ORIGINAL ARTICLE

The impact of the covid-19 pandemic on anxiety, health literacy, and eHealth literacy in 2020 related to healthcare behavior in Thailand

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ABSTRACT

Individual's decision to cooperate with disease prevention varies based on their respective health beliefs and common factors that motivate actions. Previous research has found that pandemic anxiety, high health literacy, and eHealth literacy influenced healthcare behavior. Understanding how the pandemic affects people on modifying preventive health behavior is promising. Accordingly, this cross-sectional study focusing on health behavior utilized Structural Equation Modeling to characterize causative factors of anxiety, health literacy, eHealth literature, and protection in the new normal of COVID-19 pandemic in Thailand. Online surveys used a snowball sampling method through social media to recruit participants aged over 20 years in 8 provinces in Thailand. iGeneration and millennials were the top two, making up 75.0% of the 700-respondents in total. Independent variables: Health Literacy ($p = .030$); eHealth Literacy ($p < .001$); and anxiety ($p = .040$) significantly influenced the new normal. The new normal practices: hand hygiene, wearing hygienic masks and social distancing, maintaining good health, and preventing virus exposure by making digital payments could be indicated by 34% of Thai people by all those independent variables. This means that those who are more concerned and literate about health literacy and eHealth literacy, will make better health decisions and practice more preventive health care. Individuals may use health knowledge to make healthy decisions to protect themselves from the current pandemic. They can also use what they have learned to defend themselves from other emerging infectious illnesses in the future. Therefore, official institutions should provide helpful and timely health information that is easily accessible. Public health interventions should prioritize the availability of health information in the electronic form on various social media platforms to educate people to protect themselves from the spread of disease. The information should be comprehensible and practical for all socioeconomic groups.

Key words: COVID-19, eHealth literacy, new normal, health care behavior, SEM.

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INTRODUCTION

Whereas the immediate result of a pandemic is an effect on physiological health, psychological consequences should not be ignored. The COVID-19 pandemic resulted in changes in psychological health; people's way of life, especially human connections[1]; and psychological wellbeing[2], in addition to the fear of disease transmission and potential mortality.[3] It is interesting to apply psychological and behavioral research, particularly from the health psychology and health behavior disciplines, to identify the factors contributing to changes in human behavior. All countries have implemented several strategies to diminish the size of this outbreak. Nationwide lockdowns represent one such measure, which has also contributed to a variety of psychological outcomes.[4] Approximately one-third of the general populace in Asia and Europe is experiencing stress, anxiety, and depression. Asian citizens were found to have anxiety and depression prevalence rates of 32.9% and 35.3%, respectively.[5]

In the current COVID-19 pandemic, Thai people have learned the same lessons as other countries did from the SARS and previous pandemics to protect themselves from respiratory infectious diseases.[6,7] Following the confirmation of infectious coronavirus disease cases in Thailand, Thai citizens were encouraged to take good care of themselves and to protect themselves in the event of a pandemic. These approaches have resulted in the "new normal" with regard to healthcare behaviors to combat the viral transmission of COVID-19 among Thais. For example, wearing surgical masks or face masks[8], using alcohol hand-sanitizing gels, washing hands[9,10], and practicing good hand hygiene[11] have been introduced in daily life, especially in crowded public areas, to minimize droplet and airborne transmission. As a result, the number of domestic infectious cases and the mortality rate have not continuously increased for several months.[8,12] This represented the motivation of this study to evaluate people's healthcare behavior in Thailand.

There is no doubt that the novel coronavirus pandemic leads to illness and mortality. In addition to an impact on physiological health, significant triggers exist that affect psychological health. Individuals who have been exposed to events for over a long time are more likely to develop psychological issues, such as anxiety and depression. Individual health behavior changes as a result of the perception of risks and the severity of this infectious disease can alter biopsychosocial perspectives and lead to death. Thus, access to helpful health information on self-care is important for citizens to protect themselves and the people around them. The Health Belief Model (HBM) is a significant model demonstrating changes in people's preventive health behavior. The motivation of a person to modify their personal health is strongly influenced by their health beliefs. Individuals have different perceptions when an illness or disease outbreak occurs, including perceived susceptibility, severity, benefits, barriers, and self-efficacy.[13] As a result, individuals contribute to disease prevention on the basis of their health beliefs, as well as their perceptions on health and illness.[14]

