ปัจจัยที่สัมพันธ์กับพฤติกรรมการดำเนินชีวิตวิถีใหม่เพื่อป้องกันโรคอุบัติใหม่และอุบัติซ้ำทางเดินหายใจของผู้ค้าขายในตลาด เขตอำเภอเขาชะเมา จังหวัดระยอง

Factors Related to New Normal Behaviors for Emerging / Re-emerging Respiratory Infectious Disease Prevention among Market Vendors in Hachiman District, Rayong Province, Thailand

นิพนธ์ต้นฉบับ

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Original Article

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บทคัดย่อ

วัตถุประสงค์: เพื่อศึกษาปัจจัยที่มีความสัมพันธ์เชิงทำนายพฤติกรรมการดำเนินชีวิตวิถีใหม่เพื่อป้องกันโรคอุบัติใหม่และอุบัติซ้ำทางเดินหายใจของผู้ค้าขายในตลาดเขตอำเภอเขาชะเมา จังหวัดระยอง **วิธีการศึกษา:** การศึกษาปัจจัยเชิงทำนายมีตัวอย่างเป็นผู้ค้าขายในตลาดถาวรประจำตำบล 152 คนโดยสุ่มอย่างง่าย รวบรวมข้อมูลด้วยแบบสอบถามความรู้เกี่ยวกับโรคอุบัติใหม่และอุบัติซ้ำทางเดินหายใจ การรับรู้ความสามารถแห่งตน การรับรู้ความเสี่ยงต่อการเกิดโรค การสนับสนุนทางสังคม และพฤติกรรมการดำเนินชีวิตชีวิตวิถีใหม่เพื่อป้องกันโรคอุบัติใหม่และอุบัติซ้ำทางเดินหายใจ วิเคราะห์ข้อมูลด้วยสถิติสัมประสิทธิ์สหสัมพันธ์ของเพียร์สันและความถดถอยพหุคูณ **ผลการศึกษา:** คะแนนพฤติกรรมการดำเนินชีวิตวิถีใหม่ฯ เฉลี่ยที่ระดับมากที่สุด (133.74 ± 11.96 คะแนน) โดยพฤติกรรมการดำเนินชีวิตชีวิตวิถีใหม่ฯ สัมพันธ์อย่างมีนัยสำคัญทางสถิติกับอายุ (r = -0.188, P-value < 0.05) รายได้ การรับรู้ความสามารถแห่งตน การรับรู้ความเสี่ยงต่อการเกิดโรค และการสนับสนุนทางสังคม (r = -0.425, 0.672, 0.365, and 0.812, P-value < 0.001 สำหรับทุกความสัมพันธ์) แต่ไม่สัมพันธ์กับความรู้เกี่ยวกับโรคอุบัติใหม่และอุบัติซ้ำทางเดินหายใจ โดยอายุ รายได้ ความรู้เกี่ยวกับโรคอุบัติใหม่และอุบัติซ้ำทางเดินหายใจ การรับรู้ความสามารถแห่งตน การรับรู้ความเสี่ยงต่อการเกิดโรค และการสนับสนุนทางสังคมสามารถร่วมทำนายพฤติกรรมการดำเนินชีวิตชีวิตวิถีใหม่ฯ ได้ร้อยละ 71.7 (R^2 = 0.717, P-value < 0.001) **สรุป:** พยาบาลเวชปฏิบัติชุมชนและผู้มีส่วนเกี่ยวข้องสามารถนำผลการวิจัยเป็นแนวทางพัฒนากิจกรรม/โปรแกรมส่งเสริมพฤติกรรมการดำเนินชีวิตวิถีใหม่เพื่อป้องกันโรคอุบัติใหม่และอุบัติซ้ำทางเดินหายใจของผู้ค้าขายในตลาด โดยเน้นเสริมการรับรู้ความสามารถแห่งตนและการสนับสนุนทางสังคม

