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Factors Influencing Preventive Intention Behavior Towards COVID-19 in Indonesia

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Abstract

Since early 2020, the COVID-19 outbreak and its spread across the globe have disrupted many sectors. In Indonesia the COVID-19 have caused a severe impact on the economic, social, and political. Various actions were considered as preventive measures to slow down the virus propagation. This study aimed to investigate the relationship between attitude, knowledge, risk perception, information exposure and preventive intention behavior toward COVID-19 in Indonesia. An empirical quantitative study was conducted using data collected in March and April 2020. The sample consisted of 214 respondents in Indonesia through online survey questionnaires based on convenience sampling methods. The regression analysis results showed that 42% of the variance in behavioral change on the infection was explained by the dependent variables. Attitude had a strong positive relationship with intention behavior with (β = .37, p = .000). This study found that intention behavior was elicited by attitude (β = .37, p = .000), information exposure (β = .10, p = .01), and risk perception (β=.29, p = .000). However, knowledge did not influence preventive intention behavior (β=.00, p = .94). These findings contribute towards preventive intention literature to support practitioners, public health authorities, health care policymakers, and the government to shape effective prevention communication.

In early 2020, when the coronavirus outbreak emerged, the transmission of this new epidemic distressed the world economic market, society, and politics (Errett et al., 2020; Hutt, 2020). COVID-19 is a disease caused by a virus called Severe Acute Respiratory Syndrome known as Novel Corona -or SARS-CoV-2 (Vargas et al., 2020). The virus was officially declared to appear in Wuhan City in Hubei province, China. The virus is transmitted from human to human and can spread through saliva when coughing, sneezing, or touching areas such as the mouth, nose, and eyes (Xu, 2020). On March 11, 2020 (Beijing time), the World Health Organization declared COVID-19 as a global pandemic that strains public health (Wen et al., 2020; Xu, 2020). A few months later on January 9th, 2021, the World Health Organization reported a total of 88,782,137 confirmed cases, with 1,911,096 deaths (WHO, 2021), and in Indonesia, 797,723 confirmed cases and 23,520 deaths (Kurniawan, 2021). COVID-19 outbreaks have caused considerable morbidity, mortality, and evoke negative health impacts on the whole population. Elderly people and those with pre-existing conditions were the most vulnerable ones.

Several actions were taken into consideration as preventive measures to slow down the virus propagation such as regulation and policies applied in international travel flow related to any flights

coming in and out (Errett et al., 2020); closure of public areas during the uncertain moment to avert mass gathering that might ease the spread of the virus (Memish et al., 2019), home confinement; social distancing, and human interactions that could transmit the virus (Orset, 2018). Besides, the campaigns and messages on infection prevention were largely diffused through media and social media to provide instructions and guidance for the public for a better precaution in lessening the virus propagation (Choi & Kim, 2016; Seo, 2019).

In Indonesia, the first case was confirmed on March 2nd 2020, and spread to all 34 provinces by April, 9th 2020 (Djalante et al., 2020). The government started implementing all the strategies to reduce the propagation of the virus as the mitigation strategy was imperative to control the spread (American Library Association, 2020). The public was encouraged to practice preventive measures such as social distancing, wearing masks, and lockdown as it can minimize the risk. Yet, the outcome of all preventive measures depends on awareness and knowledge of individuals (Yanti et al., 2020). Derwin et al. (2020) and Dryhurst et al. (2020) argued that these strategies and policies, the effectiveness of the preventive measures strongly depends on the individual's behavior and motivation. For example, during the early period of COVID-19, the case in Indonesia increased drastically due to the transgression of the community (Saifulloh, 2020). These phenomena might be caused by a lack of public knowledge and low concern about preventive measures. It is crucial to understanding one's behavior to modify and change his or her behavior (Ajzen, 1991). Knowing the factor influencing preventive intention behavior also would help to control and minimize the spread of the virus in case of a pandemic. Behavior theories have been implemented to determine the factors affecting one's preventive intention behavior. The health belief model (HBM) (Park et al., 2020), stimulus-organism-response (S-O-R) (Song et al., 2021), the theory of reasoned action (TRA) (Chen & Chen, 2020), the theory of planned behavior (TPB) (Andarge et al., 2020; Prasetyo et al., 2020), and Protection Motivation Theory (PTM) (Farooq et al., 2020; Shahin & Hussien, 2020; Yazdanpanah et al., 2020). These theories expanded their contribution in empirical study related to the public health crisis including COVID-19.

