

Influence of Life Patterns and Coping with Stress on Teacher Students' Tobacco Purchasing Behavior in Bangkok

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Abstract

Teacher students' tobacco-purchasing behaviors have been a problem among teacher students in Thailand. Life patterns and coping with stress levels have been perceived as the main contributors to these behaviors. Life pattern is based on the concepts of the lifestyles of a person. People tend to share similar lifestyle orientations when they are in similar social groups or have similar interests. This includes teachers students and their learning environment. Additionally, coping with stress is referred to as teacher students' coping skills when they feel pressure in life. Therefore, this research article aimed to study how life patterns and coping with stress influence teacher students' tobacco-purchasing behavior in Bangkok. The research questionnaire was a five-level Likert scale questionnaire. Data was collected through a survey with 900 teacher students from three universities in Bangkok. The data were analyzed using descriptive statistics, frequency, percentage, mean, standard deviation, and Multiple Linear Regression by Enter technique. The data analysis indicated that life pattern positively influences the tobacco-purchasing behavior of teacher students in the Bangkok area with a coefficient of influence at .470 with significant at .01 level (P-Value <.001); while coping with stress had a negative influence over the purchasing behavior with a coefficient of influence at -.104 with statistical significant at .01 level (P-Value <.001). This suggested that when coping with stress increases by 1 unit, the level of tobacco purchasing behavior decreases by .104 units. The two variables were able to predict tobacco-purchasing behavior at 20.5 percent.

Keywords: life patterns, coping with stress, teacher students' tobacco-purchasing behaviour

1. Introduction

A teacher is an important figure in the development of Thailand. A teacher is a person who is responsible for educating people and promoting a positive experience for all learners using various methods (Williams, 2017; Blazar and Kraft, 2017). The promulgation of the teachers and Educational Personnel Council Act B.E. 2546 was a reform following the professional-development guidelines under Section 81 of the Constitution of the Kingdom of Thailand B.E. 2540 and Section 9 (Narinasamy and Logeswaran, 2015) of the National Education Act B.E. 2542. This act has set new standards and license requirements for teachers and educational personnel (Meekhun, 2004). It also creates high expectations for teachers in Thai society because they are perceived as a mentor for the young generation. Moreover, all teachers play an important role in human resource development because the young generations tend to have teachers as their primary role models because they often spend more time with teachers than with their families (Okeke & Drake, 2014; Narinasamy & Logeswaran, 2015). Thus, teacher development should focus on the development of the "teacher-student".

The Office of the Basic Education Commission suggested that teacher development requires teachers to develop themselves as role models, to be compassionate, to understand individual differences, and to strive to help each student (Office of the Education Council, 2008). A teacher-student is a university student who is getting a bachelor's degree in teaching and is usually in the teenage years. The transition from high school to university usually mark as the first step to becoming an adult in Thailand. As such, society tends to place more responsibility on them, in turn, they become more independent when compares with high school. A change in the

learning format also creates tensions for many university students. At times, it may lead to depression or anxiety because some of them are unable to adjust to a new way of life (Pariat et al., 2014; Phunpon et al., 2019). Furthermore, the new physical and social environment can influence the life pattern or lifestyle of a person. This idea is based on Reimer's concept of lifestyles. Under his ideas, people's lifestyles can be divided into five groups depending on the orientation of each person. This includes culture, society, entertainment, home and family, and sport and outdoor orientation. Additionally, people who share similar orientations tend to have similar life patterns and attitudes (Reimer, 1995). In the case of teacher students, the senior students, lecturers, and their friends are now part of their social circle and may have a strong impact on them. This includes their behaviors, preferences, and habits both positive and negative. Due to the prevalence of tobacco use among schoolteachers as a way to relieve stress, teacher students may slowly be influenced by such behavior and it becomes part of their life pattern (Anderson, 2020).