คำสำคัญ: ปัจจัย; พฤติกรรมการดำเนินชีวิตวิถีใหม่; โรคอุบัติใหม่และอุบัติซ้ำทางเดินหายใจ; ผู้ค้าขายในตลาด

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Abstract

Objective: To identify factors related to new normal behaviors for emerging/ re-emerging respiratory infectious disease prevention among market vendors in Khao Chamao district, Rayong province, Thailand. **Methods:** In this predictive correlational research, 152 market vendors were recruited by simple random sampling. Research instruments included questionnaires to assess knowledge about emerging/ re-emerging respiratory infectious disease, self-efficacy, perceived susceptibility, social support, and new normal behaviors for prevention. Pearson's product moment correlation coefficients and multiple regression analysis were used for data analysis. **Results:** Mean score of the new normal behaviors for prevention was at a highest level (mean = 133.74 ± 11.96 points). The new normal behaviors were significantly correlated with age (r = -0.188, P-value < 0.05), income, self-efficacy, perceived susceptibility and social support (r = -0.425, 0.672, 0.365, and 0.812, P-value < 0.001 for all); while not with knowledge. Age, income, knowledge, self-efficacy, perceived susceptibility, and social support together explained 71.7% of the variance in the new normal behaviors (R^2 = 0.717, P-value < 0.001). **Conclusion**: These findings suggest that nurses and other health care providers should apply these study results to develop interventions or programs aimed at promoting new normal behaviors for emerging/ re-emerging respiratory infectious disease prevention among market vendors by focusing on perceived self-efficacy, perceived susceptibility, and social support.

Keywords: factors; new normal behaviors; emerging/re-emerging respiratory infectious disease; market vendors.

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Introduction

Emerging/re-emerging respiratory diseases have continued to occur repeatedly. Recently, the outbreak of the Coronavirus Disease 2019 (COVID-19), caused by the SARS-CoV-2 virus, originated in China in late 2019. The World Health Organization (WHO) declared COVID-19 a public health emergency of international concern after it spread outside China[1]. As of the current pandemic situation, there have been 639,844,327 confirmed cases worldwide and 6,613,443 deaths, resulting in a mortality rate of approximately 1.03%[2].

In Thailand, according to the Department of Disease Control, Ministry of Public Health, as of November 27, 2022,

there were 4,695,207 reported cases, with a case rate of 67,314.37 per million population. The fatality rate was 0.70%, with a death rate of 471.14[2] per million population. The disease spread was more prominent in areas with high population density, such as workplaces, entertainment venues, and markets, which then extended to surrounding communities. The management of COVID-19 in Thailand has adapted throughout different stages of the pandemic, from being classified as a global pandemic to an endemic disease. Currently, COVID-19 is categorized as a communicable disease under surveillance, effective from October 1, 2022. However, the trend of COVID-19 infections in Thailand remains elevated and stable, in line with predictions about the emergence of variants capable of evading immunity. Additionally, the trend of increased mortality since November 2022 has been observed, with all fatalities in the 608 group being unvaccinated or incompletely vaccinated[2]. Therefore, it is necessary to prepare public health measures, emphasizing proper public education on adopting New normal practices that aim to return to normal while minimizing the risk of infection and severe illness[2].

In Rayong Province, which ranks ninth in Thailand for the number of COVID-19 infections as of November 27, 2022, there were 90,291 reported cases, with a case rate of 96,846.85 per million population. The fatality rate was 0.56%, and the death rate was 539.52[2] per million population. Rayong is a densely populated province, particularly in its industrial areas[3], leading to high population density in the region. This contributes to crowded workplaces, residential areas, and community spaces where people share common resources, increasing the risk of infection and the spread of emerging/re-emerging respiratory diseases, which can spread via respiratory droplets, including mucus, saliva, and phlegm. This risk is particularly high in crowded places with poor ventilation. The impact of emerging/re-emerging respiratory diseases affects not only the population but also communities, the economy, and the nation[4].