Prior research examined the cognitive and affective factors affecting intention behavior including moral and subjective norm (Andarge et al., 2020; Raza et al., 2020), perceived behavior control (Andarge et al., 2020; Raza et al., 2020), fear (Huang et al., 2020), and experience. Moreover, knowledge (Andarge et al., 2020; Chen & Chen, 2020; Raza et al., 2020; Tomczyk et al., 2020), risk perception (Sobkow et al., 2020; Tomczyk et al., 2020), attitudes (Andarge et al., 2020; Chen & Chen, 2020), and information exposure (Chen & Chen, 2020; Farooq et al., 2020), plays a critical role in predicting preventive intention behavior. In the case of the current pandemic COVID-19, knowledge enhanced positive attitude and information exposure might influence risk perception. In another word, people's risk perception might be shaped by the number of information spreading and circulating during the pandemic. Numerous studies determined the impact of these variables on preventive intention behavior.

Most of the past researches have focused on health behavioral prevention but few studies have explored the role of information exposure and knowledge (Weston et al., 2018). In this study, we investigated the factors influencing one's preventive intention behavior leading to his or her prevention capacity during the pandemic. The present research also attempted to fill the existing gap in the literature related to preventive intention behavior in case of pandemic COVID-19. In this regard, this study examines the factors influencing preventive behavior in Indonesian context.

The present research builds on cognitive-affective-conative constructs (Ko et al., 2020) and extends information exposure. External factor (information exposure), cognitive factor (knowledge, risk perception), affective factor (attitude), and conative (preventive intention intention). Ajzen and Fishbein (1980) suggested that one's behavior can be explained with intention behavior which is in turn determined by attitude and cognitive factors. Ajzen (1991) identified that attitude presents 36 % of factors related to variance in intention behavior. The present study attempted to address the question of which these proposed antecedents (knowledge, information exposure, attitude, and risk perception) have a positive influence on the prevention intention behavior of Indonesians.

Literature Review

Cognitive, Affective and Conative Constructs

This research maps the tripartite distinction namely cognitive, affective, and conative to explain

the preventive intention behavior toward COVID-19. Cognitive-affective-conative are psychological dimensions that appropriate in explaining human behavior (Dennis et al., 2013). The cognitive domain refers to an individual's knowledge level and risk perception that she/he relates to the event or and the object. Prior research shows that knowledge and risk perception influence preventive intention behavior (Raza et al., 2020; Tomczyk et al., 2020). Affective reflects to an individual's favorable perception or attitude toward behavior. In this context, the affective domain refers to the positive attitude toward prevention on COVID-19. Empirical evidence shows that positive attitude influences intention behavior (Chen & Chen, 2020). Conative is the psychological domain of behavior or mental processes related to the behavior outcome. Conative is the action or intended performance taken as a preventive measure on COVID-19 (Bashirian et al., 2020). Besides, these cognitive factors might influence by external factors including information exposure (Lennon et al., 2020).

Attitude and Preventive Intention Behavior

Ajzen and Fishbein (1980) suggested that one's behavior can be explained with preventive intention behavior which is determined by attitude and cognitive factors. Attitude refers to one's favorable evaluation toward and event or object (Ajzen, 1991). This context refers attitude to "the perception of the individual performing a particular behavior" (Prasetyo et al., 2020). Prior studies demonstrated the link between the attitude toward preventive of COVID-19 and the preventive intention behavior. Dryhurst et al. (2020) asserted that attitude toward preventive is related to preventive intention behavior this study corresponds to the research conducted by Hui et al. (2020) demonstrated that positive preventive attitude determines preventive intention behavior. Chen and Chen (2020), emphasized in the cross-sectional study conducted in China that, attitude toward preventive of COVID-19 is positively influencing the preventive intention behavior among urban and rural residents in China. Furthermore, similarly to Andarge et al. (2020), a positive attitude toward attitude predicts preventive intention behavior. However, these findings contradict the claim purported by Baudouin et al. (2019) claiming that attitude toward preventive does not have any influence on preventive intention sexual behavior. It is concluded that prevention intention behavior is determined by attitude. Therefore, this study argued that a higher positive attitude fosters prevention intention behavior.

