

THE DEVELOPMENT OF AN EVALUATION MODEL FOR MEASURES OF TOBACCO CONSUMPTION CONTROL IN THAI YOUTH OF THE PROVINCIAL TOBACCO PRODUCTS CONTROL BOARD: AN APPLICATION OF THE MPOWER STRATEGIC FRAMEWORK

Thitipat Jankasem¹, Thanach Kanokthet²

Abstract

This mixed method research aims to develop an evaluation model for measures of tobacco consumption control in Thai youth of the Provincial Tobacco Products Control Board by application of the MPOWER strategic framework. Data were collected from the strategic framework Provincial Tobacco Products Control Board total 162 samples and analyzed by applying issue-based analysis, descriptive statistics, and Hierarchical Multiple Regression Analysis, then developing an evaluation model for measures of tobacco consumption control in Thai youth of the Provincial Tobacco Products Control Board by application of the MPOWER strategic framework from practicing Delphi Technique by exalted experts.

The findings revealed that 1) the factors affecting positively on the evaluation for measures of tobacco consumption control in Thai youth scores with significant level at 0.05 are as follows ; prioritization of tobacco consumption control measures, sufficiency of resources, communication skills, integration of measures into the normal working system, reflective monitoring, and knowledge on tobacco consumption control, while attitudes toward tobacco-related profession will affect negatively. The evaluation model for measures of tobacco consumption control in Thai youth of the Provincial Tobacco Products Control Board comprises of 7 parts including 1) evaluation goal 2) components and evaluating attitude towards work in the field of tobacco control, for 7 components and 47 indicators 3) evaluation criteria 4) evaluation method 5) evaluators 6) evaluation time period 7) feedback providing. By practicing the Delphi Technique, the 7 components and 55 questionnaires, it was found that all questions have the median

¹ Doctoral Student, Faculty of Public Health, Doctor of Public Health Program, Naresuan University, Phitsanulok, Thailand, obajung_1989@hotmail.com

² Lecturer, Faculty of Public Health, Doctor of Public Health Program, Naresuan University, Phitsanulok, Thailand

between 3.50-5.00 which have high to very high suitability, with interquartile range between 0-1.00 all having consistency and probability of execution in high to very high level with average score between 3.50 - 5.00.

Keywords: Evaluation, Measures, Provincial Tobacco Products Control Board, MPOWER.

Introduction:

Tobacco of all types are detrimental to the health and livelihood of human. The proliferation of tobacco has been one of significant threats for global public health, there are more than 7 million deaths worldwide each year due to direct consumption of tobacco and 1.2 million more from being exposed to second-hand cigarette smoke (WHO, 2022). It is speculated that deaths due to diseases relating to tobacco consumption will increase to more than 8 million a year by 2030 if the governments do not cooperate in preventing and controlling tobacco consumption more rigorously (WHO, 2017). Even though the data from 2015-2020 shows a slight decreasing trend of smoking in youth from 24.9% to 22.8% (WHO, 2019), the percentage of smoking in youth remains at a high level. From the data in 2019, prevalence of smokers age 15-24 worldwide was 20.1%; 89% of them were new smokers who became addicted at the age below 25, and the region of Southeast Asia has the highest prevalence of youth smoking at 9.4% in male and 4.8% in female (WHO, 2019a). In addition, half of all the countries in the world still has no improvement in minimizing the smoking in this population group (Reitsma, et al., 2021). It was also found that more than 80% of global tobacco consumers live in low- and middle-income countries (WHO, 2022).

Thailand is one of the countries in Southeast Asia with a moderate-income level. However, it is currently facing a growing problem of Thai youth engaging in new cigarette consumption and becoming regular smokers. This is primarily due to the fact that the average age of initiating smoking among youth is between 16 and 20 years, accounting for approximately 60% of smokers. Moreover, quitting smoking is challenging, as the majority of youth smokers have never considered quitting or made any attempts to quit, with a rate as high as 88.2% (National Statistical Office, 2018). Analyzing the youth smoking situation over the past decade (2004-2014), there has been an increasing trend with an average rise of 5%, from 6.6% to 8.3% (Food and Drug Administration, 2017). Furthermore, a survey conducted in 2017 revealed that 9.7% of Thai youth were smokers, with 7.2% being regular smokers and 2.6% smoking occasionally. Among regular smokers, 85.0% consumed 1-10 cigarettes per day, 13.8% smoked 11-20 cigarettes per day, and 1.2% smoked no less than 20 cigarettes or one pack per day. In terms of the types of cigarettes

avored by Thai youth, 55.1% prefer regular cigarettes, 18.1% prefer electronic cigarettes, 18.1% prefer shisha (water pipes), and 8.7% prefer rolling tobacco (National Statistical Office, 2018). Furthermore, the majority of Thai youth purchase cigarettes from grocery stores (83.2%), convenience stores (12.3%), while a very small percentage buys them from abroad (0.1%) or from others (0.1%) (National Statistical Office, 2018).