Tobacco use is one of the problems for the teacher students in Thailand. This behavior can influence the younger generations. According to a study by Zarra (2016), some students imitate teachers who smoke cigarettes. Although the universities have been trying to promote tobacco-free environments, tobacco products can be found in many places around the universities such as local convenience stores, local restaurants, or internet cafés (Sirikiattikul et al., 2018). This shows that tobacco products are blended into the daily lives of students in universities without realizing their effects. Additionally, many people believe that tobacco use can reduce stress levels, and tobacco products, especially cigarettes, have become a popular choice among schoolteachers and teacher students (Phunpon et al., 2019; Fidler, 2009). As a result, coping with stress becomes an important tool that may help reduce use along with tobacco-purchasing behaviors among teacher students.

In the coping theory proposed by Lazarus and Folkman (1984), coping strategies or coping with stress is a process where an individual is trying to reduce, tolerate, or handle a stressful situation or problem in life. This includes things like meditation, social support, stress management skills, and other methods to help individuals cope or lessen their mental burden (Lazarus and Folkman, 1984; Biggs et al., 2017). Coping strategies contain different aspects which include cognitive, social, or physical coping strategies. People tend to form their coping styles depending on the situation. Some coping strategies are more stable across various stressful situations like seeking social support, creating personal space, or retreating from negative encounters. Furthermore, it is believed that this process can decrease certain behaviors by increasing a person's capacity to deal with their stress (Nakano, 1991; Biggs et al., 2017; Lardier et al., 2020). Many studies focus on the reduction of tobacco use among schoolteachers, but there are not many that primarily concentrate on purchasing behaviors. Furthermore, not many studies concentrate on teacher students and how their life patterns can affect purchasing behaviors. Therefore, the researchers attempt to study how life patterns and coping with stress influence teacher students' tobacco-purchasing behaviors in Bangkok. This will help researchers understand why teacher students purchase tobacco products and create a guideline to reduce such behaviors.

2. Method

2.1 Study Design

The research design was to conduct the survey research. This research aimed to study how life patterns and coping with stress influence teacher students' tobacco-purchasing behavior in Bangkok. The data were analyzed using descriptive statistics, frequency, percentage, mean, standard deviation, and Multiple Linear Regression by Enter technique.

2.2 Population and Sampling

The number of teacher students who have purchased tobacco products is unknown or as referred to by Yamane's equation as an infinite population. According to this formula, the appropriate sample size for this study with the degree of error expected at .05 was 385 samples (Yamane, 1967). However, the researchers attempted to collect as many questionnaires as possible to prevent insufficient responses when conducting a study and to increase the statistical power of this population to make the data more precise (Ellis, 2010). Furthermore, this study was approved by the Kasetsart University Research Ethics Committee COA No. COA62/037, approval date from 9 October 2019 – 8 October 2020. Data were collected from the students in the Education Department under the Commission on Higher Education (OHEC) in three universities in Bangkok. The universities were selected using a random sampling method from the list of universities in Bangkok. The population for this research consisted of teacher students in the field of education who have experienced tobacco-purchasing behavior. Unfortunately, there is no data on the number of teacher students who have purchased tobacco products. The samples were selected using convenience sampling. The researchers spent a month collecting the questionnaires between lunch breaks (12 PM – 1 PM) near the faculty of education at three universities in Bangkok with the education

department. Before the samples could participate in the study, they were asked if they are teacher students and whether or not they have purchased tobacco products before. If the samples answered “yes” to both questions, the researchers would distribute the questionnaire to them.

2.3 Data Collection

2.3.1 Participants

Data were collected from the students from the Education Department under the Commission on Higher Education (OHEC) in three universities in Bangkok. The universities were selected using a random sampling method. Researchers were able to collect 903 responses after a month. Out of all responses, three questionnaires were errors because they were incomplete. As such, the researchers decided to use 900 (n) responses, which was more than the required sample size under Yamane's equation on infinite population. Not only this could help improve the precision of the test, but the high number of respondents can also increase the power of analysis as well (Ellis, 2010; Kelley and Maxwell, 2003; Asiamah and Mensah, 2017).

2.3.2 Inclusion Criteria

The student must be teacher students aged between 18-22 years old in the academic year of 2018 from universities under the Office of the Higher Education Commission (OHEC) in Bangkok.

The student must have purchased a tobacco product before.

The student must be able to complete the questionnaires.

