Psychological Reactance and Beliefs in Conspiracy Theories During the Covid-19 Pandemic: Overview of the Extended Parallel Process Model (EPPM)

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Abstract. Compliance with health protocols plays an important role in minimizing the spread of Covid-19. However, Indonesia is still facing a robust challenge including non-compliance to persuasive recommendations or messages (psychological reactance) and belief in conspiracy theories. Issues related to conspiracy theories and theories had obscured the message for the people to keep their behavior safe from the virus. The Extended Parallel Process Model (EPPM) is a theory that explains how people would obey the messages they received, particularly health messages. Perception of threats and efficacy contribute significantly to the effectiveness of the message people received. In this article, we discussed four psychological conditions that possess the chance to affect society’s threats and efficacy to comply with health protocols. These conditions were viewed from social, clinical, and industrial-organizational psychology perspectives. Four solutions to cope with non-compliance tendencies were also proposed. We suggest that these solutions should be applied to strengthen the tendency for people to obey health protocols.

Keywords: conspiracy theories; covid-19; EPPM; psychological reactance

Introduction

The efforts1 to handle the Coronavirus Disease 2019 (Covid-19) pandemic in Indonesia is relatively complicated. The World Health Organization and the Indonesian government have provided various recommendations or persuasive messages to the public so that the transmission of the virus can be suppressed. This includes maintaining physical distancing, avoiding crowds, especially indoors, and always wearing masks when doing activities with people (Idris, 2020; World Health Organization [WHO], 2020). However, the number of patients continued to increase, even reached a new record for the highest daily cases on December 3, 2020, with 8,369 cases, and the number of active cases as of December 4, 2020, was 80,023 cases (Indonesian Task Force for the Acceleration of Covid-19 Handling, 2020). Unfortunately, the number of cases is not followed by the capacity of medical personnel, especially pulmonologists, of whom only 976 people spread across Indonesia (Ministry of Health Republic of

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Indonesia, 2020). This unequal proportion between patients and medical personnel makes treatment more difficult.

Persuasive recommendations or messages conveyed by the government, the World Health Organization, and other related institutions do not appear to be sufficiently effective in influencing people’s behavior. Research conducted by Nasir, Baequni, and Firmansyah (2020) found that misinformation related to Covid-19 is still widely circulating in the community, for example around 19.6% of respondents believe that sunbathing can eliminate the virus. Various mass activities with limited health protocols are still happening. One example is the trend of wild running racing, which is a competition for running barefoot held by youth in several cities in Indonesia. In Semarang and Jakarta, the event took place without permission and had to be disbanded because it caused crowds and disturbed residents (Azhari, 2020; Farasonalia, 2020). The results of a survey by the Statistics Indonesia (2020) on the compliance of Indonesians with public health protocols showed that the community is not sufficiently compliant. Adherence to wearing masks in public places is quite good (82.62-94.83%), but adherence to washing hands and maintaining a safe distance is still relatively low (51.41-82.56% and 47.16-66.97 %). Nasir et al. (2020) stated that governments and organizations working in public health need to be more aware of the condition of public understanding of Covid-19 and need to educate the public about how to get correct information related to Covid-19.

In psychology, the phenomenon of individual or community non-compliance with persuasive recommendations or messages is a manifestation of psychological reactance (Brehm & Brehm, 1981). Psychological reactance is an unpleasant arousal or urge that occurs when someone is threatened with losing their freedom (Brehm & Brehm, 1981; Steindl, Jonas, Sittenhaler, Traut-Mattausch, & Greenberg, 2015). In general, everyone always wants to have the freedom to behave. Psychological reactance acts as a driver for individuals to regain their freedom. During this pandemic, it cannot be denied that the freedom of individuals and societies is greatly reduced. Especially with the government rules which stated that community activities should be limited. Everyone is advised to always wear a mask, wash hands frequently, maintain physical distance, and even avoid crowds. Disobedient behavior is an effort to regain freedom (Brehm & Brehm, 1981; Steindl, et al., 2015). In this case, one’s freedom before the virus outbreak happened.

