

**A STUDY ON TREATMENT BARRIERS AMONG
AMPHETAMINE-TYPE STIMULANT (ATS)
DRUG USERS IN MALAYSIA**

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by/oleh

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TABLE OF CONTENTS

ACKNOWLEDGEMENT.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES.....	vii
LIST OF FIGURES.....	ix
LIST OF ABBREVIATIONS.....	x
LIST OF APPENDICES.....	xii
ABSTRAK.....	xiii
ABSTRACT.....	xv
CHAPTER 1 INTRODUCTION.....	1
1.0 Introduction.....	1
1.1 World Drug Abuse Problem.....	1
1.2 Malaysian Drug Abuse Problem.....	5
1.3 ATS Use Problem in Malaysia.....	7
1.4 Problem Statement.....	12
1.5 Theoretical Framework.....	15
1.6 Study Hypothesis.....	16
1.7 Research Questions.....	16
1.8 Study Objectives.....	16
1.9 Study Significance.....	17
1.10 Conclusion.....	18
CHAPTER 2 LITERATURE REVIEW.....	19
2.0 Introduction.....	19
2.1 Drug Laws in Malaysia.....	19
2.1.1 Dangerous Drugs Act (DDA) of 1952.....	19
2.1.2 Drug Dependants (Treatment and Rehabilitation) Act 1983...	21
2.2 Barriers to ATS Treatment.....	22

2.2.1	Studies Related to ATS Treatment Barriers.....	24
2.3	ATS Treatment and Psychosocial Interventions.....	30
2.3.1	Pharmacotherapy for ATS Use.....	32
2.3.2	Clinical Presentation of ATS Use Disorder.....	33
2.3.3	History of ATS Use.....	34
2.3.4	Pharmacology of ATS.....	35
2.3.5	Clinical Withdrawal from ATS Use.....	36
2.3.6	Health Problems Associated with ATS Use.....	39
2.4	Conclusion.....	41
	CHAPTER 3 METHODS AND MATERIALS.....	42
3.0	Introduction.....	42
3.1	Study Design.....	42
3.2	Study Population and Location.....	43
3.3	Study Inclusion and Exclusion Criteria.....	43
3.4	Sampling and Sample Size Estimation.....	44
3.5	Data Collection Procedures and Study Instrument.....	44
3.6	Pilot-Study.....	46
3.7	Ethics.....	48
3.8	Data Analysis.....	48
3.9	Conclusion.....	48
	CHAPTER 4 RESULTS.....	49
4.0	Introduction.....	49
4.1	Study Results Online.....	49
4.2	Participation Rate.....	50
4.3	Respondents Socio-demographic Characteristics.....	50
4.3.1	Socio-demographic Characteristics between Male and Female Respondents.....	51
4.4	Drug Use History.....	51
4.5	Reasons for Giving up ATS Use, Reasons for Using ATS and Barriers to ATS Treatment.....	55
4.5.1	Reasons for Giving-up ATS Use.....	55

4.5.2	Reasons for Using ATS between Male and Female Respondents.....	56
4.5.3	Barriers to ATS Treatment between Male and Female Respondents.....	56
4.6	ATS Treatment History.....	63
4.7	ATS Use Perceptions.....	64
4.8	Methadone, Cough Syrup and Kratom Use History.....	66
4.8.1	Methadone and Cough Syrup Use History.....	66
4.8.2	Kratom Use History.....	67
4.9	Reasons for Using ATS between ATS Users and ATS Poly-Drug Users.....	68
4.10	Factors Associated with No Confidence in Treatment Program.....	70
4.11	ATS Treatment Perceptions between Male and Female ATS Users...	72
4.12	Kratom Use Reasons between ATS and Poly-drug Users.....	74
4.13	Conclusion.....	75
	CHAPTER 5 DISCUSSION.....	76
5.0	Introduction.....	76
5.1	Discussion Outline.....	76
5.2	Respondent's Socio-Demographic Characteristics.....	77
5.3	Drug Use History.....	80
5.4	ATS Use Reasons.....	82
5.5	Reasons for Giving Up ATS Use.....	85
5.6	ATS Treatment Barriers.....	86
5.7	ATS Treatment History.....	91
5.8	ATS Use Perception.....	93
5.9	Methadone, Cough-Syrup and Ketum Use History.....	97
5.10	Factors Associated with No Confidence in Treatment.....	99
5.11	ATS Use Perceptions between Male and Female ATS Users.....	101
5.12	Kratom Use Reasons between ATS Users and ATS Poly-Drug Users.....	103
5.13	Conclusion.....	104

CHAPTER 6	CONCLUSION/RECOMMENDATION.....	105
6.0	Introduction.....	105
6.1	Summary of Key Study Findings.....	108
6.2	Study Significance/Relevance.....	109
6.3	Study Limitation.....	113
6.4	Suggestions for Future Research.....	114
6.5	Conclusion.....	116
	REFERENCES.....	117
	APPENDICES	
	LIST OF PUBLICATIONS	

LIST OF TABLES

		Page
Table 1.1	ATS use prevalence between 2018 to 2019.....	11
Table 1.2	Prevalence of poly-drug and non-poly-drug use From 2018 to 2019.....	11
Table 1.3	People arrested for various drug-related offenses From 2018 to 2019.....	11
Table 1.4	The number of people undergoing drug rehabilitation in CDDCs and community supervision program from 2015 to 2019.....	11
Table 1.5	Definition of Terms.....	15
Table 4.1	Socio-demographic characteristics and drug use history of male and female respondents.....	52
Table 4.2	Reasons for giving up ATS (n=386).....	55
Table 4.3	Reasons for using ATS and perceived barriers to seeking treatment (n=386).....	59
Table 4.4	Multivariate logistic regression predicting Male-female differences in barriers to treatment.....	62
Table 4.5	ATS treatment history.....	63
Table 4.6	ATS use perceptions.....	65
Table 4.7	Methadone and cough syrup use history.....	66
Table 4.8	Kratom use history.....	67

Table 4.9	Reasons for using ATS between ATS users and ATS poly-drug users.....	69
Table 4.10	Factors associated with no confidence towards ATS treatment program.....	71
Table 4.11	ATS treatment perceptions between male and female ATS users.....	73
Table 4.12	Kratom use reasons between ATS and ATS poly-drug users.....	74

LIST OF FIGURES

	Page
Figure 1.1	Global number of people who use drugs and people with drug use disorders (SUDs) from 2006 to 2018 <i>(Source: UNODC, World Drug Report, 2020)</i>1
Figure 1.2	Estimated prevalence of types of drug use in 2018....2
Figure 1.3	Theoretical framework.....15

LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ATS	Amphetamine-type stimulant
C&C	Cure and Care
CCRC	Community Care and Rehabilitation Centre
CDDC	Compulsory Drug Detention Centre
CI	Confidence Interval
CNS	Central Nervous System
DDA	Dangerous Drugs Act
FDUs	Female Drug Users
FWUDs	Female Who Use Drugs
GPs	General Practitioners
HIV	Human Immunodeficiency Virus
MMT	Methadone Maintenance Treatment
MSM	Men having Sex with Men
NADA	National Anti-Drugs Agency
NGOs	Non-Governmental Organizations
OR	Odds Ratio
PrEP	Pre-exposure Prophylaxis
PWIDs	People Who Inject Drugs
PWUA	People Who Use Amphetamine-type Stimulant
PWUDs	People Who Use Drugs
SDGs	Sustainable Development Goals
SPSS	Statistical Package for Social Sciences
SUD	Substance Use Disorder
TBQ	Treatment Barriers Questionnaire
UNODC	United Nations Office on Drugs and Crime
VTCs	Voluntary Treatment Centers

LIST OF APPENDICES

APPENDIX A	HUMAN ETHICS APPROVAL CERTIFICATE
APPENDIX B	STUDY QUESTIONNAIRE.

**SATU KAJIAN KE ATAS HALANGAN RAWATAN DALAM
KALANGAN PENGGUNA DADAH PERANGSANG JENIS AMFETAMINA
(ATS) DI MALAYSIA**

ABSTRAK

Individu yang menggunakan dadah jenis amfetamina (PWUA) seringkali teragak-agak untuk menyertai dalam program rawatan, dan mungkin menghadapi pelbagai halangan semasa mendapatkan rawatan. Kajian ini bertujuan untuk mengenalpasti halangan rawatan dan perbezaan gender dalam halangan (jika terdapat) yang menghalang PWUA daripada menyertai dalam program rawatan di Malaysia. Tiga ratus dan lapan puluh enam penghuni rawatan yang diarahkan menjalani rehabilitasi mandatori untuk sejarah penggunaan ATS telah direkrut melalui persampelan mudah daripada lima fasiliti pemulihan dadah (CCRCs) untuk kajian keratan-rentas ini. Data kajian dikumpul melalui kaedah menemu bual (*face-to-face*) oleh seorang pelajar yang terlatih menggunakan skala *Treatment Barriers Questionnaire* (TBQ). Majoriti (83%, n=321/386) adalah lelaki, hanya 17% (n=65) terdiri daripada wanita. Kebanyakan adalah etnik Melayu (95%, n=365/386), bujang (61%), dan bekerja (85%) sebelum mereka ditahan. Min umur responden dalam kajian ini adalah 31.7 tahun (SD=8.8), manakala 51% adalah berumur lebih daripada 31 tahun. Halangan umum rawatan yang dilaporkan oleh kedua-dua lelaki dan wanita adalah: penggunaan ATS boleh diberhentikan tanpa apa-apa rawatan, takut dengan diskriminasi masyarakat, pengaruh rakan sebaya, persepsi bahawa program rawatan mandatori adalah kurang berkesan/bermanfaat, waktu menunggu yang panjang, kekurangan sokongan keluarga, malu untuk tinggal di pusat rawatan, komitmen kerja,

kesukaran untuk mendaftar dalam rawatan dan tidak mempunyai keinginan untuk melepaskan (berhenti daripada) penggunaan ATS. Wanita melaporkan rasa takut diskriminasi masyarakat (OR: 1.80; 1.03-3.12; $p < .037$), pengaruh rakan sebaya (OR: 1.89; 1.10-3.25; $p < .020$), dan masa menunggu yang panjang (OR: 2.74; 1.58 -4.72; $p < .000$) sebagai halangan umum kepada penyertaan rawatan. Sementara itu, lelaki lebih kemungkinan melaporkan bahawa program rawatan mandatori adalah kurang berkesan/bermanfaat (OR: 3.76; 1.80-7.90; $p < .000$) sebagai penghalang rawatan. PWUA terdedah kepada pelbagai halangan rawatan semasa sedang/atau berfikir-fikir untuk menyertai program rawatan dalam negara ini. Justeru itu, inisiatif reka bentuk khidmat santun masyarakat untuk meminimumkan kesan halangan rawatan, serta keperluan protokol rawatan berasingan, dan kemudahan diperlukan segera untuk menggalakan penyertaan sukarela dalam program rawatan dadah dalam kalangan PWUA di Malaysia.

A STUDY ON TREATMENT BARRIERS AMONG AMPHETAMINE-TYPE STIMULANT (ATS) DRUG USERS IN MALAYSIA

ABSTRACT

People who use amphetamine-type stimulant (PWUA) often hesitate to participate in treatment program, and may encounter various barriers while seeking treatment. This study sought to identify treatment barriers and gender differences in barriers (if any) that precluded PWUA from participating in drug treatment programs in Malaysia. Three hundred and eighty-six treatment inmates who were mandated to undergo rehabilitation for their ATS use history were recruited through convenience sampling from five drug rehabilitation centres (CCRCs) for this cross-sectional study. The study data was collected through *face-to-face* interviews by a trained student using the Treatment Barriers Questionnaire (TBQ) scale. The majority (83%, n=321/386) were males, only 17% (n=65) consisted of females. Most were ethnic Malays (95%, n=365/386), single (61%), and were employed (85%) prior to their confinement. The respondent's mean age in this study was 31.7 years (SD=8.8), while 51% were more than 31 years-old. The common treatment barriers reported by both men and women were: ATS use can be stopped without any treatment, fear of community discrimination, peer influence, the perception that mandated treatment programs is less effective/helpful, long waiting time, lack of family support, the shame to stay in treatment centres, work commitment, difficulty to register in treatment and having no desire to give up (abstain from) ATS use. Females reported the fear of community discrimination (OR: 1.80; 1.03-3.12: $p<.037$), peer influence (OR: 1.89; 1.10-3.25: $p<.020$), and the long waiting time (OR: 2.74; 1.58-4.72: $p<.000$) as common barriers

to treatment participation. Meanwhile, males are more likely to report that mandated treatment programs are less effective/helpful (OR: 3.76; 1.80-7.90; $p < .000$) as a treatment barrier. PWUA are exposed to a plethora of treatment barriers while seeking and/or contemplating to participate in treatment programs in the country. Hence, outreach service initiatives design to minimize the impact of treatment barriers, as well as the need for separate treatment protocols, and facilities are urgently needed to promote voluntary participation in drug treatment programs among PWUA in Malaysia.

CHAPTER 1

INTRODUCTION

1.0 Introduction

This is the introduction chapter of the thesis. Information with reference to the world and Malaysia drug abuse problem, amphetamine-type stimulant (ATS) use problem in Malaysia, study problem statement, study hypothesis, research questions and study objectives, as well as study significance/relevance have been succinctly encapsulated in this chapter.

