

The RE-AIM Evaluation of the Evidence-Based Multiple Drug Treatment Program in Taiwan District

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Abstract:

This study employs the RE-AIM based 360-degree feedback analysis to examine the scientific evidence-based drug treatment program implemented by the Agency of Corrections, Ministry of Justice, in Taiwan to ensure the program quality and effective resource allocation and to help improve the effectiveness of the treatment. Also, the study results were expected to strengthen the possibility of drug addicts successfully returning to society, achieving the goal of preventing recidivism and reshaping the meaningful life for drug offenders.

Based on the outcomes of qualitative interviews, focus groups, pre- and post-measurement scores, case manager's work survey questionnaires, and official statistics analysis for the year 2020-2021, this study attempts to complete the goal through the RE-AIM model analysis. In terms of Reach dimension, the study finds that the proportion of drug-administering cases that completed professional treatment before release from prison has been increasing year by year; in terms of Effectiveness dimension, regardless of the scale scores, the subjective feelings of the clients encountered or the official statistics, we find that the positive impacts on the case (behavior change and self-understanding), and there is still room for improvement in reducing impulsive of drug offenders, curriculum design and recidivism rate; in terms of Adoption dimension, besides to practical workers, colleagues in other departments in the organization also intervened in the plan to some extent, but there is still room for improvement in the horizontal connection and integration of various units; in terms of Implementation dimension, the service and investment time of the first-line practitioners are in agreement with the core values of the Evidence-Based Drug Treatment Program; in terms of Maintenance dimension, data on recidivism out of prison shows that the treatment courses have continuous effects for the case intervention. Besides, it also indicates that the Agency of Corrections and Ministry of Justice will not only keep promoting this treatment program but also continue to improve it and see the "Scientific Evidence-based Drug Treatment program" as the organization's regular service. Finally, the research findings provided suggestions for curriculum planning, resource allocation, treatment execution, and practical work aids.

Keywords: Drug offender, Substance Abuse, Evidence-Based, Corrections, RE-AIM model

1. Introduction

According to the World Drug Report 2022 published by the United Nations Office on Drugs and Crime (UNODC), the global population of drug abusers reached 284 million in 2020. Yet, only one-eighth of them obtained drug addiction treatment. Since 2011, the worldwide drug abuse population has increased by 26 percent. Although most nations continue to spend resources on drug abuse prevention efforts as the drug abuse issues deteriorate, the drug abuse issues remain unresolved. As a result, the drug user population continues to grow and spread, causing catastrophic damage to the public health system and individual health.

The National Institute on Drug Abuse (NIDA) researched the drug abuse status of inmates currently serving sentences in the U.S. criminal justice system and found that 85% of inmates are either diagnosed with drug abuse problems or incarcerated for drug-related offenses (NIDA, 2020a). Furthermore, the most recent study by the Substance Abuse and Mental Health Services Administration (SAMHSA) revealed 95 million illegal and prescription drug users over 12 in 2020 (SAMHSA, 2021). In addition, according to the Criminal Justice Drug Abuse Treatment Studies (CJ-DATS) initiated by NIDA, each year, two-thirds of the inmates released from prison are found to have drug abuse problems. Those who have no chance to receive effective treatments are most likely to relapse or commit crimes again (Wexler & Fletcher, 2007).

Undoubtedly, Taiwan's criminal justice system pays great attention to drug abuse. At the end of 2020, about 48.5 percent of prisoners are serving sentences for drug-related crimes (Ministry of Justice, 2021b). In addition, the recidivism rate for drug abuse is exceedingly high. According to a study published in 2020 by the Taiwan High Prosecutors Office, the recidivism rate for drug abuse after four years is 50 percent, excluding the potential dark figure of crime in the official statistics (Technology Investigation Information Center, Taiwan High Prosecutors Office, 2020). Therefore, improving drug addiction treatments to assist drug users in eliminating their addictions and reintegrating into society is the focus of academics, researchers, and practitioners working in related fields, as well as the policy priority of the relevant government agencies.

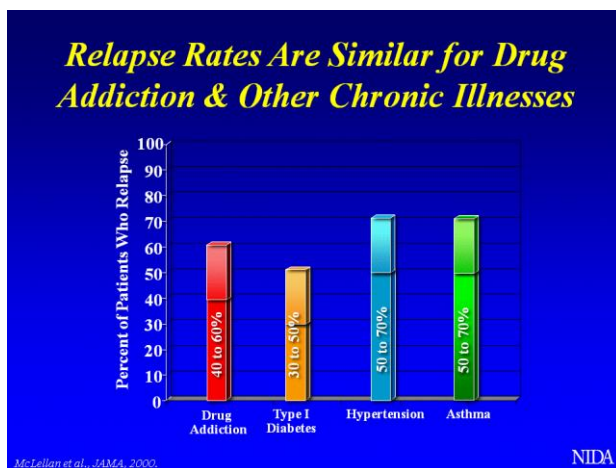


Figure 1. Comparison of drug addiction relapse rates and other chronic disease relapse rates. (NIDA, 2014b)

Figure 1 indicates that 40 to 60 percent of drug users who underwent treatment relapsed and resumed drug use, comparable to the relapse rate of chronic diseases such as hypertension, type I

diabetes, and asthma (McLellan et al., 2000). Therefore, the relapse of drug use after treatment suggests that adjustments or improvements to the treatments are required to meet the individual needs of the drug users and should not be interpreted as a sign of treatment failure. Scholars and practitioners should adopt a positive stance regarding drug users' relapse and continue improving drug addiction treatment processes. Although drug addiction treatments help address drug abuse problems, drug addiction relapse rates remain high. Government agencies should continue to invest in drug abuse research to assess the needs of drug users, as well as enhance the development of drug addiction treatments.

The drug counseling and treatment programs, including psychological therapy, religious rehabilitation, and volunteer initiatives, adopted by the nation's correctional authorities have been relatively fragmented. Due to the lack of evidence-based and structured approaches and core counseling and treatment programs, the primary factors leading to drug addiction relapse have not been intervened and treated effectively, resulting in a high relapse rate among repeat offenders. Shu-lung Yang and Shen-Feng Tai conducted an evidence-based drug treatment trial program at Taichung Prison, Agency of Corrections, Ministry of Justice, for two terms. They continued to improve and promote this strategy. As a result, on October 25, 2017, the Agency of Corrections granted its support to the approach and announced the full implementation of a new evidence-based drug treatment initiative. Based on the 13 treatment principles proposed by NIDA (2012 revised; 2014a), the initiative encompasses a seven-dimensional treatment program aiming to strengthen the collaboration among the correction systems and the health, labor, and social service sectors so as to achieve the goal of helping drug offenders stop using drugs permanently (Agency of Corrections, Ministry of Justice, 2017; Yang, Tai, and Wu, 2019).