H1: attitude positively influences one's preventive intention behavior

Information Exposure and Preventive Intention Behavior

During a public health crisis such as the current pandemic COVID-19, information is vital. People are not only being exposed to a large amount of information about the pandemic but also seek more information from different sources channels. Information exposure is associated with attitude, perception, and have a positive effect on intention behavior toward preventive (Andarge et al., 2020; Liu et al., 2020). Witzling et al. (2015) demonstrated that information exposure is highly associated with behavioral intention and behavior. For example, social media users are more exposed to information that plays a significant role in shaping their perception, attitude, and behavior (Oh et al., 2020). A previous study argued that information exposure influences behavior (Lennon et al., 2020). This argument corresponds with Seo's (2019) point of view stating that information exposure has a significant effect on intention behavior particularly prevention intention behavior. Chen and Chen (2020) indicated that the exposure of information influences our behavior, the findings show that source, amount, and frequency of the information influence preventive intention behavior and preventive behavior against COVID-19. The findings is in line with prior study noted that information are exposed is associated with preventive intention during pandemic COVID-19 (Farooq et al., 2020; Song et al., 2021). Therefore, the present study argued that the more people are exposed to information, the more their risk perception capacity will prevail.

H2: Information exposure positively influences preventive intention behavior.

Knowledge and Preventive Intention Behavior

Knowledge is considered one of the conceivable instruments through which health information seeking and scanning affect behavioral outcomes (Jang & Park, 2018). Knowledge has crucial role in appropriate epidemic response (Alsubaie et al., 2019). Bashirian et al. (2020)

suggested that knowledge can help encourage the individual's prevention intention behavior on COVID-19. In another word, knowledge about the COVID-19 provides a sufficient understanding of the outbreak which allows people to take actions against the spread of the virus, it helps people to consider the actions that they should take in such an outbreak. Ajzen and Fishbein (1980) suggested that intention behavior is explained by cognitive factors through attitude. Recent empirical study related to prevention behavior supported the argument that one's behavior on infection prevention is influenced by cognitive factors (Lee & You, 2020).

A prior study revealed that knowledge about COVID-19 encouraged the public to intend to take preventive measures, such as wearing masks, to avoid mass gathering to reduce the spread of the epidemic (Raza et al., 2020). Lennon et al. (2020) also note the importance of knowledge in predicting preventive intention behavior. Moreover, Andarge et al. (2020), demonstrated that preventive intention behavior determined by knowledge of the COVID-19. Besides, study related to prevention communication emphasizes the role of knowledge on behavior (Volterrani, 2017), and attitude (Alsubaie et al., 2019). Hui et al. (2020) demonstrated the positive influence of knowledge and attitude on intention behavior. This linear path among knowledge, attitude, and intention behavior was supported by Alsubaie et al. (2019). Alsubaie et al. (2019) identified that knowledge exposure can result in a positive prevention attitude. In the cross-sectional study conducted in China. Chen and Chen (2020) emphasized the direct and indirect relationship of knowledge on preventive intention behavior of COVID-19, through a positive attitude. In contrast, a similar empirical study found that knowledge does not influence the prevention behavior of the infection (Seo, 2019). Thus, the higher the knowledge that an individual has about an event, the higher his or her intention to take preventive measures. Also, study argued that attitude mediates the influence of knowledge on intention behavior. Therefore, this study assumed that an individual who has a better understanding of COVID-19 would take sound preventive actions. Also, the more knowledge an individual has about COVID-19, the more positive attitude he or she has toward prevention.

H3: Knowledge positively influences preventive intention behavior.

H4: Knowledge positively influences attitude toward prevention.