1.1 World Drug Abuse Problem

United Nations Office on Drugs and Crime (UNODC) projected that 269 million (range between 19.0 to 52.2 million) people aged between 15 to 64 years have used illicit drugs in the past year (2018), while some 35.6 million (range between 0.4 to 1.0 per cent) people have suffered from substance use disorders (SUDs) (See **Figure 1.1**); indicating that their patterns of drug use is significantly harmful and has resulted in dependence and treatment admission (World Drug Report, 2020).

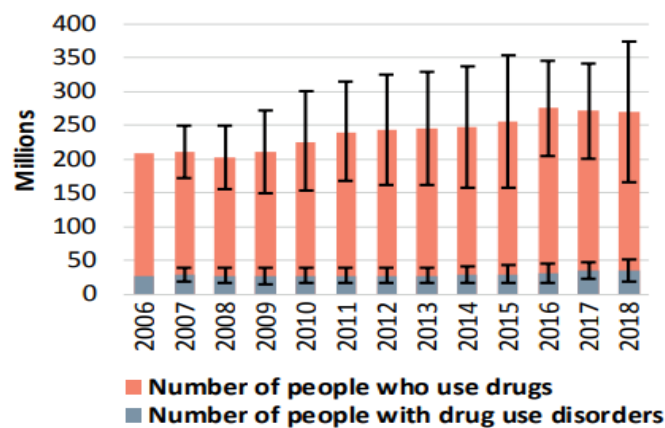


Figure 1.1, Global number of people who use drugs and people with drug use disorders (SUDs) from 2006 to 2018 (*Source: UNODC, World Drug Report, 2020*).

In the last decade, UNODC has discovered a wide range of novel illicit substances in the illicit drug market. Besides the widely used plant-based substances such as cannabis, cocaine, and opioid (morphine/heroin), UNODC found the use of *synthetic drugs*, and the non-medical use of pharmaceutical drugs, as well as the abuse of prescription medicines have posed more uncommon challenges for enforcement and regulatory agencies, as they scrambled to develop prevention and treatment interventions to halt the abuse of illicit and prescription drug use (World Drug Report, 2020).

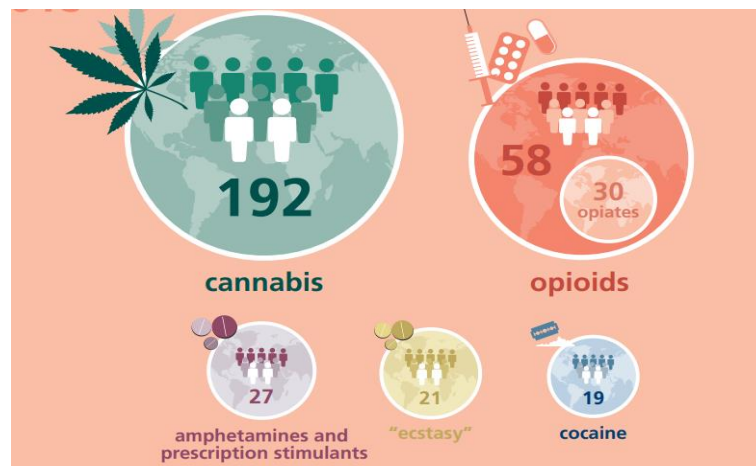


Figure 1.2, Estimated prevalence of types of drug use in 2018 (Source: UNODC, *World Drug Report*, 2020).

In contrast with the wide availability of psychotropic substances, cannabis is the most widely used illicit substance in the world, followed by opioids, amphetamine-type stimulant (ATS), ecstasy and cocaine, as shown in **Figure 1.2**. UNODC estimated that about 192 million people have used cannabis in 2018, and the issue is reported to be prevalent especially in North America, Australia and New Zealand, as well as West and Central Africa (World Drug Report, 2020). While opioid is the second most widely used illicit substance after cannabis. It is estimated that nearly 57.8 million people have used opioids (including 30.4 million who have used opiates), and misused pharmaceutical opioids in 2018. The opioid abuse problem is reported to be prevalent

in North America, Australia and New Zealand, Middle East, South-West Asia, and South Asia (World Drug Report, 2020). Particularly the use of non-medical pharmaceutical opioids such as tramadol, hydrocodone, oxycodone, codeine, and fentanyl have become a huge problem in the West and North Africa, and Middle East (World Drug Report, 2020). The overdose death rates (70,237 people have died from opioid overdose in 2017) have also surged in recent years in North America, resulting from the use of fentanyl and its analogues. In fact, enforcement agencies have found street heroin to be adulterated with counterfeit drugs such as oxycodone, hydrocodone and benzodiazepines (World Drug Report, 2020). ATS including amphetamine and methamphetamine are the third most widely used illicit substances in the world. UNODC estimated that around 27 million people have used amphetamine, methamphetamine, and pharmaceutical stimulants in 2018. Despite the exponential escalation in ATS consumption, UNODC anticipated (projected) that ATS use will become more prevalent (especially the use of ATS in the form of tablets and crystal methamphetamine) and rise rapidly in the East and South-East Asian regions. In fact, it is estimated that some 9.9 million have used ATS in these regions in 2018 (World Drug Report, 2020). The prevalence rates for ecstasy and cocaine use are estimated to have increased slightly in relative to the previous years. However, in 2018, it is estimated that about 20.5 million people have used ecstasy, while 5.5 million people have used cocaine (World Drug Report, 2020).

Nevertheless, UNODC also found an increasing number of people are using psychotropic substances in developed countries than developing countries, while people who are socially and economically impacted are more vulnerable to substance use disorders (SUDs). The United Nation's (UN) organization has urged all member states to work collectively to implement more flexible laws/policies to address the

complex challenges brought by the drug abuse problem, and to ensure implemented interventions are properly carried out to achieve the Sustainable Development Goals (SDGs). However, efforts to introduce *non-punitive interventions* and laws have hit a snag due to poor political support. Given the evolving dynamic of drug market, and since treatment programs/centers are developed traditionally to treat opioid dependence (people with heroin/morphine use problems), these conventional rehabilitation-based treatment centers are found to be no longer suitable, especially among stimulant users (people who use ATS), since it forced or subjected ATS users to the same treatment protocols as opioid users. Since most law enforcement agencies in Southeast Asia choose to address the drug abuse problem by detaining people who use drugs (PWUDs) in jails, this move is believed to have critically reduced the number of treatment centers housing PWUDs. UNODC estimated that only one in every eight PWUDs have had the opportunity to enroll in treatment in 2018. Similarly, in Southeast Asia, it is reported that treatment admissions among people who use ATS (PWUA) have increased exponentially (World Drug Report, 2020). On the other hand, though the global prevalence rate of people who inject drugs (PWIDs) have also increased (about 11.3 million people are estimated to have had injected drugs, while 1.4 million people are reported to be living with HIV), UNODC anticipated that the widespread use of ATS can also fuel HIV spread among ATS users who tend to engage in anomalous HIV risk behaviours both sexual and injecting practices (World Drug Report, 2020).

