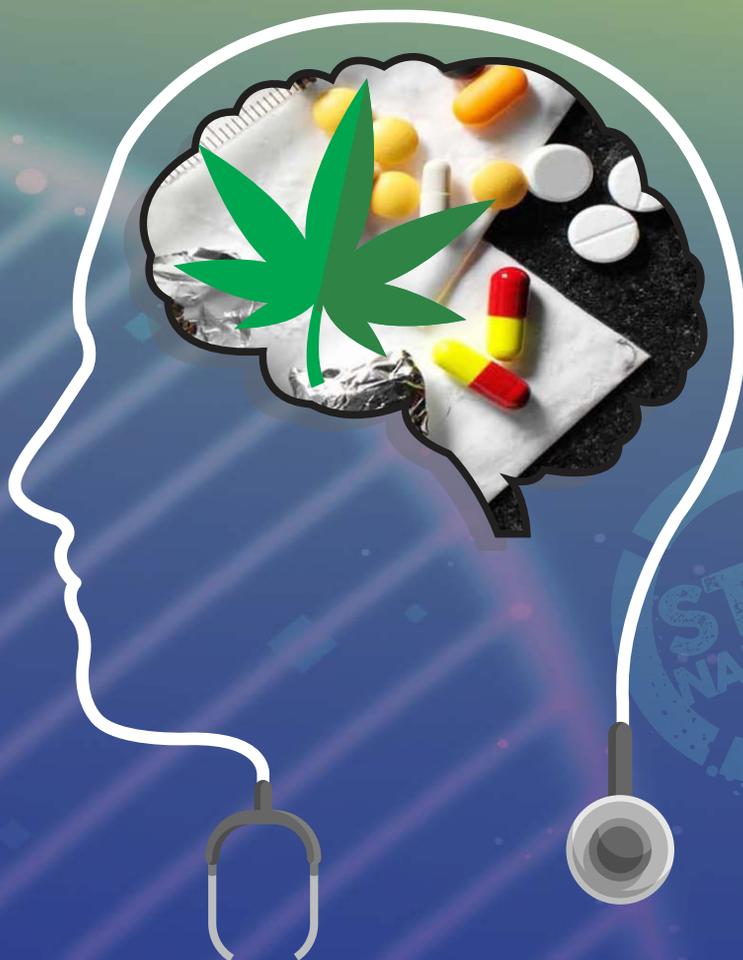
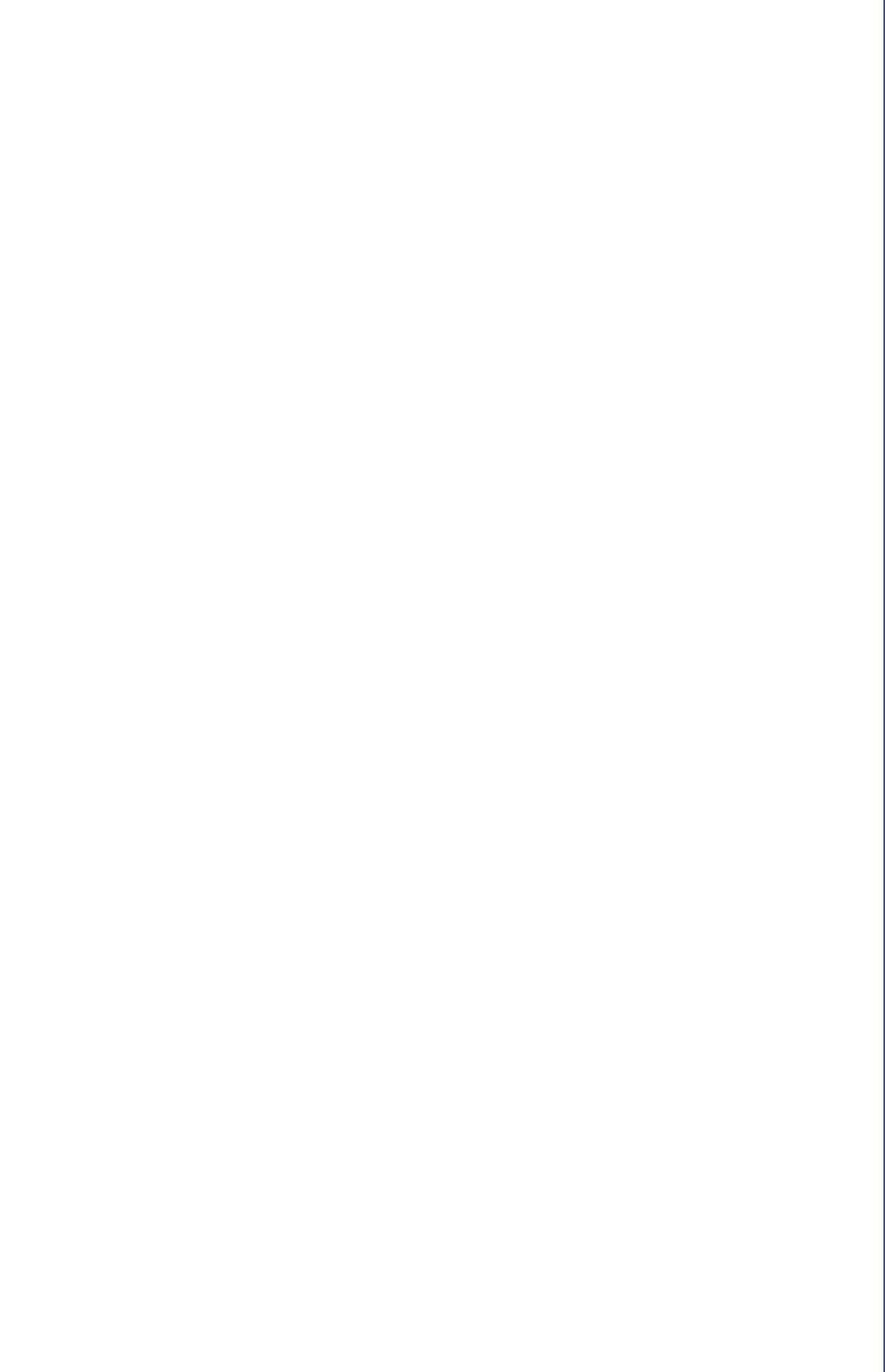