Risk Perception and Preventive Intention Behavior

Risk perception is referred to as the level of consequences on events or facts that someone perceives (Dryhurst et al., 2020). Risk perception is evoked by cognitive and affective responses of individuals about a cognitive event/fact (Ju & You, 2020). Previous relevant empirical studies argue that risk is perceived in two ways, namely affective reaction when the risk is evaluated based on one's feeling about the event, whereas cognitive reaction is the risk that and individual perceives based on their analysis of an event where a set of information and knowledge are involved (Jang et al., 2019). The affective reaction is ignited immediately when some cases occur; it is an immediate response of an individual about an event; cognitive reaction "called the cognitive risk" is the late response after an evaluation or analysis of the event. Several previous studies (Alsubaie et al., 2019; Jang et al., 2019; Van Bavel et al., 2020; Dryhurst et al., 2020; Usuwa et al., 2020) on health behavioral prevention emphasized that knowledge influences infection prevention behavior.

Empirical evidence on COVID-19 prevention behavior indicated that risk perception has a significant influence on prevention behavior (Oh et al., 2020). A study conducted by Alsubaie et al. (2019) found that knowledge has an impact on perceived risk. Furthermore, Jang et al. (2020) affirmed that risk perception is elicited by knowledge that is associated with health prevention behavior. Jang et al. (2020) identified that individuals who ignore a disease outbreak might perceive that the disease would have a lower risk on them. Usuwa et al. (2020) and Dryhurst et al. (2020) reported that when individuals have a low-risk perception, it will prevent them from engaging in prevention behavior. Bashirian et al. (2020) supported these findings, asserting that an individual's risk perception about COVID-19 is highly correlated with prevention intention behavior. In contrast, Bates et al. (2020) suggested that perceived risk does not affect prevention intention. Therefore, this study emphasized that higher risk perception fosters higher prevention intention behavior. Besides, the more people exposed to information about COVID-19, the higher the risk they have about the situation.

H5: Risk perception positively influences the preventive intention behavior.

H6: Information exposure positively influences risk perception.

The figure 1 shows the conceptual framework of this study.

