Research on Innovative Self-directed Learning and Drug Abuse Behavior: A Case Study of Middle and Senior Age

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Abstract: According to statistics from the Taiwan Ministry of Justice, 15,092 people were prosecuted under the Drug Harm Prevention Regulations from January to May 2015, and 14,121 were convicted. From January to May 2016, 18,404 were prosecuted under the Drug Harm Prevention Regulations. The number was 16,440. In terms of the number of people indicted, the 2016 term increased by 21.9% over the 2015 period. In terms of the number of convicted persons, the 2016 term increased by 16.4% over the 2015 period. From January to May 2016, the Prosecutor's Office of the District Court The number of newly detected drug cases was 35,073. The first-level drugs accounted for 24.9%, the second-level drugs accounted for 71.4%, and the thirdand fourth-level drugs increased by 21.6% over the 2015 period. This study explores the study of innovative self-directed learning among drug abusers in Taiwan by treatment groups. Data is processed through statistical methods such as descriptive statistics, T-tests, and single factor variation analysis. The study finds that population attributes have a role in innovative self-directed learning. Significant relationships and demographic attributes have a significant relationship to detoxification behaviors. Based on this study, appropriate suggestions are summarized to hopefully plan future strategies for detoxification behaviors and provide them to the government or relevant institutions for reference. It is also expected to lead more scholars' follow-up research. To solve current social problems.

1. Introduction

1.1. Research motivation

According to the Taiwan Ministry of Justice survey data, within the past 10 years, amphetamine was ranked first in Taiwan. Amphetamine was prevalent in Oceania and the Americas, with a global prevalence rate of 0.7% and a prevalence rate of 0.6% in Taiwan (Taiwan Food and Drug Administration, 2016). In fact, the prevalence of various types of drugs in Taiwan are lower than the global average. However, although the prevalence of amphetamine is lower than the global prevalence, the current situation of drug crime in Taiwan is becoming increasingly serious, posing a great threat to public security. Taiwan Ministry of Justice, 2016). Drug addicts also have serious crime rates without physical control (Chen Quanxi, Ji Yanping, Zhan Zhongyuan, 2012). Drug addiction is susceptible to drug addiction withdrawal, and there are a large number of people repeatedly entering and leaving drug treatment centers or medical institutions. This phenomenon, in addition to consuming national resources, cannot accurately improve the frequency of recidivism of drug addicts. At the time of publication, this view was adopted, and the first-time drug addicts were regarded as patients, but the re-offenders within five years were regarded as criminal offenders. Also, as of August 2016, Taiwan detention centers, prisons, medical institutions and other correctional institutions have accommodated a total of 123,973 prisoners, of whom 22,333 are drug offenders, the second highest number of various types of criminal population (Taiwan Ministry of Justice statistics).

1.2. Research purposes

According to estimates from the Taiwan Ministry of Justice Institute of Forensic Medicine, the

number of deaths due to drug abuse has reached 8,600 in the past decade. The number of drugs seized in Taiwan has increased year by year, and the drug addiction rate is still high. This is the first government policy. problem. Therefore, this study refers to the action theory of Ajzen (1985) to study the detoxification behavior of addicts and the important theory of "self-directed learning" proposed by Guglielmino (1977) and Knowles (1975). Use survey research to understand current social phenomena. It is hoped that this research can provide a good reference for the government or related enterprises in the direction of governance or strategy.

The purpose of this research is to discuss drug addicts and to understand important issues found during the counselling process of the treatment group in order to have a deeper understanding of drug addicts. Therefore, the purpose of this research Addicts do discussions in order to have a deeper understanding of drug addicts, and then put forward related specific treatment recommendations for the reference of relevant departments in the prevention and treatment of drug addicts.

2. Literature discussion

2.1. Definition of upper and middle years

Some scholars abroad have defined the elderly as nationals over 55 years old (Kawakami, 2003). According to Article 2 of Taiwan's Employment Service Law, nationals aged 45 to 65 are defined as middle-aged and senior citizens, so this study uses Taiwan The Employment Service Law defines middle-aged and seniors, that is, nationals aged 45 to 65 are middle-aged and seniors.