# HEALTH 2019

## Research On Drugs Abuse



   **KEMENTERIAN KESEHATAN REPUBLIK INDONESIA**



# HEALTH RESEARCH OF DRUGS ABUSE EFFECTS 2019



RESEARCH, DATA, AND INFORMATION CENTER  
NATIONAL NARCOTICS BOARD  
THE REPUBLIC OF INDONESIA  
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**Assalamu'alaikum Warahmatullahi Wabarakatuh.  
Best wishes for all of us.**



All praises and thanks be to God Almighty, because of His blessings and grace, Health Research of Drugs Abuse Effects 2019 could be well-finished on time.

Health Research of Drugs Abuse Effects 2019 is conducted based on cooperation between National Narcotics Board (BNN) and Atma Jaya Catholic University and National Institute of Health Research and Development, Ministry of Health, the Republic of Indonesia. This research is conducted in six provinces, which provides places for rehabilitation for drug abusers, such as West Java, Riau Islands, North Sumatra, Lampung, South Sulawesi, and East Kalimantan. The target of this research is clients/participants who undergo services in places implementing narcotics prevention programs by National Narcotics Board such as Rehabilitation Center, Post Rehabilitation Program, Primary (Pratama) Clinic of Provincial Narcotics Board, and Community Partners of Provincial Narcotics Board.

The main research objective is to obtain a systematic picture of narcotics use effects on an individual and elements of socio-cultural relations, which influence personal life. This research is one of the National Priority Programs which are used as a reference in implementing the national policy.

One of the obvious impacts of sustainable narcotics use in the long term is drug addiction. Drug addiction is the root of the expansion of negative impacts in the physical-biological, mental, and social realms. Drug addicts frequently get one or more health problems. The problems may be related to physical or mental disorders. Physical disorders include lung or heart disease, stroke, cancer, and mental health problem.

Finally, as the Head of the National Narcotics Board, we would like to thank Atmajaya Catholic University, Ministry of Health, and all of the parties involved in conducting this research. We hope that the result of this research could be maximally implemented primarily by National Narcotics Board and stakeholders in determining the policies of Prevention and Eradication of Drug Abuse and Illicit Trafficking (P4GN). Furthermore, we do hope that result of which could give benefits to all community in making P4GN successful.