During the COVID-19 pandemic, specific evidence, such as knowledge about the disease, as well as its symptoms and risk factors, has been required to address this crisis. Health literacy is one's ability to maximize health information gathered from legitimate resources, especially from general practitioners, scientific literature, television, radio, magazines, and multimedia.[15,16] It contributes to individuals' ability to take good care of

themselves through understanding and applying useful information for health promotion and disease prevention.[17] eHealth literacy focuses on health information made accessible through electronic sources and the internet. It was designed for effective communication in the digital age by introducing infographics, scientific information, and useful health information to understand diseases and conditions.[18]

An individual's capacity to obtain, process, and understand health information is one of the significant variables influencing people to change their health behaviors. It manifests itself in the form of health literacy. Previous studies found a link between eHealth literacy and health behavior, e.g., in Korean adults[19], Chinese college students[20], and nursing students in the US.[21] All studies came to the same conclusion; electronic health literacy is the most powerful predictor of health behaviors. eHealth literacy can be a significant aspect in encouraging individual behaviors. Individuals who perceive which online health resources are of high or poor quality can modify their health outcomes or make health-related decisions. Similarly, studies in some patients with infectious respiratory disease and cardiovascular disease found a link between health literacy and health behaviors. Increases in physical and mental health were linked to increased comprehension of health information and engagement with healthcare professionals.[22] Additionally, increased health literacy abilities were favorably and immediately related to more health knowledge. Health knowledge also had a direct and positive association with health behavior, which was then linked to health status.[23] From the above-mentioned evidence, it can be assumed that anxiety, health literacy, and eHealth literacy are related to influential factors motivating individuals to practice preventive healthcare behaviors. It is interesting to learn about the factors that influence people's decisions to modify their preventive health behavior during the pandemic. According to the hypothesis, when individuals have anxiety related to a pandemic situation, their ability to find, understand, and use health information (health literacy and eHealth literacy) is altered, causing an adjustment in their healthcare behavior so as to avoid getting the disease.

Several studies have found that health literacy and eHealth literacy play a significant role in preventive health behaviors. For example, higher levels of disease knowledge about COVID-19 and eHealth literacy are predictors of preventive behavior.[24] Higher levels of health literacy and eHealth literacy can lead to more active participation in COVID-19-related health behaviors.[20] In contrast, poor health literacy has been proven to impact how people with long-term illnesses respond to and manage their health problems.[25]

Despite previous studies pointing to the importance of health literacy and eHealth literacy, the relationship between eHealth literacy and other COVID-19-related health behaviors has received little attention, particularly among Thais. This research gap was investigated in our present study. Accordingly, this study highlights the independent variables, such as anxiety, health literacy, and eHealth literacy that can influence shifts in individual health behavior according to the Health Belief Model (HBM). During the COVID-19 pandemic, public intervention strategies focusing on health and eHealth literacy are required to promote COVID-19-related preventive health behaviors as the new normal so as to minimize the likelihood of COVID-19 infection. These strategies constitute the conceptual framework for this study, which investigates and characterizes the causal factors and relationships among health information perceptions through research instruments, such as COVID-19 health literacy, eHealth literacy, anxiety assessment, health

behavior, and self-care after the COVID-19 pandemic. The intercorrelation among these variables is demonstrated using structural equation modeling. The findings of this study represent an advantageous model to understand the health protection factors for preventing coronavirus disease and can be applied to future unpredictable diseases related to acute respiratory illness.

METHODS

Study Site

This cross-sectional quantitative study used a non-systematic sampling method to investigate the three main variables (anxiety, health literacy, and eHealth literacy) influencing preventive health behavior related to coronavirus disease. We distributed an online questionnaire through Google forms across many areas in Thailand, including Songkhla, Phuket, Surat Thani, Nonthaburi, Bangkok, Pathum Thani, Khon Kaen, and Chiang Mai. Most participants lived in cities, reflective of the context of the pandemic in Thailand, where a high cumulative infection rate of COVID-19 has been reported in the top ten provinces in Thailand.