For the Khao Chamao district, which is located in Rayong, approximately 9% of the population has been infected with COVID-19, with a mortality rate of 0.43%[5]. The area hosts a significant number of migrant workers from Cambodia and Myanmar, primarily employed in rubber plantations and fruit farms. The continuous movement of workers into and out of the area increases the risk of infection and disease transmission.

The spread of emerging/re-emerging respiratory diseases, particularly COVID-19, has profoundly impacted the daily lives of the global population, particularly in relation to lifestyle changes. These changes include adopting a "new normal," such as wearing face masks when leaving the house or interacting with others, washing hands with soap or alcohol-based gel, practicing social distancing, and using technology to minimize physical contact[6,7]. These preventive measures aim to safeguard individuals from emerging/re-emerging respiratory diseases while maintaining economic activities and continuing daily life[1].

Reports have also highlighted recurring waves of the pandemic. The Ministry of Public Health continues to emphasize the importance of adopting the "new normal" lifestyle to protect the population, especially high-risk groups[8]. Among these high-risk groups, market vendors are particularly vulnerable due to the crowded nature of their workplaces, inadequate ventilation, and the spread of respiratory droplets. Inappropriate behaviors among vendors, such as not maintaining social distance, wearing masks improperly, and not washing hands after handling products or money, further increase the risk of infection. Additionally, the lack of vaccination and the movement of trade between markets exacerbate the situation[8]. As a result, the Ministry of Public Health continued to request public cooperation in adhering to infection prevention and control measures based on the "9 Principles". A report from the year 2021 revealed that a total of 3,986 markets in the Bangkok Metropolitan Area were assessed. It was found that 99.17% of the markets had implemented a policy requiring the wearing of face masks, followed by 98.56% providing handwashing stations, and 98.51% managing waste properly.In terms of vendors' behavior, the survey found that 73.1% of vendors wore face masks correctly at all times, 25.5% wore them incorrectly, and 1.4% [8] did not wear them at all.

A review of the literature on New normal behaviors has focused on various groups, including the general population, civil servants, nursing students, and food vendors[10-18]. However, no study has specifically examined market vendors, a group that works in crowded spaces and has direct contact with a diverse range of customers. This gap in the literature makes it essential to study the behaviors of market vendors

to mitigate the risks of disease transmission and prevent future outbreaks of respiratory diseases. Factors that influence New normal behaviors have been shown to include age[10,15], knowledge about emerging respiratory diseases[12,13,20] , self-efficacy[10-12,17], and perceived vulnerability to disease[10,12]. External factors such as income[10, 15] and social support [11]also play significant roles. These factors align with the PRECEDE-PROCEED Model, which posits that health behaviors are influenced by a combination of internal and external factors, including environmental and social support elements.

This model provides a framework for understanding how market vendors can adopt appropriate New normal behaviors to prevent emerging /re-emerging respiratory diseases. Therefore, the researcher is interested in studying the New normal behaviors to prevent emerging/re-emerging respiratory diseases, along with the factors that predict these behaviors in market vendors in the Khao Chamao district of Rayong province. This study will apply the PRECEDE-PROCEED Model[21] developed by Green and Kreuter. The findings will guide stakeholders in planning health interventions for market vendors, promoting the adoption of New normal behaviors to prevent emerging/re-emerging respiratory diseases, ensuring safety, and reducing the risk of future disease transmission.

Research Conceptual Framework

the researcher adopted the PRECEDE-PROCEED model, which posits that health behaviors are influenced by multiple factors (not just one). Therefore, an analysis of the causative factors affecting these behaviors is necessary to inform the planning of strategies to promote the new normal among market vendors[22]. This research applies the first phase of the PRECEDE-PROCEED model, the **PRECEDE** (Predisposing, Reinforcing, and Enabling Causes in Educational Diagnosis and Evaluation) phase, specifically Step 3: Educational and Environmental Assessment. This step encompasses three categories of factors:

Predisposing factors: These are the underlying factors that trigger behaviors and include knowledge, experiences, and perceptions. For example, age, knowledge of emerging/re-emerging respiratory diseases, self-efficacy, and perceived risk of disease.