Method

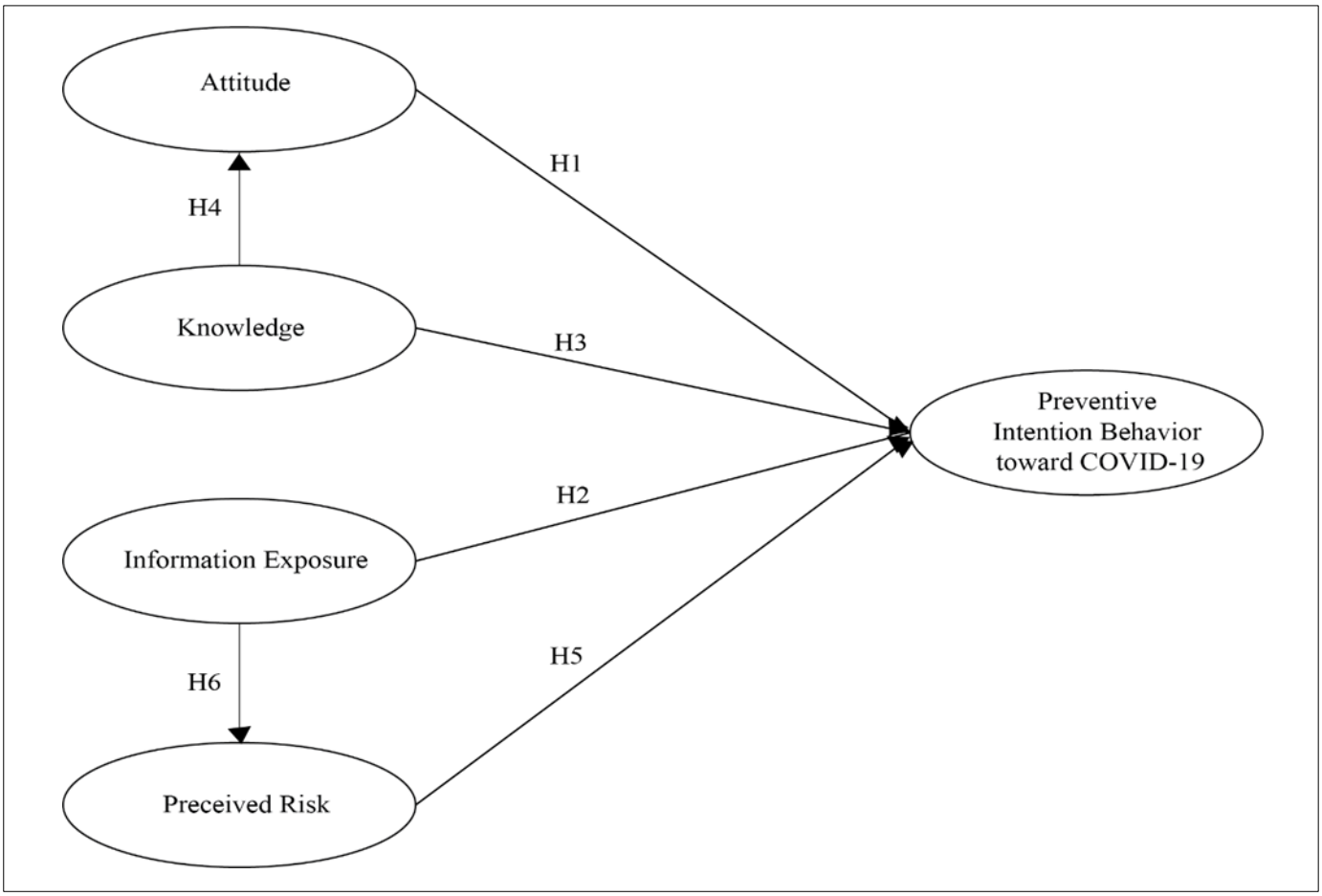
This study used a quantitative analysis approach to examine the factors that influence infection prevention behavior against COVID-19. Data were collected during the COVID-19 outbreak in Indonesia from March to April 2020. An online survey questionnaire with a convenience sampling technique was used to obtain accurate information and high response about preventive intention behavior on COVID-19

The sample size consists of 214 individuals, using a convenience sampling method. Respondents were adults; men and women aged 18 years old and above. The questionnaire was structured into two parts. The first part contains demographic items to evaluate the respondents' characteristics, including age, gender, educational background, and occupation. The second part consists of questions on knowledge, risk perception, negative emotion, attitude, and intention behavior. The analysis started with descriptive statistics indicating the respondents' characteristics. Validity and reliability tests (Cronbach's alpha = 0.7) were carried out to guarantee the tools and measurements. This study conducted a linear regression analysis to determine the relationship between variables. Data analysis was conducted via Eviews version 10.

The behavioral scale was developed with a self-reported questionnaire, using 5 Likert-scale by each of 19 items. All constructs were operationalized based on modified items adopted from (Ajzen, 1991; Hubner & Hovick, 2020; Jang et al., 2019; Oh et al., 2020; Seo, 2019; Usuwa et al., 2020). Preventive intention behavior was measured with six items

Figure 1

Conceptual Framework



adapted from Ajzen (1991). Each item was answered on a five-Likert scale from 1 strongly disagree and 5 strongly disagree where a score of five means that the respondent is assessed as 'willing, probable, willing and intend' to take preventive measures COVID-19. "I will cover my mouth when sneezing or coughing", "I will use a mask whenever I go outside." Attitude toward COVID-19 prevention measured with four items adapted from Ajzen (1991), and Alsubaie et al. (2019). Respondents were given a statement ranging from good-bad, favor, and disfavor. Each item was answered on a five-Likert scale from 1 strongly disagree to 5 strongly agree where score of five means that the respondent had a positive attitude on COVID-19 prevention. "Taking prevention is important to save everyone from the infection", "Taking COVID-19 prevention is beneficial." Knowledge was measured with two items adapted from Mitchell et al. (2018) and Seo (2019). Respondents were given a statement about the symptoms, treatment prevention method borrowed from WHO guideline which was measured on five-Likert scale 1 strongly disagree, and 5 strongly agree. "Older people, and people with other medical conditions, may be more vulnerable to becoming severely ill." Risk perception was measured with five items adapted from Hubner & Hovick (2020), Jang et al. (2020), and Usuwa et al. (2020). A statement on severity and susceptibility measures was given to the respondents. Each item was measured on five Likert scales which consisted of bipolar evaluative scales (1 Not serious at all, 5 very serious, 1 Will settle down 5 Will spread further, 1 Not dangerous at all, 5 Very dangerous, 1 Certainly NO, 5 Certainly YES, 1 Not worried at all, 5 Very worried. "I am worried about COVID-19". Information exposure was conceptualized with two items, adapted from a previous study by Ju & You, (2020). This construct was measured according to the frequency and quantity of information that respondents received during the outbreak with five Likert scales (1 never, 5 very often, 1 few, 5 very much). "How much information have you seen about COVID-19."