Although the COVID-19 situation in Thailand has been changing vastly day by day, this research is still helpful in terms of investigating and demonstrating the psychological and behavioral relationship as a function of the role of literacy and an individual's behavior changes to prevent the disease. The findings of this current study demonstrate the application of behavioral science to public health challenges during the pandemic.

Participants

Thais between the ages of 20 and 60, who were able to respond to online questionnaire formats, were the intended participants. Online questionnaires were distributed using a snowball sampling method through social media (Facebook and Line) between 1 and 15 November 2020. This study had fewer than seven constructs in the model and more than three observed variables per construct; hence, the sample size needed for SEM was at least $n = 300$.[26] The final number of respondents was 700 after removing missing values, monotonous answers, errors, and outliers from the initial sample size of 715.

Our study was conducted using an online survey questionnaire. We informed the participants about the aims of the research. All participants were voluntary and provided consent when they clicked the link to complete the online questionnaires. Participants were able to leave the study at any time if they felt uncomfortable. We took into consideration human beings as participants in this research; accordingly, there was no collection of individualized information related to sensitive issues or questions, as well as no disclosure of personalized data. The demographic data included only age, gender, educational level, and field of education.

Materials

The content validity of this questionnaire was verified by three specialists: a clinical psychologist, a professor of medical technology, and a professor of health economics. The questionnaires were also subjected to a reliability test following a pilot study with 30 participants and the actual study groups.

1. The COVID-19 anxiety assessment questionnaires contained five items. Cronbach's alpha values were 0.769 and 0.709; CVI = 0.9.

2. The COVID-19 health literacy questionnaires were measured using 13 items. Cronbach's alpha values were 0.730 and 0.750; CVI = 1.0.

3. The COVID-19 eHealth literacy questionnaire was measured using eight items (three components: awareness, skills, and appraisal). Cronbach's alpha values were 0.916 and 0.909; CVI = 0.8.

4. The health behavior and self-care for COVID-19 prevention (i.e., the new normal) questionnaire was measured using 20 items. Cronbach's alpha values were 0.720 and 0.875; CVI = 1.0.

Each item in the four instruments was graded on a five-point scale, ranging from strongly disagree to strongly agree.

Statistical Analysis

Demographic data such as gender, age group, education level, and the field of education are presented using descriptive statistics.

All three latent variables, i.e., COVID-19 anxiety, COVID-19 health literacy, and COVID-19 eHealth literacy, were tested for a causal relationship with the dependent variable (the new normal for healthcare behavior) using multiple regression analysis. Structural equation modeling was used to investigate the probabilistic causality and the interrelationship of all dimensions, components, and model variations.

RESULTS

Demographic Data

Females comprised 63.57% of the total 700 respondents, whereas males comprised 36.43%. The top two age groups, iGeneration (under 24 years old) and millennials (25–39 years old), accounted for 75% of all respondents. The most significant field of education was social sciences, journalism, and information (32.43%), followed by business administration and law (21.86%) and arts and humanities (11.86%), together representing over half of the survey respondents. Mild anxiety was the most common degree of anxiety among responders, accounting for about 60% of the total (Table 1).

Table 1 General characteristics of the survey respondents (n = 700).

Contents	Frequency	%
Gender		
Male	255	36.43
Female	445	63.57
Age group		
iGeneration (<24 years)	287	41.00
Millennial (25–39 years)	239	34.10
Gen X (40–55 years)	163	23.30
Baby Boomer (56+ years)	11	1.60
Education		
Undergraduate	25	3.57
Bachelor's degree	451	64.43
Master's degree	175	25.00
Doctoral degree	49	7.00

Contents	Frequency	%
Fields of education		
Agriculture, forestry, fisheries, and veterinary	24	3.43
Arts and humanities	83	11.86
Business administration and law	153	21.86
Education	29	4.14
Engineering, manufacturing, and construction	49	7.00
Health and welfare	68	9.71
Information and communication technologies	27	3.86
Natural sciences, mathematics, and statistics	40	5.71
Social sciences, journalism, and information	227	32.43
Anxiety levels		
Mild anxiety	396	56.60
Moderate anxiety	304	43.40
Severe anxiety	-	-
Total	700	100

A total of four dimensions were exacted and rotated, before choosing the loadings greater than 0.5 for each component. Each component was tested for internal consistency and reliability using Cronbach's alpha. Hand hygiene had four items with a Cronbach's alpha of 0.83, wearing face masks and social distancing had three items with a Cronbach's alpha of 0.72, maintaining good health had two items with a Cronbach's alpha of 0.79, and digital payments for preventing viral exposure had three items with a Cronbach's alpha of 0.80. The results of factor analysis using EFA are presented in Table 2.