2.3.3 Data Collection Tool

Conducted literature review to understand the tobacco-purchasing behavior of the population used in this study and to develop a research framework to identify factors affecting such behavior. This includes (1) life patterns, (2) coping with stress, and (3) purchasing behaviors regarding various concepts and theories. The literature has been reviewed for each variable and the key terminology has been defined along with forming a conceptual framework (see figure 1). After that, the researchers began developing questionnaires.

Developing the research questionnaire

The research questionnaire was based on three concepts. First, the life pattern was modified from Reimer's (1995) concept. Under this concept, the questions would ask participants about the frequency of their exercise, sleeping, or using social media. Second, coping with stress was modified from Lazarus and Folkman's concepts of coping strategies (Lazarus and Folkman, 1984). This part would ask participants about their stress levels or how they handle stressful situations. Finally, the purchasing behaviors were adapted from Solomon et al's consumer behavior (Solomon, 2012). In this part, the questions mainly focused on participants' behaviors regarding tobacco purchasing or how much they spend on tobacco products. Data were collected using a five-level Likert scale questionnaire with 1 meaning never or the least likely to agree and 5 meaning frequently or mostly agree.

The quality of the questionnaire was examined by five experts in the field with Content Validity by Item Objective Congruence (IOC) and using items with an IOC value at .60 or higher, and if improve when the number is below 60. The questionnaire was then used in a pilot study with 50 samples with qualifications similar to the population to determine its discriminate power with Item-total correlation by selecting items that have coefficients with individual scores greater than .20. The results showed that the questionnaire had an individual discriminant power between .476 - .867, and the reliability with the internal-consistency technique from the Cronbach Alpha approach indicated that each variable had a reliability of .769 -.879. Below are examples of the questions in the questionnaire.

Table 1. Examples of questions in the questionnaire

Concepts	Question
Life patterns	- Do you meditate?
	- How often do you use social media?
	- In your opinion, smoking helps reduce stress and anxiety
Coping with stress	- When I feel stress, I would take a nap or sleep to reduce my stress.
	- When I feel stress, I would use my experience to help me get through the problem.
Tobacco-purchasing behavior	- How often do you purchase tobacco products per week?
	- How much, on average, do you spend on tobacco products per transaction?

2.4 Data analysis

The data were analyzed using IBM Corp Recalesced 2019, IBM SPSS Statistical for Windows. Version 26.0. Armonk. NY. IBM Corp software with descriptive statistics, frequency, percentage, mean, standard deviation, and Multiple Linear Regression by Enter technique. The variables of this study were (see figure 1 for details).

The independent variables consisted of the

- Life patterns of teacher students in Bangkok
- the Coping with stress among teacher students in Bangkok.

The dependent variable consisted of the tobacco-purchasing behavior of teacher students in Bangkok.

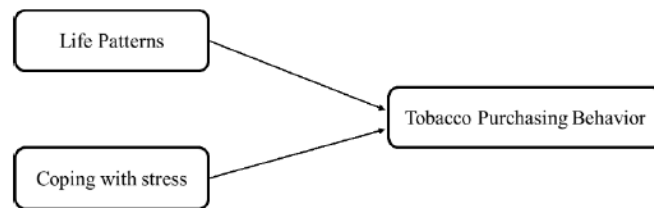


Figure 1. Conceptual framework

3. Results

The results of the study are divided into four tables including demographic data (Table 2) and the influence of life patterns and coping with stress on teacher students’ tobacco-purchasing behavior in Bangkok (Table 3 – 5) as follows:

Table 2. Demographic data (n=900)

Participant’s information	n	%
Sex		
Female	383	42.60
Male	517	57.40
Age (M = 20.44, SD = 1.14)		
18 years old	51	5.70
19 years old	144	16.00
20 years old	242	26.90
21 years old	280	31.10
22 years old	183	20.30
Students’ average budget		
Below 5,000 Baht/Month	366	40.70
5,001-10,000 Baht/Month	393	43.70
10,001-15,000 Baht/Month	112	12.40
15,001-20,000 Baht/Month	27	3.00
More than 20,000 Baht/Month	2	0.20

Table 3. The results of the Basic Assumption Statistic for Multiple Linear Regression analysis (n=900)

	Life patterns	Coping with stress	Tobacco-purchasing behavior
Correlation			
Life patterns	1		
Coping with stress	.260**	1	
Tobacco-purchasing behavior	.443**	.018	1
Descriptive			
M	2.53	3.85	1.40
SD	.53	.63	.48
Test of Normality			
Kolmogorov-Smirnova	.118**	.047**	.361**
Tolerance	.933	.933	n/a
VIF	1.072	1.072	n/a
Eigenvalue	2.960		

* This was statistically significant at the .05 level. ** This was statistically significant at the .01 level.