1.2 Malaysian Drug Abuse Problem

During the British supremacy in Southeast Asia, opium was cultivated as a lucrative commodity in the *Malay* Archipelago. To expand the economy, modernize the outdated *tin mining* industry, and to increase opium yield then, the British brought migrant workers from mainland China to *Malaya*. Most of the Chinese workers who came to *Malaya* have had a prior history of opium use. Opium smoking eventually turn into a huge nuisance especially among the migrant workers who continue to excessively indulge in opium smoking habit, as part of their recreational activity. Though, opium was generally used to improve work productivity and treat common maladies, it gradually begun to be abuse, and eventually caught the attention of the more educated Chinese intellectuals, who foresee the significant health risks of opium use. The intellectuals then pressed the British to control opium use mainly to dissuade the migrant workers from consuming it. With the sudden civil disobedience staged by the Chinese intellectuals which happened to coincide with the political uprising in China, ultimately pressured the British to regulate its opium trade. Given the mass blockade, though opium can still be bought with ease from authorized opium shops, the British finally get rid of legal opium joints, and introduced the Dangerous Drugs Act (DDA) of 1952. Since the commencement of the DDA of 1952, people who use opium (morphine/heroin) can be detained and jailed in Malaysia and subjected to punitive punishments.

Presently, a few sets of prevailing law(s) are administered to combat the illicit drug use menace in the country. The most widely administered acts include the Dangerous Drugs Act (DDA) of 1952, and the Drug Dependants (Treatment and Rehabilitation) Act of 1983. DDA of 1952 is often prescribed for detaining and

prosecuting people for *major* and *minor* drug use offenses, and drug trafficking offenses. While the Drug Dependents Act of 1983 is administratively prescribed to detain and mandate PWUDs to enroll in formal drug rehabilitation and community-based treatment programs in the country. Since the illicit drug use problem has been acknowledged as a “national security issue” in the country, numerous studies have been conducted in the last six decades to understand, identify, and evaluate the effectiveness and drawbacks of treatment interventions, and drug policies. Given the escalating opioid abuse problem and its association with significant health issues such as HIV—a few earlier studies managed to highlight the demographic characteristics and risky drug using behaviours of opioid users in Malaysia (Fu et al., 2012; Chawarski et al., 2013; Wickersham et al., 2013). After a while, subsequent studies also determined the risky behaviours of opioid users living with HIV in the country (Chawarski et al., 2013). Later, when harm-reduction programs (needle syringe exchange program and methadone maintenance treatment – MMT program) were implemented, several studies managed to also describe the benefits of MMT program (Aziz and Chong, 2015; Mukherjee et al., 2016; Fei et al., 2016; Ali et al., 2017). In the fifth decade, many studies were commissioned to investigate the growing use of ATS (amphetamine and methamphetamine) among heroin users (Vijay et al., 2015; Loeliger et al., 2016), and its association HIV risk behaviours (Chawarski et al., 2013). Since ATS use is reported to induce mental health problems, Sulaiman et al. (2016) highlighted the magnitude of psychiatric problems ATS users usually faced. In addition, since Malaysia also allowed private general practitioners (GPs) to dispense opioid substitution therapy, studies among buprenorphine patients were also conducted to gauge treatment compliance issues (Vicknasingam et al., 2010; Vicknasingam et al., 2015). Given that Malaysia also introduced voluntary treatment

program (voluntary treatment centers – VTCs) which provides both *outpatient* and *inpatient* treatment services for PWUDs, a few studies have also investigated the effectiveness of this innovative treatment program (Ghani et al., 2015; Krishnan et al., 2016). Moreover, since ketum (*kratom*) is reported to be widely used among opioid users and is associated with a reduction in frequency of illicit drug use (Singh et al., 2021; Singh et al., 2020; Saref et al., 2019; Prozialeck et al., 2019), current studies thus far, begin to study the medicinal and therapeutic potential of ketum utility among opioid and ATS poly-drug users in the country (Singh et al., 2021).

1.3 ATS Use Problem in Malaysia

At present, there is no approved treatment in the form of a medication for ATS use disorder (Farrell et al., 2019). Practically, people who use ATS are not diagnose for their ATS use disorder as opiate users. In fact, ATS users are usually managed for their stimulant use disorder through psychosocial interventions. Substance use disorder (SUD) is also interchangeably known as ‘drug dependence’. According to the Diagnostic and Statistical Manual of Mental Disorders five (DSM-5) developed by the American Psychiatric Association (US) – defined substance use disorder (SUD) as a complex condition in which someone who uses narcotics often lost their ability to control their drug use or continue to use drugs despite of its harmful consequences. Severe SUD is also called addiction. The common characteristics of SUD include 1) *impaired control over drug use* (strong irresistible proclivity to use drugs or failure to cut down/control drug use), 2) *social problems* (failure to carry out key responsibilities or work function, 3) *risky use* (engage in aberrant drug using behaviours even after knowing its risks), and experiencing *adverse drug effects* (developing tolerance – need to use more drugs, and experiencing withdrawal symptoms during abrupt cessation (American Psychiatric Association). In fact, currently there is no specific diagnostic

criteria for diagnosing stimulant use disorder. Treatment or rehabilitation for ATS use is largely based on psychosocial interventions (e.g., contingency management and motivational interviewing) (AshaRani et al., 2020). Despite the unavailability of treatment, people who use ATS (PWUA), particularly in Southeast Asia, are often arrested and detained in compulsory drug detention centers (CDDCs) or jails (Kamarulzaman and McBrayer, 2015; Werb et al., 2016). In Malaysia, PWUA can be detained; either fined (with a fine not exceeding RM5,000), and jailed (for a period of not more than two-years) under the Dangerous Drugs Act (DDA) of 1952, if they are found guilty of drug self-administration violation. While those caught for ATS possession offenses can be jailed under Section 39A (1) for *minor*, and 39A (2) for *major* drug possession offenses with more a punitive jail sentence. While those caught for ‘trafficking in of dangerous drugs’ can be detained under Section 39B of the DDA of 1952, and punished with the death penalty, otherwise their sentence can be commuted to a lifetime imprisonment based on the court’s verdict, as well as whipped not less than fifteen strokes of the *rotan*. In special circumstances, if someone had been sentenced to life imprisonment – their sentences can be overturned and reduced to a shorter jail term under the court’s judgment, with the provision that the convict had co-operated with law enforcement agencies in disrupting drug trafficking activities.

