

Smoking Among Working-Age People: A Case Study of Community in Thailand

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Abstract:

Background – Smoking is dangerous for smokers and those nearby. The current smoking situation has an increasing number of smokers around the world. Cigarettes are addictive substances that have long-term health effects that threaten the health of the individual, community, and society. Many of the compounds in tobacco cause diseases such as *สํ*lung cancer or respiratory diseases. Every minute, 6-7 people die from smoking. The nicotine in cigarette smoke, when inhaled, enters the brain within 8-10 seconds, causing the arteries to constrict. high blood pressure, breathe faster, and stimulate the midbrain to make you feel relaxed in the early stages. Much working age is smoke for a reason to relieve stress. especially the working-age population with stress from work. The depletion of working-age resources from cigarettes is not something that should happen.

Objective – This paper aims to study the relationship between stress and smoking behavior of working age.

Methods – This research is contextual research by using a cross-sectional survey. The samples were working-age select the sample group by stratified proportion random simple and not overridden by using a random number table. The sample consisted of 350 working age. The research instrument was a questionnaire 3 part. The questionnaire was created by the researcher from literature review and related research. Three-part of questionnaires of personal data questionnaire, stress questionnaire and smoking behavior 30 item is five Likert scales. The statistics used for data analysis are descriptive, inferential statistics analyzed.

Results – Most of the working-age was at a moderate level of stress. and felt the least stressful. The relationship between stress and smoking behavior found that the duration of smoking, type of cigarette, smoked cigarette, and smoking frequency no relationship to stress while the cost of cigarettes per month, the reason you smoke when doing you usually smoke, and the place is often used to smoke associated to stress statistically significant at the 0.05 level

Conclusion – Working-age smoking is caused by several factors, one of the major factors being the stress of the working-age population. The results of the study found that smoking relieves stress. The effect of smoking often occurs in the long term. Working people still lack awareness of their health care. and regardless of the condition of the disease that will occur as well. However, a variety of ways to manage stress should be sought. To reduce the smoking behavior of working people to reduce

Keywords: Smoking/ Health promotion/ Mental health

Background

The number of employees who suffer from occupational stress is increasing all over

the world. This is happening because the work environment is constantly changing and demanding more and more from workers. Diverse authors have claimed that it is needed to

understand such changes to correctly intervene in those problems (Day, Crown, & Ivany, 2017). The lack of organizational support, the noise in communications, the excessive workload, inflexible and irregular schedules, the struggle of balancing the work and personal life are some of the reasons for this increased stress in individuals (Li et al., 2020). Therefore, stress is known as one of the biggest challenges to the health, physical and mental health of employees, with costs for productivity and competitiveness of organizations. Several studies have shown that individuals with higher levels of stress are less productive and have lower levels of performance and work engagement (Shain & Kramer, 2004). Quitting smoking is more like a marathon than a sprint. Even though some smokers may not have smoked for a while, they still need constant assessment and repeated interventions to prevent relapse. A longitudinal study spanning 25 years found that about 39% of former smokers – those who had quit smoking successfully – reported relapsing at least once during the smoking cessation process (Caraballo et al., 2014).

A survey of the National Statistical Office in 2021 found that the Thai population who smoked e-cigarettes was 78,742 people, representing 0.14% of the population aged 15 years and over, with a total number of 57 million people, of whom 40,724 smoked daily. and 38,018 non-daily smokers, of which 24,050 smokers were aged 15-24 years, and 47,753 were in Bangkok and the central region. (Pines, 1993) suggests that all individuals are vulnerable to stress. However, are those who have high expectations about their work, who become more vulnerable to occupational stress. It is estimated that about one in four workers is affected by stress and that between 50 and 60% of the absences to work are attributed to occupational stress (Moxotó & Malagris, 2015). According to the World Health Organization (WHO), more than 90% of the world's population is affected by stress. Therefore, organizations must be aware of the stressors and try to minimize them because some of the negative consequences may be the decrease in the pace of work, the increase in absenteeism, the costs of hiring and training new employees to replace the absent employee, the costs with medicines, among others. Thai governments have responded to community pressure and taken aggressive steps to reduce tobacco

