Reframing The Counternarration of Misinformation During Pandemic:

A Prebunking Strategy of Intervention (1st Phase)

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Abstract—**During the pandemic, more than 1800 misinformation of COVID-19 had been produced and circulated among people, creating massive damage, and hindering public health measures to control the pandemic in Indonesia (Kominfo, 2021; Indicators, 2021; Unicef, 2020). The misinformation creates fear and anxiety, also erode public trust in health initiatives. To combat the misinformation, exercise fact-checking and anti-hoax campaigns are not sufficient. The strategy should also entail a counter-narration effort to challenge the misinformation. This research aimed to design a counter-narration effort to contest the religious misinformation of COVID-19 by employing a social inoculation approach as a theoretical framework. A prebunking strategy is expected as the outcome of this paper, which targeted young people in local universities. The first phase of this research aims to discover young people's ability to assess Covid-19 misinformation before moving to the next stage, focusing on developing the counternarrative strategy. The result shows that young people ability in identifying hoaxes and address valid information is moderate.**

Keywords—*religious misinformation, COVID-19, intervention, counternarrative, prebunking*

I. INTRODUCTION

During a media briefing on February 24, 2020, the Director-General of WHO Tedros Adhanom Ghebreyesus labelled the widespread rumor and misinformation regarding Coronavirus as 'infodemic'. It refers to much and excessive unreliable information about the pandemic, which spread fast and far-reaching. Infodemic has posed a bigger problem than just misinformation. Every decision to control the pandemic is based on assessing "the geographical spread of the virus, the severity of the disease it caused, and the impact it has on the whole society" [1]. Any effort to achieve the best result in a toxic information ecosystem contaminated by infodemic seemed useless.

In today's communication landscape, the Internet poses as an ultimate vehicle for delivering information to solve the problem of responding to the global infection caused by the virus. However, the Internet also played a significant role in distributing misinformation and disinformation [2]. It is technologically simple [3]. It became a perfect vehicle employed by those who mastered the technological logic of algorithms and IOT, even in the most superficial capacity. In terms of scale, social media boosted the massive circulation of infodemic. Nevertheless, traditional media also played a significant role in other forms of communication facilitated by chat applications online such as WhatsApp, Line, Telegram, WeChat, etc. [4].

Although it originated from a health emergency, infodemic is not merely featuring health issues. Adding the complexity, the health, science, politics, even religious themes often mingled and framed into racism and xenophobic messages. This kind of negative message had also appeared in the infodemic landscape of Indonesia.

At the first stage of the outbreak, rumors, and misinformation – or, popularly called 'hoax' – are fussing on the virus's origin from the Huanan market of Wuhan City, Republic of China. This prejudice developed to a more profound bias in no time at all. There are hoaxes about how Covid-19 bear a symbolic meaning of God's punishment for non-believers. The hoax or misinformation depicted a mass converted to Islam in the Republic of China. They even performed Islamic rituals such as Friday prayer to ask forgiveness and redemption from God. In this kind of hoaxes, misinformation about Covid-19 as a health issue has intermingled with religious or faith-based issues.

Overcome the problem; international health experts introduced a new behavioral change approach. Instead of focusing on debunking effort, the Social Inoculation approach attempted to do preemptive debunking (prebunking) through a series of steps before the debunking action. Though inoculation offers an approach, not a fixed formula of strategy, it is believed to open a way to proactively fight public misperceptions of science [5]. This research aimed to produce counternarratives to counter existing misinformation as part of the prebunking effort against Covid-19 misinformation. The first phase of the research is assessing the ability of targeted

'agents', namely young people, in addressing the misinformation of Covid-19. Based on the result, a counternarrative strategy will be designed and tested in the second phase of the research. In this writing, we would like to share the perceived risk of Covid-19 misinformation among selected targets. We chose young people as our target, considering their potential contribution to enact as an agent of countering misinformation in digital media.

A. Research Questions

As the first step of the research which attempted to obtain information regarding the ability of young people to address the Covid-19 misinformation surrounding them, the research questions are broken down into two specific matters. The first research question focuses on young people's ability to identify Covid-19 hoaxes. Meanwhile, the second research question will deep dive into young people ability in identifying valid information.