During the Covid-19 pandemic, there are still individuals who believe that Covid-19 is a conspiracy, especially those who do not pursue higher education (Georgiou, Delfabbro, & Balzan, 2020). In the study of cognition, conspiracy theory is a mistaken belief about the cause of an event. The conspiracy theory states that there are some actors who deliberately and secretly plan something evil to achieve their goals (Swami, Voracek, Stieger, Tran, & Furnham, 2014). A survey by the Covid-19 & Nanyang Technological University Report in Jakarta, Surabaya, and Bogor showed that the percentage of people who
believe that this pandemic is the result of a conspiracy is quite significant (Jakarta = 18%; Surabaya = 21%; Bogor = 16.5%) (Report Covid-19, 2020). In the United States, a Pew Research Center study showed that about 25% of Americans believe that Covid-19 pandemic is a plan devised by strong or powerful parties (Schaeffer, 2020).

Although the conspiracy theories that have developed in society are only supported by a small number of groups, the implications that arise can be very dangerous for society as a whole. Belief in conspiracy theories makes these groups tend to violate and reject most health protocols, campaign for behaviors that violate health protocols, and even accuse the government and health organizations of deceiving the public (Alfons, 2020; BBC Indonesia, 2020). A study by Allington, Duffy, Wessely, Dhavan, and Rubin (2020) showed that belief in conspiracy theories about Covid-19 related negatively with adherence to medical protocol, such as washing hands and maintaining social distance. In the end, the behavior that violates the health protocol by a small part of the community could cause the mass transmission to other communities, thus worsening the situation.

During this pandemic, the delivery of recommendations or persuasive messages related to health protocols plays an important role in increasing public compliance and ultimately reducing the spread of the Covid-19 virus (Leask, Hooker, & King, 2010; Brown, 2020; Okuhara, Okada, & Kiuchi, 2020). However, even though the recommendations and persuasive messages about Covid-19 given by the government and related parties have been very intensive, why are there still many community members who do not adhere the government’s recommendations or messages to comply with health protocols? Why are there still many groups in society who believe in conspiracy theories that have weak scientific grounds?

In this article, the author uses The Extended Parallel Process Model (EPPM) theory to explain people’s non-compliance with health protocols and beliefs in conspiracy theories. EPPM theory explains the behavior and compliance of individuals or groups with recommendations or persuasive messages by considering the emotions of fear (Witte, 1992; Maloney, Lapinski, & Witte, 2011). A person who fails to overcome his fearful emotions will do defensive avoidance in the form of psychological disobedience/reactance and belief in conspiracy theories (Maloney et al., 2011; Witte, 1992; Witte & Allen, 2000). The discussion in this article will consist of four main parts, namely: 1) discussion of the EPPM theory which is the theoretical framework of this article, 2) discussion of psychological reactance and belief in conspiracy theories, which according to the EPPM theory, is the impact of fear control, 3) discussion of factors which could trigger the perception of threats and efficacy, and 4) several solutions to improve community compliance. The study in this article will use the perspectives of social psychology, clinical psychology, and organizational industrial psychology.

The psychological reactance and belief in conspiracy theories that lead to public non-compliance with health protocols during a pandemic must be addressed.
urgently. Handling the Covid-19 pandemic is not only the responsibility of the government and health workers but also the community. Through this article, the authors hope to provide a scientific contribution in the form of reference to increase understanding about public adherence to the health protocol. With the involvement of all parties, the handling of the Covid-19 pandemic in Indonesia can be more effective.

Discussion

*Extended Parallel Processing Model (EPPM)*

The Extended Parallel Processing Model (EPPM) is a recent theory that explains the behavior and compliance of individuals or groups with recommendations or messages by considering the emotions of fear they feel (Witte, 1992; Maloney et al., 2011). EPPM theory was developed based on the theory of Parallel Response Model and Protection Motivation Theory which only focus on cognitive processes and ignores the function of emotions (fear) in shaping behavior (Witte & Allen, 2000). Based on these two theories, a person’s adaptive behavior comes from efforts to control danger or threats (cognition), not from efforts to control fear (emotions). Witte (1992) believed that the empirical inconsistencies in the two theories result from overemphasizing cognition and neglecting emotions. Therefore, Witte (1992) developed the EPPM theory which not only emphasizes cognitive factors but also emotions in explaining one’s behavior and adherence to persuasive recommendations or messages, including messages about health. EPPM theory focuses on messages or information received by individuals or collectively by groups.