Enabling factors: These are the supportive resources that facilitate behavior change. For instance, income is an enabling factor that can help promote behavior changes.

Reinforcing factors: These factors refer to the support or influence from individuals or groups within one's environment that reinforce certain behaviors. This includes social support, encouragement, help, reprimands, and reminders. Reinforcing factors contribute to the sustainability of health behaviors. For example, social support from the community can reinforce the behavior of adhering to the new normal.

Thus, the predisposing, enabling, and reinforcing factors all contribute to the promotion or inhibition of market vendors' adoption of new normal behaviors to prevent emerging/re-emerging respiratory diseases.

Methods

This study is a correlational predictive research, exploring the relationship between the variables under investigation: predisposing factors (age, knowledge of emerging/re-emerging respiratory diseases, self-efficacy, perceived risk of disease), enabling factors (income), reinforcing factors (social support), and the adoption of new normal behaviors to prevent emerging/re-emerging respiratory diseases among market vendors in the Khao Chamao District, Rayong Province. Data collection occurred from April to May 2023.

The population for this study includes male and female market vendors, both business owners and employees, in permanent markets within the Khao Chamao District, Rayong Province, aged between 18 and 59 years, with a total of 980 individuals. The sample for this study comprises male and female market vendors, both business owners and employees, aged between 18 and 59 years, who can communicate in Thai (listening, speaking, reading, and writing), are capable of using smartphones, and have access to the internet. The sample size was calculated using the G*Power program with a statistical significance level (Alpha) of 0.05, a power of 0.95, and an effect size based on the correlation coefficient (r) from previous studies[23] which is equivalent to 0.3[11]. The calculated sample size was 138 individuals. To account for potential data incompleteness, an additional 10% was added to the sample, resulting in a final sample size of 152 participants.

The data collection was conducted in the Khao Chamao District, Rayong Province, which consists of three sub-districts with permanent markets. One market was randomly selected from each sub-district using simple random sampling (i.e., drawing lots). The sample size was calculated proportionally based on the number of vendors in each market:

Market H. Kobchok in the Huay Tab Mon sub-district, with 200 vendors, resulted in a sample of 55 participants.

Nam Pen Market in the Nam Pen sub-district, with 200 vendors, resulted in a sample of 55 participants.

Sie Jo Market in the Cham Kho sub-district, with 150 vendors, resulted in a sample of 42 participants. Thus, the total sample size for the study was 152 participants.

Research instruments

Section 1: Personal Information Questionnaire This section gathers demographic information, including gender, age, religion, marital status, and educational level. The questionnaire is a combination of multiple-choice and fill-in-the-blank questions, with a total of 5 items.

Section 2: Knowledge about Emerging and Re-emerging Respiratory Diseases Questionnaire This section measures participants' knowledge about emerging/re-emerging respiratory diseases using a 19-item questionnaire adapted from the COVID-19[13] Knowledge Questionnaire. The questions are multiple-choice, with three options: correct (1 point), incorrect or unsure (0 points), with total scores ranging from 0 to 19. Higher scores indicate greater knowledge of emerging/re-emerging respiratory diseases.

Section 3: Self-Efficacy Questionnaire This section assesses participants' perceived self-efficacy using a 9-item questionnaire adapted from the Self-Efficacy Scale[11]. The items are rated on a 5-point Likert scale: very much (5), quite a lot (4), moderate (3), a little (2), and not at all (1). Total scores range from 9 to 45. Higher scores indicate higher self-efficacy.

Section 4: Perceived Risk of Disease Questionnaire This section assesses participants' perceived risk of disease using an 11-item questionnaire adapted from the COVID-19 Risk Perception Questionnaire[11]. The items are rated on a 5-point Likert scale: very much (5), quite a lot (4), moderate (3), a little (2), and not at all (1). Total scores range from 11 to 55. Higher scores indicate higher perceived risk of disease.