Table 3 revealed 1) The Pearson Correlation results were that each pair of variables had a relationship between .018 and .443. 2) When analyzing for normal distribution using Kolmogorov-Smirnova, the results indicated that all variables had no normal distribution (P-Value <.05). Even though the data is not normally distributed, the central limit theorem stated that if the sample size is large enough (n>100) the sampling distribution of the mean can be considered normally distributed (Bartz, 1999). 3) When analyzing the independent variables in this model for the degree of correlation using the variance inflation factor (VIF), it was found that the maximum value was 1.072, which was no more than 5.00, validated from the smallest tolerance of .933, which was not less than .200, while the highest Eigenvalue was 2.960, which was not more than 10.000. In conclusion, the independent variables were not correlated with one another. The central limit theory explains that if the sample randomly collected from the population with normal curve distribution is large enough, (n>100) is sufficient to make the distribution have a normal curve.

Table 4. The results of the linear relationship between the independent variables and the dependent variable (n=900)

Source of variation	SS	df	MS	F	P-Value
Regression	44.092	2	22.046	116.728**	.000
Residual	169.414	897	.189		
Total	213.507	899			

Durbin-Watson = 2.035; P-Value = .000

* This was statistically significant at the .05 level. ** This was statistically significant at the .01 level.

Table 4 indicated that there is a linear relationship between the independent variables and the dependent variable. This suggested that independent variables were able to predict the dependent variable with a significant (F= 116.728**, P-Value < .01). It was also found that the forecast-error values were independent of each other. (Durbin-Watson = 2.035, P-Value = .000).

Table 5. The results of the Multiple Linear Regression Analysis of teacher students in Bangkok, as regards their coping with stress and tobacco-purchasing behavior in Bangkok (n=900)

Independent variable	Standardized Coefficients	t	P-Value
B			
Constant	-	6.129	.000
1 (Life patterns	.470	15.267	.000
2 (Coping with stress	-.104	-3.382	.001
	R ² = 207	R ² _{Adjust} = 205	

Table 5 revealed that

1. The life patterns of teacher students in Bangkok positively influenced their tobacco-purchasing behavior and had a coefficient value of .470, with a statistical significance at the .01 level. In other words, if the life

patterns of teacher students in Bangkok increased by one unit, their tobacco-purchasing behaviors would increase by .470 units. At the same time, if the life patterns decreased by one unit, their purchasing behaviors would decrease by one unit as well.

2. Coping with the stress of teacher students positively influenced tobacco-purchasing behaviors and had a coefficient value of $-.104$, with statistical significance at the $.01$ level. In other words, if coping with stress increased by one unit, tobacco-purchasing behaviors would decrease by $.104$ units. On the other hand, if the Coping with stress decreased by one unit, their purchasing behaviors would increase by $.104$ units.

3. Together, Life patterns and Coping with the stress of teacher students in Bangkok could explain 20.50% of the tobacco-purchasing behavior of teacher students in Bangkok.