Table 2 Results of factor analysis on the healthcare behavior (new normal) andparticipation in COVID-19 protection questionnaires.

Questionnaire items		Factor loadings				Internal consistency testing
		Components				Cronbach's Alpha
		1	2	3	4	
Hand Hygiene						
NN_1	Washing hands regularly for at least 20 seconds with soap and clean water or using alcohol gel after catching public items.	0.62				
NN_2	Avoid directly touching unclean surfaces in public areas.	0.64				0.83
NN_6	When touching various surfaces, avoid touching the face and personal belongings, such as mobile phones and bags without cleaning hands.	0.72				
NN_7	Washing hands before touching face, nose, and eyes after touching public items.	0.76				
Wearing face masks and social distancing						
NN_5	Wearing a hygienic mask in a crowded place or in public.		0.53			
NN_8	Social distancing and avoiding getting too close to patients who are coughing, sneezing, or with runny nose.		0.68			0.72
NN_9	Always maintaining a distance of at least 1 m or arm's length from other persons.		0.64			
Maintaining good health						
NN_12	Sleeping at least 6–8 h a day.				0.67	
NN_13	Regular exercise for at least 30 min 3–5 days a week				0.85	0.79
Digital payments for preventing viral exposure						
NN_16	Cashless payment via internet banking and Visa Pay Wave.			0.75		
NN_17	E-payment via electronic payment applications for smartphones.			0.78		0.80
NN_18	Considering current spending and saving for future expenses.			0.72		

Extraction method: item loadings were more than 0.5 for each factor; KMO = 0.882, p value = 0.000

The results indicated that the eight-question COVID-19 eHealth literacy questionnaires were reduced dimensionally. The factor analysis indicated three dimensions: awareness

(component 1), skills (component 2), and appraisal (component 3). All factor loadings of observed variables were statistically significant with a value >0.50 ($p < 0.001$) (see Table 3).

Table 3 Results of factor analysis on COVID-19 eHealth literacy questionnaires.

	Questionnaire items	Factor loading		
		Components		
		1	2	3
Awareness				
Q5_1	I know what health resources are available on the internet.	0.98		
Q5_2	I know where to find helpful health resources on the internet.	0.57		
Skills				
Q5_3	I know how to find helpful health resources on the internet.		0.72	
Q5_4	I know how to use the internet to answer my health questions.		0.98	
Q5_5	I know how to use the health information I find on the internet to help me.		0.85	
Appraise				
Q5_6	I have the skills I need to evaluate the health resources I find on the internet.			0.76
Q5_7	I can tell high-quality from low-quality health resources on the internet.			0.91
Q5_8	I feel confident in using information from the internet to make health decisions.			0.86

Extraction method: principal axis factoring; rotation method: Varimax with Kaiser normalization; KMO = 0.885, p-value = 0.000.

The maximum likelihood estimation (MLE) presents the statistical significance of the causal relationship among latent variables, i.e., health literacy ($t = 2.18$, $p < 0.05$), eHealth literacy ($t = 10.00$, $p < 0.001$), and anxiety ($t = 2.05$, $p < 0.05$), which all had a statistically significant influence on healthcare behavior during the COVID-19 pandemic. Most of the observed variables for each factor also had significant causal effects and could be conceptualized as the variance of the indicators ($p < 0.001$; see Table 4).

Table 4 Regression coefficients.

