The Effectiveness of Training in Integrated Psychological Traits and Skills to Enhance Preventive Behaviors against Corona Virus 2019 Infection among the Youths in Community

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KEYWORDS

Experimental research, Corona Virus 2019, Youth, Training, Community

ABSTRACT

Purpose: This experimental research aimed to study the effectiveness of training in psychological traits and skills towards behaviors of preventing coronavirus 2019.

Methods: The research sample was 120 youths in a community residing in two northern provinces, using a 2 by-2 factorial design. The treatment variables included 1) training in psychological traits and 2) skill training for preventing coronavirus 2019. Outcomes were measured into three phrases: pre-training, immediate post-training, and two months after post-training. Research instruments were rating scale and Analysis of Covariance (ANCOVA) was employed for hypothesis testing. Result: Study results found that 1) For the immediate post-training phrase, the youths who trained in both psychological traits and skills for preventing Corona Virus demonstrated higher mean scores of future orientation and self-control on preventing Corona Virus, positive attitudes towards Corona Virus prevention behaviors, and preventive behaviors against Corona Virus than those who trained only in skills for preventing Corona Virus. Additionally, 2) For two months after the post-training phrase, the youths who trained in both psychological traits and skills for preventing Corona Virus had higher mean scores of preventive behaviors against Corona Virus than those who trained only in skills for preventing Corona Virus. This clearly revealed the effectiveness of the trainings in this research. Conclusion: This study suggests strategies, measures, or policies from the research findings to governmental agencies, particularly those involved in the community such as subdistrict administrative organization and municipality, advocating the training in both integrated psychological traits and skills to enhance preventive behaviors against the coronavirus for the youths.

1. Introduction

The world has entered its fifth year since the initial detection of the Corona Virus 2019 infection. Current global reports indicate that there are over 774 million people infected and exceeding 7 million deaths reported. Despite passing the period of severe outbreaks, the Corona Virus 2019 infection persists. In Thailand, ongoing infections and hospitalized cases including serious pneumonia patients and individuals requiring respiratory support as well as the dead continue [1].

Preventing Corona Virus 2019 infection at individual, communal, and societal levels is a measure that everyone should undertake and cooperate with, for example, maintaining physical distance from others, avoiding handshakes as well as close contact, keeping away from other people at least 1 meter including crowded or high-risk areas. Preventive measures are not sole responsibility of medical personnel or specific individuals but require collective action in order to reduce the infection and transmission risks for oneself, community, and society [2].

However, to effectively reduce the risk of Corona Virus 2019 infection require stimulating individuals to adopt self-preventive behaviors with correct and consistent practices for the safety of oneself, community, and society from the disease. Adolescents, in particular, may exhibit easement and insufficient awareness on the Corona Virus 2019 infection that leads to inadequate self-preventive behaviors. Statistics report of Corona Virus 2019 infected patients indicates that infections among individuals, aged 16-18 years old, due to the lack of caution or low awareness of preventive behaviors against Corona Virus 2019 infection may impact to themselves and those in close proximity [3].

This research is an experimental study aimed at enhancing preventive behaviors against Corona Virus 2019 infection. The research findings can be used to prove the success of training activities. This is to prove the real effectiveness and consequences toward the samples from the development during the

certain period, beyond the natural developmental process and normal situational learning or routine practice of the participants [4].

Given the aforementioned importance, in this study, the researcher selects methods and statistical tools to clearly and comprehensively present research results by studying the possibility of hypothesis for explicit findings. Research results can submit to governmental and private organizations, especially interested agencies in community for applying in learning management, awareness, and prevention. Furthermore, youth leaders in community who participated the training can utilize the knowledge as well as experience gained from the training in psychological traits and skills to "enhance" and "pass on" to other youths in communities nationwide, thereby expanding the youth's social network.

Therefore, the objective is to study the effectiveness of training in psychological traits and skills to preventive behaviors against Corona Virus 2019 infection.

2. Literature Review

Future Orientation and Self-control on Preventing Corona Virus 2019 Infection

Future orientation and self-control are correlated with work success which serves as a motivation for individuals to strive towards their goals [5]. Therefore, future orientation and self-control are abilities to anticipate long-term outcomes and skills to control own behavior for achieving the goal in overall. These encompass 1) awareness, consciousness, caution, self-recognition; 2) systematic planning to adjust behaviors or change environments; and 3) focus on self-control for behavioral changes. The outcomes depend on each individual that can be both positive and negative results. Moreover, [6], [7], [8] mentioned that individuals with future orientation and self-control possess the following characteristics: 1) the ability to anticipate long-term outcomes and perceive the importance of the future by making appropriate decision; 2) the capacity to identify solution and planning towards future goal; 3) the practice to get through and endure to wait properly; and 4) the capability to reward and penalize oneself for both appropriate and inappropriate actions.