Section 5: Social Support Questionnaire This section measures the level of social support using a 16-item questionnaire adapted from the Social Support[11] Questionnaire. The items are rated on a 5-point Likert scale: very much (5), quite a lot (4), moderate (3), a little (2), and not at all (1). Total scores range from 16 to 80. Higher scores indicate greater social support.

Section 6: New Normal Behavior Questionnaire for Preventing Emerging/Re-emerging Respiratory Diseases This section evaluates the adoption of new normal behaviors to prevent emerging/re-emerging respiratory diseases, using a 38-item questionnaire adapted from the COVID-19 Prevention Behavior Questionnaire[11]. The items are rated on a 5-point scale: always (4), almost always (3), frequently (2), sometimes (1), and never (0). Total scores range from 0 to 152. Higher scores indicate greater adherence to new normal behaviors for disease prevention.

Instrument validity

The researcher presented the research instruments, including the Knowledge about Emerging /Re-emerging Respiratory Diseases Questionnaire, Self-Efficacy Questionnaire, Risk Perception of Disease Questionnaire, Social Support Questionnaire, and New Normal Behavior Questionnaire for Preventing Emerging/Re-emerging Respiratory Diseases, to the thesis advisor for preliminary review. These instruments were then submitted to a panel of three experts for content validation: two faculty members from the Faculty of Nursing and one senior public health expert who is the head of the communicable disease control unit in the Rayong Provincial Public Health Office. After receiving feedback, the researcher made necessary revisions to the instruments in consultation with the thesis advisor. The Content Validity Index (CVI) was calculated based on the experts' recommendations. A CVI value of 0.80 or higher was considered acceptable. The CVI values obtained were as follows: for the Knowledge about Emerging/Re-emerging Respiratory Diseases Questionnaire, the Self-Efficacy Questionnaire, the Risk Perception of Disease Questionnaire, and the Social Support Questionnaire, the CVI value was 1.0; and for the New Normal Behavior Questionnaire for Preventing Emerging /Re-emerging Respiratory Diseases, the CVI value was 0.97.

Reliability

The researcher conducted a pre-test of the instruments with a sample of 30 participants, similar to the target group, but not included in the actual study. The reliability of the instruments was assessed using Cronbach's Alpha coefficient for internal consistency, and the KR-20 formula was used for

the Knowledge about Emerging/Re-emerging Respiratory Diseases Questionnaire. The reliability values obtained were as follows: 0.960, 0.964, 0.998, 0.984, and 0.928, respectively.

Human subject protection

This research was approved by the Graduate Ethics Review Board of Burapha University (Ethics approval code: G-HS026/2566(E1), dated May 1, 2023). The researcher explained the study's objectives, potential benefits, and assured the participants that their participation was voluntary. Participants had the right to withdraw at any time without any negative impact on the services they received. Upon consenting to participate, participants were asked to scan a QR code and complete the online survey. All data collected were treated confidentially, and no personally identifiable information (such as name) was recorded. Instead, a code was used to ensure anonymity. The data were stored securely in the researcher's private email and would only be accessible to the researcher. The results would be presented in aggregate form without market-specific analysis. All data would be destroyed one year after the publication of the research findings.

Data Collection Procedures

Preparation Stage

The researcher obtained permission from the Dean of the Faculty of Nursing, Burapha University, to conduct the study in the Rayong Provincial Public Health Office, Khao Chamao District Public Health Office, the Khao Chamao Sub-district Administrative Organization, the Nam Pen Sub-district Administrative Organization, and the Cham Kho Sub-district Municipality. Following permission, the researcher met with the operators of the three markets to explain the study's objectives, ethical considerations, and confidentiality measures, requesting their cooperation in facilitating data collection while ensuring the protection of participants' rights throughout the research process.