2.2. Related theories of detoxification

Thombs (1990) believes that since ancient times, drug abuse has often been regarded as a representative of crime, and that drug addiction is entirely a personal choice and is not caused by coercion by others. In addition, Witkiewitz & Marlatt (2005) once pointed out that everyone will experience different dangerous situations. When drug abusers face drug use again, if they can use positive and positive energy, they can overcome the challenges of dangerous situations. Improve self-efficacy or make use of self-directed functions. This study uses Witkiewitz & Marlatt (2005) to point out that each person will experience different dangerous situations. When drug abusers face drug use again, if they can use positive, positive Energy can overcome the challenges of dangerous situations.

2.3. Related theories of self-directed learning

Knowles (1975) wrote a book on "self-directed learning", which is defined as follows: "Individuals initiate and innovate with or without the help of others, and then diagnose their own learning needs, form learning goals, find The human and material resources required for learning, the process of selecting and implementing appropriate learning strategies, and evaluating the results of learning. "Skage (1978) believes that innovative self-directed learning is the ability of individuals to set learning goals, learning plans, and implementation for innovative self. Learning and evaluation of learning outcomes. This research uses Knowles (1975) 's definition of innovative self-direction: It considers that individuals initiate themselves with or without the help of others, and then diagnose their own learning needs, form learning goals, and find learning places. Required human and material resources, the process of selecting and implementing appropriate learning strategies, and evaluating learning outcomes.

3. Research methods

3.1. Research Framework

The "Innovative Self-Oriented Learning" section refers to the six factors proposed by Guglielmino's "Innovative Self-Oriented Learning Scale" (1977). This questionnaire mainly assesses the degree of innovative self-orientation of learners who have identified self-directed

learning skills and attitudes. The "Detoxification Action" part refers to the four factors of the planned behavior theory (TPB) proposed by Ajzen (1985), which is an evolution of the Theory of Reasoned Action (TRA) proposed by Ajzen (1989) in 1975. In the future, rational behavior theory is mainly used to predict and understand human behavior. The research framework is shown in Figure 1.

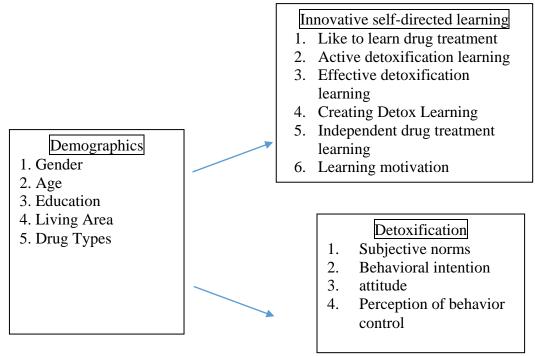


Figure 1 The structure of this study

3.2. Research hypothesis

According to the research purpose, problems and research framework, this research proposes the following research hypotheses:

- 1) Different audience characteristics are important to innovative autonomous learning
- 2) Different demographics have a significant relationship with detox behavior

3.3. Research Object

3.3.1. Sampling method

This study targeted drug addicts treated in central and regional hospitals in Taiwan and private hospitals. In addition, the cases were determined through psychological assessment and physician diagnosis, and drug addicts who solicited voluntary participation in group and drug treatment were selected. Supplemented by the snowball sampling method to seek research cases, in terms of the number of sample questionnaires, a confidence level of 94.2% and an error value of \pm 5.8% were used to calculate the required number of samples to be 342. A sample of 810 questionnaires was sent out, and 679 were recovered with a recovery rate of 83.3. %, Excluding 19 invalid questionnaires, 660 valid questionnaires, and an effective recovery rate of 81.5%.

3.3.2. Sample allocation and structural analysis

3.3.2.1. Gender

The number of male samples is the largest, with 396, accounting for 60% of the total, and 264 females, accounting for 40% of the total.

3.3.2.2. Age

The 50-54 age group has the largest number of samples, with 264 persons, a percentage of 40%. The other ages, numbers, and percentages are as follows: 198 people aged 45 to 49 accounted for

30% of the total, 176 people aged 55 to 59 accounted for 26.7% of the total, and 22 people aged 60 and above accounted for the total 3.3%.