Respondents' Characteristics

A total of 214 individuals contributed to fill the online survey during the Coronavirus outbreak period from February till March 2020 as presented on the description table about the sample characteristic, among the 214 individuals, 61.7 % of them were females against 38.3% for males. The respondents' age ranged from 18-25 years old represents 60.7%, while 26-35 represents 24.8% of the sample, 36-45 represents 12.6% and 1,9% were aged 45 years old and above. Respondents who owned a bachelor's degree represent 49.5% of the sample, 28.2% held a master's degree, 17.8% for associate diploma, 3,7% had a Ph.D. degree, and 2, 8% have just finished their secondary school. Table 1 presents the demographic characteristics of the respondents.

Table 1

Demographic Characteristic of Respondents

Gender	n	%	Level of Education	n	%
Female	132	61.7	Secondary	21	9.2
Male	82	38.3	Diploma	42	18.3
Total	214	100	Bachelor	115	50.2
			Master	46	20.1
			PhD	5	2.2
Age	n	%	Occupation	n	%
18-25	130	60.7	Government	6	2.8
26-35	53	24.8	Self-employed	38	17.8
36-45	27	12.6	Private sector	106	49.5
45 and above	4	1.9	Student	56	26.2
			Other	8	3.7
Marital Status	n	%			
Single	156	72.9			
Divorce	2	9			
In Relationship	56	26.2			

Validity and Reliability

The confirmatory analysis was conducted to assess the validity and reliability of the constructs including 19 items from 5 factors. The KMO score is .82 and Bartlett's Test of Sphericity has a significant level of 0.000 as shown in table 2. Furthermore, the confirmatory factory test shows that the loading factor of the 19 items ranged from .56 to .78. Thus, it can be concluded that the items used were accurate according to the criterion loading factor above .40 (Hair et al., 2014). In this study, Cronbach's Alpha was used to test the internal consistency of the scales. Cronbach's Alpha for the 19 items were .85 explained that the measures were consistent and reliable when it is above 0.7 (Sekaran & Bougie, 2016).

Classical Assumption Test

Breusch-Godfrey Serial Correlation LM Test was conducted to identify the autocorrelation. The Prob. Chi-square value .67 is greater than the probability value .5, which means that no autocorrelation occurred. Moreover, VIF was used to detect multicollinearity; according to Ghozali (2018) if the VIF value is between .1 and 10, it means no multicollinearity. The VIF test shows that (attitude = 1.37, knowledge = 1.19, information exposure= 1.13, risk perception= 1.52) which explains that there is no multicollinearity. Besides, heteroskedasticity Test ARCH was conducted to identify the variance differences from residual in observation with other observations (Engle, 2001). The chi-square probability of .89 which is greater than the significant level of .05 implies the inexistence of heteroskedasticity.

Results and Discussion

A regression analysis test was performed to predict the factors influencing the preventive intention behavior toward COVID-19. The relationship between H1, H2, H3, H4, H5, and H6 was presented in Table 3. The hypothesis test was based on the probability level, a constructed hypothesis which has a significant level < .001, <. 01, and < .05 have a significant relationship between the dependent and independent variables (Hair et al., 2014). The model was a significant predictor of infection prevention behavior, with R2 = .43, F = 39.87. The model demonstrated that 42% of the variance of prevention intention behavior is explained by dependent variables.