Based on the EPPM theory, there are two fundamental elements that a person should pay attention to when faced with persuasive recommendations or messages, namely threat perception and efficacy (Witte, 1992; Maloney et al., 2011). Threat perception consists of two dimensions, namely: the severity of a threat (e.g., “this pandemic has a profound impact on all aspects of life”), and a person’s vulnerability to the threat (e.g., “I am at great risk of contracting Covid-19”). On the other hand, efficacy also has two dimensions, namely: response efficacy and self-efficacy. Response efficacy is a person’s belief about the effectiveness of the information or control of the message, while self-efficacy is the belief in one’s ability to perform the behavior (Witte & Allen, 2000).

![Figure 1. The Extended Parallel Processing Model (EPPM). Adapted from "Putting the fear back into fear appeals: The extended parallel process model" (Witte, 1992: 115)](image-url)
With other issues concerning the environment and health (Maloney et al., 2011; Witte, 1992; Witte & Allen, 2000). To control their fear, a person tends to do defensive avoidance or denial (Witte, 1992). Behavior that is often shown is avoiding or ignoring the messages given, and perceiving that the messages are exaggerated, manipulative, or conspiratorial (e.g., "the problem of Covid-19 is exaggerated" or "the threat of Covid-19 is no danger that some parties trying to trick us"; Witte, 1996). Research in the field of sexual health and electromagnetic treatment methods had shown that fear control is positively associated with defensive avoidance, distrust of messages, and the belief that messages are conspiratorial (Witte, 1996; McMahan, Witte, & Meyer, 1998).

**Psychological Reactance and Beliefs in Conspiracy Theories**

Disobedience of individuals or communities to recommendations or persuasive messages from the government and related institutions is a form of psychological reactance (Steindl et al., 2015). In general, everyone always wants to have the freedom to behave. However, during the Covid-19 pandemic, people are faced with various prohibitions and protocols that limit freedom of behavior, such as having to wear masks, wash their hands frequently, not being allowed to gather in large numbers, unable to work normally, unable to attend school, and so on. Psychological reactance is unpleasant arousal or urge that occurs when a person is threatened with losing their free behavior (Brehm & Brehm, 1981; Steindl et al., 2015). Based on the EPPM theory, psychological reactance is a form of fear control carried out by individuals or groups.
The amount of psychological reactance depends on the importance of the freedom that is being threatened, as well as the magnitude of the perceived threat (Steindl et al., 2015). In this era of the Covid-19 pandemic, various health restrictions and protocols have been applied to the public. Communities that were previously free to do face-to-face activities now cannot gather in large numbers; people who previously did not need to wear masks now have to always wear masks when traveling; people who previously were able to work freely, now find it difficult to work; as well as many more restrictions in place to prevent transmission of the Covid-19 virus. A pandemic that limits many facets of people's lives has a strong potential to ignite great psychological reactance as well. The study of Laurin, Kay, Proudfoot, and Fitzsimons (2013) showed that the policy of limiting the movement of citizens (emigration) can trigger psychological reactance and respondents' rejection of the policy. Other studies have shown that the smoking prohibition regulations that are implemented can trigger psychological reactance and a more positive attitude towards smoking behavior (Rains & Turner, 2007).

Psychological reactance not only causes individuals or society to disobey persuasive recommendations or messages about health but can encourage someone to do things or behaviors that are prohibited (Ringold, 2002). This phenomenon is called the boomerang effect, which is a situation in which a person who is given a persuasive message shows the opposite attitude due to psychological reactance (Brehm & Brehm, 1981). For example, when the government intensely campaigns for the use of masks while on the move, there are groups of people who campaign for the anti-mask and anti-rapid tests movement (Sukardi, 2020; Pristiandaru, 2020).

Several experimental studies have shown that the boomerang effect occurs when individuals or societies feel their freedom is threatened. A classic study by Worcel and Brehm (1970) showed that someone who initially agrees with the leader's opinion tends to change his attitude to disagree when the discussion situation threatens his freedom. Conversely, someone who is not in a threatening condition tends not to change his attitude towards the leader's opinion from the beginning to the end of the discussion. Research by Ulanday, Jeffery, Nebeling, and Srinivasan (2017) proved that the boomerang effect occurs in military groups that are identical with discipline and obedience. The study, which was conducted with 39,000 active military personnel, showed that military soldiers who received a strict smoking ban from their commanders displayed more intensive smoking behavior than military soldiers who were not strictly prohibited by their commanders.