**That is all, and thank you.**

**Wassalamu'alaikum Warahmatullahi Wabarakatuh.**

Jakarta, December 2019  
**Head of National Narcotics Board (BNN)**



**Drs. Heru Winarko, S.H**

All praises and thanks be to Allah, who has bestowed His blessings and guidance so the book Health Research of Drugs Abuse Effects 2019 could be well-finished on time. This research is based on cooperation between National Narcotics Board (BNN) and Atmajaya Catholic University and National Institute of Health Research and Development, Ministry of Health, the Republic of Indonesia. This research is supported by local partners from Provincial Narcotics Board and research teams in six provinces.

The main research objective is to obtain a systematic picture of narcotics use effects on an individual and elements of socio-cultural relations, which influence personal life.

This research involves several parties starting from the BNN expert teams to the Provincial Narcotics Board (BNNP), the BNN Rehabilitation Centre, BNNP Pratama Clinic, and BNNP's community component partners in 6 Provinces. In this occasion, we would like to thank the Head of National Narcotics Board, Drs. Heru Winarko, S.H, and Drs. Adhi Prawoto S.H as chief secretary of National Narcotics Board, and all staffs of National Narcotics Board for the support and cooperation in every single step of producing this book.

We thank Research and Development Centre- Ministry of Health, the Republic of Indonesia, and other research teams. We also thank all of our local partners from Riau Islands, North Sumatra, Lampung, South Sulawesi, East Kalimantan, and also local partners from BNN Rehabilitation Center, Rehabilitation sites in Batam, Deli Serdang Medan, Kalianda Lampung, Baddoka Makassar, and Tanah Merah rehabilitation center.

All in all, we hope this book may give useful contribution and benefits for decision-making and Prevention and Eradication of Drug Abuse and Illicit Trafficking (P4GN) program improvement in Indonesia, especially at the provincial level.

Jakarta, December 2019

Editorial Board

Health Research of Drugs Abuse Effects 2019 is the mandate of the National Development Planning Board (Bappenas) and National Narcotics Board (BNN) to begin studies that may provide empirical evidence that will be used for formulating indicators for BNN's performance in the future. The theoretical framework which will be used is biopsychosocial-spiritual to reflect a more-holistically feasible concept.

This research is a survey research/self-report involving 602 randomly-selected respondents from the listed clients of rehabilitation institutions under the auspices of National Narcotics Board and partners in 6 regions (Lido; Batam; Tanah Merah; Deli Serdang; Kalianda and Baddoka) with the total of 4.203 people. Random selection was proportionally made with an error rate of 4% resulting in 602 respondents. However, not all respondents are chosen randomly due to the minimal number of female respondents and heroin users. This condition is one weakness of this research.

This research finds several problems as follows:

1. Indonesia's drug problem is polydrug-use. The characteristic is its young population (male of 93.9% with 90% under 39 years) experiments with various psychoactive substances (85% use more than two substances up to 15 types of substances) in a risky way, and tends to consume them in long-term use (1-6 years). Most of them consume substances before 20 years old. They are potentially to be an expensive and serious burden of disease in Indonesia.
2. The most abused substances are crystal meth, marijuana, other Amphetamine Type Stimulants (ATS), and psychotropic drugs sold in the free market. These substances are consumed by either smoked (64.3%), swallowed (51%), or inhaled (34.9%), those are depending on the type. While the use of a syringe (11.4%) and sublingual (4.8%) are relatively small due to the decreased number of heroin consumers and the number of hallucinogenic (LDS) consumers are relatively small. Long-term narcotics abuse, especially ATS, cannabis, heroin, hallucinogens, New Psychoactive Substances (NPS), and various over-the-counter psychoactive drugs have serious impacts on physical and mental-emotional health.
3. The risk of substance abuse because of the purpose or when the substance consumed is quite alarming. As much as 73.6% of

respondents have experienced being drunk while driving and 15% of them do it frequently. There is 39% of them as well as mixed the substance with other substances to feel intoxication effect. While around 75.5% of respondents abuse substances to improve their courage and 45.8% to dare to fight against the law. A total of 63% of respondents abuse substances for sexual purposes, and 75.1% who have sex, who either have been married or not, do not use condoms.