Cigarette smoking is the most popular form of consumption worldwide, particularly among young people, with a specific focus on electronic cigarettes that target this age group. The use of flavors is employed to attract their attention, and there is extensive advertising and promotion through the internet and social media platforms. Additionally, the majority of the marketing claims regarding health and smoking cessation effectiveness (WHO, 2022). Youth smoking is therefore the most significant health risk behavior, characterized by longer smoking durations compared to other groups, and nicotine exposure in youth can be detrimental to developing brains. The use of tobacco products in any form is unsafe and results in approximately 1 in 13 deaths among youth due to smoking-related illnesses (Centers for Disease Control and Prevention, 2020). The impact of illness and mortality caused by smoking is extremely severe. Nicotine in cigarettes is an addictive substance and a significant risk factor for the development of non-communicable diseases (NCDs). It increases the risk of heart disease and lung disease. According to data on Thai deaths related to smoking in the year 2017, a total of 72,656 people died from smoking-related causes. Out of these, more than 40,000 deaths were attributed to lung diseases, including 13,727 deaths from lung cancer, 10,852 deaths from emphysema, and 10,833 deaths from pneumonia and tuberculosis. Additionally, 8,278 deaths were attributed to secondhand smoke (Rungruedee Patanavanich, 2018). Furthermore, tobacco consumption contributes to financial hardship due to the cost of purchasing cigarettes and healthcare expenses. It also leads to the loss of human capital resulting from illness and premature death caused by smoking (WHO, 2022).

To control and prevent adolescents from trial smoking, it is crucial to manage the spread of tobacco use. The World Health Organization (WHO), with 182 member countries, has provided guidance through the first version of the "Framework Convention on Tobacco Control" (FCTC) in the year 2003 (B.E. 2546). In 2007 (B.E. 2550), WHO introduced a practical approach to implementing the core provisions of the FCTC, known as MPOWER strategy, which includes: 1) Monitoring tobacco use and prevention policies 2) Protecting people from tobacco smoke 3) Offering help to quit tobacco use 4) Warning about the dangers of tobacco 5) Enforcing bans on tobacco advertising, promotion, and sponsorship, 6) Raising taxes on tobacco.

These six measures have been scientifically proven to effectively reduce mortality rates and healthcare costs associated with smoking-related illnesses, aiming to achieve global targets (WHO, 2005; WHO, 2008; WHO, 2022).

Thailand is one of the member countries that actively participates in implementing the Framework Convention on Tobacco Control (FCTC) of the World Health Organization (WHO), with the Department of Disease Control, Ministry of Public Health, being the main responsible agency. Currently, Thailand has developed the National Tobacco Control Strategic Plan 2nd Edition 2016-2022, which consists of six strategies aligned with the MPOWER measures. These strategies include: 1) Strengthening and enhancing the country's capacity to control tobacco by developing policies, measures, and management of tobacco control and prevention 2) Preventing the initiation of new tobacco users and monitoring the tobacco industry targeting children, adolescents, and new smokers 3) Assisting tobacco users to quit smoking 4) Regulating and disclosing the components of tobacco products 4) Creating smoke-free environments 5) Utilizing tax measures and enforcement to control tobacco driven by provincial tobacco control committees and enforced through legislation under the Tobacco Control Act B.E. 2560 emphasizing the prevention of youth access to tobacco products (Nitat Sirichotrat, & Chatsumon Pruttipanyo, 2017, p. 420; Tobacco Control Bureau, 2016; WHO, 2008). This comprehensive approach aims to reduce the prevalence of smoking among adolescents aged 15-18 to no more than 8% by the year 2025, as set forth in the national target. This mission poses challenges for all sectors, including governmental agencies, non-governmental organizations, and relevant stakeholders (Tobacco Control Bureau, 2017).