Positive attitudes towards Corona Virus 2019 preventive behaviors

Attitude is a psychological concept utilized by social psychologists as a tool to understand individual behaviors. Individuals' actions are influenced by beliefs regarding benefits, feelings of satisfaction, and readiness to act [9]. Attitude means the mental readiness arising from situations, determining individuals' reaction towards people, objects, or situations. It is shaped by cultural learning, traditions, experiences, both positive and negative, or imitation of admired individuals. However, situation that impacts on the mentality is considered as perception or preconceptions preceding actions. Attitude consists of three components: 1) Cognitive components are knowledge or belief about the goal of attitude, which can be objects, people, or events; 2) Affective components are individuals' emotions towards the object through attitude; and 3) Ready-to-act components are when an individual has knowledge to evaluate and already forms a preference, whether like or dislike, toward things [10], [11], [12].

Preventive Behaviors against Corona Virus 2019 Infection

According to [13], preventive behavior means that actions undertaken by individuals aimed at reducing risk and threatening factors which may lead to disease or sickness. Referring to [14], preventive behavior defines any actions by individuals in the absence of disease symptoms with the belief that such actions contribute to good health.

Preventive behaviors against Corona Virus 2019 infection can be divided into three dimensions. Firstly, personal and familial preventive behaviors against Corona Virus 2019 infection involve actions such as avoidance to touch key parts of the body, items sharing, resting, and dining altogether or within the same area. It is a personal responsibility when entering risky areas and wearing a face mask. This can be categorized into 4 components: 1) Preventive ignorance 2) Care of oneself and others 3) Preventive caution and 4) Personal and familial responsibility. Secondly, communal preventive behaviors against

Corona Virus 2019 infection entail adhering to community guidelines, cooperating with community officials or volunteers, limiting unnecessary travel to the community or going out the community if necessary, and maintaining distance from others in the community. This can be categorized into 4 components: 1) Refraining from community guidelines 2) Lack of communal responsibility 3) Adherence to community guidelines and 4) Protection from individual including place. Lastly, societal preventive behaviors against Corona Virus 2019 infection encompass following societal guidelines, protecting in public area, avoiding high-risk zone, and maintaining social distancing. This can be categorized into 4 components: 1) Negligence of societal guidelines 2) Safety from risky zone 3) Adherence to societal guidelines and 4) Protection from place [15].

Conceptual Framework

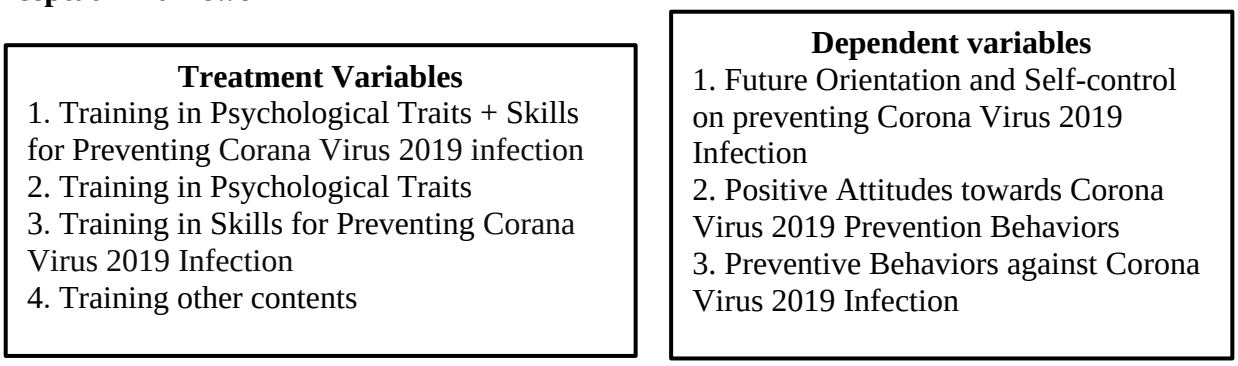

Figure 1 presents the conceptual framework of this study. Based on the literature review, the researchers have developed the research hypotheses as follows.