4. From the physical effects, there are 59.5% of respondents have experienced oral infections due to narcotics abuse, 22.8% of them experienced those quite often to very often, and 52.8% claimed to have respiratory infections. In comparison, 21.9% stated to experience those quite often to very often. Other physical effects claimed are dizziness/severe headache (73.4%), tooth disorders (64.1%), eye disorders (45.5%), dehydration/paralysis (21.3%) and seizures (11.1%). A total of 14.1% of respondents have experienced an overdose.
5. When asked about the long-term health effects, 5.8% respondents claimed to have been infected by Hepatitis C, 6.8% had experienced PMS, 3% had TBC, 2.7% had positive HIV, 1.5% had liver cirrhosis, 0.8% had had a stroke, and 13.1% admitted having suffered from a mental disorder.
6. In more detail, 86.4% of respondents experienced fear, anxiety, and panic attacks, and 48.2% stated to have experienced those quite often and very often. Around 80% respondents have experienced paranoid and ostracized, 77.1% experienced memory disorders, 58% experienced depression and despair, 56.3% experienced hallucinations through the five senses, 46.5% experienced family violence, 41.7% experienced violence from others, 22.3% wanted to commit suicide, 56.3% felt self-loathing, 55.7% hated the closest people to them, 72.3% felt negatively labeled by close relatives, 24.7% cut off relations with family 77.1% of respondents also felt that their family began to be isolated by their surrounding community, the relationship among family members worsened, and their behavior also harmed the family's financial condition. In general, there was almost no difference between the effects of the main substances used and the effects of emotional and social disorders.
7. If the data of substance consumption and its duration are cross-tabulated with family conditions, then there is a general tendency that

- the duration of the consumption may worsen the family situation.
8. Regarding the relationship between narcotics abuse and the situation at school, then 56% of respondents stated they were lazy / liked to skip school, 53.2% had their academic achievement decreased, and approximately one-third of respondents had their relationship with their friends or teachers disturbed, 22.1% of respondents had been expelled from school.
  9. Narcotics abuse is also claimed by more than 70% of respondents to have caused disharmony between themselves, families, and the neighborhood. Percentage of 23.4% felt they were considered as enemies of the community, and 22.1% have been reported to the security forces.
  10. Narcotics abuse also caused respondents to have dealt with the law. More than 70% of respondents who have used narcotics have been arrested, detained, and prosecuted in court.
  11. Family is the main supporter of the recovery process. Around 47.7% of respondents who are currently still under treatment claimed to be encouraged through family support, and 30.1% was through personal encouragement. School and workplace are not very much considered by the respondents to be the parties that support the recovery process.
  12. Female respondents have specific needs and further research needs to be conducted to understand their complexities and their special needs - especially factors which make them less likely to reach out to professional rehabilitation services.
  13. Self-assessment of the respondents as narcotics abusers who have undergone or are undergoing rehabilitation if compared to the respondents in the general population has a higher level of problems in the dimensions of self-care ability, carrying out daily activities, and facing anxiety/depression.
  14. Clients of rehabilitation assessed the quality of their health in the an average score of 85 and a middle score of 90. This is a self-expression of how narcotics users who have been or are being rehabilitated feel the quality of their health is now better than it was before undergoing rehabilitation, which when was under the influence of narcotics abuse.
  15. There is a serious need to develop a post-rehabilitation support program. Especially, when families cannot give full support and when people still stigmatize and discriminate against the users. National

Narcotics Board rehabilitation centers for supporting rehabilitation need to be strived to provide relevant services.