Data Collection Stage

1.The researcher visited the target groups at each market on different days and at different times to explain the research objectives, participants' rights, and read the informed consent document.

2.QR codes were distributed, and participants were invited to join a group chat on LINE for each market. The LINE group consisted of the researcher and the market vendors.

3.The researcher sent the QR code to each LINE group for voluntary participation in the survey. The first question asked, "I have read the information above and fully understand it. I give my consent willingly." Participants could select "agree" or "disagree." If "agree" was selected, participants proceeded to the questionnaire. The entire process took approximately 30-45 minutes. If "disagree" was selected, a message appeared stating, "Declining to participate in the research will have no impact on you." Participants were free to respond at their convenience and were asked to complete the survey within one week.

4.The researcher monitored the progress of the survey responses. Upon receiving the completed questionnaires, the researcher reviewed the data for accuracy and completeness before recording and analyzing the statistical data.

Data analysis

Analysis of Personal Data and New Normal Behaviors for Preventing Emerging/Re-emerging Respiratory Diseases Descriptive statistics were used to analyze the personal data and new normal behaviors for preventing emerging/re-emerging respiratory diseases of the sample group, including frequency distribution, percentages, mean, and standard deviation.

Analysis of Predictive Factors for New Normal Behaviors to Prevent Emerging/Re-emerging Respiratory Diseases To analyze the factors that were predictive of new normal behaviors for preventing emerging/re-emerging respiratory diseases, Pearson's correlation coefficient and multiple linear regression analysis (standardized) were applied. A significance level of 0.05 was set for statistical testing. The researcher verified the data and found that it met the initial assumptions for statistical analysis.

Results

Demographic Characteristics of the Sample

The sample consisted of 55.9% females and 44.1% males, with an average age of 37.31 years (SD = 10.32), with the majority (39.4%) being between 28-37 years old. Most participants (74.3%) were single. Half of the participants had completed lower secondary school (50%), and the average monthly income was 14,667.76 THB (SD = 7062.15), with 42.1% earning between 5,000-10,000 THB, as shown in Table 1.

Table 1 Number, Percentage, Mean, and Standard Deviation of the Sample Group Classified by Demographic Information (*n* = 152)

Characteristics	N	%
Sex		
Male	87	44.1
Female	85	55.9
Age (years)		
18-27	27	17.8
28-37	60	39.4
38-47	38	25.0
48-59	27	17.8
(Min = 18, Max = 59, *M* = 37.31, *SD* = 10.32)		
Marital Status		
Single	113	74.3
Partnered	34	22.4
Widowed/Divorced/Separated	5	3.3
Education Level		
Upper Primary School	10	6.6
Lower Secondary School	76	50.0
Upper Secondary School	59	38.8
Bachelor's Degree	7	4.6
Income		
5,000-10,000	64	42.1
10,001-15,000	53	34.9
15,001-20,000	13	8.6
20,001-25,000	6	3.9
25,001-30,000	10	6.6
30,001-35,000	6	3.9
(Min = 7,000, Max = 35,000, *M* = 14667.76, *SD* = 7062.15)		

New Normal Behaviors for Preventing Emerging/ Re-emerging Respiratory Diseases

The overall new normal behaviors for preventing emergingre-emerging respiratory diseases of the sample group had a high average score, with a mean score of 133.74 (SD = 11.96).

Analysis of Predictive Factors for New Normal Behaviors

To examine the factors influencing new normal behaviors for preventing emerging/re-emerging respiratory diseases among market vendors in the Khao Chamao District, Rayong Province, the researcher tested the initial assumptions. The results showed that the independent variables were not highly correlated (no multicollinearity), as the correlation coefficients (r) between each pair of independent variables were less than 0.85 (as shown in Table 2). The residuals followed a normal distribution (mean = 0, p > 0.05), with no outliers (standardized values of the variables were between -3 and +3), and no autocorrelation (Durbin-Watson = 1.596).