This research seeks to ensure the effective implementation of treatment programs for drug offenders and to reduce the recidivism rates of drug offenders through an evidence-based approach. The research team has utilized the RE-AIM-based 360-Degree Feedback analytical model to evaluate the national evidence-based drug treatment program's effectiveness, resource allocation, and potential challenges for implementation. The objective is to prevent relapse and fundamentally transform the lives of drug offenders by strengthening their capacity to re-enter society and improve their health conditions.

2. Literature Review

According to the Principles of Drug Addiction Treatment: A Research-based Guide (NIDA, 2012), the treatment of drug offenders must encompass multiple and comprehensive services, including mental health services, legal services, family services, vocational services, educational services, HIV/AIDS services, and medical services.



Figure 2. Component of Comprehensive Drug Addiction Treatment. Adapted from NIDA. (2005, June 1).

The Agency of Corrections developed the Evidence-based Drug Offender Treatment Model with reference to the Quality Standards for Drug Dependence Treatment and Care Services (Saenz et al., 2012) and NIDA's 13 Principles of Drug Addiction Treatment in criminal justice cases (NIDA, 2014a). This treatment model emphasizes that drug addiction treatment should include components such as appropriate medication use and medical consultation, improvement of interpersonal relationships (especially with family and friends), enhancement of career development, financial management, health education, and HIV/AIDS prevention. All of which are critical to the success of re-entering society for drug addicts. Meanwhile, in-depth case interviews and the support of those who have successfully stopped using drugs improve the effectiveness of drug rehabilitation.

The seven dimensions of the initiative's courses include education by former drug users, the concept of addiction and quitting strategies, family and interpersonal relationships, appropriate medication use and medical consultation, health education and AIDS prevention, the dangers of drugs, career development, and financial management. The Agency of Corrections emphasizes that the primary objective of the treatment initiative is to assist in repairing the damage caused by drug use to individuals, families, and society. Drug addiction treatment within the criminal justice system is like preparation for community treatment, with the goals of reducing relapse and repeat offense risks, strengthening resource connections between correctional authorities and health, labor, and social service sectors, and achieving permanent abstinence from drugs.

Implementation of the evidence-based drug addiction treatment model focuses on the following areas (Agency of Corrections, Ministry of Justice, 2017):

- (1) Establishing the individual case management system: Correctional authorities may recruit additional case managers to provide evidence-based drug addiction treatment while monitoring individual cases and making appropriate adjustments to meet the needs of the drug users.
- (2) Follow-up and transitional counseling assistance after release: the One-Stop Service System for Drug Abusers, managed by the Drug Abuse Prevention Center, extracts and automatically transfers the information stored in the drug addiction treatment subsystem of the prison administration system for follow-up counseling and assistance.

3. Method

For project evaluation, this study employs the RE-AIM based 360-Degree Feedback analytical model used in public health and business psychological research. The RE-AIM model was developed in 1999 by Russell E. Glasgow and other scholars to provide a project evaluation framework for public health interventions, enable researchers to focus on project components to improve participation, implementation effectiveness, and universality, and provide empirical evidence (Shiao-Chi Wu, 2010). The model consists of five dimensions: Reach (R), Efficacy (E), Adoption (A), Implementation (I), and Maintenance (M). Reach (R) and Efficacy (E) function at the individual level, Adoption (A) and implementation (I) work at the organizational level, while Maintenance (M) operates at both the individual and organizational levels (Yeh, 2008).

360-Degree feedback is also known as "360-Degree Performance Review", "360-Degree Performance Feedback", or "Comprehensive Evaluation." In business practices, the 360-Degree Performance Review refers to the comprehensive evaluation of personal performance by employees, managers, direct reports, colleagues and peers, or even customers, including their communication skills, interpersonal connections, leadership, administrative skills, etc. The RE-AIM model and the 360-Degree Performance Review model are comparable since they both provide a circular evaluation approach with comprehensive and multiple data collection and analysis processes to facilitate personal growth and development or to improve performance by evaluating the behaviors of individuals. Therefore, it is regarded as a relatively fair and objective evaluation method. The five dimensions of the RE-AIM model and their levels, definitions, evaluation indicators, and research methodologies are summarized in Table 1 based on the research conducted by Glasgow et al. (1999) and Wu (2010).

Table 1
RE-AIM Model

Dimension	Definition	Evaluation indicator
Reach	The number, coverage, and representation of participation and intervention issues.	Analyzing the number of drug offenders, offenses, sentences, and participation rate based on the official statistics of correctional authorities and the database statistics of the Statistics Office, Ministry of Justice.
Efficacy	Include intervention efficacy and treatment impact.	Conducting interviews with drug offenders and program participants and analyzing the efficacy of the evidence-based treatments on the participating drug offenders through questionnaire surveys.
Adoption	Providing the number, percentage, and representation of government agencies or persons participating in the intervention plan.	Compiling official data and conducting interviews with first-line workers participating in the treatment program to evaluate the current plan's implementation

status, participation, efficacy, and constraints.

Implementation	The compliance of persons involved in the program, including the equivalence of service delivery and input time and cost.	Compiling the implementation status of various correctional authorities, including the number of participating personnel and input time. Conducting focus group discussions with the first-line participants, including physicians, legal and psychological scholars, health education experts, psychologists, and social workers from the prisons in Taipei, Taichung, Kaohsiung, and Hualien.
Maintenance	(Individual level) Long-term effectiveness of individual intervention plan for periods over six months. (Organizational level) The extent to which the intervention plan at the organizational level has become the norm.	Assessing the regular treatment service extended to drug offenders through official statistics and focus group discussions. Conducting focus group discussions with the officials responsible for the Agency of Corrections, chiefs of the Rehabilitation and Education Section, and staff of the prisons in Taipei, Taichung, Kaohsiung, and Hualien.

3.1 Study Framework

From 2020 to 2021, this study evaluates the effectiveness of the Ministry of Justice's current scientific evidence-based drug offender treatment program through the RE-AIM Based 360-degree feedback analysis model. In addition, it suggests feasible measures to improve the effectiveness of implementation. The entire structure of this study is detailed below:

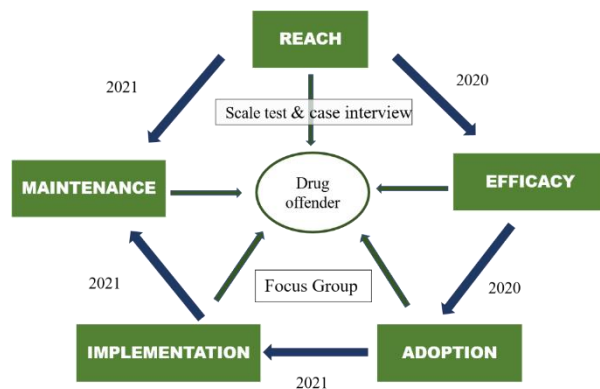


Figure 3. Study Framework

3.2 Study subjects and data processing methods

3.2.1 Study subjects and data processing methods for quantified subjects

In this study, the questionnaire survey method was used to collect the relevant data of the students who participated in the scientific evidence-based drug treatment. First, the case officers in each correctional institution used the EXCEL program to build and compile files. Then the data would be checked by the research team members and input into SPSS statistical analysis software. Only samples approved for the study were used in the analysis to ensure research ethics. In order to present the answers of the participants in each scale, the following analysis was made on their answer scores:

- (1) The percentage of study participants who responded to each question is presented.
- (2) The cumulative response times of participants in each answer were presented by frequency distribution.
- (3) Descriptive statistics: The mean and standard deviation pairings were used to present the concentration and dispersion of the participants' scores in this option
- (4) Difference comparison: Through t-test of paired samples, the pre and post-test scores of each scale for participants in scientific evidence-based drug offender treatment were compared, and the statistical significance was tested. In addition, the independent sample t-test was used to compare the gender difference of the participants in the scientific evidence-based drug offender treatment.