Table 2

KMO and Bartlett's Test

KMO of Sampling Adequacy.		.82
Bartlett's Test of Sphericity	Approx. Chi-Square	1469.39
	df	171
	Sig.	.000

Table 3

Hypothesis Testing Regression Analysis

	Variable	β	S.E.	*t*	*p*
H1	Attitude➔Intention behavior	.37	.06	6.19	.000
H2	Information Exposure➔ intention behavior	.10	.04	2.35	.01
H3	Knowledge➔Intention behavior	.00	.05	.06	.94
H4	Knowledge➔attitude	.29	.27	4.77	.000
H5	Risk Perception➔ Intention behavior	.29	.05	5.03	.000
H6	Information exposure➔ risk perception	.29	.05	5.05	.000

The first hypothesis tested the link between attitude and infection prevention behavior. It examined the positive influence of attitude on infection prevention behavior. The result showed that attitude had a positive influence on preventive intention behavior (β = .37, *p* = .000) having a significant level. This explains that attitudes statistically have a significant relationship with infection prevention behavior. Thus, H1 was accepted. The first hypothesis supported and showed a positive attitude toward prevention which increased people's intention to take preventive measures. This finding supported the study undertaken by Hui et al. (2020) who claimed that attitude positively influences preventive intention behavior. The tendency of an individual to take preventive measures during a disease outbreak is elicited by their attitude. As a result, individuals who usually take preventive measures tend to respect social distancing and are willing to follow any basic prevention measures.

The second hypothesis examined the link between information exposure and infection prevention behavior. The researchers dissected the positive influence of information exposure on prevention intention behavior. The result statically showed that information exposure positively influenced the prevention intention behavior where (β = .10, *p* =.01) meaning that the result supported H2. The second hypothesis was supported as the testing model shows that information exposure positively influence prevention intention behavior. Information exposure positively influences the intention behavior which can be triggered by the amount and the frequency of information they received. Being exposed to information pushes individuals to act in a particular manner (Ju & You, 2020). Our findings concluded that the more people exposed to information about a certain event such as COVID-19 outbreak, the more they intend to take action about it.

The third hypothesis tested the relationship between knowledge and preventive intention behavior toward COVID-19. The current study determined the positive influence of knowledge on prevention behavior. The result indicated that knowledge was not associated with preventive intention behavior toward COVID-19 (β =.00, *p* = .94). Thus, the result rejected the H3. Authors surprisingly found that the second hypothesis was rejected. The findings from a previous study did not support the research conducted by Hui et al. (2020). However, the finding was similar to the study undertaken by Seo (2019) who demonstrated that knowledge does not predict preventive intention behavior on the infection during a disease outbreak. This study found an inconsistent result despite our respondents reporting that knowledge did not have any impact on their preventive intention behavior.

The fourth hypothesis examined the relationship between knowledge and attitude toward infection prevention. This study determined the positive influence of knowledge on attitude toward prevention intention behavior. The result statically showed that knowledge positively influenced the attitude toward prevention of COVID-19 (β = .29, *p* = .000). Thus, the result supported H4. The fifth hypothesis was supported, and the result showed that knowledge positively influenced the attitude. This finding supported the finding of Gajdács et al. (2020) who found that knowledge was associated with attitude. This study showed that the higher the knowledge of an individual toward an event such as COVID-19 the more positive attitude they have on infection prevention. Thus, this can be concluded that attitude mediated the relationship between knowledge and preventive intention behavior.

The fifth hypothesis examined the relationship between risk perception and prevention intention behavior. Present finding determined the positive influence of risk perception on preventive intention behavior. The results showed that risk perception positively influenced the infection prevention behavior (β =.29, *p* = .000), meaning that hypothesis H5 was supported. The result showed that preventive intention behavior was positively influenced by risk perception. This finding is consistent with previous research affirming that risk perception is associated with infection prevention intention toward a range of prevention behavior (Lee & You, 2020). Furthermore, Jang et al. (2018) found that risk perception had a positive influence on health prevention intention. These studies suggested that people who perceive the disease outbreak as more susceptible and fatal are willing to take precautions.