The youth who trained in both psychological traits and skills for preventing Corana Virus 2019 infection had higher mean scores of future-orientation and self-control on preventing Corona Virus 2019 infection. Positive attitudes towards Corona Virus 2019 prevention behaviors and preventive behaviors against Corona Virus 2019 infection were higher than those who trained in either psychological traits or skills for preventing Corana Virus 2019 infection. The youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection, those who trained only in psychological traits, and those who trained only in skills for preventing Corana Virus 2019 infection had higher mean scores of future-orientation and self-control on preventing Corona Virus 2019 infection, positive attitudes towards Corona Virus 2019 prevention behaviors, and preventive behaviors against Corona Virus 2019 infection than the youths who did not undergo any of these trainings.

3. Methodology

Population

The youth resided in Phrae and Uttaradit provinces, aged 15-18 years old, with 25,339 youths from Uttaradit province and 21,276 youths from Phrae province.

Sample

The youth from communities who voluntarily participated in this research from Thong Saen Khan and Tha Pla districts in Uttaradit province, and from Den Chai and Sung Men districts in Phrae province. The interested sample group was recruited through Google Form and self-registration with a total of 120 participants.

Experimental Design

This experimental research had 2 groups of treatment variables: 1) Training in psychological traits and 2) Training in living skills based on the sufficiency economy philosophy. Conceptual framework was designed under a 2 by 2 factorial design (as shown in Table 1), using a pretest-posttest with control group and repeated-measures design. The youths were randomly allocated into one of four groups as below without bias (Random Assignment), consisting of 30 individuals per group.

Table 1. Experimental Group and Control Group

Group	Pretest	Treatment Variables	Posttest	Repeated	Group
1	√	Training in psychological traits+skills for preventing Corana Virus 2019 infection	√	√	100%
2	√	Training in psychological traits + other unrelated contents	√	√	50%
3	√	Training in skills for preventing Corana Virus 2019 infection + other unrelated contents	√	√	50%
4	√	Other unrelated contents	√	√	Controlled

Experimental Procedure:

1. In the initial phase of collecting the questionnaire pre-experimental, the researchers introduced themselves, explained the project objectives, and outline the procedures as well as methods for completing the questionnaire. Following this, the sample group participating in the training program completed the questionnaire, taking approximately one hour.
2. After completing the questionnaire, the sample group underwent the training on the topics specified by the trainer team. This included: Group 1 received training on psychological traits of future orientation and self-control on preventing Corona Virus 2019 infection and skills for preventing Corona Virus 2019 infection. Group 2 received training on positive attitudes towards Corona Virus 2019 prevention behaviors and other contents. Group 3 received training on psychological traits of future orientation and self-control on preventing Corona Virus 2019 infection and other contents. Group 4 received training on other contents. The training involved watching video clips, performing play role, presenting in front of the class, and engaging in group activities, with 10 hours of training for each group.
3. In the second phase of responding the questionnaire post-experimental, the sample group finished the 10-hour training. The researchers distributed the questionnaire, explained the purposes, and outlined the procedures for completing it to the sample group, taking approximately one hour.
4. In the third phase, data were collected for following up two months after post-experimental. The researchers administered the questionnaire with the same sample group as in the initial and second phases, taking approximately one hour.

Measurement Tools

This study has five tools to measure various variables. These include future orientation and self-control on preventing Corana Virus 2019 infection, positive attitudes towards Corona Virus 2019 preventive behaviors, and preventive behaviors against Corona Virus 2019 infection consisting personal and familial preventive behaviors against Corona Virus 2019 infection, communal preventive behaviors against Corona Virus 2019 infection, and societal preventive behaviors against Corona Virus 2019 infection. Additionally, there is a questionnaire assessing socio-demographic characteristics and background, totaling six tools. The researcher developed these measurement tools with six assessment units ranging from "very true" to "not true at all".

Tools Validity

In this research, all measurement tools underwent content validity assessment by experts to review whether the content covered the operational definitions of the variables before implementation. This was analyzed the quality of individual items and the overall quality of each set of measurement tools. For the selection of items of this study usage, only questions with high discriminant power were chosen. The overall reliability coefficient of the measurement tools also reached statistically acceptable levels. The reliability coefficients were as follows: future orientation and self-control on preventing Corana Virus 2019 infection at 0.80; positive attitudes towards Corona Virus 2019 prevention behaviors at 0.87; personal and familial preventive behaviors against Corona Virus 2019 infection at 0.84;

communal preventive behaviors against Corona Virus 2019 infection at 0.82; and societal preventive behaviors against Corona Virus 2019 infection at 0.83.