Path	Estimate	*SE*	CR	*p*- value
New Normal → Health Literacy	0.09	0.04	2.18	0.030**
New Normal → eHealth Literacy	0.48	0.05	10.00	0.000***

Path	Estimate	*SE*	CR	*p*- value
New Normal → Anxiety	0.10	0.05	2.05	0.040**
HL_Comp_2 → Health Literacy	1.00			
HL_Comp_1 → Health Literacy	1.85	0.40	4.64	0.000***
eHL_Comp_2 → eHealth Literacy	1.00			
eHL_Comp_1 → eHealth Literacy	0.97	0.04	22.93	0.000***
eHL_Comp_3 → eHealth Literacy	0.83	0.04	20.73	0.000***
NN_Comp_3 → New Normal	1.00			
NN_Comp_4 → New Normal	0.79	0.07	11.08	0.000***
NN_Comp_2 → New Normal	0.61	0.07	8.26	0.000***
NN_Comp_1 → New Normal	0.76	0.09	8.60	0.000***

*SE = standard error; CR = critical ratios; ** p < 0.01, *** p < 0.001.*

Focusing on the three independent variables (latent variables in Figure 1), multiple regression analysis was conducted with respect to the new normal during the COVID-19 pandemic. It was revealed that COVID-19 health literacy and anxiety scores had a substantial impact on the new normal ($p < 0.05$), whereas COVID-19 eHealth literacy had a highly statistically significant impact on the new normal ($p < 0.001$; see Table 5).

Table 5 Results of multiple regression analysis on the new normal during the COVID-19 pandemic among Thais.

Variables	Unstandardized coefficient		Standardized coefficient	*t*	*p*-value
	Beta	*SE*	Beta		
Constant	2.78	0.02		163.87	0.000***
COVID-19 Health literacy	0.09	0.04	0.11	2.12	0.030**
COVID-19 eHealth literacy	0.48	0.05	0.56	10.00	0.000***
Anxiety assessment for COVID-19	0.10	0.05	0.09	2.05	0.040**

*** p < 0.01, *** p < 0.001.*

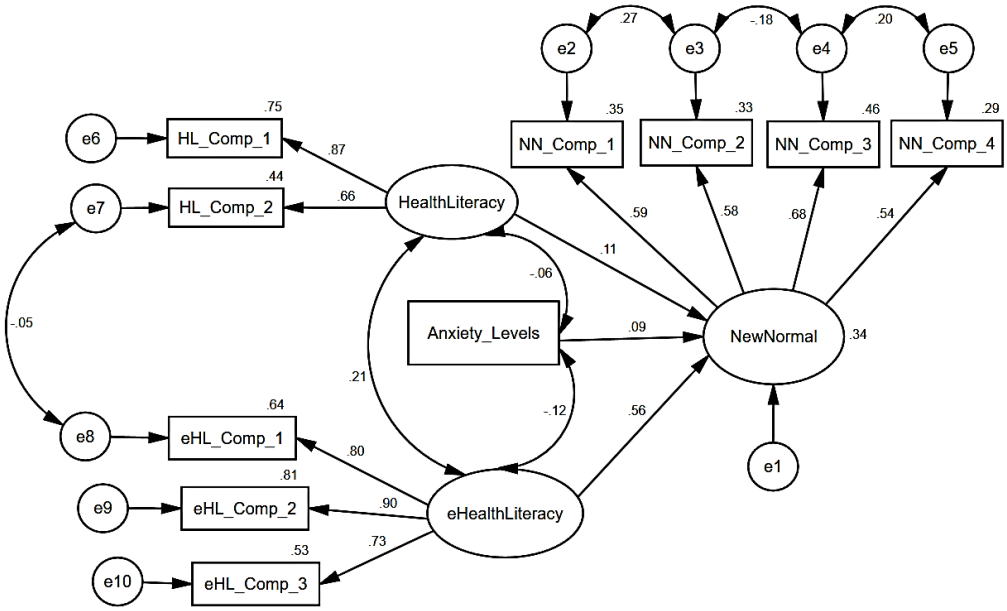

Figure 1. Structural Equation Modeling of COVID-19 eHealth literacy, health literacy, anxiety, and the new normal during the pandemic of Coronavirus disease in Thai people.