consumption. These steps have included steep increases in price through the application of excise taxes, limiting availability and display of tobacco products, prohibiting the sale of tobacco products to minors, banning smoking from a wide range of public and workspaces, banning the advertising and promotion of tobacco products, enforcing plain packaging for tobacco products and enforcing the inclusion of large, graphic warning messages on all tobacco packaging. Tobacco warnings are incorporated in all school health curriculums. Governments and the not-for-profit sector support public education programs to encourage young people to resist commencing smoking and, if they have commenced, to quit. The World Health Organization's (WHO) Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 target is to reduce the prevalence of current tobacco use by 30% in persons aged 15 and older between 2010 and 2025 (World Health, 2013). Achieving this target will contribute to reducing the estimated seven million smoking-related global deaths per annum. A recent progress report noted that even in countries with advanced Framework Convention on Tobacco Control (FCTC) programs in place, some people are being “left behind, specifically those from marginalized groups” (Townsend, Martin, Löfgren, & De Leeuw, 2012). When patients with NCDs have appropriate self-care and health-promoting behaviors, they can help reduce the severity of the disease and improve their quality of life. (Ong-Artborirak & Seangpraw, 2019)

“Mental health conditions comprise a broad range of psychological conditions [...] characterized by a combination of abnormal thoughts, emotions, behavior, and relationships with others (Sampaio, Sequeira, & Teixeira, 2020). Smoking rates among people with a mental health condition are disproportionately higher than average state and country smoking rates across the world. The association between smoking and mental health conditions becomes stronger relative to the severity of the mental health condition, with the highest levels of smoking found in psychiatric in-patients. People with mental health conditions die on average 10–20 years earlier than the general population, and smoking is the single largest factor accounting for this difference (Machado, Oliveira, Marin, Sampaio, & Bertolucci, 2020;

Piñeros, 2020; Rašidagić & Hesova, 2020; Vermeulen, Gouse, Delport, Louw, & Miller, 2020).

Cigarettes are classified as a type of drug, but it is a drug that can be legally traded. Cigarettes contain nicotine, tar, ammonia, carbon monoxide, hydrogen, cyanide, radioactive substances. Including residues that cause toxic conditions to the body such as nickel, copper, chromium, potassium, etc. (Joossens & Raw, 2012). Cigarettes are cause many systemic cancers, especially lung cancer, and also increase the risk of leukemia, heart disease, and acute myocardial infarction. The chemicals and gases in tobacco smoke irritate the lining of the windpipe and air sacs leading to chronic inflammation and impaired lung function. It is the leading cause of chronic obstructive pulmonary disease (COPD). The working-age population plays a role and is highly important to the economy as the backbone of the nation. Create productivity and drive economic conditions for the country. If this group of people continues to smoke at such a high rate. It is inevitable to lose the opportunity to earn money or lose some organs from various diseases. resulting in lower efficiency of workless employment (Fouad et al., 2021). According to the survey of the National Statistical Office 2017, the number of people aged 15 years and over surveyed totaled 55.90 million people, 10.70 million people smoked or accounted for 19.10%, with the age group 25-44 years having 21.90%, 20-24 years old 20.70%, age group 45-59 years 19.10% from the data, it can be seen that working-age people aged 25-44 years had the highest number of smokers, about 12 million (21.90%), followed by people aged 20-24 and aged 45-59, with approximately 11 million (20.70%) and 10. million people (19.10%), respectively National Statistical Office, 2017.

The researcher studied stress and smoking behavior in working age. The results of this study will be of great benefit to public health agencies and related organizations. In planning and setting guidelines for health operations for employees who want to quit smoking and promote the health of non-smokers, leading to effective prevention of smoking for employees (Arici Özcan & Vural, 2020; Khoram, Bazvand, & Sarhad, 2020; Kose & Kiziltoprak, 2020; Noble & Jandjsek, 2020).

Methods

Study Design

This research is explanatory research using a cross-sectional survey. Study about stress levels and promote the relationship between stress and smoking behavior of working age in Samut Songkhram Province. A study of the population of working age-aged between 23-59 years of 2,819 people. The sample was of working age with a smoking habit of 350 people.