3.2.2 A sampling of Quantitative Data

Drug offenders were required to complete the "Drug Treatment Assessment Form," which consisted of the University of Rhode Island Change Scale and the Impulsivity Scale (BIS-11), before and after participating in the multiple treatment courses.

This study used Convenience Sampling to analyze the responses of cases in 48 correctional institutions in Taiwan that completed the treatment course in 2020. In order to ensure research ethics, only valid questionnaires were analyzed from participants who agreed that their answers to both pre-test and post-test would be used in the treatment effectiveness study. Therefore, the primary identification criteria of an invalid questionnaire are missing questions, and the answers to each question are the same.

Regarding the number of samples for pre- and post-test analysis, among the Rhode Island Scales, 1,823 (about 50.44%) were "effectively answered and agreed to be used in effectiveness study, and among the Impulsivity Scale, 1,811 (about 50.28%) were "effectively answered and agreed to be used in effectiveness study."

3.2.3 Study subjects and data processing methods for qualitative data

3.2.3.1 Study subjects

3.2.3.1.1 Qualitative Interviews

This study explores the effectiveness of a scientific evidence-based drug offender treatment model. It is expected that participants' participation experience will be presented in a descriptive manner through the qualitative research method, hoping to understand participants' personal experiences and provide suggestions based on personal experience, which can be used as a reference for future practice planning and curriculum adjustment. Therefore, this study adopted the approach of purposeful sampling and took the participants who had received the core course of scientific evidence-based drug offender treatment as the study subjects (Table 2) as the content of efficacy effectiveness evaluation. In addition, front-line practitioners who implemented the "Scientific Evidence-Based Drug Treatment" in Taipei Prison, Taoyuan Women's Prison, Taichung Prison, Taichung Women's Prison, Kaohsiung Prison, Kaohsiung Women's Prison, and Hualien Prison were also studied (Table 3) to understand the situation and limitations of treatment implementation. Meanwhile, the results were used to evaluate the performance of the "Adoption" dimension.

Table 2

Basic information of participants in the qualitative interview treatment

	Code	Gender	Age		Code	Gender	Age
	1M	Male	43		1M	Female	37
	2M	Male	34		2M	Female	48
	3M	Male	51		3M	Female	48
	4M	Male	44		4M	Female	41
	5M	Male	42		5M	Female	49
Interviews in 2020	6M	Male	61	Interviews in 2021	6M	Female	40
	7M	Male	47		7M	Female	42
	8M	Male	54		8M	Female	40
	9M	Male	44		9M	Female	40
	10M	Male	37				
	11M	Male	44				
	12M	Male	53				
	13M	Male	52				

Table 3

Basic information of the front-line practitioners of the qualitative interview

Code	Gender	Age	Title
1W	Female	47	Clinical psychologist
2W	Female	27	Case manager
3W	Female	42	Clinical psychologist
4W	Male	38	Clinical psychologist
5W	Female	48	Clinical psychologist
6W	Female	25	Case manager
7W	Female	32	Social worker
8W	Female	33	Case manager
Code	Gender	Age	Title

9W	Female	33	Case manager
10W	Male	45	Instructor
11W	Female	26	Case manager
12W	Male	50	Clinical psychologist
13W	Female	44	Clinical psychologist
14W	Female	50	Case manager

3.2.3.1.2 Focus group discussion

In this study, a total of 14 organizers of the treatment course, including clinical psychologists, case managers, instructors, and social workers, from Taipei Prison, Taipei Prison, Taoyuan Women's Prison, Taichung Prison, Taichung Women's Prison, Kaohsiung Prison, Kaohsiung Women's Prison, and Hualien Prison were invited to hold two focus group discussions as the content of service equivalence(I) evaluation. Participants were assigned the letters A, S, D, and F in the order of Taipei, Taichung, Kaohsiung, and Hualien, and the numbers 1 to 4 were used to represent the prison staff (Table 4).

Table 4

Basic information of focus group interviewees - front-line practitioners

Men's prison			Women's prison		
Code	Gender	Prison	Code	Gender	Prison
A1	Female	Taipei Prison	A3	Female	Taoyuan Women's Prison
A2	Female	Taipei Prison	A4	Female	Taoyuan Women's Prison
S1	Female	Taichung Prison	S3	Female	Taichung Women's Prison
S2	Female	Taichung Prison	S4	Female	Taichung Women's Prison
D1	Male	Kaohsiung Prison	D3	Male	Kaohsiung Women's Prison
D2	Female	Kaohsiung Prison	D4	Female	Kaohsiung Women's Prison
F1	Female	Hualien Prison			
F2	Female	Hualien Prison			

In addition, 9 experts and supervisors related to the course were invited from Taipei Prison, Taoyuan Women's Prison, Taichung Prison, Taichung Women's Prison, Kaohsiung Prison, Kaohsiung Women's Prison, Hualien Prison and Agency of Corrections, including a clinical psychologist, section chief, and editor, as the content of Maintenance (M) evaluation. The participants were represented by the letters T, P, C, K, and H as the locations of the Agency of Corrections, Taipei, Taichung, Kaohsiung, and Hualien, and the numbers as the experts and supervisors (Table 5).

Table 5

Basic information of focus group interviewees - experts and supervisors

Code	Gender	Code	Gender
T1	Female	C1	Male
T2	Male	C2	Female
T3	Female	K1	Male
P1	Male	K2	Female
H1	Male		

3.2.3.2 Data Processing Method

After the qualitative interviews and focus group discussions, the research team transcribed the audio recordings verbatim as soon as possible, compared and summarized them, and then adopted the content analysis method for the interview data. The content analysis consists of two steps: (1) explicitly describing the characteristics of the data content; (2) applying some rules to define and classify the above characteristics, and then identifying the categories, then classifying the research data according to this category structure, and finally counting the number of times for each category (Niu, 2019). Then, using inductive logic, the interview records and data collected on site were analyzed, and the named and summarized theme and meaning unit were delivered to the principal investigator for review to confirm that the interview data were consistent with the meaning unit to produce research results. The coding principle is described as follows: The first code is the interviewee's code, the second code is the answer content according to the interview outline question number, and the third code is the order of speaking according to the interview text. For example, 6W-1-24 represents interviewee 6W, the 24th sentence in the overall dialogue of this interview.