Besides the punitive drug laws, an exponential number of individuals have been detected (caught) for using/abusing various illicit substances in the last five-years (2015-2019) in the country. Based on the available data from the National Anti-Drugs Agency (NADA) – a significant shift in the country’s drug abuse landscape is observed, where opiate use popularity had de-escalated and surpassed by ATS use (National Drug Report, 2019). In 2019, a total 142,199 individuals (135,869 males and 6,330 females) have had been detected for abusing illicit drugs and having a history of

substance use disorder (SUD). In fact, this reported figure was found to be higher than the previous year (2018) (about 130,788 individuals were detected in 2018) (National Drug Report, 2019). Similarly, the number of people detected for SUD have also increased markedly from 24,972 in 2018, to 25,809 in 2019. In 2019, about 17,464 new SUD cases were detected, while 8,345 were classified as repeat offenders with previous SUD history (National Drug Report, 2019).

Out of the 142,199 cases, 91,684 were found to have used/misused ATS (National Drug Report, 2019). In Malaysia, methamphetamine comes in two forms; crystal methamphetamine which is also known in local context as *ice*, *batu* and *syabu*, or in a tablet form, usually identified as *pil kuda* or *yaba*. ATS in the form of crystal methamphetamine is widely used, followed by amphetamine and ecstasy. Though a slight decrease in crystal methamphetamine consumption is recorded than other forms of ATS, indeed, crystal methamphetamine consumption remains as the most popular form of ATS used in the country (See Table 1.1). In addition, with the given figures (142,199) of people who use drugs in 2019 – a majority (127,033) were found to be using only one-type of drug (*non-poly-drug users*), while 15,166 individuals were found to be using more than one-type of illicit substances (*poly-drug users*) (National Drug Report, 2019). Notably, based on the current scenario, it can be postulated that PWUDs in Malaysia generally have a strong liking for using *single type* of substance than multiple classes of drugs (See Table 1.2). A worrying trend in poly-drug use is also observed – where a significant number of PWUDs were found to have used poly-drugs in 2019 (See Table 1.2). Given this observation, it can be implied that those who begin to use only one type of drug may gradually morphed into using multiple substances—corresponding to the observed trend seen among PWUDs in Southeast Asia (UNODC, 2019).

Moreover, in 2019, a significant number of PWUDs were arrested under the Dangerous Drugs Act of 1952 for various drug-related offenses [39B, 39A (1), 39A (2), 6/9/12(2) and 15(1)(a)]. A high number (80,386 out of 165,868 cases) of PWUDs were arrested under Section 15(1)(a) for consuming (self-administration) illicit substances primarily ATS in 2019. While 58,623 PWUDs were arrested under Section 6, 9 and 12(2) for opiate abuse offenses in 2019. An exponential increase in Section 39A (1) for *minor* drug possession offenses were also noted. Although Malaysia has the death penalty for drug trafficking offenses, more and more people have had been arrested under Section 39B for drug trafficking offenses in 2019 in the country (See Table 1.3).

PWUDs can also be detained in compulsory drug detention centers (CDDCs). Though Malaysia is slowly moving away from a penitentiary treatment approach to voluntary treatment-based programs/centers, a substantially large percentage of PWUDs are still confined in CDDCs (also known as Community Care and Rehabilitation Centers – CCRCs). The number of PWUDs sent to CDDCs have also declined over the years from 8,032 individuals in 2016 to 4,236 individuals in 2019. This reduction can be attributed to the availability of voluntary treatment programs for PWUDs. On the other hand, the number of people placed in community supervision program have also increased considerably from 46,139 individuals in 2015 to 70,343 individuals in 2019 (See Table 1.4).

Table 1.1, ATS use prevalence between 2018 to 2019.

<i>Types of ATS</i>	2018	2019	Differences (%)
Crystal methamphetamine	66,202	64,866	-2.0%
Amphetamine	12,562	19,076	51.9%
Methamphetamine tablets	5,555	7,580	36.5%
Ecstasy	120	162	35.0%
Total	84,439	91,684	

Table 1.2, Prevalence of poly-drug and non-poly-drug use from 2018 to 2019.

<i>Category</i>	Males		Differences (%)	Females		Differences (%)
	2018	2019		2018	2019	
Poly-drug users	8,393	14,486	72.6	448	680	51.8
Non-poly-drug users	116,927	121,383	3.8	5,020	5,650	12.5

Table 1.3, People arrested for various drug-related offenses from 2018 to 2019.

<i>Sections</i>	2018	2019
Section 39B	6,884	6,829
Section 39A (2)	3,997	3,986
Section 39A (1)	14,691	16,044
Section 6, 9 and 12(2)	56,640	58,623
Section 15(1)(a)	75,465	80,386
Total	157,677	165,868

Table 1.4, The number of people undergoing drug rehabilitation in CDDCs and community supervision program from 2015 to 2019.

Years	Rehabilitation in CDDCs	Rehabilitation in community supervision program
2015	6,406	46,139
2016	8,032	52,386
2017	6,748	64,559
2018	5,478	54,251
2019	4,236	70,343

Source: National Anti-Drugs Agency (NADA) 2019.

1.4 Problem Statement

The key aim of this preliminary study was to determine *barriers to treatment* among people who use amphetamine-type stimulant (ATS) (PWUA) in Malaysia. According to NADA, ATS use prevalence had markedly surged in the last five years (2015-2019)—reflecting that opiate popularity is slowly diminishing (NADA, 2019). Approximately >70,000 PWUDs are annually detained for minor ATS use offenses (self-administration) under Section 15(1)(a) of the Dangerous Drugs Act (DDA) of 1952; of this, a majority are sent to prisons, while roughly ≤6,000 individuals are confined in mandatory drug treatment centers (Community Care and Rehabilitation Center – CCRC) in the country. To support UN’s supplication in reforming drug treatment programs for PWUDs (World Drug Report, 2020), and given the high relapse rate, and human rights abuses reported among treatment enrollees in compulsory drug detention centers (CDDCs) (Werb et al., 2016) – Malaysia has taken a formidable and bold measure in 2014 to transform some of its CDDCs into voluntary treatment centers (VTCs), chiefly to cater to the treatment needs of PWUDs, including ATS users. Despite the availability of VTCs, treatment participation among PWUDs remained low (annually about 850 individuals join treatment) in VTCs. In truth, the government have had only converted 11 CCRCs into VTCs, while 23 other centers are purely CCRCs or are based on mandatory rehabilitation. Though the government plans to gradually convert all CCRCs into VTCs, unfortunately their plans stalled halfway due to some unknown circumstances.