## IMPLICATION OF THE FUTURE OF NARCOTICS POLICY

1. Indonesia has long been facing the adverse effects of drug abuse. Efforts with other countries globally have been made since the beginning of the New Order, and up to this day, the problem is still severe. Therefore, various analyses of policy need to be carried out. Health impacts have a significant burden on the Draft of State Budget, but detailed studies on health costs of drug abuse have not yet been conducted. It is time for the government, in this case, is National Narcotics Board to seek a variety of strategic researches related to the economic costs of health, social and other benefits, and also to determine a more comprehensive prevention strategy.
2. National Narcotics Board's research since 2013 has shown that drug abuse in Indonesia has characteristics of young people and polydrug users instead of the trend of substance abuse. This fact is a challenge itself because polydrug users are susceptible to the substance effect but at the same time vulnerable to interaction among substances (Vanderplasschen, De Maeyer, Colpaert, Cogel, Rea, Dom, Sabbe & Broekaert, [http://www.belspo.be/belspo/organisation/publ/pub\\_ostc/Drug/rDR55\\_en.pdf](http://www.belspo.be/belspo/organisation/publ/pub_ostc/Drug/rDR55_en.pdf)) which are extremely dangerous for health and life of consumers. Therefore, polydrug users may be a costly burden for health if not being taken seriously.
3. One of the discussion topics in public policy in handling and overcoming narcotics is the sectoral authority. National Narcotics Board, which was established under the mandate of Law No. 35 of 2009 concerning Narcotics, has any authority to supervise and control substances contained in the list of the Act. Out of the categories listed, especially the abuse of drugs that can be purchased in the free market or through prescription must be monitored and controlled by the health sector, those are BPOM and the Ministry of Health. This sectoral debate may lead to an adverse decision if the statement above is not being paid attention to, in which drug abusers also abuse other substances, including over-the-counter drugs, which are called the polydrug users. Sectoral supervision will

require complicated, coordination which has not been going well so far. Therefore, it is necessary to formulate and to form a special cross-sectoral criminal unit, such as is National Narcotics Board or the police with expanded mandates or more flexible functions so they may respond to various dynamic changes in the demand-supply chain and its market.

4. The next issue which needs to be discussed is substance abuse as a part of a lifestyle. The theoretical approach uses the framework biopsychosocial-spiritual model, provides the opportunities to see substance abuse as part of a lifestyle that is aspirated by its users (Davies, Ellison, Ward, & Laudet, 2015; Rahman, Gupta, Suklecha, & Khunte, 2010). Therefore, finding out the reasons for substance abuse becomes crucial because it will determine what lifestyle the abuser desires and its relationship between what substance is chosen and by whom it is used. National Narcotics Board in Prevalence Survey 2015 has warned about the increased abuse of ATS, specifically Methamphetamine (Crystal Meth and Ecstasy), besides cannabis abuse, which has always been the most substance choice. Heroin or Putaw abuse, which was rife in the previous years go through a drastic decline. The improved level of economic income per capita, along with the rise of entertainment centers and clubs, matches to the stimulant characteristics such as ATS, more open communities, and involves more people rather than a culture that reflects a generation of confusion and frustration that underlies depressant abuse including Heroin. Nevertheless, authorities who supervise substance abuse need to be aware that no lifestyle is static. The increase of opium production in the world (65% from 2016 to 2017) reported by The World Drug Report (UNODC, 2018) in Afghanistan gives a signal that opiates will come back again, perhaps in a new and cheaper form.
5. The roles of community especially schools and workplaces cooperate with families and the Prevention Department of National Narcotics Board, are is very crucial; they are as follows:
  - a. Striving for early detection of drugs and narcotics abuse. Observations at school and at work are far more likely to find problems in the behavior of individuals who abuse Narcotics. Also, educational institutions need to create an atmosphere of teaching and learning, which supports positive self-concepts

- and students' sense of courage and ability to choose positive alternative activities. These things often become the reasons for substance abuse because they want to be brave but helpless, and sometimes they want to be creative. At home, the individuals may isolate themselves in or outside the house so that other people's observations become limited. Reports on early indications may help parents, officials, or other parties involved to receive assistance. A balanced early detection and intervention will help manage the client's risky behavior, especially prevent more substances from being used and in the long term use. Moreover, clients can also be helped not to use substances in an intoxication condition. For this reason, it is necessary to develop supportive and educative policies at school and workplaces, so the fear of reporting and asking for professional assistance may be reduced.
- b. Having early preventive efforts must be made and more aggressive as well as comprehensive - at adolescence (10 years and above). It is a risky age for gateway drugs - the supervision of cigarettes and alcohol is also crucial. In this case, we tend to underestimate the existing data and facts because both two substances play a social function that is accepted by society.
  - c. Supporting recovery and reintegration after rehabilitation. Schools and workplaces are secondary environments that are needed by rehabilitation survivors. Many addicts are arrested and lose school opportunities because of carrying, experimenting, or being recreational consumers. The opportunity to continue school and work is the hope of most addicts who have completed their rehabilitation program. Creating non discriminated school and work culture for former addicts and individuals who have been against the law will be an empowering environment for long-term sustainable recovery.
6. Indonesia has long been investing in rehabilitation, especially when The Supreme Court of the Republic of Indonesia has issued Circular Letter No.3 of 2011 concerning compulsory reporting. Various parties stated this new policy did not work well due to the lack of capacity of the compulsory reporting agencies in providing professionals who manage medical treatment programs (doctors, psychiatrists) which sometimes have an impact on the availability of essential medicines, and who manage psycho-social programs (social workers, addiction