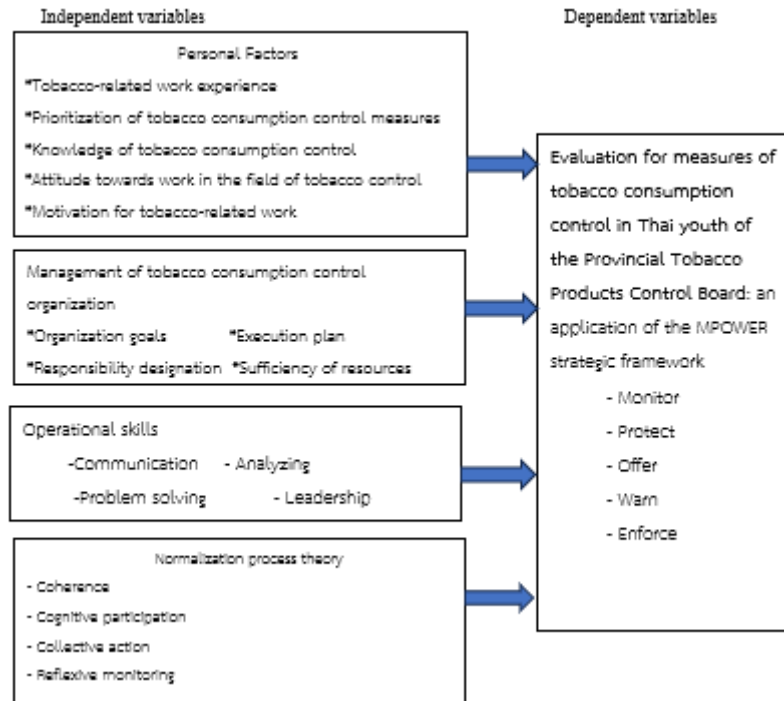
The tobacco control policies and legislation in Thailand are clear and aligned with the MPOWER strategy and the Framework Convention on Tobacco Control (FCTC) of the World Health Organization (WHO). However, there is a growing trend of increased tobacco consumption among youth, and the set targets have not been achieved. The rates of smoking-related illnesses and deaths remain high, and the enforcement of laws in the youth population is still not fully effective due to various limitations that hinder the implementation of different measures (Charuaypon Srisasalak, 2015; Tobacco Control Bureau, 2015). Therefore, continuous review, monitoring, and evaluation are crucial in developing effective measures to control youth tobacco consumption. While previous monitoring and evaluation of Thailand's tobacco control efforts have mainly relied on surveys of smoking behaviors conducted every three years, and mostly focused on comparing the results with targets or indicators, the available data is still insufficient, and there is a need for knowledge to assess the

effectiveness of control measures and their implementation. Additionally, there is a lack of evaluation of the work progress of the tobacco control committees under the Tobacco Control Act B.E. 2560, the enforcement of the law, and the surveillance or studies on the health impacts (Tittiporn Kanwihok, Wilailak Haruhanpong, & Jutatip, Preekarn, 2018; Siriwan Pitayarangsan et al., 2010). Therefore, it is necessary to conduct an evaluation of the process of implementing tobacco control measures in Thai youth by the Tobacco Control Committee. This evaluation should focus on assessing ongoing activities or those in development (formative evaluation) and use the findings to enhance and improve the implementation of the measures to achieve the set objectives (Scriven, 1967). It is essential to systematically gather data to understand the outcomes of implementing the measures (implementation) and to reflect on the success or failure of the measures and their impact on stakeholders in various dimensions in a fair and unbiased manner (Chayaporn Boonruangsak, 2018; Wattanawat Opaswattana, n.d.).

As May and Finch (2009) proposed in the Normalization Process Theory, it relates to the sociological aspects of work and its translation into practice. It encompasses four key elements: coherence, cognitive participation, collective action, and reflexive monitoring. The theory emphasizes the importance of creating a sense of relevance and engagement among individuals in the process of implementation. Many researchers have chosen to use the Normalization Process Theory to assess processes and explain how they lead to successful implementation outcomes, considering the interactions between practitioners and the organizational context. It is also used to identify barriers and facilitators that influence the implementation process. Additionally, it helps explain the success or failure of specific and efficient implementation efforts (May et al., 2018; Trietsch et al., 2014).