Note. New Normal = health care behavior for COVID-19 prevention, NN_Comp_1 = Hygiene, NN_Comp_2 = Viral exposure and dispersion prevention, NN_Comp_3 = Maintaining physical and mental health, NN_Comp_4 = Digital way of life. eHealth literacy = COVID-19 eHealth literacy, eHL_Comp_1 = Awareness, eHL_Comp_2 = Skills, eHL_Comp_3 = Appraise. Health literacy = Fundamental COVID-19 Health Literacy, HL_Comp_1 = Fundamental knowledge; diseases, symptoms, the risks, and the protection, HL_Comp_2 = Health behavior for viral exposure prevention. Anxiety levels = Anxiety score from COVID-19 Anxiety assessment. e1- e10 = corresponding error terms.

The result indicated six determinants. The model fit indices were all within specifications: Cmin/*df* = 2.96 (spec. ≤3.0), GFI = 0.98 (spec. >0.95), RMSEA = 0.05 (spec. 0.03–0.08), NFI = 0.96 (spec. >0.90), and CFI = 0.98 (spec. >0.90), indicating acceptable model fit[26] (Table 6).

Table 6 Model fit results.

Model	Cmin	*df*	*p*-value	Absolute fit indices				Incremental fit indices	
				Cmin/*df*	RMSEA	GFI	AGFI	NFI	CFI
Default model	77.05	26	0.000***	2.96	0.05	0.98	0.96	0.96	0.98
Saturated model	0.00	0				1.00		1.00	1.00
Independence model	2057.27	45	0.000***	45.72	0.18	0.57	0.47	0.00	0.00

*** $p < 0.001$.

DISCUSSION

In our study, we applied psychological and behavioral science disciplines focusing on health psychology and health behavior to help to understand, predict, and improve human behavior, as well as understand the intercorrelation among the related variables that can predict the event consequences related to human behavior. According to the Health Belief Model, people's health beliefs influence their decision to improve their preventive health behavior. Thus, they modify their health behavior on the basis of their perceptions and concerns about health risks, disease severity, and the unfavorable outcome of getting the virus. Furthermore, health literate and eHealth literate individuals can carry out their health responsibilities more effectively. In the current study, we explored the relationships among these variables during the current COVID-19 pandemic. Our findings presented significant causal effects for the three independent variables (COVID-19 eHealth literacy, the COVID-19 health literacy, and COVID-19 anxiety) on the dependent variable (health behavior and self-care for COVID-19 prevention, i.e., the new normal) among Thai people. The model fit took into account six indices (Cmin/*df* = 2.96 (spec. ≤3.0), GFI = 0.98 (spec. >0.95), RMSEA = 0.05 (spec. 0.03–0.08), NFI = 0.96 (spec. >0.90), and CFI = 0.98 (spec. >0.90)), indicating good model fit.[26]

COVID-19 anxiety, health literacy, and eHealth literacy played important roles in encouraging Thai people, particularly metropolitans, to participate in health protection. According to the theory of the Health Belief Model, this results in behavior change to fit into the new normal.[14] The COVID-19 anxiety assessment explored concerns among respondents, revealing discomfort and worry related to the spread of COVID-19 when encountering crowds in public areas or public transportation, comprising people who may have contracted the virus. Upon infection, there were additional concerns about spread to family members, old and young alike. Thai people exhibit health literacy in the form of eHealth literacy through social media and official websites, thereby having an effect on the new normal, which can be categorized into four components.

The first component is hygiene. Hand hygiene or hand-washing has been recommended as initial protection strategy for individuals using facilities in public areas.[27] This approach can reduce exposure to infectious respiratory diseases by using soap[28] to destroy bacterial and viral contamination on touched surfaces.[29] Another aspect involves food hygiene, including clean packaging and processing of canned foods at high temperatures, as well as cleaning the products themselves before eating.[30] "Eat Hot, Use Middle Spoon, and Clean Hands More Often" is an important slogan contributed by the Ministry of Public Health, Thailand to encourage people to protect themselves from infected ingredients and unclean food preparation.[31]

The second component involves the prevention of viral exposure and dispersion, including the use of surgical masks.[32] Most people wear face masks because they believe, according to clinical evidence, the masks can protect them from pathogens. They also have a positive attitude towards the use of face masks to control virus transmission in public places.[33] This component also involves social distancing, whereby crowded areas, public transportation, and symptomatic people are avoided.[10]