B. Problem Statement

Research regarding Covid-19 misinformation has increased since the WHO released an official statement that emphasized the need to address infodemic on a global scale. The First Infodemic Management Conference organized by WHO in 2020 released some research agendas. Examples of those research agendas are activating digital listening, detecting signals to alter the message and information, enabling agents of encountering the problems at the community level, and designing counter-attack measures both for digital landscape and non-digital environment [6]. Constructing a counter-narration text is a part of the effort which directly affected the community. It is a part of strategy design that is still rarely appropriately conducted. Most of the research on infodemic recently focuses on mapping the landscape of Covid-19 misinformation and analyzing the people's behavior toward it. More research is needed to implement previous research recommendations that focus on those two topics (people behavior and types of infodemic during the outbreak).

C. Theoretical Framework

1) Information disorder Ecosystem: In literature that become the primary for infodemic or any misinformation cases, First Draft – a fact-checking organization – has conveyed three critical terms to describe the information disorder ecosystem. The first term is disinformation, defined as information intended to harm by applying several tricks, from manipulating content to twisting arguments. Three factors become the motivation underpinning the disinformation, i.e., making money, exerting political influence by interfering with public opinion or causing trouble for its sake. The second term, misinformation, is about false content shared publicly or delivered toward specific targets. However, the people who shared the misinformation didn't intend to harm. Or at least there's no actual proof of deliberately sharing the misinformation for causing havoc.

Misinformation is as natural and as humanly as the mistake itself. Disinformation could turn to misinformation when it is exposed to the people who don't have any capacity to understand the quality of information they've received. Meanwhile, the third term is misinformation, a piece of genuine information shared with pure intention to cause harm [7].

Misinformation, rumors, fake news, hoaxes, and other unreliable information are circulated through various channels. But it is through social media; hoaxes are seemingly getting their moment and widely circulated to reach various targets. Misinformation, therefore, is a pressing problem when social media is involved in the distribution of information [8]. Social media is even more like a container, yet a very vulnerable one that brings information and hoaxes or misinformation at the same time [9].

2) Covid-19 infodemic: The term infodemic, along with invigilance and entomology was coined first by Eysenbach in 2009. Since then, the field is emerging with new development, particularly when the digital landscape has developed rapidly due to technological changes [10]. During the outbreak of Covid-19, infodemic became a global issue as the Covid-19 outbreak was declared as a pandemic. Infodemic is essentially the massive circulation of excessive and abundant unreliable information. It could be a rumor, any type of information disorder, or simply a 'hoax'.

Information during a crisis is like a double-edged sword. Without information, the effort to solve the problem would be useless. But, on the other hand, too much information would confuse people, especially if misinformation stepped in. Studies show that the circulation of misinformation significantly influenced mental health among the public. Many cases also reported, ranging from fear, anxiety, and depression in various stages [11].

3) Social inoculation as preemptive debunking strategies: The lack of critical thinking in receiving information is the root infodemic problem.

A social inoculation is an approach rooted in cognitive psychology. It uses knowledge as the basics of behavioral change. Borrowing the logic of immunization, where the virus is weakened to a certain point to create antibodies, it is believed that exposing people with the virus of information in specific dosage 'antibodies' against misinformation will be built internally [12]. A counternarrative against misinformation is part of inoculation strategies to enable people to identify hoaxes/misinformation and spot valid information. Once the essentials of counter-narration are identified, the counter-message of misinformation might be constructed and incorporated into public communication strategy, which uses all means of communication [13].

II. METHODS

The research employs a mixed method that incorporates findings from the first to the next second phase. In the first

phase of research, which aimed to track the ability of young people as respondents to identify misinformation, we conducted a quantitative approach through an online survey for data collection. The research was carried out during a partial lockdown in Indonesia (July to August 2021). This situation hinders the researcher from outreach respondents physically.

The survey's respondents are students aged 19-24 years old. They are already accomplished 2-6 semesters in their program of study. Therefore, they are considered mature enough in the academic field based on their subject. They are also involved in several student's union activities. In general, they represented the characteristics of their cohort.

The second part of the research is constructing the counter narration of the misinformation, and deep dive into the motives and habits of the respondent in sharing information or exercising other actions to block the spread of misinformation. A qualitative approach with focus group discussion will be conducted in the second phase of the research.

This writing reported the first phase of the research employing a survey as a data collection means.