4. Findings and Discussion*4.1 Reach Dimension*

Data from the Statistical Office of the Agency of Corrections, Ministry of Justice were used in this study to determine the number, coverage, and representativeness of the issues involved. It was found that amphetamine was the most used drug before entering the correctional institution (62.9%). The average age of first drug use was 24.13 years; The average use time was 10.19 years. The proportion of drug use due to emotion regulation was the highest (34%). Finally, the frequency of use was dominated by an average of 1-2 times per day (22%).

It can be seen from the observation each year that the proportion of those who received professional treatment in the release of drug offenders increased year by year, from 418 (3.7%) in 2018 to 1,122 (9.4%) in 2019 to 1,598 (14.3%) in 2020. Furthermore, in terms of drug use levels, the number of users of both Class I and Class II drugs also showed an increasing trend, with the number of Class I drug users growing faster, from 163 (39.0%) in 107 and 534 (47.6%) in 108 to 816 (51.1%) in 109, surpassing the 782 (48.9%) who used Class II drugs.

To sum up, it can be found that the number of people receiving professional treatment from scientific evidence-based drug treatment is increasing before they are released from prison. It also indicates that the treatment mode has high-quality performance in the "Reach" dimension.

4.2 Efficacy Dimension

This paragraph will be divided into the following parts, including pre-test and post-test comparisons, interview results of discharged participants, and analysis of recidivism with official statistics data so as to understand the attitude change of the treatment students, their subjective views on the treatment course and recidivism after their release from prison.

In terms of attitude change, it can be found that, before the treatment course, the mean of the addiction change stages at all levels was between 2.96 and 3.99, with the highest mean score for the "contemplation period" (M=3.99). In other words, treatment participants concentrated more on the "contemplation period." The "readiness to change" score also falls between 8 and 11, indicating that the change stages of the cases are primarily concentrated in the "contemplation period." In addition, through t-test analysis of paired samples, it's found that although the change stage of the cases occurred in the "contemplation period" after the completion of the treatment course, there were significant differences in the "contemplation period," "action period" and "readiness to change score." The average score of the participants also showed that the post-test score was higher than the pre-test score, indicating that the treatment course could effectively improve the change tendency of the cases (Table 6).

In terms of impulsivity, the t-test analysis of paired samples showed no significant difference between the pre-test and post-test scores of the total scores of the impulsivity scale and the three dimensions of action impulsivity, cognitive impulsivity, and unplanned impulsivity. In short, the treatment course did not have a significant effect on the impulsivity of the cases. Furthermore, the total mean score on the impulsivity scale before and after the treatment was between 52 and 71, which was within the standard limit defined by scholars (Knyazev & Slobodskaya, 2006). In short, it indicates that there was no need to improve the impulsivity of the treatment participants. This phenomenon may also explain the lack of significant differences between the pre and post-test scores (Table 7).

Table 6

T-test of difference between pre-test and post-test of Change Scale of the treatment cases

University of Rhode Island Change Assessment	Mean value (standard deviation)		
	Pre-test score	Post-test score	t value
Precontemplation period	2.96 (.75)	2.95 (.81)	-0.47
Contemplation period	3.99 (.65)	4.03 (.68)	3.28**
Action period	3.87 (.64)	3.93 (.67)	4.62**
Maintenance period	3.61 (.74)	3.63 (.75)	1.52
Readiness to change score	8.50 (2.13)	8.65 (2.24)	3.37**

*p<0.05; ** p<0.01

Table 7

Changes in the scores of the theoretical factors of the Impulsivity Scale for the participants in the study

Impulsivity Scale	Mean value (standard deviation)		t value
	Pre-test score	Post-test score	
Attentional impulsivity	22.02 (4.26)	21.84 (4.36)	-1.88
Motor impulsivity	23.50 (2.94)	23.57 (2.88)	1.00
Nonplanning impulsivity	23.08 (3.92)	23.08 (4.04)	0.01
Total scale score	68.59 (9.69)	68.48 (9.97)	-0.53

*p<0.05; ** p<0.01

The interviews found that although the initial participation in the course may not be voluntary, treatment participants began to make positive changes and enjoyed the course after learning about it and building relationships with the students and teachers. Besides, they started to change their internal attitudes and relationships with their families and friends. Moreover, they became more willing to put what they had learned into practice in their lives, and even expected to return as successful people to share their testimonies and help other cases gain momentum. The participants interviewed also suggested more interactive courses, less dogmatic courses, and practical information to enhance the attractiveness of the courses. Furthermore, they also suggested an increase in the duration of the treatment program. If the treatment program can be extended beyond the time of release from prison, they thought it would help increase confidence and prolong positive change.

In summary, the "Scientific Evidence-based Drug Offender Treatment" program's impact was positive in terms of both scale scores and subjective perceptions of the treatment cases. However, there is still room for improvement in case motivation and program design, reflecting the intervention effect of scientific evidence-based drug treatment on drug offenders.

Table 8

Summary of Interviews with Treatment Cases (I)

Participating Motivation	
Male cases	Female cases
Participating in unfamiliar courses with a curious and experimental mindset	At first, the prison staff selected the participants and then asked them to participate.
Motivated to change after self-reflection	
Trying to understand the nature of drugs	Mixed feedback from patients on participation in treatment courses
To improve family relationships	To understand the course content and related knowledge
To avoid a change of prison or factory work	To improve the ability of positive thinking and self-exploration
Experience of Participation	

Male cases	Female cases
Diverse and flexible teaching content	The cases make a positive affirmation of the course
Advance notice or discussion of the course helps to prepare mentally	The cases feel the enthusiasm and care of the teachers who teach them and listen to them
Giving after-school assignments helps to reinforce the impression of the course	Teacher's liveliness, interactivity, and experience increase the acceptance of the cases
The teacher-student relationship is equal to the company of friends	
Care and attention from teachers	As the course progresses, the participants will gradually become involved in the course
Willing to speak the truth because of trust between teachers and students	Acknowledgment and emotion of the institution and the teachers
Rejection due to lack of understanding of course content	

Table 9

Summary of Interviews with Treatment Cases (II)

Change and Gain	
Male cases	Female cases
Increasing drug-related knowledge	Psychological and cognitive changes
Re-examining and reflecting on past experiences	Internal changes in attitude and thinking
Identity and trust gradually develop as a result of feeling cared for by the prison	Learn the skills of resisting and coping with drug temptation
Increases in self-esteem and self-worth were seen through changes in behavior and attitude	Looking forward to sharing my successes when returning as a rehabilitator
Learning from the experiences of others and promoting peer-to-peer learning and encouragement	Finding out what resources are available to help with life after prison
Willing to recommend courses because they are helpful	Relationships with family members are saved from disruption and improved
Harnessing the power of family support and learning to improve family relationships	Wanting to repair and compensate for relationships with family and friends
Better planning and preparation for life after prison	
Feedback	
Male cases	Female cases
Course content should be specific, and no need for dogmatic recommendations	Course content should be demand-oriented and knowledge-supplemented

Practical and actionable information is needed to ease the anxiety of social reunification	Course length and participant selection should take into account willingness and demand
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4.3 Adoption Dimension

In this section, semi-structured qualitative interviews were conducted at the organizational level with front-line practitioners as the subject to explore the current status of implementation. From the results of the current situation, the benefits and limitations of the treatment program implementation, this study aims to evaluate the institutional performance in the Adoption dimension.