3.3.2.3. Education

The sample size of the primary (junior high school) is 286, with a total of 43.3%. And other education and the number and percentage are as follows: 154 people below elementary school accounted for 23.3% of the total, 176 people in high school (vocational) number accounted for 26.7% of the total, 44 people above the college accounted for 6.7% of the total.

3.3.2.4. Living area

The largest number of samples is in the urban area, with 400 people, the percentage is 49.4%. The other residential areas and their numbers and percentages are as follows: There are 220 people in Haixian District accounting for 27.2% of the total, and 190 people in Shanxian District accounting for 23.4% of the total.

3.3.2.5. Drug types

The number of cocaine samples was the largest, with 176 people, a percentage of 26.7%, and the types and numbers of other drugs were as follows: 66 were morphine and 10% were heroin, and 154 were heroin, and 23.3% were heroin. There were 154 amphetamines, accounting for 23.3% of the total, and 110 mixed drugs, accounting for 16.7% of the total.

4. Research result

4.1. Analysis on the Differences of Self-directed Learning among Middle-aged and Senior People with Different Demographic Attributes

4.1.1. Gender

Gender's differences have significant differences in innovative self-directed learning. According to research, in the "loving detoxification learning", "independent detoxification learning", and "learning motivation for learning detoxification", significant p <0.05, indicating that the sexes in the middle-to-high age surveyed Addicts have obvious differences, indicating that men are more prominent in these three aspects than women. In addition, there are no obvious differences in the three parts: "active detoxification learning", "efficiency detoxification learning", and "creating detoxification learning".

4.1.2. Age

Different ages have significant differences in innovative self-directed learning. According to research data, it is found from Table 1 that the six aspects of innovative self-directed learning and age are significantly different. Further inspection by Scheffe found the following:

- (1) The part of "loving drug-learning study": 45 to 49, 55 to 59, and 60 people are more interested in detoxification study than 50 to 54 people, and the other 60 or more people are more like 45 to 49 and 55 to 59.
- (2) The part of "active detoxification learning": 55 to 59 people pay more attention to active detoxification learning than 45 to 49, 55 to 59 and 60 people.
- (3)"Efficient detoxification learning" section: People between 50 54, 55 59 and 60 or above pay more attention to efficient detoxification learning than 45 49.
- (4)"Creating detoxification learning": 55 to 59 people attach more importance to creating detoxification learning than 45 to 49, 55 to 59, and 60 people.
- (5) The part of "independent drug treatment learning": 55 to 59 and 60 people pay more attention to learning drug detoxification motivation than 50 to 54 people, and more than 60 people pay more attention to learning drug detoxification motivation than 45 to 49 and 55 to 59.
- (6)The part of "learning motivation for drug detoxification": 45 to 49, 55 to 59, and 60 people pay more attention to learning detoxification motivation than 50 to 54 people, and the other 60 or

more people pay more attention to learning detoxification motivation.

Table 1 Analysis of age single factor variation (innovative self-directed learning)

Facet Personal variables	Like	Initiative	Effectiveness	Create	Independent	Learn
45-49	$4.8889^{1>2}$	3.6667	4.1587	3.0556	3.8704	4.0741 1 > 2
50-54	4.6146	3.5333	4.4881 2 > 1	2.9444	3.7083	3.6806
55-59	$4.8594^{3>2}$	$4.6250^{3>1,2,4}$	4.6250 3 > 1	$3.8542^{3>1,2,4}$	$3.9375^{3>2}$	4.1667 3 > 2
60+	$5.6250^{4>1,2,3}$	3.6000	4.7143 ^{4 > 1}	3.0000	4.6667 4 > 1,2,3	4.5000 4 > 1,2
	(19.563) ***	(39.651) ***	(24.914) ***	(39.651) ***	(15.083)***	(38.926) ***
Note: F value	es in parentheses	*p < 0	.05 **p < 0.0	0.0 ***p < 0.0	001	