Psychological reactance can still occur even if a person does not experience the restriction of freedom directly. When a person observes a threat to the freedom of another person or group, and this threat has the potential to occur against him/her as well, he can experience psychological reactance (Andreoli, Worcel, & Forgel, 1974; Sittenthaler, Traut-Mattausch, &
This is known as the vicarious reactance. In a pandemic like today, the threat of freedom experienced by some groups can also generate psychological reactance for other groups who have not lost this freedom. As a result, resistance and disobedient behavior are shown by a growing number of people or groups. Research shows that in collective societies such as Indonesia, vicarious reactance is more strongly (especially related to ingroups) than in individualist societies which have low interdependence (Sittenthaler et al., 2015).

In Indonesia, surveys show that several groups believe that Covid-19 pandemic is the result of a conspiracy (Lapor Covid-19, 2020). The phenomenon of individual or group belief in conspiracy theories has also been widely studied in psychology. According to Swami et al. (2014), a conspiracy theory can be defined as a collection of false beliefs about the cause of an event that is believed to be caused by a plot or design by a certain party with an objective that is often kept secret. Heider (in Crisp & Turner, 2014) says that every individual is motivated by two needs, namely: The need to form a coherent understanding of the world, and the need to have control over the environment. Belief in conspiracy theories can help a person understand the world coherently by providing the cause of an important event so that the need to understand the world and have control over the environment can be met (van Prooijen, 2017). According to the EPPM theory, the belief that messages are manipulative or a conspiracy is a form of fear control carried out by individuals or groups (Maloney et al., 2011; Witte, 1992; Witte & Allen, 2000).

During the Covid-19 pandemic, the tendency to believe in conspiracy theories is getting higher because crisis brings massive psychological effects such as stress, anxiety, and fear so that a person becomes unsure or feels unable to control their environment (van Prooijen, 2017). In conditions of stress, anxiety, and fear, a person tends to be unable to think logically and analytically, thereby increasing the likelihood of believing in conspiracy theories (Swami et al., 2014; Swami et al., 2016). Conspiracy theory provides a simple and easy-to-understand causal explanation of crisis conditions, particularly how the crisis arises and the parties responsible (van Prooijen, 2017; Swami et al., 2016).

Various studies have shown that belief in conspiracy theories can harm society. Along with causing distrust towards government or the authorities, it can lead to resistance to persuasion and medical interventions that are important to public health and safety, particularly in this time of the pandemic. Research from Jolley and Douglas (2012) showed that belief in conspiracy theories can reduce a person’s intention to behave in an environmentally friendly manner and reduce their carbon footprint. Conversely, individuals who do not believe in conspiracy theories have a higher intention of behaving in an environmentally friendly manner. Another study by Oliver and Wood (2014) shows that belief in health conspiracy theories is positively correlated with the use of alternative medicine and avoidance of conventional medical treatment in hospitals. People who believe in
conspiracy theories tend to refuse to get influenza vaccination or annual medical check-up.

Some of the Triggers for Perception of Threats and Efficacy

Referring to the EPPM theory, two fundamental factors that determine a person's response or behavior is the perception of threat and efficacy (Witte, 1992; Maloney et al., 2011). Previous studies have shown that the perception of threat and efficacy is not an objective assessment. Both cannot be separated from one's cognitive and emotional dimensions (Slovic, Finucane, Peters, & MacGregor, 2002; López-Vázquez & Marván, 2003). For example, a person's perception of the threat of Covid-19 and its efficacy is not only influenced by medical information about the virus but is also influenced by the uncertainty of when the pandemic will end, fear because the virus has attacked the immediate environment, fear of having a comorbid disease, the economic impact that is felt due to pandemic, and so on. These perceptions can change according to the situation at hand and individual characteristics. The high level of threat perception due to the uncertainty of the Covid-19 pandemic may be decreased when some vaccines are being tested, or someone who has recovered from a comorbid disease might lower the perceived threat level. To identify the factors that trigger psychological reactance and beliefs in conspiracy theories, the authors focus on the conditions that influence the perception of threat and efficacy during this covid-19 pandemic from the perspectives of social psychology, clinical psychology, and organizational industrial psychology.

