consequences of COVID-19 and Media Framing in South Korea. Frontiers in public health. 8.

Jung Oh et al., 2012 - Jung, Oh, H., Hove, T., Paek, H.J., Lee, B., Lee, H., Kyu Song, S. (2012). Attention cycles and the H1N1 pandemic: A cross-national study of US and Korean newspaper coverage. Asian Journal of Communication. 22(2), 214-232.

Kerlinger, 2000 - Kerlinger, F. (2000). Foundations of behavioural research ( $4^{\text {th }}$ Ed). Holt, Rinehart \& Winston.

Kothari, 2004 - Kothari, C.R. (2004). Research methodology: Methods and techniques. New Age International.

Kott, Limaye, 2016 - Kott, A., Limaye, R.J. (2016). Delivering risk information in a dynamic information environment: Framing and authoritative voice in Centers for Disease Control (CDC) and primetime broadcast news media communications during the 2014 Ebola outbreak. Social Science \& Medicine. 169: 42-49.

Larson, 1984 - Larson, J.F. (1984). Television's window on the world: International affairs coverage on the US networks. James F. Larson.

Lee, Basnyat, 2013 - Lee, S.T., Basnyat, I. (2013). From press release to news: mapping the framing of the 2009 H 1 N 1 A influenza pandemic. Health Communication. 28(2): 119-132.

Li, 2016 - Li, J. (2016). Framing infectious diseases: a comparative analysis of Chinese news coverage of SARS and ebola (Ph.D. Dis., University of Delaware).

Lombard et al., 2010 - Lombard, M., Snyder-Duch, J., Bracken, C.C. (2010). Practical resources for assessing and reporting intercoder reliability in content analysis research projects.

Luther, Zhou, 2005 - Luther, C.A., Zhou, X. (2005). Within the boundaries of politics: News framing of SARS in China and the United States. Journalism \& Mass Communication Quarterly. 82(4): 857-872.

McComas, Shanahan, 1999 - McComas, K., Shanahan, J. (1999). Telling stories about global climate change: Measuring the impact of narratives on issue cycles. Communication research. 26(1): 30-57.

McCombs, Shaw, 1972 - McCombs, M.E., Shaw, D.L. (1972). The agenda-setting function of mass media. Public opinion quarterly. 36(2): 176-187.

Mejia Christian et al., 2020 - Mejia Christian, R., Roberto, T.P.M., Dayana, T., Franco, R.A.J., Campos-Urbina Alejandra, M., Catay-Medina Jhordan, B., ... Felipe, C.E.R. (2020). The media and their informative role in the face of the coronavirus disease 2019 (COVID-19): validation of fear perception and magnitude of the issue (MED-COVID-19). [Electronic resource]. URL: http://www.ejgm.co.uk/download/the-media-and-their-informative-role-in-the-face-of-the-coronavirus-disease-2019-covid-19-validation-7946.pdf

Minister of Health, 2004 - Minister of Health (2004). Infection Prevention Guidelines for Healthcare Facilities in Ethiopia. [Electronic resource]. URL: https://www.ilo.org/wemsp5/groups/ public/---ed_protect/---protrav/-ilo_aids/documents/legal document/wcms_125383.pdf

Mustapha, 2012 - Mustapha, L.K. (2012). Agenda-setting theory: A reflective and visionary analysis. Critique and application of communication theory: 85-108.

Nisbet et al., 2003 - Nisbet, M.C., Brossard, D., Kroepsch, A. (2003). Framing science: The stem cell controversy in an age of press/politics. Harvard International Journal of Press/Politics. 8(2): 36-70.

Ogbodo, et al., 2020 - Ogbodo, J.N., Onwe, E.C., Chukwu, J., Nwasum, C.J., Nwakpu, E.S., Nwankwo, S.U., ... Ogbaeja, N.I. (2020). Communicating health crisis: a content analysis of global media framing of COVID-19. Health Promotion Perspectives. 10(3): 257.

Ozili, Arun, 2020 - Ozili, P.K., Arun, T. (2020). Spillover of COVID-19: impact on the Global Economy. Available at SSRN 3562570.

Park, 2003 - Park, J. (2003). Contrasts in the coverage of Korea and Japan by US television networks: a frame analysis. Gazette (Leiden, Netherlands). 65(2): 145-164.

Severin, 2001 - Severin, W.J., Tankard, J.W. (2001). Communication theories: Origins, methods, and uses in the mass media ( $5{ }^{\text {th }}$ Ed). New York: Longman.

Seymour-Ure, 1972 - Seymour-Ure, C. (1972). Content Analysis in Communication Research. Journal of the Royal Statistical Society: Series D (The Statistician). 21(2): 145-145.

Shih et al., 2008 - Shih, T.J., Wijaya, R., Brossard, D. (2008). Media coverage of public health epidemics: Linking framing and issue attention cycle toward an integrated theory of print news coverage of epidemics. Mass Communication \& Society. 11(2): 141-160.

Stefanik-Sidener, 2013 - Stefanik-Sidener, K. (2013). Nature, nurture, or that fast food hamburger: Media framing of diabetes in the New York Times from 2000 to 2010. Health Communication. 28(4): 351-358.

Tian, Stewart, 2005 - Tian, Y., Stewart, C.M. (2005). Framing the SARS crisis: A computerassisted text analysis of CNN and BBC online news reports of SARS. Asian Journal of Communication. 15(3): 289-301.

UN, 2020 - UN. (2020). The Social Impact of COVID-19. [Electronic resource]. URL: https://www.un.org/development/desa/dspd/2020/o4/social-impact-of-covid-19/

Ungar, 1998 - Ungar, S. (1998). Hot crises and media reassurance: A comparison of emerging diseases and Ebola Zaire. British journal of sociology: 36-56.

Van Bavel et al., 2020 - Van Bavel, J., Baicker, K., Boggio, P., Capraro, V., Cichocka, A., Cikara, M., ... Drury, J. (2020). Using social and behavioural science to support COVID-19 pandemic response. Nature Human Behaviour: 1-12.

Vandendaele, 2018 - Vandendaele, A. (2018). "Trust Me, I'ma Sub-editor" "Production values" at work in newspaper sub-editing. Journalism Practice. 12(3): 268-289.

Walker et al., 2020 - Walker, P., Whittaker, C., Watson, O., Baguelin, M., Ainslie, K., Bhatia, S., ... \& Cucunuba Perez, Z. (2020). Report 12: The global impact of COVID-19 and strategies for mitigation and suppression.

WHO, 2005a - World Health Organization (2005). WHO outbreak communication guidelines (No. WHO/CDS/2005.28). World Health Organization.

WHO 2005b - World Health Organization (2005). Effective media communication during public health emergencies: a WHO field guide (No. WHO/CDS/2005.31 a). World Health Organization.

Wilson et al., 2008 - Wilson, D., Esiri, M., Onwubere, C. (2008). Communication Research. National Open University of Nigeria.

Wimmer, Dominick, 2013 - Wimmer, R.D., Dominick, J.R. (2013). Mass media research. Cengage learning.


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