Given that more and more people are arrested and confined in controlled-environment, treatment providers in *formal* or *informal* drug-rehabilitation centers in Malaysia (CCRCs, VTCs and community supervision program) could be experiencing

new challenges in dealing with people who use ATS (PWUA). This is because treatment programs in Malaysia are predominantly designed to cater to the treatment needs of opioid users (people who use heroin/morphine). At present, there is no specific treatment for PWUA. Unfortunately, despite the urgent need for new treatment protocols, PWUDs especially people who use ATS are still treated as opioid users in the same highly stigmatized opioid-based treatment facility which have been frowned upon by PWUDs because of its traumatizing “*serenti syndrome*”. In time to come, opioid-based programs and facilities may not appear attractive to PWUA. A recent study by Wegman et al. (2016) highlighted that mandatory treatment programs (CCDCs) have little relevance in treating PWUDs (both opiate and ATS users) and have urged policymakers to dismantle the outmoded treatment program and replaced it with more evidence-based treatment interventions. Given the unavailability of treatment, an increasing number of studies have also begun to highlight the general reluctance among people who use ATS to enroll into treatment, as well as some of the perceptible barriers that hindered stimulant users from joining treatment (Cumming et al., 2016).

Given that people who use ATS are less likely to join treatment and faced a plethora of treatment barriers (Cumming et al., 2016), to the best of my knowledge, so far, no studies have attempted to investigate *why* people who use ATS resist, or what barriers precluded them from enrolling in treatment programs/centers in Malaysia. Indeed, previous studies in Malaysia mainly investigated HIV risk behaviours (e.g., sexual and injecting behaviours) among opiate users, methadone treatment barriers among ATS users, criminal behaviours of ATS users, and treatment perceptions among opiate users living with HIV in the country (Chawarski et al., 2013). At this juncture, there is a lack of studies on barriers to ATS treatment. Given this limitation,

the primary aim of this study was to determine barriers to ATS treatment among people who use ATS (PWUA) in Malaysia. While the ancillary aims of the study was to identify the socio-demographic characteristic, reasons for ATS use, factors hindering participation in treatment, perceptions regarding ATS use, and reasons for ketum (*Mitragyna speciosa*) use among people who use ATS.

Taken together, findings from this preliminary study have several relevance in terms of policy and treatment implications. First and foremost, policymakers can use these findings to weigh the consequences of having punitive drug policies, since laws that continue to punish PWUDs are shown to have unsatisfactory outcomes and in fact, compound the existing drug abuse *status quo* in the country. Perhaps, policymakers should look at *decriminalization* – removing sanctions/penalties which continue to punish people for testing positive for drug use. Meaning, PWUDs should not be subjected randomly to any form of urine-drug test. Moreover, law makers should also learn from policymakers who have successfully introduced flexible laws (non-punitive) to keep the drug abuse problem under control. This is because states that have repeal *tit-for-tat* laws, seems to have had successfully address many issues such as prison overcrowding, HIV transmission, black drug market, health issues, crime, etc. Non-punitive treatment programs are also reported to promote treatment participation. Equally important, treatment providers can also use this study to benchmark their treatment program ineffectiveness or limitations, so that they can take proper measures to improve their treatment program appeal among people who use ATS in the country. Findings from this study can also be used to shed some light on areas where further research may be required, for example, *how* treatment providers can go about to promote, persuade, and engage people who use ATS in treatment. Since people who use ATS dislike to participate in treatment, indeed, this study can

help treatment providers to develop suitable or alternative approaches in providing a more adaptable treatment program for PWUDs in the country. Finally, given the rapid change in drug using trend, treatment providers can use this study to develop appropriate treatment protocols for PWUDs with poly-drug use history. In sum, this study preliminary study serves as a foundation for prospective studies.

1.5 Theoretical Framework

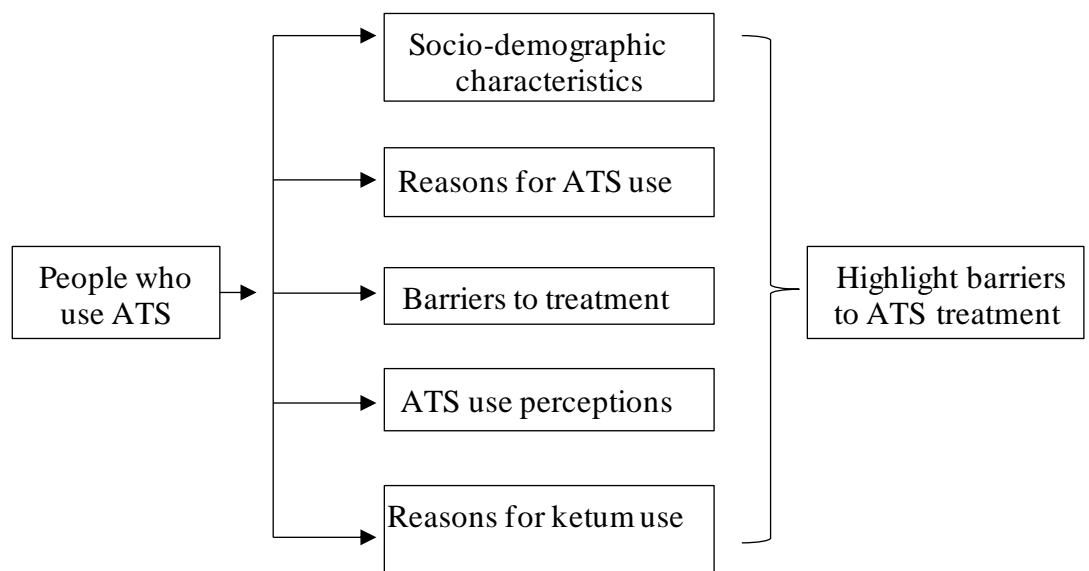


Figure 1.3, Theoretical framework.

The theoretical framework for the study is shown in **Figure 1.3**. The definition of terms used in this study is also spelled out for ease of understanding (See Table 1.5);

Table 1.5, Definition of Terms.

ATS	Amphetamine-type stimulant (ATS) is a class of stimulant based substances. The use of ATS is regulated under the Dangerous Drugs Act (DDA) 1952 in Malaysia. Those caught for ATS use can be fine and jail.
PWUA	People who use ATS.

Barriers to treatment	People who use drugs (PWUDs) are bound to encounter various barriers (challenges) that may directly and indirectly affect their participation in treatment. In this study, we used the validated Treatment Barriers Questionnaire (TBQ) to identify ATS user's treatment barriers.
Ketum	<i>Ketum</i> (<i>Mitragyna speciosa</i>) is a native medicinal plant, widely used in Southeast Asia as a remedy for common ailments.

1.6 Study Hypothesis

People who use amphetamine-type stimulant (PWUA) are prone to experience a multitude of barriers while seeking to enroll in treatment centers/programs in Malaysia.