Data Collection

Data collection was conducted in three stages. The first stage was to gather data before the experiment that the youths who participated the training project answered measurement tools and questionnaires before joining the training. The second stage involved immediate data collection after the training. The third stage gathered data two months after post-training. Data were collected by both researchers and co-researchers.

Statistics for Data Analysis

Statistical analyses were employed by the researcher as follows: 1) General information and basic characteristics of variables using descriptive statistics such as percentages, means, standard deviations, ranges, and correlations. 2) Normality tests were conducted by using skewness, kurtosis, and Kolmogorov-Smirnov Test. 3) Equality of variance was examined by using Box's M to assess the assumption of homogeneity of variance-covariance matrices, and Levene's Test to check the equality of variances for all variables. 4) Hypothesis testing was carried out by using analysis of covariance (ANCOVA).

This research was approved by the Research Ethics Committee of Uttaradit Rajabhat University, as indicated by the Research Ethics Certificate No. URU-REC No. 067/2023. Participants were informed of their right to provide data voluntarily, and the data was collected with confidentiality.

Ethical Considerations

This research was approved by the Ethical Committee of Uttaradit Rajabhat University, Thailand on September 18, 2024 (URU-REC NO.067/2566)

4. Results and discussion

For the results of the statistical analysis of the basic variables, the sample group of this study, which comprised 120 youths, were included: 30 participants training in psychological traits and skills for preventing Corana Virus 2019 infection, 30 participants training in psychological traits and other contents, 30 participants training skills for preventing Corana Virus 2019 infection and other contents, and 30 participants in the control group, totaling 120 participants. The details of the general information and basic statistics of the variables are as follows: The majority of the youths were female, accounting for 68 persons (56.67%). Eighty persons (66.67%) did not have adequate personal protective equipment for Corana Virus 2019 infection. Seventy-five persons (62.50%) obtained knowledge from online media. Sixty-six persons (55.00%) received two or more doses of the vaccine. Seventy-seven persons (64.17%) had family members infected with Corana Virus 2019 infection. Eighty-two persons (68.33%) informed their parents when infecting Corana Virus 2019. Seventy-nine persons (65.83%) had confidence in the vaccine. Seventy-six persons (63.33%) conducted ATK testing twice a month. Sixty-four persons (53.33%) lived in their own homes.

Table 2. Results of the analysis of variance, categorized by dependent variables, considering the training format under the phrase of immediate post-training. The variables include future orientation and self-control on preventing Corona Virus 2019 infection, positive attitudes towards Corona Virus 2019 prevention behaviors, and preventive behaviors against Corona Virus 2019 infection under the phrase of pre-experiment as covariates.

Source of Variation	SS	df	MS	F	p
Between future-orientation & self-control	6.141	3	2.047	9.476*	.000
Between positive attitudes	5.902	3	1.967	10.661*	.000
Between preventive behaviors	7.222	3	2.407	13.948*	.000
Error on future-orientation & self-control	24.843	115	0.216		
Error on positive attitudes	21.220	115	0.185		

Error on preventive behaviors	19.847	115	0.173		
Including future-orientation & self-control	2831.690	120			
Including positive attitudes	2759.884	120			
Including preventive behaviors	2889.584	120			

* with statistical significance at the .05 level.

From Table 2, the analysis of the data reveals that, under immediate post-training, the youths with different training formats statistically showed future orientation and self-control on preventing Corana Virus 2019 infection (F = 9.476, *p* = .000), positive attitudes towards Corona Virus 2019 prevention behaviors (F = 10.661, *p* = .000), and preventive behaviors against Corona Virus 2019 infection (F = 13.948, p = .000) with statistical significance at the .05 level. Therefore, pairwise comparisons were conducted between the training formats regarding future orientation and self-control on preventing Corana Virus 2019 infection, positive attitudes towards Corona Virus 2019 prevention behaviors, and preventive behaviors against Corona Virus 2019 infection, as shown in Table 3.

Table 3. Results of pairwise comparison of mean scores of dependent variables between different training formats under the phrase of immediate post-training.