Based on the aforementioned problem and findings, the researchers are interested in studying the factors that influence the assessment scores of tobacco control measures in Thai youth by the Provincial Tobacco Control Committee. They aim to apply the MPOWER framework in developing an appropriate evaluation model for tobacco control measures in Thai youth by the Provincial Tobacco Control Committee, considering the context of Thailand. Furthermore, the identified factors can serve as guidelines for relevant organizations and agencies in improving the evaluation of tobacco control measures in Thai youth by the Provincial Tobacco Control Committee, using the MPOWER framework. This will contribute to the achievement of Thailand's goals by promoting the development and enhancement of effective tobacco control measures to reduce youth tobacco consumption.

Conceptual framework



Methodology

MPOWER research is conducted based on the pragmatism research paradigm, which is a mixed-method

research approach that emphasizes the outcomes of practical implementation. It aims to address diverse and constantly evolving problems. The research process is divided into three phases to align with the research objectives. These phases include:

Phase 1: Contextual Study

In this phase, a convergent design is employed to collect data using both qualitative and quantitative research methods. Qualitative research involves conducting in-depth interviews with 10 members of the provincial tobacco control committee. Quantitative research involves administering questionnaires to 162 members of the provincial tobacco control committee.

Phase 2: Development of Evaluation Framework

The evaluation framework for controlling youth tobacco consumption in Thailand is developed by applying the MPOWER strategy. This phase utilizes qualitative research through focus group discussions with 18 stakeholders divided into two subgroups of 9 participants each.

Phase 3: Evaluation of the Assessment Framework

The assessment framework for controlling youth tobacco consumption in Thailand, based on the MPOWER strategy, is evaluated using qualitative research and the Delphi technique. A panel of 17 qualified experts in tobacco control assessment and implementation evaluate the framework.

The research is conducted from March to June 2022 to gather variable values for testing the factors influencing the assessment scores of the tobacco control measures in Thai youth, as applied using the MPOWER strategy.

In this research, the population and sample group used are the members of the provincial tobacco control committee in Thailand. Each province consists of 24 committee members, as regulated by the Tobacco Control Act of 2017 (B.E. 2560). Since this study utilizes multiple regression analysis, the sample size is determined based on the rule of thumb that suggests having at least 10 units per variable, with a minimum total sample size of 100 individuals (Supaporn Sridee, 2020). Therefore, the research area is divided into four regions in Thailand, and a purposive sampling method is employed to select specific provinces. The selected provinces include:

- Northern Region: Kamphaeng Phet Province and Chiang Mai Province
- Central Region: Nakhon Nayok Province and Samut Songkhram Province
- Northeastern Region: Mukdahan Province and Si Sa Ket Province
- Southern Region: Krabi Province and Yala Province

Thus, the sample size for this research involves collecting data from all 162 members of the provincial tobacco control committee in the eight selected provinces.

Population Sample Rights protection

This research has been approved by the Research Ethics Committee of Naresuan University, with reference number 077/2022, dated 28th February 2022. The researchers have provided participants with information and objectives of the study, and informed them about their rights to consent or refuse participation. The researchers collected data through the following steps:

1. The researchers obtained research authorization and collected data from the Graduate School of Naresuan University. They then forwarded the data collection process to the designated government agencies of the target group.
2. The researchers coordinated and explained the data collection details to the responsible officials in the target provinces' public health

offices, who were responsible for collecting data through questionnaires. They ensured a clear understanding of the data collection methods and appropriate questions.

3.Data collection was conducted by sending a letter requesting collaboration to the target provincial health offices. This letter aimed to coordinate data collection with the sample groups in each province. The sample groups were requested to respond to the questionnaires themselves or through representatives using Google forms, which included a QR code attached to the collaboration request letter. The data collection period was approximately 3 months.

