

Self-Protection Motivation Reviewed from Conveying Covid-19 Prevention Messages: Experimental Study of Threatening Messages Vs Persuasive Messages

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ABSTRACT

Covid-19 is a disease outbreak that can be transmitted from human to human through direct contact or indirect contact. To prevent its spread, education is needed by the public to motivate self-protection action (Self-Protection Motivation). One of the ways the government has taken to increase motivation for self-protection is by disseminating preventive measures through messages. To find out the types of messages and the effectiveness of the messages conveyed, the researchers conducted a quasi-experimental research using 3 types of messages, namely threat messages, persuasion messages and threat messages associated with persuasion messages. The results of the research conducted show that threat messages, persuasion messages, and threat messages associated with persuasion messages are effective in increasing self-protection motivation, but from the three experimental groups, the types of threat messages associated with persuasion messages are more effective at increasing self-protection motivation.

Keywords: covid-19, motivation protection, threatening message, persuasion message

1. INTRODUCTION

The outbreak of COVID-19 infection is currently a global pandemic, this disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which infects the respiratory tract in humans (Wang et al., 2020). COVID-19 is a highly contagious disease from human to human through direct or indirect contact. Transmission through direct contact occurs when a person makes close contact (1meters) with infected individuals exposed to saliva or respiratory droplets. Meanwhile, indirect contact transmission occurs due to contact with objects or surfaces that have been contaminated by the virus [14].

In order to prevent further spread of transmission, it is necessary to implement preventive measures such as self-quarantine for 14 days after traveling from an epidemic area; avoiding non-essential travel; maintain a social distance of at least 1 meter between everyone; frequent hand washing for at least 20 seconds using running water and soap/hand sanitizer containing at least 60% alcohol; using a multilayer mask [8]. One of the steps to respond to the occurrence of COVID-19 cases is socialization regarding forms of prevention to guide and motivate people to take appropriate self-protection measures. This step is informed through messages sent via SMS Blast such as "Dear Customers, in order to avoid the spread of Covid19": avoid crowds and keep your distance from other people wherever you are should be more than 1 meter" [9].

Individual decisions to carry out risk prevention behaviors are made based on individual motivations to protect themselves from threats such as epidemics and pandemics [10]. Protection motivation is based on threat appraisal and coping appraisal. Threat appraisal is part of the cognitive process to estimate the level of threat, vulnerability to threats, and perceived benefits of suggested risk prevention behaviors. While coping appraisal involves self-efficacy, namely the individual's perception of his ability to perform preventive behavior; response efficacy is the perceived effectiveness if the individual takes the recommended preventive action; and response costs, namely costs such as the time, effort and funds required to perform the suggested behavior add [11].

The method of using prevention messages to motivate people to take self-protection actions has been carried out by previous research which shows the results that threat messages do not directly affect individuals to protect themselves. However, the threat message can only affect protection motivation if it is associated with a persuasive message [3] [5]. The results of other studies show that receiving threatening messages is less effective in changing behavior to protect themselves [7]. Likewise with the results of research conducted by [5] that threatening messages are not effective in motivating teenage drivers to reduce driving speed.

However, there are different research results with results showing that receiving threatening messages has a significant effect on protection motivation [6]. [2] added from their research that threatening messages are effective in influencing attitudes and there is no evidence that threatening messages backfire that can lead to unwanted results. From the results of some of these studies, there are gaps in the form of the influence of threat message intervention in the motivation of individual protection. While in the theory of protection motivation, threats and persuasion interventions such as recommendations for preventive actions can be an individual's antecedent in deciding to protect themselves.

So the researchers conducted experimental research on the motivation for protection against the COVID-19 situation by intervening in the form of 2 types of messages, namely threatening messages and persuasive messages. This experimental research will be conducted by forming 4 groups consisting of 3 experimental groups and 1 control group. Experiments were carried out with the aim of knowing what types of messages could significantly affect self-protection motivation in the COVID-19 situation and to find out how the interaction between prevention messages and self-protection motivation was.

2. HYPOTHESIS

The hypothesis in this study is that there is an influence between the three types of threatening messages, persuasion messages and threatening messages associated with persuasion messages on self-protection motivation. Meanwhile, based on message effectiveness, threat messages associated with persuasion are more effective in increasing self-protection motivation.

3. RESEARCH METHOD

The type of research used in this study is a quasi-experimental research involving the experimental group

with the control group as a comparison. The sample was collected using purposive sampling to determine a homogeneous sampling frame with criteria such as early adulthood with an age range of 18-25 years, being willing to carry out a series of studies for 1 week and having a low level of self-protection motivation. After finding a simple frame, a random assignment was carried out to place the research sample randomly into the experimental group and the control group [11]. The study was conducted by conducting pre-test and post-test to participants using the PMT Questionnaire which consisted of 20 questions with a Likert scale of 1-5 [2].

4. RESULTS AND DISCUSSION

The results of the data processing of the researchers found that the empirical mean value of the self-protection motivation pre-test data in the four research groups showed a value of < 3 , namely the empirical mean value below the midpoint of the scale. The empirical mean value of the post-test data on self-protection motivation in the three research experimental groups shows a value of > 3 , namely the empirical mean value above the midpoint of the scale, while the post-test data of the control group shows a value of < 3 , namely the empirical mean value above the midpoint of the scale. Meanwhile, from the entire experimental group research group with threatening messages associated with persuasion messages, the empirical mean value was the highest among other research groups, which was 3.6700.