Variables	Training formats	Mean Scores	Pairwise Comparison	Mean Difference	SE	P
Future orientation and self-control on preventing Corona Virus 2019 infection	Psychological traits+skills PS	5.024	**PS – P**	.331*	.120	.04
	Psychological traits P	4.693	**PS - S**	.530*	.124	.00
	Skills S	4.495	**PS - C**	-.027	.120	1.00
	Control group C	5.051	**P - S**	.198	.124	.67
			P - C	-.358*	.120	.02
			S - C	-.556*	.123	.00
Positive attitudes towards Corona Virus 2019 prevention behaviors	Psychological traits+skills PS	4.923	**PS – P**	.279	.112	.08
	Psychological traits P	4.643	**PS - S**	.488*	.115	.00
	Skills S	4.435	**PS - C**	-.095	.111	1.00
	Control group C	5.018	**P - S**	.208	.112	.39
			P - C	-.374*	.111	.00
			S - C	-.583*	.114	.00
Preventive behaviors against Corona Virus 2019 infection	Psychological traits+skills PS	5.001	**PS – P**	.161	.107	.83
	Psychological traits P	4.841	**PS - S**	.518*	.108	.00
	Skills S	4.484	**PS - C**	-.153	.107	.94
	Control group C	5.154	**P - S**	.357*	.108	.01
			P - C	-.313*	.108	.03
			S - C	-.670*	.109	.00

* with statistical significance at the .05 level.

From Table 3, results of pairwise comparison of mean scores for each variable (future orientation and self-control on preventing Corana Virus 2019 infection, positive attitudes towards Corona Virus 2019 preventive behaviors, and preventive behaviors against Corona Virus 2019 infection) between different training formats under the phrase of immediate post-training revealed that the mean scores of future orientation and self-control on preventing Corana Virus 2019 infection among the youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection had higher than those who trained in either psychological traits or skills for preventing Corana Virus 2019 infection, with

statistical significance at the .05 level, with mean difference at 0.331 and 0.530 respectively. Conversely, the mean scores of future orientation and self-control on preventing Corana Virus 2019 infection among the youths who trained in either psychological traits or skills for preventing Corana Virus 2019 infection were lower than those who did not undergo any training in psychological traits and skills for preventing Corana Virus 2019 infection, with statistical significance at the .05 level, with mean difference at -0.358 and -0.556 respectively.

The mean scores of positive attitudes towards Corona Virus 2019 preventive behaviors among the youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection had higher than those who trained in only skills for preventing Corana Virus 2019 infection, with statistical significance at the .05 level, with mean difference at 0.488. Conversely, the mean scores of positive attitudes towards Corona Virus 2019 preventive behaviors among the youths who trained in either psychological traits or skills for preventing Corana Virus 2019 infection were lower than those who did not undergo any training in psychological traits and skills for preventing Corana Virus 2019 infection, with statistical significance at the .05 level, with mean difference at -0.374 and -0.583, respectively.

The mean scores of preventive behaviors against Corona Virus 2019 infection among the youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection had higher than those who trained in only skills for preventing Corana Virus 2019 infection, with statistical significance at the .05 level, with mean difference at 0.518. Similarly, the mean scores of preventive behaviors against Corona Virus 2019 infection among the youths who trained only in skills for preventing Corana Virus 2019 infection, with statistical significance at the .05 level, with mean difference at 0.357. In contrast, the mean scores of behaviors against Corona Virus 2019 infection among the youths who trained in either psychological traits or skills for preventing Corana Virus 2019 infection had lower than those who did not undergo any training in psychological traits and skills for preventing Corana Virus 2019 infection, with statistical significance at the .05 level, with mean difference at -0.313 and -0.670, respectively.

The youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection did not differ in mean scores of dependent variables from the youths who trained only in psychological traits or from those who did not undergo any training in psychological traits and skills for preventing Corana Virus 2019 infection.

Table 4. Results of the analysis of covariance for each variable of dependent variables, considering the training format, two months after post-training, using future-orientation and self-control on Corana Virus 2019 infection, positive attitudes towards Corona Virus 2019 preventive behaviors, and preventive behaviors against Corona Virus 2019 infection prior to the experiment as covariates.

Source of Variation	SS	df	MS	F	p
Between future-orientation & self-control	3.671	3	1.224	2.699*	.049
Between positive attitudes	2.468	3	0.823	1.934	.131
Between preventive behaviors	3.332	3	1.111	3.995*	.010
Error on future-orientation & self-control	52.139	115	0.453		
Error on positive attitudes	49.417	115	0.430		
Error on preventive behaviors	31.965	115	0.278		
Including future-orientation & self-control	2767.510	120			
Including positive attitudes	2791.870	120			
Including preventive behaviors	2803.229	120			

* with statistical significance at the .05 level.