Results

Research findings are divided into three parts as follows:

Part 1: Personal Factors

The majority of the Tobacco Control Committee members in the provinces are male, accounting for 54.3%. They are primarily aged between 51-60 years, accounting for 58.0%. 44.4% of them have a master's degree. 71.6% have less than 6 years of experience in tobacco control. Regarding the importance of carrying out tobacco control work, 22.2% rated it at level 8 and 10. In terms of knowledge about tobacco control, 81.5% have a moderate level of knowledge. They hold a moderate attitude towards working on tobacco control, accounting for 66.7%. Furthermore, 59.3% have a high level of motivation in working on tobacco control. The majority of the Tobacco Control Committee's organizational management in the provinces have organizational goals, accounting for 85.2%. 76.5% have operational plans, 67.9% have designated roles and responsibilities, and 61.7% have sufficient resources. The overall job performance skills of the Tobacco Control Committee in the provinces are at a high level, accounting for 79.0%. When examining specific aspects, communication skills are at a high level, accounting for 67.9%. Analytical skills are at a high level, accounting for 60.5%. Problem-solving skills are at a high level, accounting for 67.9%. The presence of leadership qualities is at a high level, accounting for 63.0%.

On Normalization process theory of the Tobacco Control Committee, the overall application of the normalization process theory by the Tobacco Control Committee in the provinces is at a high level, accounting for 70.4%. When examining specific dimensions, coherence is at a high level, accounting for 59.3%. Cognitive participation is at a high level, accounting for 81.5%. Collective action is at a high level, accounting for 61.8%. Reflexive monitoring is at a high level, accounting for 66.6%.

Part 2: Assessment Scores of Tobacco Control Measures for Thai Youth by the Provincial Tobacco Control Committee, using the MPOWER framework

The overall assessment score for tobacco control measures for Thai youth by the Provincial Tobacco Control Committee, using the MPOWER framework, is predominantly low at 43.2%. When individual measures are assessed, the following scores are observed:

1. Monitoring and enforcement of tobacco consumption control policies (Monitor) lack reported data, resulting in a score of 35.8%.
2. Protection of the population from secondhand smoke (Protect) lacks reported data, resulting in a score of 42.0%.
3. Assistance provided to tobacco users to quit (Offer) lacks reported data, resulting in a score of 70.4%.
4. Public awareness campaigns to warn about the dangers of tobacco (Warn) have activities aimed at informing or raising awareness among youth, with a minimum of 90%, resulting in a score of 34.6%.
5. Enforcement of laws to ban tobacco advertising, promotion, and sponsorship (Enforce) involves inspections, warnings, and penalties for businesses engaging in tobacco advertising, promotion, and support, resulting in a score of 45.7%.

Part 3: Factors influencing the assessment scores of tobacco control measures for Thai youth by the Provincial Tobacco Control Committee, using the MPOWER framework

Several factors have been identified to significantly influence the assessment scores of tobacco control measures for Thai youth by the Provincial Tobacco Control Committee, using the MPOWER framework. These factors, ranked in descending order of importance, are as follows:

1. The level of importance placed on implementing tobacco control operations.
2. Adequacy of available resources.
3. Communication skills in performing tobacco control tasks.
4. Reflexive monitoring within the context of the Normalization Process Theory.
5. Attitude towards working in tobacco control.
6. Knowledge about tobacco control.

These six factors collectively account for 31.7% of the statistically significant prediction of assessment scores for tobacco control measures for Thai youth by the Provincial Tobacco Control Committee, using the MPOWER framework, at a significance level of 0.05.

Table 1 Presentation of the analysis results on the factors influencing the assessment scores of tobacco control measures in Thai youth by the provincial committee on controlling tobacco products, utilizing the MPOWER framework (n = 162)

Variables	b	Beta (β)	t	p-value	Collinearity Statistics	
					Tolerance	VIF
(X2) the level of importance of implementing tobacco control measures	0.320	0.172	2.234	0.027*	0.744	1.345
(X9) sufficiency of resources	1.838	0.209	3.053	0.003*	0.941	1.063
(X10) Communication skills	0.444	0.276	3.536	0.001*	0.724	1.380
(X17) Normalization process theory on reflective monitoring	0.333	0.259	3.393	0.001*	0.759	1.318
(X4) Attitude towards work in the field of tobacco control	-0.276	-0.287	-3.414	0.001*	0.625	1.600
(X3) Knowledge on tobacco consumption control	0.681	0.181	2.499	0.013*	0.843	1.186