III. RESULTS AND DISCUSSION

A. Demographic Profiles

The population in this study was 85 students of Fikom Unisba who members of the laboratory community were. They are technologically literate. It means they can use information and communication technology to access various news and issues about Covid-19. Another reason why we chose these young people as respondents is because they are targeted as agents of the anti-hoax movement at a later stage of research aimed to design interventions to solve the problem. According to some reports of best practice in the field, young people have the potential as a 'game changer' in the journey against misinformation/hoax [14]. Questionnaires were distributed via google form and collected as many as 55 respondents as samples in this study. The age range of respondents is quite diverse between 19-24 years, with the most domicile in the city of Bandung as many as 42 people (72.7%) and outside the city of Bandung 13 people (27.3%).

B. Ability to Identify Hoaxes/Misinformation

The results show which misinformation is easy and difficult to identify. Information with specific themes turned out to be mistakenly recognized by respondents as valid and conversely (See Table I).

TABLE I. ABILITY TO IDENTIFY HOAXES/MISINFORMATION

No	Information Title	Themes	Answers					
			f	%	f	%	f	%
1	Towards 37 million vaccines	Policy	28	51	24	44	3	5
2	Incubation Period	Contagion	22	40	30	54	3	5
3	Determination of PPKM (partial lockdown)	Policy	37	57	15	27	3	5
4	Compensation Assistance for Government Program Vaccine Card Holders	Policy	43	78	9	16	3	5
5	Extraordinary Turkey orders 5.2 million Vaccines for Nusantara Vaccines	Vaccine	43	78	9	16	3	5
6	Coconut shell liquid smoke treats covid	Treatment	48	78	4	7	3	5
7	Kimia Farma issues a letter to postpone the price reduction for government programs	Policy	26	47	24	44	5	9
8	Covid scenarios and lockdown have been designed 10 years ago Political Conspiracy	Policy	45	81	7	13	3	5
9	Link Social Assistance PPKM Emergency Policy	Policy	37	57	15	27	3	5
10	Determination of Emergency PPKM Applicable In West Java On 3-20 July 2021	Policy	40	72	11	11	4	7

The results showed that the most widely recognized misinformation by respondents is related to treatment. As many as 78% of respondents think that the piece entitled "Liquid smoke of coconut shells treats covid successfully " is a hoax or misinformation. Compared to the early days of the outbreak in 2020, this finding means that respondents nowadays have sufficient knowledge about the medical treatment of Covid-19. Earlier, many people still believed that various types of alternative medicine could be used to cure patients and kill the virus. Any information related to treatment, whether medical or not, becomes the most sought-after information at that period. It is ranged from herbs and spices such as lemon, garlic, honey, etc., to some behaviors such as sun-tanning and soaking in hot water bathtub.

Most respondents are unable to track the value of truth over information about the virus's incubation period. According to the widely circulated information, the incubation period for the Coronavirus is 5-14 days. The results show that many respondents (54%) still don't have precise information about the incubation period of the virus. This finding corresponds with reports about how people with positive Covid-19 status are still crowding in public places instead of quarantine or going to isolation facilities. It implies that this misleading information still traps so many. This condition is quite worrying and might be a reason for ignoring health protocol, particularly on mobility restrictions. They feel healthy and already cured and safely resume 'normal' activities. The truth is, they are still the virus carrier and categorized as 'OTG'

(asymptomatic patient), even after undergoing a self-isolation procedure without any supervision from health authorities.

Regarding the issue of vaccines in Indonesia, the Nusantara vaccine from Terawan, former Minister of Health of the Republic of Indonesia, is still controversial because he refuses to take part in clinical trials according to BPOM procedures. Advocacy efforts were carried out by supporters of the Nusantara Vaccine, one of which is by exaggerating the efficacy and level of world trust in the Nusantara vaccine. The hoax "It is extraordinary that Turkey ordered 5.2 million Vaccines for the Archipelago" is one example of misinformation that exaggerates the level of trust. Research findings show that respondents are not provoked by such misinformation. There are 78% of respondents who can consciously identify the existence of this hoax. It indicates that they can think critically to sort out information related to vaccines.

Furthermore, conspiracy is a controversial misinformation theme during the pandemic. The existence of a video entitled "Pandemic" about the process of producing the Covid-19 virus in a laboratory makes this theme even more problematic. The theme of this conspiracy is also quite diverse. There is a conspiracy of the virus as a manufactured biological weapon. Covid-19 is regarded as a manufactured commodity for the pharmaceutical industry in other stories of capitalist conspiracy. There are also geopolitical-power-contested-conspiracies related to the scenario of Indonesia being controlled by China or other foreign actors. Approaching the launching of Covid-19 vaccine, the most famous hoax is regarding the depopulation agenda planned by religious enemies. Here, immunization is seen as weaponizing viruses and vaccines to kill religious followers or other faith-based communities. The results show that most of the respondents (82%) of young people are not consumed by the conspiracy hoax. Indeed, this is a kind of good news, which shows how young people are still not being influenced by such cautious tales.