Setting and Sample

The population in this research study was working age in Muang District in Samut Songkhram Province 2,819 people. The sampling group was working age in Muang District. in Samut Songkhram Province. The researcher determined the sample by using Taro Yamane's computational formula to distribute the questionnaire to the sample group. to the working-age with smoking habits, a sample of 350 people.

Instruments

The tool used to collect data is a questionnaire. The researcher developed a questionnaire based on the literature review and research. The tool is divided into 3 parts as follows:

Part 1 Personal Information of 9 items, including Gender, Age, Duration of smoking, Education level, Number of family members, Monthly income, Income sufficiency, Congenital disease, and Marital status

Part 2 Stress level is divided into 2 parts, 5 items for personal factors, 4items for environmental factors, a total of 9 items.

Part 3 The questionnaire on smoking behavior consisted of 8 items, including Duration of smoking, Cost of cigarettes per month, Type of cigarette, Reason you smoke smoking, Opportunity smoking, Cigarettes while you smoke smoking, Habits smoking, and Place smoking.

Content validity

Conducted content correlation from 3 experts to check for content validity. The questionnaires were used with a total of 30

people who looked like a sample group (Try out) and analyzed the confidence of the questionnaire. By using the alpha Cronbach coefficient receive the confidence value of the questionnaire: educational environment factors Cronbach's alpha coefficient 0.97 and learning happiness Cronbach's alpha coefficient 0.83

Data Collection

Data were collected by using questionnaires. Data were collected during 1 May – 1 July 2021. We used a convenience sample of 350 students who were willing to participate in the study. The participants then signed a consent form, and each student spent around 10-15 minutes completing the self-report questionnaires. Checked all questionnaires, and if an incomplete questionnaire was found, the participant was asked to complete the questionnaire. However, respondents who were not willing to participate could withdraw anytime (Jonah & Kanyangale, 2021; Kanungo & Chatteraj, 2020; Payne & Hadzhidimova, 2020).

Data analysis

Analyze personal data stress level Smoking behavior of working adults in Samut Songkhram Province were analyzed by using the statistic of using frequency, percentage, mean and standard deviation. Analyze the relationship between stress levels and smoking behavior of

working-age using Chi-square statistic. (Statistical significance was set at $<.05$)

Ethical Consideration

The present study was approved by the Ethical Committee from Suan Sunandha Rajabhat University Ethics Committee certificate number: COA.2-166/2020 and the directors of five faculties. Each participant received explanations about the study and had their rights protected throughout, including confidentiality and the right to refuse or withdraw from the study. The participants also received information and signed a consent form.

Results

Characteristics of the Participants

The sample consisted of 350 working-age people, mostly male, Age between 23-29 years old, Graduated from secondary education level, Number of family members 4 people at most, Monthly income around 10,000-15,000 baht, Income sufficiency enough income, Congenital disease no underlying and allergic disease, Marital status are married see in table 1.

actions

Table 1 Number, percentage, mean and standard personal information of working age (n=350)

Variable	Number	%
Gender		
Male	293	83.71
Female	57	16.29
Age		
23-29 years old	116	33.14
29-35 years old	54	15.43
35-41 years old	67	13.14
41-47 years old	47	13.43
47-53 years old	36	10.29
53-59 years old	30	8.57
Education level		

Primary school	66	18.86
Secondary education	150	42.86
Diploma	79	22.57
Bachelor's degree	55	15.71
Number of family members		
2 people	34	9.71
3 people	88	25.14
4 people	122	34.86
More than 4 people	106	30.29
Monthly income		
less than 5,000 baht	27	7.71
5,000-10,000 baht	114	32.57
10,000-15,000 baht	129	36.86
15,000 baht or more	80	22.86
Income sufficiency		
Insufficient income	111	31.71
Enough income	175	50.00
Have more income than expenses	64	18.29
Congenital disease		
Hearth disease	14	4.00
Pulmonary disease	13	3.71
Hypertension disease	10	2.86
Diabetes disease	6	1.71
Allergic disease	45	12.86
No underlying	256	73.14
Other	6	1.71
Marital status		
Single	133	38.00
Married	172	49.14
Separated	45	12.86

Most of the respondents moderate stress, little stress, very stressed, no stressed, and most stressed with the least amount. The mean

stress was 2.66, the standard deviation was 0.88 see table 2.