The analysis revealed that the following factors could predict the new normal behaviors to prevent emerging/re-emerging respiratory diseases with 71.7% accuracy (R^2 = .717, p < .001): age, income, knowledge about emerging/re-emerging respiratory diseases, self-efficacy, risk perception, and social support. Statistically significant predictors included income (β = .198, p < .01), self-efficacy (β = .197, p < .01), and social support (β = .805, p < .001). However, age, knowledge about emerging/re-emerging respiratory diseases, and risk perception were not statistically significant predictors for these behaviors. The results are shown in Table 3.

Table2 Correlation Coefficients between the Factors Studied and New normal Behaviors for Preventing Emerging/Re-emerging Respiratory Diseases among the Sample Group (n = 152)

Factors	1	2	3	4	5	6	7
1. Age	1.000						
2. Income	.088	1.000					
3. Knowledge	-.041	.091	1.000				
4.Self-Efficacy	-.173*	-.416***	.137*	1.000			
5. Perceived Risk of Disease	-.089	-.144*	.200**	.316***	1.000		
6. Social Support	-.229**	-.676***	.015	.674***	.360***	1.000	
7. New normal Behaviors	-.188*	-.425***	.122	.672***	.365***	.812***	1.000

*P<.05, **P<.01, ***P<.001

Table3 Results of the Standard Multiple Regression Analysis of Factors Predicting New normal Behaviors for Preventing Emerging /Re-emerging Respiratory Diseases among the Sample Group (n = 152)

Factors	B	SE	β	*t*	*P*-value
Age	.021	.053	.018	.388	.698
Income	.000	.000	.198	3.228	.002
Knowledge	.877	.687	.059	1.276	.204
Self-Efficacy	.607	.188	.197	3.224	.002
Perceived Risk of Disease	.162	.251	.031	.644	.521
New normal Behaviors	.798	.077	.805	10.354	<.001

Constant = 24.044, R^2 = .717, Adjusted R^2 = .705, $F_{(6, 145)}$ = 61.113, p < .001

Discussions and Conclusion

The overall new normal behaviors for preventing emerging/re-emerging respiratory diseases in the sample group had the highest average score, with a mean of 133.74 (SD = 11.96). This may be attributed to the government's policies emphasizing the importance of preventing disease transmission and mitigating the impact of emerging/re-emerging respiratory diseases, both current and potential

future threats[6]. Additionally, safety policies for organizations[8] (COVID-free settings) were enforced, and market vendors and buyers were encouraged to follow these policies.

Age showed a negative relationship and was able to predict new normal behaviors for preventing emerging/re-emerging respiratory diseases in the sample group, though the result was statistically insignificant. Age is one of the demographic factors that influences motivation to adopt appropriate health behaviors[21,22]. While age was related, the relationship was weak, and thus, it did not significantly predict the behavior. Younger vendors exhibited better new normal behaviors, likely due to their greater access to information and adaptability to the situation, which helped them engage in health behaviors to protect themselves from emerging/re-emerging respiratory diseases[8]. This finding is consistent with previous studies[10,15] showing that age correlates with hygiene-related behaviors in the new normal.

Income was negatively correlated and statistically significant in predicting new normal behaviors for preventing emerging/re-emerging respiratory diseases in the sample group. Income is considered a facilitating factor for health behaviors[21]. Lower-income vendors exhibited better new normal behaviors for disease prevention, likely due to the nature of their profession, where income is unstable, particularly for those with lower earnings. During an outbreak, reduced income compels vendors to take preventive measures to avoid illness, as sickness would prevent them from working and result in further financial strain[10]. This is consistent with previous studies[15] showing that income influences personal hygiene behaviors.