* p-value < 0.05, Constant = -1.477, R² = 0.317

By combining all six variables, the prediction of the score for evaluating tobacco control measures in Thai youth by the provincial committee for controlling tobacco products is 31.7%. The prediction equation can be formulated as follows

$$Y = -1.477 + 0.172(X2) + 0.209(X9) + 0.276(X10) + 0.259(X17) - 0.287(X4) + 0.181(X3)$$

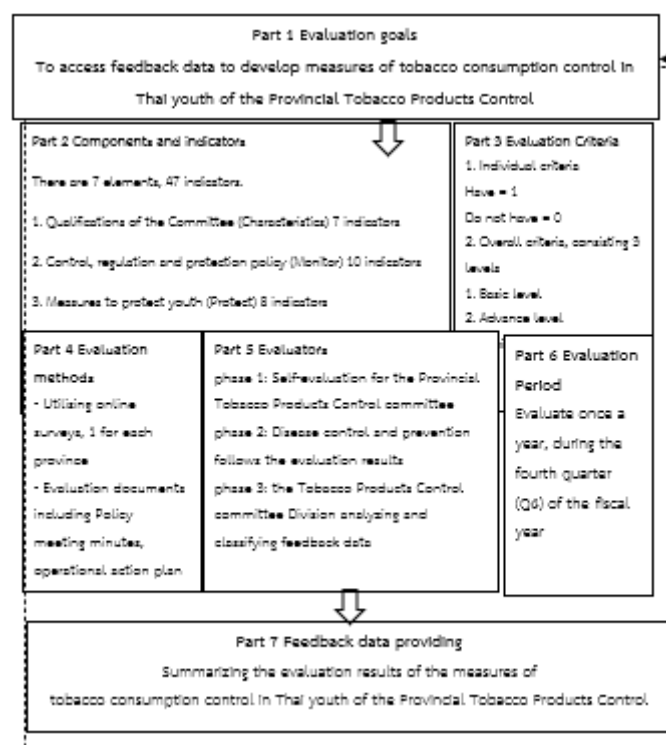


Figure - Evaluation model for measures of tobacco consumption control in Thai youth of the Provincial Tobacco Products Control, applying the MPOWER strategic framework

Part 3 of the evaluation results for the assessment format of tobacco control measures among Thai youth by the Provincial Tobacco Control Committee, using the MPOWER strategy framework, indicates the following: Among the 17 qualified individuals or experts, it was found that there were 49 questions with a high level of suitability in the assessment format, with a median score ranging from 4.50 to 5.00. Additionally, there were 6 questions with a moderate level of suitability, with a median score ranging from 3.50 to 4.49. It was also observed that all 17 qualified individuals or experts agreed on the suitability of the assessment format for tobacco control measures among Thai youth, developed through the application of the MPOWER strategy framework, with agreement scores ranging between 1 and 3 on a scale of 0 to 1. Regarding the feasibility of implementing the format, it was found that there was a high level of feasibility, with an average score ranging from 4.50 to 5.00 for 40 questions. Furthermore, there was a moderate level of feasibility, with an average score ranging from 3.50 to 4.49 for 15 questions.

Discussion

The development of the assessment format for tobacco control measures among Thai youth by the Provincial Tobacco Control Committee, using the MPOWER strategy framework across the 6 factors, can be summarized as follows:

1) The assessment format developed in this research focuses on evaluating the progress of the implementation process, utilizing a formative evaluation approach. It consists of 7 important components: Part 1: Assessment objectives, Part 2: Components of assessment and indicators, Part 3: Assessment criteria, Part 4: Assessment methods, Part 5: Assessors, Part 6: Assessment timeline, and Part 7: Feedback provision. The development process involved applying theoretical concepts to define the research framework, studying the contextual background and factors influencing the scores of the assessment of tobacco control measures among Thai youth by the Provincial Tobacco Control Committee. The format was further refined through the active involvement of relevant stakeholders, resulting in the aforementioned components. When the format was evaluated for its quality by 17 qualified individuals or experts in terms of suitability and feasibility, it was found that the assessment format for tobacco control measures among Thai youth, using the MPOWER strategy framework, demonstrated the highest level of suitability and feasibility. The opinions of the qualified individuals or experts were consistent for all components, indicating the overall suitability and feasibility of the format, as well as its potential for practical implementation. This reflects the development of a clear assessment format that is considered valuable, acceptable, and applicable, indicating the establishment of a comprehensive evaluation approach in this study and the content of the assessment is comprehensive and systematic consistent with the research results by Chavanont Chansook, Somkid Promjui, Supak Pibun, and Yaowadee Suwannaka (2017) found that the format of the evaluation for the nursing students' competence in providing compassionate care consists of four components: 1) Assessment objectives, 2) Assessment content and evaluation criteria, 3) Assessment methods including assessors, assessment activities, assessment duration, and assessment tools, and 4) Feedback provision. Overall, the quality of the assessment format for evaluating the competence in providing compassionate care by nursing students is highly suitable. It aligns well with the components of assessment objectives, evaluation criteria, assessment methods, assessors, assessment duration, and feedback provision. Additionally, the research findings by Maruthapandian (2018) indicate that the developed assessment format for enhancing graduate students' learning includes five steps: 1) Setting learning outcomes, 2) Analyzing students' competency levels, 3) Defining assessment methods,