The sixth hypothesis examined the relationship between information exposures on risk perception. In this research, scholars determined the positive influence of information exposure on risk perception. The result statically showed that information exposure positively influenced risk perception (β= .29, *p*= 000). Thus, the result supported the H6. Hypothesis six was supported; the findings showed that information exposure

positively influenced risk perception. It emphasizes information exposure shapes individuals' risk perception (Usuwa et al., 2020). The amount of information that individuals receive can shape their perception. The evidence for the 214 respondents showed that the more respondents exposed to information about the outbreak of coronavirus the higher risk they perceived about the issues. This finding supports the findings claimed by Ju and You (2020) who described that the information exposure had a significant influence on risk perception. It can be concluded that the relationship between information exposure and infection prevention intention behavior is mediated by risk perception.

Ajzen (1991) contended that intention behavior is the best predictor of one's behavior as driven by cognitive and affective factors. This research aims to provide an additional understanding of the existing literature on health/ infection prevention behavior. This attention, however, motivated researchers to fill the gap from previous research where their focus was to investigate the actual prevention without giving enough attention to prevention behavior. The results suggested that attitude, information exposure, and risk perception were significant predictors of prevention intention behavior. Attitude was the strongest predictor of intention behavior (Ajzen, 2001) whereas, knowledge did not predict the prevention intention behavior. Knowledge predicted infection prevention behavior through attitude. The results found that knowledge positively influenced attitude. Moreover, the results showed that information exposure positively influenced risk perception. Thus, risk perception mediated the relationship between information exposure and infection prevention behavior.

Limitations and Suggestion for Future Research

Few limitations were acknowledged in this study which needs to be addressed in future similar research. Firstly, the demographic characteristics may have affected the scores in prevention behavior, the findings limit to the research sample. Thus, this study suggests future researchers provide a wider range of data. Secondly, this study only examined the infection prevention intention behavior during a disease outbreak. Future studies are encouraged to examine the gap between infection prevention behavior in long-term and actual behavior. Thirdly, knowledge conceptualization should be considered for future studies since our measurements were very limited to general knowledge. Besides, the type of information that the public is exposed to should be measured in any similar future investigation for our focus was only on quantifying the frequency. Further studies on psychology during pandemic or disease outbreak is suggested to conduct a longitudinal investigation to broaden our understanding of the long-term psychological effect.

Implications

This study contributes to the literature of prevention intention behavior and provide a practical contribution. Although several studies have conceptualized behavioral change model including cognitive-affective-conative to explain health and preventive behavior, there are still not enough studies investigating the preventive intention behavior toward COVID-19. Thus, this study gives an additional understanding of the relevant research. Besides, practical implications discuss the understanding of how the public perceived risk about the diseases which may provide a meaningful campaign on infection prevention on what knowledge and information the public may need (Jang et al., 2020). Furthermore, a broad knowledge of public risk perception is very important to shape successful infection strategies and transmission prevention control specifically in communication activities (Usuwa et al., 2020). This present study provides insight into public health risk management and social marketing campaigns. This work is aimed to support practitioners including public health policymakers, communication, and risk management. Practitioners should initiate regular activities to raise awareness and provide an understanding of infectious disease prevention during an outbreak. The policy requires to consider the knowledge and information provided to the public in case of a pandemic, also essential to control the control flow and provided as it shapes the public perception.

Conclusion

This study finds that attitude, information exposure, and risk perception have a positive influence on infection preventive intention behavior, whereas infection prevention behavior is not influenced by knowledge. During the outbreak, sharing correct information plays a significant role in public psychology. Information plays an indispensable role in preventing intention behavior during a disease outbreak. Consequently, the

government needs to take measures on the flow of information and provide only useful knowledge to the public. These findings provide an additional understanding in shaping an effective health communication, prevention campaign in encouraging the public to engage in taking prevention measures.

Conflicts of interest

Authors declare no potential conflicts of interest with respect to the research, authorship, and publication of this article.

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