The Covid-19 Pandemic has a Massive Impact Accompanied by High Uncertainty

The Covid-19 pandemic that occurs is expected to be one of the greatest social, economic, and medical challenges of the 21st century. The disruption caused by this pandemic is multidimensional and has a massive impact. This pandemic has affected individuals, families, education, work, economy, medical, and many other sectors. This pandemic also brings serious implications since it led to political polarization, long-term economic inequality, and social prejudice (Gruber, Prinstein, Clark, & Weinstein, 2020). Even though the impact has been rising significantly for months, WHO estimates that the pandemic has not reached its peak yet (Reuters, 2020). This means, there would be another impact that is yet to arise.

In the Covid-19 pandemic, the prevalence of psychological problems such as stress, anxiety, and depression is 29-33% of individuals in the population (Salari et al., 2020). On the other hand, in pandemic conditions, people are encouraged to limit social interactions and maintain physical distance to prevent transmission of the virus. In fact, in this crisis, people need to do activities to reduce stress, such as connecting with their community (Antonucci, 2001). Limited social interaction is a risk factor for loneliness and threatening mental and physical health (Cacioppo, Grippo, London, Goossens, & Cacioppo, 2015).
The Covid-19 pandemic is unprecedented, especially in these modern times. In just a few months, the Covid-19 virus changed global conditions. Billions of people around the world must isolate themselves at home and limit their activities. The rapid spread, massive impact, and the absence of a solution and a vaccine have caused very high uncertainty. Uncertainty is a situation in which there is not enough information to find a solution, which causes unpleasant and threatening feelings (Rosser, 2019). This uncertainty includes the health of oneself and those closest to him/her, future work, financial condition, travel plans, habits or routines, and many other aspects of life.

Several studies have proven a correlation between uncertainty and an individual’s mental well-being. The research with a sample of Turkish people during the Covid-19 pandemic show that intolerance to uncertainty affects one’s mental health (Satıcı, Sarıcalı, Satıcı, & Griffiths, 2020). This uncertainty is triggered by disruption of daily routines, limited social interactions, and feelings of losing control. Also, using a mediation analysis it was found that rumination and fear of Covid-19 mediated the relationship between uncertainty intolerance and mental health. Research by Taha, Matheson, and Anisman (2014) during the H1N1 pandemic also revealed that individuals with high uncertainty intolerance show higher levels of anxiety as well. This relationship turned out to be mediated by individual assessments of stress levels and controls due to H1N1 viruses.

From a social psychology perspective, media coverage can contribute greatly to widespread concern and disproportionate behavior by the public (Holman, Garfin, & Silver, 2014; Garfin, Silver, & Holman, 2020). The spread of the Covid-19 virus in Indonesia was first announced in early March 2020 (Indonesian Task Force for the Acceleration of Covid-19 Handling, 2020). Since then, the authorities and the media have started communicating various important information related to this virus to the public, in the hope that the public can take appropriate and necessary precautions to prevent the spread of this virus. However, the negative effects of exposure to massive information about the spread of Covid-19 emerged, namely: Psychological distress. When faced with new situations that have never been experienced, a person tends to take mental shortcuts based on the examples or information available to them, also called availability heuristics (Tversky & Kahneman, 1973). The media can play a big role in causing inappropriate risk assessment by someone (Garfin et al., 2020). When the media reports a lot about the failure and negative consequences of the Covid-19 pandemic, the public who witness it is likely to experience increased pessimism, worry, and distress.

Various studies have shown that massive media exposure is closely related to increasing a person’s psychological pressure. Research by Thompson, Garfin, Holman, and Silver (2017) showed that media exposure is a major predictor of psychological distress, especially in individuals who have previous psychological vulnerabilities. Research by Holman et al. (2014) found that media exposure to the
bombings at the Boston Marathon causes acute stress in individuals who watch the news. News coverage in the media can also cause vicarious reactance which affects the mental condition and behavior of society (Liu & Liu, 2020; Sittenthaler et al., 2015). Constant media exposure and stress can bias and influence one's perception of the threat and severity of an event.