assessors, and data sources, 4) Creating assessment tools and criteria, and 5) Assessing and providing feedback. This format is consistent with the components of assessment methods, assessors, data sources, evaluation criteria, and feedback provision. Similarly, the assessment development framework by Nevo (1983) includes assessment objectives, components of assessment, assessment processes, and evaluation criteria, which can be used as a guideline to enhance the effectiveness of human resource management. It aligns with the components of assessment, assessment processes, and evaluation criteria. Therefore, the components of the developed assessment format in this research are important, appropriate, and aligned with the implementation of measures to control tobacco consumption among Thai youth by the Provincial Tobacco Control Committee. It provides guidance for assessing the process of implementing the measures and can be used to improve and develop the process of implementing effective measures to control tobacco consumption among Thai youth by the Provincial Tobacco Control Committee.

2) The level of importance of implementing tobacco control measures has a statistically significant effect ($\text{Beta} = 0.172$) on the evaluation scores of tobacco control measures among Thai youth by the Provincial Tobacco Control Committee, at a significance level of 0.05. This finding is consistent with the research conducted by Tithiporn Kanwikhok, Vilailak Haruhanpong, and Jutatip Preekan (2018), which studied the effective implementation format and essential characteristics/skills of personnel in controlling tobacco consumption at the provincial level. The important components of an effective tobacco control implementation format include prioritizing tobacco control as a provincial strategy by the management, fostering collaboration among government, private, and civil society sectors, and aligning with the research of Rogers, Gillespie, Smelson, & Sherman (2018) on quality assessment in the perception of mental health clinic staff regarding barriers and facilitators in treating tobacco users. It was found that factors supporting tobacco cessation programs in mental health hospitals include emphasizing the importance of addressing tobacco use in mental health patients, although they may face challenges in prioritizing tobacco management interventions.

3) The sufficiency of resources has a statistically significant effect ($\text{Beta} = 0.209$) on the evaluation scores of tobacco control measures among Thai youth by the Provincial Tobacco Control Committee, at a significance level of 0.05. This finding aligns with the research conducted by Jones et al. (2019), which examined the facilitators and barriers to implementing smoking cessation interventions during pregnancy. It was found that factors influencing the implementation process include: 1) organizational preparedness, 2) staff training, 3)

partnership management, 4) resources, and 5) sustainability planning, consistent with the research of Saxena, Sharma, and Avashia (2020) on evaluating tobacco control policies in India using the WHO MPOWER framework. It was found that enforcement of policies, evaluation, and policy monitoring need to be emphasized over time, alongside adequate financial and human resources. This is also in line with the research of Mohamed, Juma, Asiki, and Kyobutungi (2018) on facilitators and barriers to implementing tobacco control policies in Kenya. They found that facilitators and barriers in policy formulation and implementation include: 1) strong political commitment and leadership, 2) coordination mechanisms, 3) stakeholder engagement, 4) resources, and 5) constitutional provisions for stakeholders' involvement.

4) The communication skills in the workplace have a significant impact on the evaluation scores of the measures to control tobacco consumption among Thai youth by the Provincial Tobacco Control Committee (Beta = 0.276) with statistical significance at the 0.05 level. This aligns with the research conducted by Tithiporn Kanwikhok, Vilailak Haruhanpong, and Jutatip Preekan (2018), which studied the effective operational formats and important characteristics/skills of personnel involved in provincial-level tobacco control. The necessary skills for effective implementation include communication skills, problem-solving skills, promoting participation, critical thinking, positive mindset, coordination, networking, facilitating learning processes, and leadership skills. Similarly, the research by Michibayashi, Omote, Nakamura, Okamoto, & Nakada (2020) examined competency frameworks for public health nurses working in tobacco control at local government units in Japan and found that the abilities of public health nurses are driven by eight skills, including raising awareness of the importance of tobacco control, adapting tobacco control policies to regional and societal contexts, establishing organizational systems for tobacco control, implementing efficient and appropriate activities at the local level, evaluating and improving the quality of tobacco control measures, developing and implementing community strategies for tobacco-free communities, collaborating with stakeholders effectively, and coordinating negotiations to avoid conflicts. These findings can serve as indicators of the abilities of public health nurses working in local settings to control tobacco consumption.