Based on the results of the data in table 4.3 above, it shows that there are 15 data in each experimental group, so it can be concluded that in the post-test results of the three experimental groups there was an increase in the pre-test to post-test scores and there was no equal value between pre-test and post-test data. in the three experimental groups. While in the control group only 6 data experienced an increase and 9 other data experienced a decrease.

Table 1 The Rank Tables of Wilcoxon Data Test (Pre-Test and Post-Test of Protection Motivation)

		N	Mean Rank	Sum of Ranks
Threatening Message Post-Test				
Threatening Message Pre-Test	Negative Ranks	0(a)	.00	.00
	Positive Ranks	15(b)	8.00	120.00
	Ties	0(c)		
	Total	15		
Combined Message Post-Test				
Combined Message Pre-Test				
(threatening & persuasive)	Negative Ranks	0(d)	0.00	9.00
	Positive Ranks	15(e)	8.00	120.00
	Ties	0(f)		
	Total	15		

Persuasive Message Post-Test				
Persuasive Message Pre-Test	Negative Ranks	0(g)	.00	.00
	Positive Ranks	15(h)	8.00	120.00
	Ties	0(i)		
	Total	15		
Control group Post - Test	Negative Ranks	9(j)	8.78	79.00
Control group Pre-Test	Positive Ranks	6(k)	6.83	41.00
	Ties	0(l)		
	Total	15		

Table 2. The Results of Wilcoxon Data Test (Pre-Test and Post-Test of Protection Motivation)

	Threatening Message Post-Test Threatening Message Pre-Test	Combined Message Post-Test Combined Message Pre-Test	Persuasive Message Post-Test Persuasive Message Pre-Test	Control Group Post-Test Control Group Pre-Test
Z	-3.411(a)	-3.409(a)	-3.411(a)	-1.087(b)
Asymp. Sig. (2- tailed)	.001	.001	.001	.277

Table 3 The Results of Kruskal Wallis Test Statistics for all groups

	Results
Chi-Square	32.857
df	7
Asymp. Sig.	.000

Based on the results of the statistical test in table 4. 4, it is known that the significance value in the experimental group with threatening messages, persuasion and combined messages obtained a significance test result of $p < 0.05$, while the results of the significance test in the control group showed a significance value of $p > 0.05$. So it can be concluded that there is a difference in motivational protection between the results of the pre-test and post-test in the experimental group with threats, persuasion and combined messages. Meanwhile, in the control group, there was no difference in motivation for protection between the pre-test and post-test.

Based on the results of the Kruskal Wallis statistical test in table 4.5, it is known that the significance value is $p = 0.000 < 0.05$, so it can be concluded that there is a significant difference in self-protection motivation between the delivery of covid-19 prevention messages in the form of threats, persuasion messages, and combined messages, namely threats and persuasion to the motivation of individual protection.

Table of different test results in table 4.6 above, the post-test data for each experimental group with the control group using the Man-Whitney U test in table x4.7 above, obtained

a significant value from the overall comparison of the experimental group with the control group, namely $p < 0.05$. So based on these data there are differences in self-protection motivation between each experimental group and the control group.

Table 4 Mann-Whitney U Comparison Test Results Between Experimental and Control Group

	n	Mean Rank	Sum Rank	U	Asymp Sig. (2-tailed)
<i>Post-test</i> Threatening message (KE)	15	23.00	345.00	0.000	0.000
<i>Post-test</i> Control group	15	8.00	120.00		
<i>Post-test</i> Combined message (KE)	15	23.00	345.00	0.000	0.000
<i>Post-test</i> Control group	15	8.00	120.00		
<i>Post-test</i> Persuasive message (KE)	15	22.37	335.50	9.500	0.000
<i>Post-test</i> Control group	15	8.63	129.50		

5. CONCLUSIONS AND SUGGESTIONS

Based on the results of data processing in this study, it is known that the three experimental groups who were given treatment in the form of threatening messages, persuasion messages, and combined messages experienced differences in the form of increasing pre-test to post-test scores when compared to the control group. The significance results obtained in the three experimental groups with threatening messages, persuasion and a combination there are significant differences in pre-test to post-test scores, while in the control group there is no significant difference in pre-test to post-test scores.

Meanwhile, based on the results of the Kruskal Wallis test to the four research groups and the results obtained there are differences in self-protection motivation in the four research groups, besides that, the Man Whitney U test was also carried out for each experimental group with the control group and a different test in each experimental group also found the same results. Significantly, there is a difference in motivation for protection between each experimental group and the control group and there is a difference in motivation for protection in each experimental group.

Thus, it can be concluded that prevention messages in the form of persuasion, threatening messages and messages combined, namely threatening messages associated with persuasion messages are able to intervene in individuals to carry out protection motivation. However, of the three types of messages, persuasive messages associated with threat messages are more effective at increasing individual protection motivation than messages in the form of threats or persuasion messages only, this can be understood through the empirical mean value obtained in the experimental research group of threat messages associated with message persuasion.

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