Table 4.2 Number, percentage, mean, and standard stress factors of working age (n=350)

Variable	Number	%	M	SD
Stress level			2.66	0.88
No stress	28.00	8.00		
Little stressed	127.00	36.29		
Moderately stressed	135.00	38.57		
Very stressed	56.00	16.00		
Most stressed	4.00	1.14		

The data related to smoking behavior of working-age found that most of the working-age had a smoking period between 1-8 years. There is a smoking fee of about 200-500 baht. The most common types of cigarettes used by working adults are finished cigarettes. Reasons to smoke to relieve stress. Most of them smoke

whenever they get the chance. Have a habit of smoking and spitting out cigarette smoke. Most of them smoke every day and do not choose a place to smoke see table 3.

Table 3 Number, percentage, mean and standard smoking behavior of working age (n=350)

Variable	Number	%	M	SD
Duration of smoking			1.75	0.96
1-8 years	180	51.43		
8-16 years	107	30.57		
16-24 years	36	39.30		
24-32 years	23	6.57		
32-40 years	4	1.14		
Cost of cigarettes per month			1.99	1.08
200-500 baht	144	41.14		
500-1,000 baht	126	36.00		
1,000-1,500 baht	19	5.43		
1,500-2,500 baht	61	17.43		
Type of cigarette			1.18	0.48
Finished cigarettes	300	85.71		
Custom roll cigarettes yourself	40	11.43		
Cigar	8	2.29		
Pipe	2	0.57		

The reason you smoke			2.45	1.66
Relieve stress	164	46.86		
Relieve loneliness some time	58	16.57		
Smoke to show confidence	16	4.57		
Want to try	31	8.86		
More than 1 answer	81	23.14		
Time smoking			4.64	2.33
Thinking time	49	14.00		
Stress	68	19.43		
After waking up	7	2.00		
Before eating	6	1.71		
After eating	37	10.57		
whenever there is a chance	72	20.57		
More than 1 answer	111	31.71		
Smoke behavior			1.49	0.50
Pumped out	178	50.86		
Deep smoke into your lungs	172	58.00		
Other	0	49.14		
Smoking frequency			3.02	1.22
2-3 times per day	70	20.00		
Once a week	46	13.14		
Occasionally	42	12.00		
Every day	192	54.86		
Place smoking			4.23	1.62
Toilet	26	7.43		
Home	37	10.57		
Open area	53	15.14		
A place to smoke only	56	16.00		
Don't choose a place	69	19.71		
More than 1 answer	109	31.14		

Duration of smoking, Type of cigarette, Smoke behavior, Smoking frequency no relationship to stress, but Cost of cigarettes per month, Reason

you smoke smoking, Time smoking, Place smoking cigarettes to relationship on stress levels statistically significant at the 0.05 level

ตารางที่ 4.11 Relationship between smoking behavior and stress level of working age (n=350)

Variable		Stress level	p-value
Duration of smoking	of	6.51	0.89
Cost of cigarettes per month	of	26.50	0.01*
Type of cigarette	of	5.59	0.94
The reason you smoke smoking		26.91	0.04*.
Time smoking		39.92	0.02*.
Smoke behavior		4.92	0.30
Smoking frequency		10.78	0.55
Place smoking cigarettes		38.84	0.01*

Table 3 reported that teacher advisor characteristics and curriculum characteristics could explain the variance of the learning happiness, and it calculated 11.0%. There are the teacher advisor's characteristics are to look after the students closely, which gives students peace

of mind and clear curriculum characteristics, assuring them that after graduation they will not lose their job.

Table 3 Regression coefficients of predicted variables and statistics of smoking behavior and stress level by multiple regression analysis (n=350)

Variable	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	Std. Error	Beta		
(Constant)	2.771	.249		11.128	.000
Cost of cigarettes per month	-.112	.045	-.137	-2.512	.012*
Type of cigarette	.104	.099	.056	1.058	.291
The reason you smoke smoking	.020	.030	.037	.652	.515

Time smoking	-.043	.023	-.114	-1.902	.058
Smoke behavior	.098	.094	.056	1.039	.300
Smoking frequency	.023	.042	.032	.554	.580
Place smoking cigarettes	-.018	.031	-.033	-.573	.567

Note: p -value < 0.05, $R^2=0.041$, Adjusted $R^2 = 0.021$, $F=2.07$

Conclusion

The study of the research project can be analyzed. and the results of the research can be summarized as follows: Most of the working-age was at the highest level of moderate stress. And feel the most stressed, only 4.00 people, or 1.14%. Consistent with research by Tina Jahnel (2019), a study of stress and smoking The results showed that On a low-educated individual level, and African-American smokers reported an increase in daily stress. More periods of smoking monitoring This has a little indirect effect on the daily stressful experience of social disadvantage and smoking.