1.7 Research Questions

The research questions of this study are as follows.

1. What is the socio-demographic characteristics of people who use amphetamine-type stimulant (PWUA) in Malaysia?
2. Why ATS is use in Malaysia?
3. What treatment barriers PWUA face in Malaysia?
4. What are the common ATS use perceptions among PWUA in Malaysia?
5. Why PWUA use ketum in Malaysia?

1.8 Study Objectives

The study objectives of this study are.

1. To determine the socio-demographic characteristics of people who use amphetamine-type stimulant (PWUA) in Malaysia.

2. To identify reasons for ATS use in Malaysia.
3. To investigate barriers to ATS treatment among PWUA in Malaysia.
4. To examine ATS use perceptions among PWUA in Malaysia.
5. To determine reasons for ketum use among PWUA in Malaysia.

1.9 Study Significance

To the best of my knowledge, this study is among the first to investigate barriers to ATS treatment program among people who use ATS (PWUA) in Malaysia. At present, the primary mode of rehabilitation for ATS use disorder is through detention in controlled-environments (e.g., prison and formal drug rehabilitation centers also known as Community Care and Rehabilitation Centers - CCRCs), though PWUA are also allowed to enroll in voluntary treatment centers (VTCs) in the country. Indeed, this study has several key advantages and is expected to provide crucial information or insights on barriers faced by PWUA in Malaysia. Literally, the findings can be used as a building block to inform treatment providers and policymakers about the urgent need for addressing barriers to ATS treatment. It will facilitate treatment providers to be more receptive and well informed about the treatment needs of PWUA. In addition, this study will also pinpoint to specific areas where further studies may be needed to guide policymakers in making informed decisions pertaining to the repeal or abolishment of draconian laws which continue to suppress PWUA in the country. Realistically, stakeholders can rely on this study to introduce alternative treatment interventions that are non-punitive, to promote treatment participation. Nevertheless, this study can also highlight some of the subtle barriers (e.g., long waiting time, rigid treatment admission criteria, discrimination, etc.,) that continue to affect PWUA participation in treatment. Notably, there is also a need for treatment providers to

address the issue of stigma or public condemnation against women who use drugs. Since ATS users are more likely to resist treatment, it is essential for treatment providers to look at the benefits of implementing community-based outpatient treatment programs which are devoid of legal penalties—this is to lure ATS users to seek treatment voluntarily, and help to minimize public health issues (e.g., unwanted pregnancies, blood-borne diseases such as HIV transmission, psychiatric problems, intimate partner violence, etc.). Finally, this study can guide prospective studies.

1.10 Conclusion

Information related to the study problem statement, research questions and study objectives, theoretical framework and study significance/relevance have all been clearly delineated in this chapter. The next chapter is the literature review chapter.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This is the literature review chapter. All the relevant articles related to the scope of study have been thoroughly analysed and described in this chapter.

2.1 Drug Laws in Malaysia

2.1.1 *Dangerous Drugs Act (DDA) of 1952*

To detain and punish people who use drugs (PWUDs), the Dangerous Drugs Act (DDA) of 1952, and Drug Dependents (Treatment and Rehabilitation) Act of 1983 are commonly used in Malaysia. Meanwhile, the Poisons Act of 1952 is commonly used to punish individuals caught for possessing psychotropics [Poison (Psychotropic Substances) Regulations 1989] such as Benzodiazepines, that are commonly abused among opiate users in Malaysia. Those caught for “trafficking in dangerous drugs” (as listed in the First Schedule), if found guilty, can face the *death penalty* under Section 39B of the DDA of 1952. Dangerous drugs are defined or characterized as “*any drug or substance which is for the time being listed in the First Schedule*” of the Dangerous Drugs Act of 1952.

Under the DDA of 1952, Section 6, 9 and 12(2), 15(1)(a), 39A (1) and 39A (2) are commonly used to detain and punish individuals caught for various narcotic offenses such as for the self-administration of illicit substances, minor and major possession, and for being in places (locations) regularly frequented by PWUDs. To control opiate use, section 6, 9 and 12(2) are usually administered to detain those caught for possessing dangerous drugs. Those caught for keeping (possession), or

having custody and control of any raw opium, coca leaves and cannabis can be fine with an amount not exceeding twenty thousand Ringgit or can be jail for a term not exceeding five years or to both under Section 6 and 9 of the Dangerous Drugs Act of 1952. While those caught for importing and exporting dangerous drugs, or having possession, custody and control of any dangerous drugs can be detain under Section 12(2) and charge under Section 12(3) with a fine not exceeding one hundred thousand Ringgit, or jailed not more than five years, or both upon conviction.

Similarly, those caught for self-administering any dangerous drugs (often confirmed via a drug urine test) can be detained and punished under Section 15(1) with a fine not exceeding five thousand Ringgit, or in default of a court fine, be jailed for a period less than two years. Since there is no approved treatment for ATS use disorder, and to curb the growing misuse of ATS, enforcement agencies often use Section 15(1) to detain ATS users or poly-drug users. It is reported that annually, more than 80,000 people are arrested under Section 15(1) of the Dangerous Drugs Act of 1952 in the country (National Drug Report, 2019).

Moreover, those caught for possessing dangerous drugs can also face severe punishment in Malaysia. For example, those caught for possessing a minimum amount of 2 gram of heroin/morphine, 20 grams of cannabis, 5 grams of methamphetamine and amphetamine, 5 grams of cocaine, as well as 5 grams of MDMA, can be detained under Section 39A (1), and punish with a jail term between two to five years, as well as whip between three to nine strokes of the rotan. While those caught for major drug possession offences under Section 39A (2) for having in custody of more than five grams of heroin/morphine, 15 grams of cocaine, 50 grams of cannabis, 30 grams of methamphetamine and amphetamine and MDMA, can be punish with a jail term

between five years or with a life imprisonment, and whip not less than ten strokes of the rotan.

Malaysia still maintained the death penalty for drug trafficking offences. Though, numerous parties comprising of non-governmental organizations (NGOs) and civil society have earnestly clamoured the government to abolish the inhumane mandatory death sentence for drug trafficking offences. Those caught for trafficking in dangerous drugs under Section 39B can be imprisoned for life or executed through hanging if they are found guilty. In the event, where the convict is found to have cooperated in assisting law enforcement agencies in disrupting drug trafficking activities within and outside of Malaysia can be pardon under Section 39B(2A) – where the convict can be whipped not less than fifteen times and asked to serve a jail sentence (a minimum of seven years) based on the court's discretion.