Knowledge about emerging/re-emerging respiratory diseases was not significantly correlated or able to predict new normal behaviors for disease prevention. Knowledge is a potential motivating factor shaped by personal experience and learning[21], which could drive individuals to adopt appropriate behaviors. However, vendors, whether knowledgeable or not, exhibited similar behaviors, possibly because the lack of prior experience with the disease and the high mortality rates of the pandemic prompted society to adopt behaviors based on social norms and policies such as COVID-free[8] setting guidelines. This contrasts with earlier studies[12,13,20] that found a correlation between knowledge and the adoption of new normal behaviors.

Self-efficacy was positively correlated and significantly predicted new normal behaviors for preventing emerging/re-emerging respiratory diseases in the sample group. Self-efficacy is an intrinsic factor that drives motivation to perform behaviors[21]. When vendors perceived themselves as capable of following new health behaviors, they were more likely to do so[24]. This finding aligns with previous studies[11-13, 17], which showed a significant relationship between self-efficacy and the adoption of new normal behaviors.

Risk perception was not statistically significant in predicting new normal behaviors for disease prevention. Although vendors who perceived higher risk were likely to engage in protective health behaviors[25], this was not confirmed in the present study. This may be due to external factors such as social norms and government policies, which might have prompted vendors to adopt preventive measures regardless of their personal risk perception. This contradicts previous studies[12, 13] that found a significant relationship between risk perception and new normal behaviors.

Social support was positively correlated and significantly predicted new normal behaviors for preventing emerging/re-emerging respiratory diseases in the sample group. Social support is an external factor that encourages individuals to adopt health behaviors[21]. Vendors who received support from family, friends, or government officials, including information, encouragement, and necessary resources[26], were more likely to engage in new normal behaviors. This finding is consistent with studies showing that social support positively influences health behaviors[11], such as in the case of food vendors in Narathiwat Province, where social support was linked to the adoption of new normal behaviors.

The findings of this study indicate that the overall new normal behaviors for preventing emerging/re-emerging respiratory diseases among the sample group had the highest average score, with a mean of 133.74 (SD = 11.96). The factors significantly correlated with these behaviors include **income** ($r = -.425$, $p < .001$), **self-efficacy** ($r = .672$, $p < .001$), **risk perception** ($r = .365$, $p < .001$), and **social support** ($r = .812$, $p < .001$). The factor that showed no significant correlation with these behaviors was **knowledge about emerging/re-emerging respiratory diseases** ($r = 0.122$, $p = .068$).

The factors studied, including age, income, knowledge about emerging/re-emerging respiratory diseases, self-

efficacy, risk perception, and social support, together accounted for 71.7% of the variance in predicting new normal behaviors for preventing emerging/re-emerging respiratory diseases (R^2 = .717, p < .001). Among these factors, **income** (β = .198, p < .01), **self-efficacy** (β = .197, p < .01), and **social support** (β = .805, p < .001) were statistically significant predictors. Conversely, **age** (β = .018, p = .698), **knowledge about emerging/re-emerging respiratory diseases** (β = .059, p = .204), and **risk perception** (β = .031, p = .521) were not statistically significant predictors.

Community Healthcare Nurses and Public Health Personnel should promote new normal behaviors for preventing emerging/re-emerging respiratory diseases among market vendors, especially those with older age and higher income. This promotion could include increasing social support, such as providing protective equipment to prevent infection and supporting the use of digital payment systems (e.g., banking apps) for transactions.

Community Healthcare Nurses, Public Health Professionals, Market Operators/Owners should actively collaborate in promoting appropriate new normal behaviors among market vendors. This includes implementing clear policies for vendors' behavior, such as proper mask disposal, correct handwashing techniques (7 steps), adequate rest, appropriate exercise, maintaining physical distancing between stalls, bringing personal food utensils from home, and sanitizing trash bins with a bleach-water solution (1.3 tablespoons of bleach per 1 liter of water). Additionally, promoting the use of banking apps for transactions could be encouraged.

Future studies should investigate the effectiveness of programs that focus on promoting new normal behaviors to prevent emerging/re-emerging respiratory diseases, with an emphasis on enhancing **self-efficacy** and **social support**.

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