From Table 4, the results of data analysis revealed that, the phrase of two months after post-training, the youths who trained different training formats showed significant differences in future orientation and self-control on preventing Corana Virus 2019 infection (F = 2.699, *p* = .049) and preventive behaviors against Corona Virus 2019 infection (F = 3.995, *p* = .010) with statistical significance at the

.05 level. However, the youths who trained different training formats did not significantly differ the positive attitudes towards preventive behaviors against Corona Virus 2019 infection (F = 1.934, *p* = .131). Therefore, pairwise comparisons were conducted between the training formats in future orientation and self-control on preventing Corana Virus 2019 infection and preventive behaviors against Corona Virus 2019 infection, as shown in Table 5.

Table 5. Results of pairwise comparisons of the mean scores of dependent variables between training formats in two months after post-training.

Variables	Training formats	Mean Scores	Pairwise Comparison	Mean Difference	SE	P
Future orientation and self-control on preventing Corona Virus 2019 infection	Psychological traits+skills PS	5.045	**PS – P**	.425	.174	.10
	Psychological traits P	4.620	**PS - S**	.435	.180	.10
	Skills S	4.610	**PS - C**	.336	.174	.34
	Control group C	4.709	**P - S**	.010	.179	1.00
			P - C	-.089	.174	1.00
			S - C	-.100	.179	1.00
Preventive behaviors against Corona Virus 2019 infection	Psychological traits+skills PS	5.049	**PS – P**	.299	.136	.18
	Psychological traits P	4.750	**PS - S**	.470*	.138	.00
	Skills S	4.579	**PS - C**	.265	.136	.32
	Control group C	4.784	**P - S**	.172	.137	1.00
			P - C	-.033	.136	1.00
			S - C	-.205	.138	.84

* with statistical significance at the .05 level.

From Table 5, the results of pairwise comparisons of the mean scores of each variable (future orientation and self-control on preventing Corana Virus 2019 infection and preventive behaviors against Corona Virus 2019 infection) between training formats in two months after post- training revealed the following:

The mean scores of future orientation and self-control on preventing Corana Virus 2019 infection did not significantly differ among the youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection, those who trained only in psychological traits, and those who trained only in skills for preventing Corana Virus 2019 infection, and those who did not undergo any of these trainings.

The mean scores of preventive behaviors against Corona Virus 2019 infection among the youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection had higher than those who trained only in skills for preventing Corana Virus 2019 infection, with statistical significance at the .05 level, with mean difference at 0.470.

The youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection did not significantly differ in mean scores of dependent variables from the youths who trained only in psychological traits or from those who did not undergo any of these trainings.

5. Conclusion and future scope

Research conclusion revealed that, under the phrase of immediate post-training, the youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection had higher mean scores of future orientation and self-control on preventing Corana Virus 2019 infection, positive attitudes towards Corona Virus 2019 preventive behaviors, and preventive behaviors against Corona

Virus 2019 infection than those who trained only in skills for preventing Corana Virus 2019 infection. Additionally, under the phrase of two months after post-training, the youths who trained in both psychological traits and skills for preventing Corana Virus 2019 infection had higher mean scores of preventive behaviors against Corona Virus 2019 infection than those who trained only in skills for preventing Corana Virus 2019 infection.

Regarding the discussion, researches aligning with the effectiveness of training in psychological traits to enhance the behaviors of preventing Corana Virus 2019 infection among the youths in community. For example, [16] found that the perception of expectation towards self-ability for preventing diseases increased after the experiment, compared to pre-experiment, with statistical significance at the .05 level. [17] discovered that social support for disease prevention and control on Corana Virus 2019 infection of the control group was higher than the compared group, with statistically significance at the .05 level. Therefore, pre-existing psychological trait is an innate mental aspect from past experiences in family and educational environments and is static beyond the influences of current situations [18]. Furthermore, situational psychological trait is personal psychological aspect resulting from the interaction between pre-existing psychological individual trait and current situation [19]. Thus, it is clear that training in pre-existing psychological trait as well as situation directly impacts on desirable behavioral changes in the future.