*Mental Health and Community Coping Skills are Not Given Enough Attention*

The Covid-19 pandemic has caused losses to people in various aspects of life, such as loss of family and loved ones who are victims of Covid-19, loss of jobs and sources of income, loss of employment opportunities, loss of freedom of activity, and others (International Labor Organization [ILO], 2020a). Thus, a pandemic condition can be assumed to be similar to a traumatic condition where there is a threat that felt dangerous to the individual. Sider (2006) defined traumatization as a condition that afflicts an individual so that things that occur in an individual's life cannot return to what they were before.

From a clinical psychology perspective, coping with the Covid-19 pandemic condition adaptively requires good mental health and coping skills. However, several things often prevent individuals from expressing fear or loss in an adaptive manner, such as fear of drowning in negative feelings, lack of skills in dealing with current conditions, and the presence of past traumas that are still looming (Yoder, 2005). This feeling of loss and sadness needs to be regulated so that it does not worsen the trauma conditions faced. In the cycle of trauma, harboring feelings of sadness and loss will create feelings of anger, or even loss of meaning (Sider, 2006). Experiencing trauma is one of the risk factors for triggering individuals to act aggressively (Byrne & Riggs, 2020) and trust (Guasto, 2012). Trust is one of the determinants needed for individuals to comply with health protocols (Bargain & Aminjonov, 2020). Therefore, feelings of sadness and loss need to be faced immediately into good coping skills, so that individuals can react adaptively (Sider, 2006).

On the other hand, attention to mental health in Indonesia is still lacking. One example is research from Mawarpury, Sari, and Safrina (2017) which suggested that mental health-related programs are still not a priority at primary health services (puskesmas) in Indonesia. Mental problems in Indonesian society are quite high (Khoirunissa & Sukartini, 2020). This lack of attention to mental health has made people unaccustomed to prioritizing the need to adaptively regulate negative emotions, especially in times of crisis like now. A survey from Mawarpury, Sari, and Safrina (2017) showed that most male clients who consult in primary health services often come because of addiction problems and most female clients come with complaints of domestic violence. Clients with psychological problems like this often had trauma problems in the past. The existence of trauma problems in the past can lead to attacking behavior when facing threats, especially in men (Wright, Turanovic, O'Neal, Morse, & Booth, 2019). Therefore, offensive behavior such as opposing policies or even spreading conspiracy theories is prone to
occur as a manifestation of a response to the threat of a pandemic.

Organizational Support for Employees During The Covid-19 Pandemic has not been Optimal

During a pandemic, many people experience stress and a sense of uncertainty, from adjustments to work schedules, working distance, domestic life, and others (Giuseppe et al., 2020; ILO, 2020b). During this pandemic, there is a policy regarding the new normal. This new normal is to reopen limited economic, social, and public activities while still using health protocols related to Covid-19 (Ministry of Health Republic of Indonesia, 2020). Health protocol in the workplace has been regulated so that offenders will be subjected to sanctions under applicable regulations. In Indonesia, some offices have been forced to close because they have been proven to violate protocol and there are employees who have Covid-19 (CNN Indonesia, 2020). This kind of situation makes the employee’s position even more difficult. On one hand, they need to adhere to protocols; but on the other hand, they also need to continue their business activities to earn income.

From the perspective of organizational industrial psychology, support from organizations during a pandemic is necessary. Various rapid changes have put employees to work under pressure and negative emotions. Eisenberger, Huntington, Hutchison, and Sowa (1986) said that employees’ perceptions of organizational appreciation and attention to their welfare that are very important, called perceived organizational support (POS). According to a meta-analysis study conducted by Kurtessis et al. (2015), POS is related to various safety and happiness behaviors at work. Previous research from Wallace, Popp, and Mondore (2006) proved that POS at the group level can improve the work safety climate which ultimately leads to a lower accident rate. In this time of the Covid-19 pandemic, organizations also need to play their role to support the psychological condition of their employees. Support from the organization is needed so that employees feel comfortable and safe so that they comply with health protocols in a disciplined manner. The implication is not only the creation of a safe and healthy climate in the workplace, but it can promote compliance with health protocols outside the workplace due to positive psychological conditions. On the other hand, Wallace et al. (2006) also added that organizations that lack support for employees can create a vulnerable psychological condition, thereby increasing the potential for behavior to disobey health protocols, both at work and outside the workplace.