Smoking behaviors include Duration of smoking, Cost of cigarettes per month, Type of cigarette, The reason you smoke smoking, Time smoking, Smoke behavior, Smoking frequency,

Place smoking cigarettes and stress level finding the cost of cigarettes per month the reason you smoke When do you usually smoke? and where the preference for smoking was associated with stress levels.

The reason you smoke is associated with stress which corresponds to Arisara (Ng & Jeffery, 2003) studied the subject. Factors related to smoking behavior of employees who have smoking behavior or have ever smoked, Most of them are males, aged 26-30 years old, graduated at the highest level with a degree, are single, earn 20,001-30,000 baht, are engineers. and no one close to smoking Smoked cigarettes for 1-5 years, smoked less than 10 cigarettes per day the main reason is to relieve stress.

The efficacy of quitting smoking and the various “Quit” campaigns mounted by governments and pharmaceutical companies mentioned above is shown in the growth in the likelihood of a respondent being an ex-smoker rather than never having smoked in the older age groups. There is a clear age gradient in the 2001

survey, with ratios increasing steadily from 1.873 for 25–34-year-olds. In the 2017–2018 survey, the gradient increased markedly so that ratios increase steadily from 2.817 for 25–34 years to 8.434 for those aged 65 plus.

(de Meyrick & Yusuf, 2021) are compared with males, females are much more likely to remain never smokers. The likelihood of a male taking up smoking and either subsequently continuing to smoke or successfully quit are approximately twice those of a female. Of concern is the increase in the likelihood that males will continue to be current smokers rather than never having smoked from 1.8 in the 2001 survey to 2.093 in the 2017–2018 survey and a decrease in the likelihood that they will successfully quit from 1.936 to 1.894 compared with females. This is consistent with research by (Lowe, Gregg, & McEwan, 2009). Daily stress is a link between downside and smoking. The results showed that On a low-educated individual level, and African-American smokers reported a greater increase in daily stress over the duration of smoking monitoring. This has a little indirect effect on the daily stressful experience of social disadvantage and smoking. Inconsistent with research by (Widome et al., 2015) study of the relationship between smoking behavior and financial stress among low-income smokers. The results showed that The average smokers were 18-64 years old, had lower secondary education. Most of the causes of smoking are due to financial stress, difficulty earning less than expenditures. They pay for medical care (33.6%), pay for housing (38.4%), and pay for food (40.8%) and living to survive (Layachi, 2021; Mncayl & De Jongh, 2020; Monat & Doremus, 2020; Muller, 2020; Salavrakos, 2020; Sreekumar, 2020; Zubairu, 2021).

Further research is indicated to confirm the role of tobacco smoking in stress reduction and to foster closer cooperation between those active in tobacco control and those seeking to assist

people to deal with distress in increasingly stressful times, to ensure alignment of their strategies (Gonzalez, Boiché, & Álvarez, 2020; Rykiel, 2020).

This research is different from the previous study. Because it is a study during the 2019 coronavirus epidemic that has not yet been studied by many researchers. And the epidemic situation that occurs may be one of the reasons that people of working age are stressed to adjust to the situation, resulting in smoking behavior and have more health problems

Limitation

1. This research only studied students in one province should have studied at another province to compare research results and apply the information to promote mental health promotion decrease stress.

2. In addition, the data was collected by using questionnaires alone. There should be more qualitative data collection, such as in-depth interviews, grouping, to confirm more quality quantitative research data.

3. Different cultures and demographics may result in different research results. Further research should be conducted in populations with different contexts to see the results of this research compared with this research.

Declaration of Conflicting Interest

The authors declare no conflict of interest.

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