For repeat offenders, who are caught for using illicit drugs again after their initial convictions, can also be detained and punished under Section 39C. Those who have at least two previous convictions either under Section 15(1) or 10(2)(b), or 31A— can be detained and punished with a jail term between five to seven years and whipped not more than three strokes of the rotan. Habitual offenders who continue to use drugs after being charged under Section 39C before, can also be caught for the fourth time under Section 39C (2), where the offender can be jailed for a term between seven to thirteen years, and whipped between three to six strokes of the rotan.

2.1.2 Drug Dependants (Treatment and Rehabilitation) Act 1983

PWUDs can also be detained under the Drug Dependants (Treatment and Rehabilitation) Act of 1983. A rehabilitation officer or police officer can detain and request a suspected drug user to undergo a urine drug test under Section 3 of the Drug

Dependants Act of 1983. Those who tested positive for dangerous drug use, and certified by a medical officer to be suffering from a substance use disorder, can then be either charge under Section 6(1)(a) where the person is mandated by the court to undergo treatment and rehabilitation at a formal rehabilitation for a period of two years, and thereafter undergo community supervision with NADA for a period of two years, otherwise the person can be charge under Section 6(1)(b) where he or she is ordered by the court to undergo community supervision with NADA between two to three years.

Those who failed to comply with the treatment provisions under Section 6(2) can be charged under Section 6(3) with a jail term not more than three years and be whipped not more than three strokes of the rotan, or both upon conviction.

2.2 Barriers to ATS Treatment

Given its widespread use, several studies have managed to identify and document barriers to ATS treatment among people who use ATS (Cumming et al., 2016). Findings from a recent review article described that people who use ATS often have negative perceptions about treatment, and dislike to seek treatment for their ATS use disorder (Cumming et al., 2016). Cumming et al. (2016) identified several barriers that appeared to have undermined treatment participation. However, compared to other barriers, *psychosocial barrier* is the commonest and include a) embarrassment and stigma, b) belief that treatment was unnecessary, c) preferring to withdraw alone without assistance, and d) privacy concern. Cumming et al. (2016) divided ATS treatment barriers to four domains: 1) psychosocial barriers, 2) practical barriers, 3) suitability of services, and 4) service provider barriers. *Psychosocial barriers* include having the believe that ATS use is not problematic, have no desire to give-up or not

ready and/or enjoy using ATS, having the believe that treatment was unnecessary, not experiencing any adverse health effects, and embarrassment and stigma. In fact, clients were reluctant to join treatment due to privacy and confidentiality issues since treatment facilities are unable to protect clients from societal discrimination. Besides psychosocial barriers, people who use ATS also experience *practical barriers*, such as treatment facilities have limited enrolment capacity, clients have to wait long before they can be enrol in treatment, high treatment cost, lack of treatment spaces for female drug users, or facilities never cater for women's child care services (Cumming et al., 2016). *Suitability of services* is also reported to affect treatment participation among people who use ATS. It is shown that treatment programs/facilities that also houses or treat opiate users together with ATS users – appeared unattractive to ATS users (Cumming et al., 2016). Similarly, some treatment programs/facilities are not willing to treat ATS users, while some users have limited confidence with current treatment programs, thus, precluding ATS users from enrolling voluntarily in treatment. Treatment programs/facilities that does not provide medicine-assisted treatment as opiate substitution treatment is shown to undermine treatment participation among ATS users (Cumming et al., 2016). Given that treatment programs sometimes labelled ATS users as mental patients, it may also affect their motivation to enrol in treatment (Cumming et al., 2016). It is also found that centres or programs that failed to cater to clients' needs can also affect treatment participation. *Service provide barrier* is also another domain which is seen to affect treatment participation, such as treatment providers are not willing to accept clients with unstable mental health problems, as well as the lack of clinicians or trained counsellors to treat people with co-occurring drug use disorders. Since the ATS use problem is still in its nascent stage, most treatment providers have no knowledge how to treat people who use ATS (Cumming

et al., 2016). Lack of support from treatment providers towards clients is also reported to affect client's future participation in ATS treatment programs (Cumming et al., 2016).

In summary, it is shown that people who use ATS are bound to experience an array of treatment barriers. However, their participation in treatment is primarily affected by psychosocial barriers.

2.2.1 Studies Related to ATS Treatment Barriers

Especially among pregnant female ATS users, a study conducted by Lindsay et al. (2011) found women who use ATS frequently on a weekly basis are more likely to leave treatment programs early. Another reason why ATS users choose not to join treatment or being excluded from treatment participation can be attributed to their underlying medical problems. A study by McKetin et al. (2011) found people who use ATS in Australia are more likely to experience major depression symptom during admission and exhibit high levels of disability and suicidal ideation. This indicate that it is vital for treatment providers to offer proper mental health care services to people suffering from ATS-induced depression. In addition, findings from another study involving out-of-treatment ATS users in Cape Town (South Africa), found treatment participation among people who use ATS is considerably low, or only a small percentage have received treatment, while a large proportion of ATS users expressed their interest to receive treatment for their ATS use problem (Meade et al., 2015). Indeed, the study also found that the widespread believe that treatment is ineffective, and relapse is unavoidable in their social context stood as a major barrier affecting their participation in treatment (Meade et al., 2015). Given the poor treatment participation rate among ATS users, scholars have call treatment providers to increase

motivation for treatment and provide continue care to prevent relapse among people who use ATS (Meade et al., 2016). Another aspect that seems to affect treatment participation among ATS users is the lack of family support (Meade et al., 2016). Thus, it is important for treatment providers to ensure aftercare treatment initiatives are designed to help ATS users maintain their sobriety. In fact, out-of-treatment ATS users are found to suffer from severe drug dependence problem, as well as social and legal problems that continue to impede their participation in treatment (Meade et al., 2016). Taken together it can be deduced that out-of-treatment ATS users could be suffering from severe drug dependence, however due to the widespread believe that treatment is unnecessary could preclude them from coming forward to enrol in treatment (Meade et al., 2016). Since treatment for ATS use remains elusive hitherto, with the lack of approved treatment, it is reported that most treatment facilities that begins to treat ATS users often lacks proper treatment protocols to address withdrawal issue among treatment attendees (Penny and Lee, 2011). Hence, withdrawal management is usually based on clinical opinions and may vary between each treatment facility (Penny and Lee, 2011).

Findings from a longitudinal study in Australia reported that ATS users who enrol in treatment (for an average of eight weeks) was drugfree (abstinent) for about one year after their released (McKetin et al., 2018). This shows that clients who participate in treatment was able to refrain from ATS use. The study found factors such as having longer treatment history, better rapport, or relationships with treatment providers, and attending regular individual counselling help to promote abstinence (McKetin et al., 2018). The most essential element in recovery is the need for uninterrupted counselling. A recent study from Malaysia found ATS users who were detained and incarcerated in jails have poorer treatment compliance (Singh et al.,