Table 10

Summary of Interviews with Frontline Practitioners (I)

Topic	Meaning Unit
Current implementation status and views	Scientific evidence-based drug offender treatment is more integrated than existing treatment programs
	The pursuit of quantity is difficult to balance with treatment quality
	There are mixed reviews of the new prison system
	There is a lack of integration of external windows and external resources for the transition after release from prison
	There are many barriers to the transition after the cases are released from prison
Attitudes and changes in cases	Patients will be screened and enrolled according to their wishes and conditions
	There will be a positive impact between cases with different characteristics in the classroom
	The cases will gradually change their attitude throughout the class
	Insufficient duration of the course affects the maintenance of change motivation and behavior in cases
Cases' desire and need for classes	The characteristics of drug-using cases are related to their effectiveness in class
	There is a positive relationship between willingness and attitude
	Class size and the number of classes will affect the willingness to participate
	Flexible curriculum design can enhance the interest of cases to participate in class
	Individual tutoring before class can enhance the interest of cases to participate in class
	Pre-course tutorials can enhance the interest of cases in attending class
Consultation factors and interviews will affect course attendance	
Factors of (potential) conflict events affect the completion of the course	

Table 11

Summary of Interviews with Frontline Practitioners (II)

Curriculum, faculty, and related resources arrangement	Smooth horizontal links with the venue manager to reduce the chance of non-attendance
	In terms of course arrangement, not only the students' situation but also the drug treatment escort manpower should be considered
	External lecturers are given the flexibility to design courses
	In response to the epidemic, the courses are mainly taught by teachers in prison.
	The course resources available to cases are relatively uneven
	There is a shortage of suitable teachers
	The teaching environment still needs to be improved in terms of space and facilities
	Smooth horizontal links with the venue manager to reduce the chance of non-attendance
Institutional attitude and organizational atmosphere	Varying levels of support from colleagues for the treatment
	Most institutions have a positive attitude toward treatment
	Interactive experience of horizontal linking within the prison
	The overall atmosphere of the institution is good
Implementation dilemma	Too many cases to keep up with
	The audiences of relevant course programs overlap and exclude each other
	It is difficult to carry out the screening work because of the variability of prison term
	The variation of sentence and drug dependence breakage leads to the withdrawal of cases
	The epidemic has had many adverse effects
	Other department directors are not friendly, which affects the work execution
Unclear attribution of work, resulting in poor work progress	

The analysis results in this paragraph show that the chief officers of the institution are primarily optimistic about scientific evidence-based drug treatment. Although the support of colleagues for the treatment varies, and there are cases where other section supervisors are not friendly and affect the implementation of the treatment, some participants still think that the horizontal connection with the plant supervisors is smooth. Therefore, the overall atmosphere of the institution is good. Furthermore, the above shows that not only the practitioners but the chief officers and other colleagues in the institution are also involved to a certain extent, reflecting the actual involvement of the institution.

4.4 Implementation Dimension

This paragraph summarizes and understands each prison's implementation status through the investigation of case managers' work status and the focus group of front-line practitioners. In addition, this study also assesses the compliance of relevant staff with the "Scientific Evidence-based Drug Offender Treatment program" from the perspective of service consistency, including service delivery, time input, and cost.

As for the job description statistics of case managers, it can be found that most of the case managers currently working are female; the average age is 33.2 years old; the majority of the education level is "college graduate." In addition, most case managers indicated that they did not have a professional license (about 87%). The average length of service as a case manager in correctional institutions was about 1 year and 8 months. In terms of relevant work experience, there was a significant difference between a case manager who had worked in the substance abuse treatment field for about 10 years and a case manager who was new to the work.

Regarding the working pattern of case managers, the percentage of "never worked overtime" was the highest (about 47.8%). In terms of professional growth, most of the organizations where case managers work provide pre-service training (54.4%) and professional education (76.1%) to case managers. In addition, most of the managers had not participated in individual supervision of professional knowledge (65.2%). They only occasionally participated in group supervision of professional knowledge (43.5%), practice-oriented education training (50%), and related seminars or workshops (58.7%).

In the self-assessment section, regarding awareness of and suggestions for professional services of case managers, the highest percentage of case managers considered the most important professional service item to be "introduction before treatment course" (about 21.6%). Moreover, the most significant proportion of case managers responded that "introduction before treatment course" (about 21.1%) was the professional service item that should be strengthened. In addition, the largest proportion of case managers responded that "introduction before treatment course" (about 19.6%) was the professional service item expected to be invested in by the institution. In other words, the "introduction before treatment course" is more important to the practitioners.

In terms of the dilemma of the professional services of case managers, most of the 12 tasks were considered to be free of dilemmas. However, some case managers still reported that they encountered difficulties. The results of the qualitative analysis are based on the questionnaire responses. In terms of the level of commitment, most of the case managers responded: "80-100%" (63.0%).

The focus group of the front-line practitioners revealed that the practitioners who had complied with the basic principles of the treatment were able to make appropriate implementation adjustments at different times and had tried their best to cooperate with the requests from the Agency of Corrections. During the discussion, they also made specific suggestions on the shortcomings of the current implementation plan. All of the above demonstrate that the services and time commitment of front-line practitioners are consistent with the services achieved by the scientific evidence-based drug offender treatment program.