Source: collation of this study

4.1.3. Education

There are significant differences in innovative self-directed learning due to different education. It is found in Table 2 that there are significant differences in the five aspects of innovative self-directed learning and education. Further inspection by Scheffe found the following:

Table 2 Analysis of single factor variation in education (innovative self-directed learning)

Facet						
Personal	Like	Initiative	Effectiveness	Create	Independent	Learn
variables						
Below	4.9464	$3.8571^{1>3}$		$3.2143^{1>3}$	$4.0476^{1>2,3}$	3.9524
elementary	1 > 3		1 > 2,3			
school						
Junior High	4.7692	$4.1538^{2>3}$	$4.5055^{2>3}$	$3.4615^{2>3}$	$3.8205^{2>3}$	3.9103
School						
Higher	4.6719	3.1500	4.0536	2.6250	3.5833	3.9792
(Vocational)						
School						
College or	4.9375	$4.9000^{4 > 1,2,3}$	$4.5000^{4>3}$	$4.0833^{4>1,2,3}$	$4.4167^{4>1,2,3}$	4.1667
above						
	(5.103)**	(46.854)***	(44.056)***	(46.854)***	(24.087)***	(2.383)
Note: F values in parentheses $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$						

Source: collation of this study

- (1)"Like drug study" section: Education level below elementary school pays more attention to the education level of high school vocational education.
- (2)Part of the "active drug treatment study": Higher secondary vocational schools below elementary school, junior high school, and junior college or higher attach great importance to active drug rehabilitation learning, and they attach more importance to active drug treatment learning than junior college or below primary school and junior high school.
- (3)"Efficient drug detoxification learning" section: Higher primary vocational schools below elementary school, junior high school, and junior college or higher attach great importance to efficient drug detoxification learning, and below elementary school pay more attention to efficient drug detoxification learning.
 - (4)Part of "Creating Drug Abstaining Learning": Higher secondary vocational schools below

elementary school, junior high school, and junior college or higher attach great importance to creating drug detoxification learning, and they attach importance to creating drug detoxifying learning above junior college or below.

(5)The part of "independent drug treatment study": higher secondary vocational schools below elementary school, junior high school, and junior colleges attach more importance to independent drug treatment learning, and other students under elementary school and junior colleges attach more importance to independent drug treatment learning than junior high schools. Independent drug treatment study.

4.1.4. Living area

There are significant differences in innovative self-directed learning in different living areas. It is found in Table 3 that there are significant differences in the six aspects of innovative self-directed learning and the residential areas. Further inspection by Scheffe found the following:

- (1)"Like the study of drug treatment": Living in Haixian District and the downtown area of the mountain area pays more attention to drug study.
- (2) The part of "active detoxification learning": Living areas in Haixian District and Shanxian District are more like detoxification learning than urban areas, and in Haixian District and Shanshan District, they like detoxification learning.
- (3)"Efficient detoxification learning" section: Living in Haixian District and the urban mountainous districts attaches more importance to efficient detoxification learning, and the Haixian District pays more attention to efficient detoxification learning.
- (4)Part of "Creating Detoxification Learning": Living areas in Haixian District and Shanxian District pay more attention to detoxification learning than urban areas, while in Haixian District and Shanshan District, they like detoxification learning.
- (5)Part of "independent drug treatment study": Living areas in Haixian districts and cities pay more attention to independent drug treatment study.
- (6)"Learning motivation for drug detoxification": Living areas in Haixian district and urban areas are more like detoxification learning, and Haixian districts are more like detoxification learning than urban areas.

Table 3 Analysis of single factor variation in residential areas (innovative self-directed learning)

Facet Personal variables	Like	Initiative	Effectiveness	Create	Independent	Learn
Mountain Area	4.1607	4.1714 ^{1 > 3}	3.9796	$3.4762^{1>3}$	3.8095	3.5952
Sea Area	$5.0000^{2>1}$	4.4750 2 > 1,3		3.7292 2 > 1,3		4.3958 2 > 1,3
Downtown	$4.9833^{3>1}$	3.4000	$4.4476^{3>1}$	2.8333	3.7889	$3.8889^{3>1}$
	(111.751)***	(65.316)***	(103.158)***	(65.316)***	(5.483)**	(96.085)***
Note: F values in	parentheses	*p <	0.05 **p < 0	.01 ***p <	0.001	