4. Discussion

The life patterns of teacher students in Bangkok positively influenced their tobacco-purchasing behavior with an influence coefficient of $.470$, which was statistically significant at the $.01$ level. In other words, if the life patterns of teacher students in Bangkok increased by one unit, their tobacco-purchasing behavior would increase by $.470$ units because the life pattern of each student affects their behaviors. Each person is raised differently and may be influenced by various things including their peers, their settings, and their social environments. These factors can influence how they behave in their everyday lives such as what activities they participate in, their sleeping patterns, their work habits, or their leisure styles (Blackwell et al., 2006). However, not all behaviors are productive and can lead to negative outcomes. Because many places around the universities sell tobacco products, these make it more available for students to purchase them (Phetphum and Noosorn, 2019). The findings suggested that the life patterns and social environments of teacher students can have strong influences on their tobacco-purchasing behaviors. The changes in these factors can have a significant impact on teacher students and many of them adjust their life patterns to their new environment (Lazurenko, 2020). Since tobacco usage is viewed to relieve stress by teacher students, this creates an environment where tobacco usage is a normal practice. New teacher students tend to model their behaviors after the junior or senior students and their lecturers, which leads to them using tobacco to relieve stress (Taylor, 2020). However, prolonged usage of tobacco has many negative effects on the users including students. This is correlated with a study by Milic et al. (2020), which found that using tobacco products is associated with a reduction in quality of life among college students. This included lower social, behavioral, and physical health (Jenifer, 2015; Thombs, 2019). When a change in life patterns occurs, it can lead to the development of new behavior both positive and negative. This can occur when students enter the university, and their life pattern changes due to their environment. The new culture can encourage teacher students to take on a new habit or behavior like using tobacco products to reduce stress or influence their perception of tobacco-purchasing behavior (Attarabeen et al., 2019). In other words, living in an environment where tobacco is a common method for relieving stress can affect their purchasing behavior (Sabreen, 2020; Orcullo and San, 2016; Glenn and Frohlich, 2020). As such, it is crucial to help teacher-students develop a new life pattern, the one without tobacco in it.

The results from this study also suggested that coping with stress factors has a negative influence on tobacco-purchasing behaviors among teacher students with a coefficient value of $-.104$ with a statistical significance at the $.01$ level. In other words, if coping with stress factors increased by one unit, tobacco-purchasing behaviors would decrease by $.104$ units. Since stress is a psychological response to a threat both physically and psychologically, it creates a state of imbalance for individuals. People often use some type of defense mechanism to decrease pressure and return the body to an equilibrium state (Fidler, 2009; Thombs, 2019). Unfortunately, not all mechanisms are positive. For teacher students, tobacco is one of the popular tools that they tend to use, which can have adverse effects in the long run (Glenn and Frohlich, 2020; St Claire, 2020). Stress is a common problem among college students because their learning styles changed when they moved from the secondary level to the tertiary level. Students who are unable to adapt to this new style usually feel stressed, depressed, confused, and discouraged (Lardier et al., 2020). This information is consistent with a study by Chansena (Chansena et al., 2013), who examined the stress of first-year undergraduate students. Another study by Gomathi et al. (2013) suggested that students who developed coping strategies and acted to reduce their stress tend to be more confident. It is commonly mistaken that tobacco usage can alleviate the symptoms of stress. However, it can increase stress and damage the health of the user. Reducing tobacco-purchasing behaviors can have a positive impact only on the teacher students, but also on their students in the future as well. Therefore, they must develop coping strategies to reduce their stress level, which in turn, can decrease tobacco-purchasing behaviors among teacher students (Mansouri et al., 2019).

Recommendations

1. The results from this study indicated that the life patterns of teacher students in Bangkok positively influenced their tobacco-purchasing behaviors with statistical significance at the .01 level. As such, universities should prepare teacher students to deal with stress using appropriate methods such as exercising, positive thinking, or meditation. This can help them reduce tobacco usage because teacher students will have different ways to cope with their daily stress. Besides, smoking in unauthorized places is a violation of the rights of others and can harm others through secondhand smoke. This also creates a negative image of teacher students, who will become teachers in the future. To promote a healthier lifestyle, the university can include stress management classes for teacher students and create a campaign to reduce tobacco usage among teacher students. The information should include the harmful impacts of tobacco on health and ways they can use to avoid using tobacco products.

2. This study also found that coping with stress factors positively influenced tobacco-purchasing behaviors among teacher students. Universities should focus on organizing activities that promote coping skills with teacher students. The structure of student affairs may be used to provide training courses for students through student orientations, after-school classes, or special seminars. The universities should invite an expert to teach students positive coping mechanisms. Additionally, universities should produce media that explains stress-management techniques through social media channels.

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