counselor, psychologist, spiritual experts). This need was voiced both by respondents, and research informants, and by professional workers in rehabilitation institutions who felt overwhelmed because of the small numbers of participants and did not receive serious professional support. Furthermore, it should also be noted that qualitative data shows that clients and their families have difficulties in accessing rehabilitation services provided in only certain regions/cities. Strategic and community-based expansion are needed, so the clients and their family do not feel burdened in terms of financing.

7. About the issues above, mental health problems have become an issue that has not yet been given much attention to, such as depression, paranoia, anxiety, etc. This issue is caused by a lack of professional resources, so there is a tendency to respond to those disturbing symptoms. Increasing the capacity of staff through task and skill shifting program in dealing with psychosocial and mental health issues will help clients recover without any serious dependency on medical and psychological professionals.
8. In terms of needs based on gender, qualitative data shows that female respondents' needs are more complex than male respondents' needs. One of the reasons is the dependency on their partner, on family, or relatives, their children, and multiple stigmas they may experience. Family outreach helps the family itself or the female clients become brave enough to receive information about available services and reach them so the services could become an important program for all rehabilitation agencies, either for inpatient or outpatient.
9. Having self-assessment of the respondents as narcotics abusers who have undergone or are undergoing rehabilitation if compared to the respondents in the general population has a higher level of problems in the dimensions of self-care ability, carrying out daily activities, and facing anxiety/depression. This factor not only becomes one of the bias sources in this research but also shows the importance of rehabilitation care.

<b>FOREWORD</b>	i
<b>PREFACE</b>	iii
<b>EXECUTIVE SUMMARY</b>	v
<b>TABLE OF CONTENTS</b>	xiii
<b>LIST OF TABLES</b>	xv
<b>LIST OF FIGURES</b>	xvi
<b>CHAPTER I – INTRODUCTION</b>	1
1.1. Background	3
1.2. Formulation of the Problem	13
1.3. Aims of Research	14
1.4. Benefits of Research	14
<b>CHAPTER II – LITERATURE REVIEW</b>	15
2.1. Health Impact of Narcotics Use	17
2.2. Theory of Addiction and Its implications on Health	20
2.2.1. Addiction as a Moral and Criminal Problem	20
2.2.2. Addiction as a Brain Disease	21
2.2.3. Addiction as Social Construction	22
2.2.4. Addiction as a Matter of Biopsychosocial-spiritual (BPSS)	23
<b>CHAPTER III – METHODOLOGY</b>	25
3.1. Research Time and Location	27
3.2. Research Design	28
3.3. Data Collection Methods	28
3.4. Research Implementation	35
3.5. Data Processing and Analysis	39
3.6. Quality of Life / Welfare	40
3.7. Research Limitations	41
<b>CHAPTER IV - RESEARCH FINDINGS</b>	43
4.1. Characteristics of Respondents	45
4.1.1. Characteristics of Demography	45
4.1.2. History and Risks of Narcotics Use	46
4.1.3. Risk Due to Behavior When Using Substances	54
4.2. Relations with Physical Health	56

4.3. Relations with Mental and Social Health	60
4.4. Impacts of Narcotics Use on Friendship, School, and Workplace	69
4.5. Impacts on Neighborhood and State Apparatus	71
4.6. The Current Reason for Entering Rehabilitation	75
4.7. Sources of Support for Recovery	76
4.8. Quality of Life	79
4.8.1. Results of EQ 5D-5L Narcotics Consumers Compared to EQ 5D-5L Data in the General Population of the Indonesian EQ-5D-5L (2017)	79
4.8.2. Personal Health Assessment Score (EQ-VAS)	81
4.8.3. Comparison of Welfare Score Between Sex and Age Groups	81
4.9 Post-Rehabilitation Support Needs	82
<b>CHAPTER V - CONCLUSION</b>	<b>85</b>
<b>CHAPTER VI - IMPLICATION OF THE FUTURE OF NARCOTICS POLICY</b>	<b>89</b>
<b>LIST OF RESEARCHERS</b>	<b>96</b>
<b>APPENDIX</b>	<b>97</b>
<b>BIBLIOGRAPHY</b>	<b>119</b>