Government regulations or policy matters are also the concern of young people as respondents of this research. It can be seen from the number of respondents who were able to identify hoaxes related to government policies regarding Covid-19, such as misinformation regarding the period of partial emergency lockdown in West Java Province and hoaxes about compensation funds for vaccine cardholders. Previous research concluded the low public trust toward the government, which implies ignorance toward any government policy to control the virus or enforce health protocols. This research shows different results. 73% of these young respondents can address the misinformation of government policies. The hopes for controlling the transmission of Covid-19 might be granted on them.

For young people, the issue of restricted areas that limited their mobility during a pandemic is crucial, so they pay great attention to policies related to zoning or PPKM (partial lockdown). It can be seen from the research findings that depicted young people ability to identify the validity of information about PPKM (partial lockdown).

Those are the key takeaways of the first question of the research.

C. Ability to Identify Valid Information

There is three valid information of the ten pieces of information submitted in the questionnaire. Three of them are true and do not contain any hoaxes or misinformation. The three stories were posted on the West Java Saber Hoaks IG page. It is evident that the respondents' ability to recognize valid news is not yet reliable as shown by the less encouraging findings (See Table II).

TABLE II.   ABILITY TO IDENTIFY VALID INFORMATION

No	Information Title	Themes	Answers					
			f	%	f	%	f	%
1	Towards 37 million vaccines	Policy	28	51	24	44	3	5
2	Incubation Period	Contagion	22	40	30	54	3	5
3	Determination of PPKM (partial lockdown)	Policy	37	57	15	27	3	5

Information entitled "Towards 37 Million Vaccines" can only be answered correctly by 51% of respondents, then information about the incubation period of vaccines is answered correctly by only 40% of respondents. Most of the respondents answered only information related to PPKM (67%). But the amount of those who can answer correctly is not satisfying.

Our concern mostly pointed out the information about the vaccine incubation period. As shown by the result, only a few are able to recognize it as valid information. It might be associated to two matters. First, the dynamics of information related to C19 are volatile to the extent that such upsurges are very difficult to pursue by the public. While the effects are often fatal and lethal, it is a common symptom of an infodemic, defined as excessive abundant information in a short time. In a situation that is full of distress and uncertainty, people often fail to follow up or keep updating the information due to critical situations they've experienced. Second, information about incubation is very scientific. The language is very technical, and delivering the information is often so academic. Here, laypeople are often unable to comprehend the information and fail to grasp the meaning for saving their lives. It is related to the lack of a person's ability to understand scientific information or facts. They tend to shy away from scientific facts, avoid and ignore the information thoroughly.

Next research phase. Debunking by merely labelling misinformation status is not effective. People often do not remember what the problematic issue was. Detailed information would be a vital factor in effective debunking and

curbing the persistence of misinformation [14,15]. However, too much detail will easily distract people. Hence, another strategy should be exercised, such as the human-interest framing approach, which proved to help persuade people to take proper measures during a critical time. Based on personal experience, the narrative built for health and medical intervention is often more successful than imperative messages [16].

IV. CONCLUSION

Following the findings and analysis, the conclusion could be formulated as follows. First, the ability of young people as respondents in identifying hoaxes are vary according to the themes of hoaxes/misinformation. They can identify Covid-19 misinformation regarding false medication, government policy, and conspiracy themed hoaxes. However, the ability of identify misinformation regarding testing/tracing, vaccine, and period of contracting the virus is relatively low. Second, the ability of young people in identify valid information is somewhat lower than the ability of sensing the misinformation. Of three valid information exposed, the scientific information scores the lowest. Though it is valid, scientific information regarding the virus is seemingly confusing for them.

Several recommendations could be inferred from the findings. First, it is important to explore the motives and factors of sharing the misinformation to design a complete strategy of counter-narration against the Covid-19 hoaxes. The perceived risk of Covid-19 misinformation could be important factor to motivate people in acting.

Second, most of the respondents seemed difficult to absorb information with heavy scientific facts. Consequently, young people tend to avoid and ignore scientific information. Meanwhile, Covid-19 information is full of scientific facts. To deliver a counter-narration, a more customized approach that helps people comprehend scientific facts should be established.

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