Table 12

Summary of the work items and execution hours of the case manager

Work content	Execution frequency of most case managers	Average monthly hours of most case managers on specific work items
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Participation in Class	Occasional participation (34.8%)	1 - 20 hours (58.7%)
Arranging an interview	Interviews set for each participant (34.8%)	1 - 20 hours (60.9%)
The selection of participants	As the main organizer (47.8%)	1 - 10 hours (63.4%)
Establishing a case file for participants	To establish for each participant (65.22%)	1 - 15 hours (63.0%)
Conducting case studies	Only for a small number of participants (67.4%)	0 - 5 hours (78.3%)
Arrangement of teachers for the treatment program	Helping with arrangements from time to time (34.8%)	0 - 5 hours (39.1%)
Discussions with faculty members on the content of the treatment	From time to time (41.3%)	0 - 5 hours (65.2%)
Contact with external units	Occasional assistance (30.4%)	0 - 5 hours (58.7%)
Contact with family members of participants	None (52.2%)	0-2 hours (28.3%)
Contact with participants who have left the correctional institution	None (60.9%)	0-3 hours (28.3%)
Arranging a closing interview	None, for each student, for the majority of students (26.1% respectively)	0 - 5 hours (45.7%)
Conducting liaison meetings for a return transition	None (39.1%)	0-2 hours (32.6%)

Table 13

Summary of dilemmas for case managers' professional services items

Work content	Meaning unit that encounters difficulties
Participation in Class	Conflict of time Not in line with the wishes of the teacher of the treatment course
Arranging an interview	Constraints of time, space, drug treatment escort manpower, and other factors Not following the wishes of the participants
The selection of participants	Conflict with factory operations Limited by the drug treatment escort manpower High participant turnover rate Restrictions on the use of the prison system
Establishing a case file for participants	No standardized specification for case-specific files It is not easy to keep the case-specific file data on paper.
Conducting case studies	The recent epidemic is serious

	Restrictions on borrowing space
Arrangement of teachers for the treatment program	It is not easy to invite teachers
Discussions with faculty members on the content of the treatment	The recent epidemic is serious Must match factory working hours
Contact with external units	Inadequate contact equipment Unclear division of rights and responsibilities
Contact with family members of participants	Incorrect contact information Family members' willingness to contact is low
Contact with participants who have left the correctional institution	Participants' willingness to contact is low Inaccurate participant contact information
Arranging a closing interview	Time, space, drug treatment escort manpower, and other factors Related restrictions make participants less willing to accept services.
Conducting liaison meetings for a return transition	The recent epidemic is serious, and no liaison meeting for return transition has been held.

Table 14

Summary of the results of front-line practitioner focus group

Topic	Meaning Unit
Courses offered and their types	Adjustment of the teaching pattern according to the epidemic The main axis of the course is the seven major aspects.
Integration and use of resources	Collaboration with external institutions and resources to enhance treatment and rejuvenation
Work execution, adaptation, and the load situation	The scope of responsibility of the work is not standardized. There is little difficulty in undertaking work changes. Reasonable workload and scope of work
Difficulties in the implementation of the treatment work	The operation of the prison system does not match the demand. Inadequate drug treatment escort manpower and space hardware The various resources in the program are not effectively integrated. Over-requesting the number of coverings for treatment
Refinements and recommendations for treatment courses	Enthusiasm and teaching style are important considerations for faculty selection. Course treatment needs to be refined. Integration and communication between departments should be further strengthened. The escorting method should be refined and improved. Introduction of a supervisory mechanism to increase knowledge and improve treatment options

The hourly pay of lecturers should be adjusted reasonably.

The treatment and security of case managers should be upgraded.

4.5 Maintenance Dimension

From the personal level, it is found that the scientific evidence-based drug offender treatment intervention is not only in prison but also for the transition work after release. According to official statistics, the recidivism rate of drug offenders who have been released from prison and committed drug offenses has been increasing slower in the past 3 years. The rate of recidivism is lower the longer the time elapsed after release from prison, especially in 2019, and the rate is better than that of those who "received lecture treatment as the main treatment," indicating that the effectiveness of receiving professional treatment has improved (Agency of Corrections, Ministry of Justice, 2021). These results show that the treatment program has a sustainable effect on case intervention. At the organizational level, the analysis results of the focus group showed that the institutions and the Agency of Corrections would not only continue to implement the treatment model but also continuously improve the plight, invest resources and make rolling corrections. Therefore, it can be said that "scientific evidence-based drug offender treatment" is regarded as a regular service of the organization.

Table 15

Summary of the results of the expert focus supervisor meeting (I)

Topic	Meaning Unit
Implementation of the course in each prison	Prisons make efforts to achieve coverage rate targets Satisfaction and willingness to attend classes are the key factors in increasing the completion rate. Courses are still arranged to meet the needs of each case.
The transition of treatment participants after release from prison	Institutions responsible for transition after release from prison enter the prison in advance to establish a relationship with the case and understand the needs Use the relevant liaison meeting as the hub of the linkage among the four parties Avoid duplication of resources by using the place of residence for division

Table 16

Summary of the results of the expert focus supervisor meeting (II)

Resources related to course implementation	The location of the class will affect the allocation of drug treatment escort manpower The establishment of funding affects the purchase of equipment There is a need to adjust teachers' hourly pay
The shortcomings of the prison system and correction plan	The screening function in the system does not work as required

Current status and recommendations for improvement in the implementation of treatment by front-line practitioners	The mobility of front-line practitioners affects the treatment effectiveness
	Professional staff are encouraged to participate in training
	Case managers lack relevant financial subsidies and security
	The relevant planning of talent retention is the direction of future efforts
Overall implementation recommendations	It is recommended that external units for transition enter the prison early to establish a relationship with the case
	It is suggested to integrate the plans of various external units to improve the effectiveness of transition after release from prison
	It is recommended to cooperate with non-governmental institutions to create ideal and diversified courses
	It is suggested to implement the return transition meeting and list the difficulties of transition after release from prison in detail

5 Conclusions and Recommendations

5.1 Conclusions

In the Reach dimension, official statistics proved that the percentage of drug offenders who completed professional treatment courses before being released from prison increased by about 5% annually, from 3.7% in 2018 to 14.3% in 2020. The result shows steady growth in the coverage rate of professional treatment.

In the Efficacy dimension, although most of the cases were still in the "contemplation period" after completing the treatment program, statistical analysis showed that the post-test mean scores of the "contemplation period," "action period," and "readiness to change score" were all higher than the mean scores of the pre-test, which was also significant. These results show that the treatment course positively influences the case's behavior and attitude change intention. In terms of the impulsivity scale, the cases' impulsivity score was within the normal range before the treatment, so no effect of the course on impulsivity was found. All in all, the evaluation results of this aspect show that the treatment effect does have an influence.

In the aspect of Adoption, it was found that most officers had a positive attitude toward the program. The interview also showed that staff from other departments participated in the program and the front-line practitioners. The results of this evaluation show that the participation of personnel in the institution is real and worthy of affirmation.

In terms of the Implementation dimension, the case manager survey questionnaire found that the workload was still bearable, the overtime rate was low, only a few encountered difficulties in work implementation, and the self-assessed work engagement level reached over 60%. In the focus group, the practitioners followed the basic treatment principles and tried their best to comply with the requirements of the Agency of Corrections. The results of this evaluation show

that the performance of the front-line practitioners is consistent with the service requirements of the treatment program.

In the aspect of Maintenance, the official statistical data and the expert focus group's qualitative content analysis proved that the treatment course's intervention effect was persistent. In addition, recidivism tended to decrease yearly. Therefore, in terms of focus groups, the correctional institutions and the Agency of Corrections want to continue refining the treatment program implementation as a regular service of the organization.