Table 01: Narcotics and Penitentiary Residents Case Data July 2012-July 2018	4
Table 02: Estimated Narcotics Consumers (National Narcotics Board, 2017)	6
Table 03: Prevalence of Abuser in Adolescents and Youth	7
Table 04: Prospective Respondents Listed According to Year and Location	30
Table 05: Number of Respondents Selected by Location	30
Table 06: Research Locations in Each Province	36
Table 07: Number of Respondents Each Province	37
Table 08: Distribution of Informants of In-depth Interviews	37
Table 09: General Characteristics of Respondents (n = 602)	45
Table 10: Age of First Time Use and Duration of Substance Consuming	48
Table 11: Number of Substances Used by Respondents	49
Table 12: How to Consume and the Substances Used	52
Table 13: Experience in Health Problems (n = 602)	56
Table 14: Mental-Emotional Conditions (n = 602)	60
Table 15: Relations between Primary Substances Used and Emotional Mental Problems	61
Table 16: Duration of Five Main Substances Abuse According to Social Health (n = 602)	66
Table 17: Impacts of Drugs on School (n = 602)	70
Table 18: Impacts of Drugs on the Neighborhood (n = 602)	71
Table 19: Relations between Drugs-Consuming Time related to Conflict Experience with Law Officers	72
Table 20: Supporting Factors in Recovery Efforts	76
Table 21: Domain-based Welfare Score (n = 602)	80
Table 22: Level of Problems experienced by Narcotic Consumers from 5D-5L Results Based on Age	80
Table 23: Comparison between EQ-VAS scores in the General Population and Narcotic Consumers Participating in Rehabilitation	81

## List of Figures

Figure 01: Ecological Systemic Theoretic Model	24
Figure 02: 10 Most Commonly Used Substances	47
Figure 03: Ways to Consume Substances (n=602)	51
Figure 04: Risks Related to Purpose and Behavior during Intoxication (n=602)	54
Figure 05: Long-term Impact of Drugs Consumption (n=602)	57
Figure 06: Impacts on Family Relationship (n=602)	65
Figure 07: Impacts on Family Friendship (n= 602)	70
Figure 08: Reasons for Being in Rehabilitation (n=602)	75
Figure 09: The EQ-VAS average score of Respondents as Drugs Consumers based on Gender and Age Group	82



# INTRODUCTION



Rehabilitation Center of National Narcotics Board  
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# INTRODUCTION

## 1.1. Background

### a. Global Situation

The United Nations Office on Drugs and Crime (UNODC) has published the World Report on Situations of Narcotics Use (World Drug Report 2018). The reader certainly expects the report will show the results of a global effort has been spent trillions of dollars to the reduction or improvements in the situation of the use of narcotics in the world. The Executive Summary of the World Drug Report 2018 states:

- (1) The global community needs to increase efforts to prevent and reduce its supply because this year, Opium production is getting increased by 65% from 2016 to 10,500 tons and becomes the highest level in history. Likewise, cocaine production, it increases to 1,410 tons with the appearance of Asia and Africa as new markets. The use of these two substances which have long been consumed started to show co-existence with the use of new psychoactive substances or NPS. This NPS adds some complex consequences.
- (2) The use of prescribed drugs by doctors not for medical purposes caused 76% of deaths from the drug users who get substance use disorder (SUD). Opiate-based drugs to reduce pain such as *Fentanyl* and *Tramadol*<sup>1</sup> are the most common cause of serious health problems until death due to overdose.

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<sup>1</sup> A study conducted by Irwanto et al. (2019), together with the Sangai Tunas Cilik Foundation, showed that Tramadol had been used by street children in Jakarta's villages. National Narcotics Board's data (2017) also shows its users are more than 500 thousand people in Indonesia.