Source: collation of this study

4.1.5. Drug types

The different types of drugs have significant differences in innovative self-directed learning. It is found in Table 4 that the six aspects of innovative self-directed learning and the types of drugs are significant, as shown in Table 16. Further inspection by Scheffe found the following:

- (1)The part of "loving to study drug detoxification": subjects in morphine, heroin, amphetamines and mixed drugs pay more attention to study of detoxification than cocaine, while subjects in amphetamine and mixed drugs pay more attention to study of detoxification than heroin. Morphine attaches great importance to learning about detoxification.
- (2)Part of "active detoxification learning": subjects in morphine, amphetamines and cocaine pay more attention to active detoxification learning. Subjects in morphine and amphetamine pay more

attention to active detoxification learning than heroin. Alkali values active detoxification learning.

- (3) The part of "efficiency detoxification learning": The subjects in morphine and amphetamine pay more attention to the efficiency detoxification learning than those in mixed drugs.
- (4)Part of "creating detoxification learning": subjects in morphine, amphetamine and cocaine pay more attention to creating detoxification learning than mixed drugs, while subjects in morphine and amphetamine pay more attention to creating detoxification learning than heroin. Curcuma attaches importance to creating learning for detoxification.
- (5)"Learning motivation for detoxification": In all subjects, cocaine paid more attention to learning motivation for detoxification.

Table 4 Analysis of single factor variation of drug types (innovative self-directed learning)

Facet Personal variables	Like	Initiative	Effectiveness	Create	Independent	Learn
morphine	4.8333 ^{1 > 4}	4.7333 1 > 2,3,4,5	4.5714 1 > 5	3.9444 1 > 2,3,4,5	3.9444	4.1667 ^{1 > 4}
Heroin	$4.7500^{2>4}$	3.5429	4.3878	2.9524	3.9762	$4.0000^{2>4}$
Amphetamine	$5.2321^{3>1,2,4}$	$4.2000^{3>2,5}$	4.5714 3 > 5	3.5000 3 > 2,5	3.8333	$4.0952^{3>4}$
Cocaine	4.2969	$3.8500^{4>5}$	4.4286	$3.2083^{4>5}$	3.7500	3.6042
Mixed medicine	$5.0250^{5>2,4}$	3.3600	4.2286	2.8000	3.8000	4.1333 ^{5 > 4}
	(54.122) ***	(22.712) ***	(6.652) ***	(22.712) ***	(2.567) *	(24.057) ***
Note: F values	in parentheses	*p <	< 0.05 **p <	0.01 ***p	< 0.001	

Source: collation of this study

4.2. Analysis of the Differences in the Detoxification Behaviors of Middle-to-Old Age Drug Addicts by Different Population Attributes

4.2.1. Gender

Different Genders have significant differences in detoxification behaviors. According to research, in the "Behavioral Control Perception" section, significant p <0.05 indicates that men are more prominent in the "Behavioral Control Perception" aspect than women, and in "Behavioral Intention" There is no obvious difference in the three parts of "attitude" and "behavioral intention".

Table 5: Analysis of age single factor variation (detoxification behavior)

Facet Personal variables	Subjective norms	Behavioral intention	Attitude	Perception of behavior control
45-49	3.7795	3.6616	3.3552	3.4369
50-54	3.7822	$3.7871^{2>1}$	3.4192	3.3778
55-59	3.8267	$3.7989^{3>1}$	$3.5701^{3>1,2}$	3.4801
60+	$4.1667^{4>1,2,3}$	3.7455	3.3939	$3.7159^{4>2}$
	(5.247) **	(4.307) **	(6.496) ***	(4.774) **
Note: F values	in parentheses	*p < 0.05 $**p < 0.05$	0.01 ***p < 0.001	

Source: collation of this study

4.2.2. Age

Different ages have significant differences in detoxification behaviors. From Table 5, it is found that there are significant differences in the four aspects and ages of detoxification behaviors. Further inspection by Scheffe found the following:

- (1) The "subjective norms" section: subjective norms are more important than all subjects over the age of 60.
- (2) The "behavioral intention" part: At the age of 50 to 54 and 55 to 59 years old, the behavioral intention was more important to the subjects than 45 to 49 years old.
- (3)The "attitude" part: At age 55 to 59, more attention was paid to subjects than at ages 50 to 54 than at ages 45 to 49.
- (4)Part of "Behavioral Control Perception": Participants who are over 60 years old pay more attention to behavioral control perception than those aged 50 to 54 years.