5.2 Recommendations

5.2.1 Suggestions for treatment course planning

5.2.1.1 Strengthening course arrangement and planning to enhance the motivation of participation

Based on the results of the qualitative interviews, it is clear that the selection of participants takes into account the criteria and the wishes of the cases. It is recommended that each prison plan the courses they are going to offer and consider making some of the treatments a regular course so that the cases will have a preliminary understanding of what they will receive after they enter the prison. Perhaps it can increase their motivation to attend the course and their expectation of the help they will receive.

5.2.1.2 Arrange courses in a balanced way to avoid repetition

Some practitioners expressed that course content is highly repetitive, and the proportions of the courses are unbalanced, resulting in participants receiving the same information. So, they suggested that the courses should be balanced so that the cases can receive diversified information, which is also helpful for the expected life after release.

5.2.1.3 More group classes are recommended for female drug addicts

The quantitative analysis of pre-test and post-test group treatment results indicated that group courses greatly impacted female cases. Practitioners also pointed out in qualitative interviews that female cases attached importance to relationship building and emotional connection, which was also supported by relevant research results in the literature discussed in Chapter 2 (Giallombardo, 1966; Heffernan, 1972; Pollock, 1998; Chen Yushu et al., 2012), therefore, more conversational group courses can be offered for female cases, so that they can be more willing to express their own ideas through the establishment of the relationship, and thus increase their self-observation and understanding.

5.1.2.4 Courses should be more tailored to the needs of cases

Interviews with drug cases showed that both men and women were more likely to attend courses that provided practical help, such as career planning and family courses, and less likely to participate in courses that merely taught knowledge or were didactic. Past studies also support

this (Luck, Elifson, & Sterk, 2004; Chen Yushu, Wu Tsihsuan, Lin Chienyang, 2017). Therefore, it is suggested to offer more courses with high applicability, which meet the needs and can be truly useful in the cases themselves. For example, some case managers reported in the questionnaire that family members were less willing to contact them and were not clear about the situation of the cases after they were released from prison. Therefore, more family-related intimacy courses can be organized to reconcile the cases with their families so that the cases can be reintegrated into society more smoothly, and the difficulties of the relevant authorities in tracking them down can be reduced.

5.1.2.5 Strengthen horizontal contact and integrate relevant course programs within the institution

Some practitioners said that if the courses were offered in different departments, there was often a lack of communication between them, and the courses were run individually, which made it impossible to integrate the principal axes of the courses. As a result, duplication of cases was likely to occur. Therefore, it is suggested that horizontal links between departments can be increased to consolidate course resources, reduce internal consumption and enhance the effectiveness of resource use.

5.2.1.6 There should be more collaboration with non-government institutions to create the ideal diversity of treatment programs rather than being isolated.

Participants of the expert focus group supervisor meeting suggested that the course arrangement should incorporate ideas from non-government institutions and coordinate with each other to achieve medium and long-term implementation goals.

5.2.2 Resource allocation-related recommendations

5.2.2.1 Increasing the manpower for screening and evaluation so that the questionnaire filling will not become a mere formality

In the qualitative interview, some practitioners said that due to the lack of manpower for screening evaluation, it was difficult to carry out one-to-one evaluations, so it was only a formality. However, in the future, if sufficient manpower is available, the screening evaluation with a 100% coverage rate can be carried out, and the course arrangement can be tailored to the needs of the case.

5.2.2.2 Hiring additional dedicated drug treatment escort manpower for the program

Whether it was a survey on the work of case managers, qualitative interviews with front-line practitioners, or focus groups with front-line practitioners, participants pointed out a shortage of drug treatment escort manpower. Escorting cases to treatment programs require the support of drug treatment escort manpower. The Scientific Evidence-based Drug Treatment Program is only one of many treatment programs in each prison or correctional institution. In other words, other inmates also (due to classes or work, etc.) need to be escorted. In addition, the location of classes may be scattered with factories or houses, so the number of drug treatment escort manpower

becomes relatively tight. According to the data of the research background, it can be seen that there are a high proportion of inmates who constitute "drug use crimes" in domestic prisons. Following the target of a 100% coverage rate, it can be inferred that there are also many participants in the drug treatment, and the demand for escort is relatively high. Therefore, recruiting additional dedicated nursing manpower for drug offender treatment is necessary.

5.2.2.3 Integrating the external business windows of the prison and hiring additional full-time staff

Some practitioners said there is a need to strengthen the integration and coordination between departments, as the allocation of business may result in the contact window not being the direct executor of the business. The transmission of information will need to be transferred. The same business should avoid being handled by different windows to reduce the occurrence of cases being kicked around due to unclear attribution and reduce the organization's internal consumption. Also, some practitioners suggested that additional social workers could be employed not only to reduce conflict among the departments but also to provide direct external contact so that external institutions can quickly understand the situation of the released students.

5.2.2.4 Acquisition of a dedicated telephone for work contact

According to the Feedback from the Case Manager Work Status Survey, some case managers indicated that they had trouble contacting external personnel because they did not have an official mobile phone to make external calls. Therefore, funds should be set aside for purchasing a dedicated mobile phone for the organizer to facilitate and smoothly carry out liaison work.

5.2.2.5 Continuous improvement of treatment space and hardware facilities

Some practitioners have commented on the lack of space, scattered locations, and inadequate facilities, which affect the quality of the program and the allocation of drug treatment escort manpower. However, the planning of treatment space and the purchase of equipment are strongly related to the construction and funding of the correctional institution, which will take longer to improve. Therefore, the expansion of treatment space and the improvement of hardware facilities can be medium to long-term improvement goals to continue improving the quality of the treatment program implementation.

5.2.3 Recommendations for treatment implementation

5.2.3.1 To increase the coverage rate of drug use cases receiving professional treatment before release from prison

Before release from prison, drug offenders will participate in scientific evidence-based drug treatment, mainly professional treatment and lecture treatment. A statistical analysis by the Agency of Corrections of the Ministry of Justice (2021) on the scientific evidence-based medicine for drug offenders found that drug offenders who received professional treatment had a lower recidivism rate after release from prison than those who received lecture treatment. The result indicates that professional treatment has a better impact on cases. Therefore, it is

recommended to increase the coverage of professional treatment to increase the effectiveness and sustainability of positive interventions. In the past three years, the coverage rate of professional treatment before discharge has increased (see Figure 7), from 3.7% in 2018 to 9.4% in 2019 and 14.3% in 2020. It is an average annual increase of 5.3% (Agency of Corrections, Ministry of Justice, 2021). However, to increase the coverage rate, we need the relevant resources such as space, hardware facilities, teacher quantity, and workforce. Therefore, considering the relevant data and capacity, an annual increase in the coverage rate of at least 5% can be set as an implementation target to stabilize the implementation momentum.