The third component involves maintaining good health, including physical and mental health. Without vaccines for the protection and treatment of this disease, physical activity plays an essential role in maintaining a healthy immune system, e.g., regular exercise at

least 3–5 days a week for at least 30 min, as well as adequate rest (at least 6–8 hrs. a day) and relaxation during the pandemic.[34]

The fourth component involves the digital way of life, such as cashless or electronic payments, financial readiness, and food delivery. As a result of money being easily contaminated[35], cashless payments via internet banking and Visa Pay Wave have become important for metropolitan areas in Thailand. Several shops in the big cities in Thailand have generated barcodes for payments.

Overall, people with high levels of health and eHealth literacy are more likely to engage in healthcare behavior across all aforementioned components. Most accessible sources of health information suggest that effective COVID-19 prevention requires a combination of healthcare behaviors. Moreover, social media is an essential tool to educate people about public health awareness and public health concerns, as well as to evoke people to positively participate in public health behavior modification.[36],[37],[38],[39],[40] It also helps individuals improve their eHealth literacy.[24],[41] However, considering its widespread influence among people, the information needs to be of high quality and legitimate. Health professionals and academics represent important sources of health information on official and trustworthy websites or any platform on the internet.[42] The information should be comprehensible and practical for all socioeconomic groups.

Implications and Academic Suggestions

In terms of anxiety and healthcare behavior, anxiety is rooted in the need to protect oneself. People who are concerned about a pandemic may exhibit good healthcare behavior. Higher levels of health literacy and eHealth literacy are associated with more positive healthcare behavior, as individuals know where to source health information, as well as how to evaluate and confidently use health information to protect themselves.

Public health interventions should prioritize the availability of health information in an electronic form on various social media platforms to educate people on how to protect themselves from the spread of disease. Influential social media platforms, such as Facebook, YouTube, Line, Instagram, Twitter, and TikTok, have an impact on people's access to health information. Governments or healthcare organizations should, therefore, provide reliable and timely health information sources, along with health education via online media platforms, to promote and improve health and eHealth literacy, as well as support to improve psychological resilience. Plans to raise the awareness of health risks should be repeatedly implemented and reinforced to arouse individual participation in preventive health, in addition to the elimination of fake news.

Limitation and Future Research

This study was a cross-sectional investigation of participants with online access at one point in time. While the current study results demonstrate a positive influence of the three variables of healthcare behavior, further research involving a large group of participants from various socioeconomic backgrounds, as well as other prevention strategies, such as community transmission control, national policies, and so on, must be conducted to confirm the relationship between an individual's degree of healthcare information and their health decision making. Policymakers can use this evidence to provide appropriate interventions to improve health literacy.

RECOMMENDATION

Our findings correlate with the Health Believe Model, i.e., that is people will make appropriate health decisions and engage in preventive healthcare behavior when they are concerned about the pandemic and have cognitive information, including risk factors, illness severity, and the benefits of prevention. The current study demonstrated relationships among COVID-19 eHealth literacy, health literacy, anxiety, and the new normal for healthcare behavior following the COVID-19 pandemic. Health literacy is a necessary tool for people to protect themselves from disease spread. Furthermore, it provides productive information for healthcare workers to tackle this pandemic[43], as well as novel infectious diseases in the future. Therefore, helpful, trustworthy, and timely health information needs to be made conveniently accessible by official organizations, such as the Ministry of Public Health, Thailand.

As a result of the pandemic, preventive health behaviors, such as hand hygiene, wearing face masks, keeping social distance, maintaining good physical and mental health, and the digital way of life, have been found to be the most effective ways to help eliminate the virus, especially with the danger brought by new variants in the wait for COVID-19 vaccines and medical interventions. This helps to protect everyone, especially those who are immunocompromised and at risk of severe COVID-19 infection. According to this study, some Thais have fortunately adopted these healthy habits as their new normal. This protective healthcare behavior can help individuals protect themselves not only from the current epidemic but also from future unpredictable acute respiratory illnesses.

COMPETING INTERESTS

All the authors have no potential conflicts of interest.

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