5) Normalization Process Theory (NPT) on reflective monitoring has a significant impact on the evaluation scores of measures to control tobacco consumption among Thai youth by the Provincial Tobacco Control Committee (Beta = 0.259) with statistical significance at the 0.05 level. This is consistent with the research conducted by May et al. (2018), which examined the use of the Normalization Process Theory

(NPT) in studying the evaluation of complex health activities. The Normalization Process Theory provides conceptual ideas for practitioners to define process patterns that can be used to explain the success or failure of effective operations, as well as assist in activity development, planning, evaluation, and self-understanding of operational processes. This aligns with the research by Juree Usaha, Duangkamol Leumjan, and Titiporn Kanwihok (2016), which studied the evaluation of the National Tobacco Control Strategy for the years 2012-2014 and found that in order to have effective and sustainable solutions to youth smoking problems, systematic monitoring and reporting of progress should be implemented according to the strategic plan of the network to inform the public. Similarly, the research by Tithiporn Kanwikhok, Vilailak Haruhanpong, and Jutatip Preekan (2018) examined the effective operational formats and important characteristics/skills of personnel involved in provincial-level tobacco control and found that important components of effective tobacco control operational formats include systematic monitoring and evaluation within the framework of the Provincial Tobacco Control Committee. This is consistent with the research by Dubray, Schwartz, Chaiton, Connor, & Cohen (2015), which studied the impact of MPOWER on the prevalence of smoking globally and found that continuous and regular monitoring of tobacco use and increased taxation are associated with a decrease in smoking prevalence.

6) Attitude towards work in the field of tobacco control has a significant effect on the evaluation scores of tobacco control measures among Thai youth by the Provincial Tobacco Control Committee (Beta = -0.287) at a statistically significant level of 0.05. This is consistent with the research conducted by Michibayashi, Omote, Nakamura, Okamoto, & Nakada (2020), which studied the competency model for public health nurses working in tobacco control in local government agencies in Japan. It was found that the ability of public health nurses is driven by three attitudes, namely, emphasis on collaboration, determination in goal setting, and commitment to professional development and roles.

7) Knowledge in tobacco control has a significant effect on the evaluation scores of tobacco control measures among Thai youth by the Provincial Tobacco Control Committee (Beta = 0.181) at a statistically significant level of 0.05. This is consistent with the research conducted by Thitiporn Kanwihan, Wilailak Haruhanpong and Jutatip Prigarn (2018), which studied the effective control measures and key characteristics/skills of personnel in provincial-level tobacco control. It was found that the necessary characteristics/skills for effective tobacco control require clear personnel qualifications, including knowledge and experience in implementing activities related to toxic hazards, surveillance and prevention, providing smoking cessation

services, planning and operational planning, inspection, warning, law enforcement, and facilitating the learning process. This is also aligned with the research by Garcia de Quevedo, Tripp, Twentyman, Smith, & Ahluwalia (2021), which studied the evaluation of data-driven operational meetings in five locations to enhance the capacity for tobacco control. It was found that acquiring new knowledge and skills by participants from 38 countries could serve as a guideline for countries seeking to enhance the effectiveness and dissemination of tobacco control information.

Conclusion

Evaluation for measures of tobacco consumption control in Thai youth of the Provincial Tobacco Products Control is important because they have the power and responsibility to collaborate in solving the problem of youth tobacco consumption and achieve the goals set by the country, as stated in the Tobacco Control Act of 2017. Therefore, the Provincial Tobacco Control Committee needs to prioritize the implementation of tobacco control measures by ensuring good communication skills, fostering a positive attitude towards tobacco control work, possessing good knowledge of tobacco control, providing adequate resources or support for implementation, and regularly monitoring progress in a reflective manner. These factors will contribute to increasing the evaluation scores of tobacco control measures among youth by the Provincial Tobacco Control Committee and help reduce youth tobacco consumption.

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