4.2.3. Education

There are significant differences in the detoxification behaviors in different education. It is found in Table 6 that there are significant differences in the three aspects of detoxification behaviors and education. Further inspection by Scheffe found the following:

- (1)"Behavioral intention" part: Subjects below elementary school and higher junior high school junior high school attach great importance to behavioral intention.
- (2) The "attitude" part: subjects below elementary school, junior high school, and junior colleges have a higher attitude to vocational education, while subjects above junior college have a higher attitude to junior high school and junior high school.
- (3)Part of "Behavioral Control Perception": Subjects in high school and below elementary school value behavioral control perception.

Table 6: Analysis of educational single factor variation (detoxification behavior)

Facet Personal variables	Subjective norms Behavioral intention			Attitude	Perception of behavior control
Below	3.7998	3.8	8312 ^{1 > 3}	$3.4827^{1>3}$	3.3620
elementary					
school					
Junior High	3.7855	3.	$7811^{2>3}$	$3.5047^{2>3}$	3.4135
School					
Higher	3.8314		3.6352	3.2178	$3.5057^{3>1}$
(Vocational)					
School					
College or	3.8598		3.7409	$3.7500^{4 > 1,2,3}$	3.5341
above					
	(0.585)	(6.751)*	***	(21.897)***	(3.637)*
Note: F values in	parentheses	*p < 0.05	**p < 0.01	***p < 0.001	

Source: collation of this study

4.2.4. Living area

There are significant differences in detoxification behaviors in different living areas. From Table 7, it is found that there are significant differences in the four aspects of detoxification behaviors and living areas. Further inspection by Scheffe found the following:

- (1)Part of the "subjective norms": Subjects in the Downtown and Sea Area values subjective norms more than Mountain Area.
- (2) The "behavioral intention" part: Subjects in the Sea Area and Downtown value behavioral intentions more than those in the Mountain Area, and subjects in the Sea Area value behavioral intentions more than Downtown.
- (3)The "attitude" part: the subjects in the Sea Area paid more attention to attitudes than those in the Downtown and Downtown areas than those in the Mountain Area.
- (4)Part of "Behavioral Control Perception": Subjects in the Sea Area and Downtown are more aware of behavioral control perception than those in the Mountain Area, and subjects in the Sea

Area and Downtown are more valued.

Table 7 Analysis of single factor variation in residential area (detoxification behavior)

Facet Personal variables	Subjective norms	Behavioral intention	Attitude	Perception of behavior control
Mountain Area	3.5249	3.6169	3.6169	3.2792
Sea Area	$3.8864^{2>1}$	$3.8784^{2>1,3}$	$3.8784^{2>3}$	$3.5568^{2>1,3}$
Downtown	$3.8944^{3>1}$	$3.7461^{3>1}$	$3.7461^{3>1}$	$3.4409^{3>1}$
	(42.853)***	(16.098)***	(30.191)***	(15.825)***
Note: F values in	parentheses	*p < 0.05 **p < 0.01	***p < 0.001	

Source: collation of this study

4.2.5. Type of drug (detoxification)

The different types of drugs have significant differences in detoxification behaviors. According to Table 8, it is found that there are significant differences in the three aspects of detoxification behaviors and drug types. After further inspection by Scheffe, it is found that:

- (1) Part of the "subjective norms": Subjects were valued by subjects with amphetamines and mixed drugs on heroin and amphetamines and mixed drugs on cocaine.
- (2) The part of "attitude": morphine, amphetamine and cocaine pay more attention to the subjects of mixed drugs, while morphine and cocaine pay more attention to the subjects of heroin.
- (3) Part of "behavioral control perception": In amphetamines and mixed drugs, subjects with cocaine pay more attention to behavioral control perception.