5.2.3.2 The quantity requirements of coverage rate need to be more clearly communicated to practitioners

Participants expressed excessive pursuit of quantity in both qualitative interviews and focus groups. In addition to placing greater pressure on first-line practitioners, it is also challenging to maintain quality in both the screening evaluation and participation in treatment programs. However, some participants explained that, based on screening results, some participants might be acceptable if they only attended specialized courses (professional treatment) or thematic courses (lecture treatment). It has been explained that there is still room for flexibility in the implementation of the so-called 100% coverage rate. All practitioners should be aware of the relevant information to avoid excessive pressure and burden on practitioners and reduce the possibility of staff turnover.

5.2.3.3 Standardizing the format of case files and incorporating them into the prison system for archiving

According to the Feedback from the Case Manager Work Status Survey, some case managers responded that there is no standardized format for case files and that keeping paper copies of information is not easy. Therefore, there is a need to establish a clear format for creating case files to facilitate the smooth transfer of work and electronic filing for easy retrieval and to reduce the risk of losing or damaging paper copies.

5.2.3.4 Introduction of a supervisory mechanism to increase knowledge and improve treatment options

Apart from the courses and the teachers themselves, some practitioners said that the knowledge of the staff working in the treatment business could be enhanced through the supervision and assistance of external professional psychologists or social workers, and discussions can be held further to refine the planning and implementation of the treatment programs. The introduction of a supervisory mechanism can be used as a short-term implementation objective to increase practitioners' knowledge and enhance the capacity to implement treatment.

5.2.3.5 Make relevant policy planning for talent retention

Participants in the expert focus group meeting said that "staff turnover can affect the effectiveness of treatment. Therefore, giving staff a reasonable workload and providing

professional development resources. If professionals have good performance, they will be retained." According to the literature of this study, professional growth positively affects job satisfaction (Shaw et al., 1978; Lautizi et al., 2009; Best et al., 2016), and other studies confirm the importance of professional ability improvement (Day et al., 2012; Wu, 2018). Some participants from other focus groups indicated that the Agency of Corrections encourages institutions to organize their courses. In this regard, this study believes that besides providing a reasonable caseload for practitioners, there should be specific targets for education and training, such as 32 hours of training per person per year, to continuously improve the professional knowledge of practitioners and enhance their job satisfaction.

Regarding the treatment of case managers, some practitioners indicated that the current salaries, allowances, and benefits do not match the workload of case managers. Therefore, complementing or increasing case managers' remuneration and security will help them focus on their work and increase their willingness to stay. However, the funding adjustment is subject to a review of the overall institution budget. Therefore, adjusting to include this item in the medium to long-term objectives for program implementation will take a long time to change.

5.2.3.6 External units for transition entering the prison early to establish a relationship with the case

Participants in the expert focus group supervisor meeting pointed out the importance of establishing a relationship with the units for transition before the case is released from prison. Without an established relationship, it is difficult for the cases to reveal their true thoughts and needs. Good communication and counselling can make the cases truly understand the available resources after release from prison and make them more willing to seek help. In the questionnaire, some case managers responded that "participants were not very willing to receive follow-up services and did not expect more intervention and arrangements from case managers." In this regard, it is important for the external unit to enter the prison early to establish a relationship with the case to increase the case's willingness to receive follow-up services. There is no clear standard for the timing and frequency of early entry to the prison. Still, they need to be sufficient to establish a successful relationship to avoid futility, and the Agency of Corrections should set targets based on relevant statistics and actual demand.

5.2.3.7 To implement the reintegration meeting and to list the difficulties of transition after release from prison in detail

Some participants explained the purpose of the reintegration meeting and stated that the Agency of Corrections would not be able to understand their difficulties and would not be able to assist them if the prisons did not present meeting minutes. Therefore, each correctional institution should conduct a reintegration meeting and prepare it well. Those preparations include inviting the relevant officers (drug prevention centers, public vocational services, prosecutors or correctional institutions, etc.) to participate in the meeting, confirming the meeting record of the previous meeting, and the administration of the tracking sheet of earlier discussions.

5.2.3.8 Cooperate with the transition unit to continue the treatment course until the release from prison

Some interviewees expressed their hope that they could continue participating in the relevant treatment courses even after being released from prison. If they could continue the treatment courses even after they were released from prison, it would not only prolong the treatment effects but also be helpful for the follow-up and counseling of the treatment. Therefore, this can be included in the mid - and long-term implementation goals to continue the support of correctional institutions and continuously inject energy into the rehabilitation of cases.

5.2.4 Suggestions on practical work aid tool

5.2.4.1 Continuous improvement of the prison system

This year (2020), the prison system was newly launched. However, some practitioners said its interface design and operation did not match the actual needs. Moreover, some thought that the system tools had increased the convenience of data creation, indicating that the prison system functions and operational design still needed to be improved. Still, there was a need for its continuation. Therefore, the corrections of the prison system can be carried out in a rolling manner according to the practitioner's feedback to improve the efficiency in building data and selecting participants.

5.2.4.2 Establishing a teacher database platform

Many practitioners responded that it is difficult to arrange suitable instructors due to geographical location or scheduling constraints. Therefore, the research team proposes building a database with teachers' backgrounds, expertise, and "areas where they can support teaching" and coordinating teachers' teaching schedules through the platform to increase the convenience for practitioners to screen and contact teachers. In addition, the Agency of Corrections needs to provide incentives to encourage teachers to support programs in the eastern region and rural areas.

5.3 Limitations

5.3.1 Complete and valid sample data are not readily available

In this study, the cases that completed treatment in 2020 were used as the parent group to evaluate intervention effects. Since the prison system was not operated online then, there were different ways of filing and summarizing data in each prison. There were also some omissions, which made it challenging to organize and analyze the data and may affect the accuracy of the study results. The prison system was launched in 2021, allowing more consistency in data filing across correctional institutions. This limitation can be improved by communicating with the statistical office in the future.

5.3.2 The impact of the pandemic has increased difficulties in study implementation

Due to the severe epidemic in 2021, the government declared a level 3 alert, slowing the study's progress. Therefore, the schedule for the later phase was tighter. In terms of interviews,

video platforms and systems occasionally suffer from network instability or interruption, which inevitably affects interview fluency and recording quality. For example, online participants could not hear clearly during the focus group, or their connection was interrupted due to online video devices.

5.3.3 Lack of prior references

In the past, few studies used the RE-AIM model to analyze the operational effectiveness of the correction system's treatment model. Case managers have just been included in the correction system for recent years. Therefore, it is difficult to find relevant empirical evidence domestically.

5.3.4 The questionnaire tool design still needs to be further improved

The "Case Manager Work Survey Questionnaire" designed for this study could only figure out the engagement of case managers in each treatment work (hours of participation, frequency of execution, and effort ratio) and whether they encountered difficulties. So, it could not further analyze the correlation between caseload and treatment quality. Therefore, the diversity of experts' backgrounds should be increased in preparing relevant survey tools in the future to reduce the risk of omitting survey items.

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