Regarding the discussion of researches aligning with the effectiveness of training in integrated skills to enhance preventive behaviors against Corona Virus 2019 infection among the youths in community, [20] found that preventive behaviors and disease protection in community increased after the experiment, compared to pre-experiment, with statistical significance at the .05 level. [21] also found that the sample group using online training modules to enhance job happiness in epidemic situations of Corana Virus 2019 infection had higher level of happiness than the control group, with statistical significance at the .05 level. Moreover, [22] found that teachers or caregivers in the experimental group had higher scores in preventive behaviors against Corona Virus 2019 infection than in the control group, with statistical significance at the .05 level. [23] found that preventive behaviors against Corona Virus 2019 infection of the control group were higher than those of the compared group with statistical significance at the .05 level. Furthermore, [24] found that, after taking the program, village volunteers in the experimental group had higher mean scores of preventing Corana Virus 2019 infection practices than taking before the program, and higher than those in the compared group, with statistical significance at the .001 level. Additionally, [25] found that behaviors of preventing and controlling Corana Virus 2019 infection of the control group had higher than those of the compared group with statistical significance at the .05 level. [26] also found that, after taking the program, the experimental group had preventive behaviors against Corona Virus 2019 infection better than taking before the program, and higher than those of the compared group with statistical significance at the .05 level. [27] found that, after taking the program, the older in the control group had mean scores of preventive behaviors against Corona Virus 2019 infection than taking before the program, and higher than those in the compared group, with statistical significance at the .001 level.

Therefore, it can be observed that the youths who trained in both psychological traits and skills exhibited greater post-training behaviors compared to the youths in the control group, consistent with the principles of Tree of Moral Ethics theory [28]. This theory posits that individuals with multiple desirable characteristics often show strong desirable behaviors as well. It is possible that the youths who took additional training in psychological traits became more psychologically prepared, leading to more desirable behaviors.

Based on the conclusion and research discussion, the relevant organization is the benefits derived from training in psychological traits and skills. Even only a training is provided, it still positively influences higher youth's behaviors, as a sample group, when measured two months after these trainings. This is evident to demonstrate the effectiveness of integrated psychological traits training.

Limitations

In this study, the researchers did not conduct a manipulation check. However, to ensure the internal validity of the experimental method, various measures were taken. Cooperation was requested from the experimental group not to disclose any part of the training by narration or any media channels throughout the training period and at least 60 days after post-training. Additionally, upon the completion of the training, the researchers collected all training materials for learning purposes back in order to prevent the disclosure of training information to the control group after the training was completed. In this research, the researcher utilized a sample group from only two provinces in the northern region. In the next research, the study can be expanded to encompass sample groups from all regions in Thailand.

Implications for Behavioral Science

1.From the experimental research results, the researchers conducted integrated training in psychological traits and skills at the same time, resulting in an increase in preventive behaviors against Corona Virus 2019 infection when taking immediate post-training measurement after training in psychological traits and skills for 2 months. Since these behaviors typically require time or context to change, the study's findings demonstrate if both psychological traits and skills were trained together, it can reflect the effectiveness of the training. Relevant organizations such as government agencies in community, municipalities, or subdistrict administrative organizations can utilize these findings to assess the behaviors of other youths in the future.

2.This research is a comprehensive experimental study designed to create and prove the effectiveness of an integrated training set on important psychological traits and skills, which can prove the cause and effect with prudent research design. Conducting experimental research by pretest-posttest with a control group and repeated measures design, the study immediately measured outcomes after training and 2 months after post-training with the focus on providing practical guidance and assistance to the youths to solve an issue by applying the training to their current and future lives. This type of training is beneficial owing to the training results that directly affect to desired psychological traits and behaviors among the youths in community.

3.This training was a research with continuous assessment and follow-up of outcomes not only immediate post-training but also two months after post-training. The follow-up period during 2 months after the training was conducted by a rigorously systematic data collection in order to gather clear data and enable to lead for actual development.

4.Training programs focused on both psychological traits and skills for preventing Corona Virus 2019 infection can be implemented by government and private sectors such as educational institutions, municipalities, subdistrict administrative organizations, and subdistrict health promoting hospitals. These agencies can use the training programs to educate students, learners, and community members to enhance their behaviors in preventing against Corona Virus 2019 infection.

5.The research findings influence public health policy, leading to the formulation of measures, guidelines, announcements, and directives for the prevention and control of the spread of Corona Virus 2019 infection within individuals, families, communities, and society.

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