Table 8 Analysis table of single factor variation of drug types

Facet Personal variables	Subjective norms E	Behavioral intenti	on	Attitude	Perception of behavior control
morphine	3.7904	3.72	.73	$3.6818^{1>2,5}$	3.4545
Heroin	3.7435	3.75	97	3.3485	3.3718
Amphetamine	$3.9740^{3>2,4}$	3.81	04	$3.5433^{3>2,5}$	$3.5146^{3>4}$
Cocaine	3.6449	3.76	502	$3.5038^{4>5}$	3.3480
Mixed	$3.9258^{5>2,4}$	3.65	64	3.1727	3.5341 ^{5 > 4}
medicine					
	(14.376) ***	(2.190)	((17.624)***	(4.910)**
Note: F values in	n parentheses	*p < 0.05 **p	0 < 0.01	***p < 0.001	

Source: collation of this study

5. Conclusion and Suggestion

5.1. Conclusion

According to the Taiwan Ministry of Justice's report on "Management and Treatment Models of Addiction Drug Addicts in Correctional Institutions", it is pointed out that the judicial shift to treatment of drug addicts is already a trend, and Singapore has begun to establish drug rehabilitation Health centers, the United Kingdom has also begun to provide treatment plans for drug addicts, and the United States has begun to shift drug addicts from prison treatment to compulsory treatment. Therefore, if these middle-aged and elderly people with drug addiction can be treated, Taiwan 's labor force can improve the use of manpower In order to ease the burden of the proportion of elderly society. After discussing the conclusions of this study, the researchers mainly focused on the relationship between the personal attributes of drug addicts in the middle and senior years and their innovative self-directed learning and detoxification behaviors as follows:

5.1.1. Demographics have a significant relationship to self-directed learning

Targeting middle-to-adult drug addicts, it is found that there are significant differences between the sexes, which are in the areas of "loving to study drug detoxification," "independent drug treatment learning," and "learning motivation for drug detoxification." On the contrary, they are also in education It was found that there was no significant difference in the "motivation of learning to detoxify".

5.1.2. Demographics have a significant relationship with detox behavior

For middle-to-adult drug addicts, it is found that there is a significant difference between the sexes, which is in the part of the "cognitive" aspect. On the contrary, it is also in the part of education. In terms of the types of drugs, the "motivation" aspect is also not significant.

5.2. Suggestion

5.2.1. Advice for middle-aged and elderly drug addicts

Addiction cessation is a course that requires long-term and multi-learning treatments. This research survey ultimately hopes to assist drug addiction cases to inspire resilience, smoothly return to society, and reduce drug addiction. The goal is to correct biased ideas and distorted cognitive behavior.

5.2.2. Advice to governments and related companies

The National Institute for Drug Overruns (NIDA) has listed 13 principles of addiction cessation. In addition, the investigation of this study shows that to successfully quit addiction is a diverse goal. It is not just to stop using drugs. After understanding the situation, the auxiliary institutions should modify the treatment mode to a more comprehensive application strategy before they can give addicts or those who have become addicted. After reflection and drug use behaviors, they can still see the vitality of life and a bright life attitude in the later stage. It is hoped that in the future, the government, for-profit institutions and non-profit institutions can work together to apply the theory of interdisciplinary integration in the criminal justice system, which will help provide more complete treatment programs for drug addicts and develop more sound Social functions allow drug addicts to see their hopes and caring again because of social support.

5.2.3. Suggestions for follow-up research

- (1)In terms of research objects, the results of investigations in more different counties and cities can be targeted at middle-to-high age drug addicts in other counties and cities.
- (2)In terms of research methods: It is suggested that more "qualitative research" be added in the future, so as to gain a deep understanding of the detailed emotional and cognitive behaviors of middle-aged and senior drug addicts.
- (3)Research areas: It is suggested that follow-up researchers can choose more relevant research on psychology or counseling in middle and senior ages in order to meet the social needs of the aging population.

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