Some Solutions to Improve Community Compliance

Based on the EPPM theory, psychological reactance/non-compliance and belief in conspiracy theories during the Covid-19 pandemic are a form of fear control due to individuals or groups high threat, but the perceived efficacy is low (Maloney et al., 2011; Witte, 1992; Witte & Allen, 2000). Therefore, solutions to increase community compliance need to focus on reducing the perceived threat and increasing the perception of efficacy. To reduce perceived threats and increase efficacy, the authors emphasize the importance of coping...
strategies, overcoming hoaxes, providing effective information, and workplace/organization support.

Research by Rettie and Daniels (2020) showed that in the uncertain conditions of this pandemic, a person’s coping strategies play an important role in avoiding psychological stress. Thus, the public health strategy during this pandemic must focus on providing resources that encourage and equip people to use adaptive coping strategies instead the maladaptive ones. Guidance for people to use adaptive coping strategies should be provided. This includes active coping, planning, seeking emotional and instrumental support, positive reframing, acceptance, religion, and humor, and avoiding maladaptive coping strategies such as ignorance, denial, substance use forbidden, shifting issues, and self-blame (Carver, Scheier, & Weintraub, 1989; Meyer, 2001; Rettie & Daniels, 2020).

The circulation of so many hoaxes, conspiracy theories, as well as other news that is not based on scientific grounds certainly needs to be countered with education. Darner (2019) revealed that educational strategies are needed to help individuals be critical and reduce skepticism about scientific facts. This step can be done in school settings but can also be adapted to other group and community settings. The thing to note is that there is a discussion that involves critical thinking about unreliable news. The discussion process needs to be carried out in groups, and it is necessary for acceptance by those who do not believe in science. On certain scientific facts, it is often difficult for individuals to be able to understand a phenomenon. Therefore, there is a need for teachers who gradually provide informative assistance according to their level of understanding (Darner, 2019). These steps, if carried out more massively and consistently, can help more individuals to believe more in the scientific approach, including believing in the importance of complying with health protocols.

During this time of crisis, the mass media need to communicate information about the crisis effectively and proportionally to public. If mass media fails to do so, the information will only lead to higher uncertainty, fear, and anxiety in society (Jones, Thompson, Schetter, & Silver, 2017; Holman, Garfin, & Silver, 2014). Intensive discussion about the dangers and negative consequences caused by Covid-19 only increases public anxiety and pessimism (Daniels, 2020). The mass media should be the party that also incessantly spreads optimism during this pandemic. For example, the mass media can be the most effective party to disseminate information or education about the use of adaptive coping in this pandemic, so that people’s psychological health is maintained.

From an organizational perspective, the situation during this pandemic had bring companies to experience a significant decrease in income that might be followed by massive job loss (ILO, 2020a). Thus, psychological pressure raises since one’s survival ability is challenged. Various ways can be done by organizational leaders in implementing labor-related policies such as psychological support and assistance, making consistent and transparent communication with employees (Abrams, 2020). Besides, organizations can also give autonomy to employees regarding flexible work
schedules. This kind of organizational support can reduce pressure and negative emotions, meet affiliation needs, and improve employee mental well-being (Baran, Shanock, & Miller, 2012), especially during a pandemic. Thus, there will be no room for employees to violate health protocols and spread invalid news.

**Conclusion**

During the Covid-19 pandemic, there are many phenomena of psychological reactance and belief in conspiracy theories demonstrated by the public. Based on the EPPM theory framework, psychological reactance and belief in conspiracy theories are the results of the high perceived threat and the low efficacy of the community. Some of the factors that according to the authors influence perceptions of community threat and efficacy, namely the massive impact and high uncertainty, "negative" information in the mass media, perceptions of large losses in society, and lack of organizational support during the Covid-19 pandemic. However, several solutions can reduce the perception of threats and increase the efficacy of the community, namely the provision of information and education to improve people's skills in facing psychological challenges, more proportional coverage in the mass media and generate optimism, and organizations that play a bigger role by providing psychological support to its employees. The author hopes that this solution could make people show danger control behavior, more adherence to health protocols and are more optimistic. Thus, the negative impact of the Covid-19 pandemic on people's lives can be minimized.

**References**


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