- (3) Cannabis remains the most common type of Narcotics that consumed. The UNODC report shows that no less than 192 million people in the world use this substance, and over the past decade, it has increased by 16 percent. The other users of the most substances are *amphetamine* and stimulant drugs prescribed by doctors (34 million), opioid users (34 million) and opiates (19 million), ecstasy users (21 million), and cocaine (18 million).
- (4) Among younger users, there are two different usage patterns from one country to another. Young users of high social class use more club drugs to support night time and recreational activities. For young people of low social class - street children around the world- widely use inhalant substances (such as glue).
- (5) Users aged 40 years and over has increased significantly, and they often have multiple problems with the emergence of mental health problems. Many of them have used narcotics in their teen years.
- (6) Women who use doctor's medicine for non-medical purposes are still very problematic, and there are not lower than men, even it is higher than men.

## b. Situation in Indonesia

Along with various global efforts, Indonesia has also strived to eradicate and prevent the use of Narcotics. Nonetheless, National Narcotics Board's data showed a significant increase in cases over the last five years.

**Table 01: Data on Narcotics and Penitentiary Residents Cases July 2012-July 2018**

Period	Cases	Penitentiary Residents	Increase per Year
per year	54,705	151,723	22.1% Case
2013 July	62,334	163,152	19.2% Penitentiary Residents
2014 July	64,224	163,711	
2015 July	68,403	174,378	
2016 July	77,284	197,656	68.7% Case
2017 July	96,945	224,604	41.1% Penitentiary Residents
2018 July	104,206	249,933	

Source : Online Data of Directorate General PAS: 2018

The data revealed that the number of cases never went down and increased from 21% (2012-2015) to 68.7% (2016 to 2018). The number of inmates is also increasing significantly. The Indonesian Institute of Sciences (LIPI) report for National Narcotics Board (2018) also states that in 2017, 4.71 tons of methamphetamine, 151.22 tons of marijuana, 2,940,748 pills of ecstasy and 627.84 kilograms of liquid ecstasy, were confiscated.

Estimation data of narcotics users from National Narcotics Board (2017) shows that the number of users is estimated to reach almost 3.7 to 4 million people. The largest number of marijuana users or cannabis lifetime use 1.7 million people, then followed by 851 thousand people are methamphetamine users, and 616 thousand people are prescription or psychotropic drugs' users in general circulation - See Table 02 below. BNN (2015) states that the use of methamphetamine has increased 11 times from the previous decade. An estimation carried out by National Narcotics Board has indicated that 1 of 3 narcotics users use methamphetamine. There are 68% of cases in 2017 related to amphetamine crystals.

Another troubling thing is the rise of new psychoactive substances (NPS) made from synthetic substances (UNODC, 2018). In Indonesia, 74 species of NPS have been identified and only 66 species have been regulated in the Minister of Health Regulation. These new substances tend to be very cheap but have very harmful effects, such as *desmethyl pyrovalerone* and *desomorphine*, are very intimidating due to physical and psychological mental disorder they cause.

We are also quite understand that in many newspaper articles, there is a psychoactive substance that cause of many death is locally alcohol consumed by the poor. Not to mention the fact, that natural marijuana is an Indonesian domestic product, also there are found many factories that process ATS substances such as Ecstasy and Crystal Meth/ methamphetamine (Shabu).

LIPI-BNN data 2018 also presents worrying statistics to every parent who has a teenager, both male and female. It turns out that children aged 12-15 have experimented with Narcotics. 5 of 100 children at that age have shown a fairly serious problem, even though it is not explained, whether male or female.

**Table 02 : Estimation Data of Narcotics Users (BNN, 2017) <sup>2</sup>**

Types of Narcotics	Total Users
Marijuana	1,742,285
Shabu/SS/Crystal Meth/Methamphetamin	851,051
Overdose Headache medicines	616,507
Dextro	600,512
Ecstasy (Inex, XTC,Cece)	512,817
Tramadol/Ultram	504,416
<i>Fly Substance</i>	452,095
Koplo pills, BK, mboat, mboti, roda	420,651
Trihexyphenidyl/ Trihex	311,004
Drugs blend with soda	288,417
Xanax Camlet/ Calmlet (Alprazolam)	269,468
Valium	250,390
Amphetamine	244,094
Magic Mushroom	234,245
Barbiturates (Luminal, Fenobarbital)	230,370
Thorn Apple (Datura)	223,506
Nipam	215,045
A year Zenith	206,188
Rohypnol, Magadon	199,011
A year processed marijuana	186,170

Source : Data BNN, 2017

The highest prevalence number precisely at the secondary school level is the age of 15-18 years. The prevalence shows that children who are at the age of productive and make the transition to adulthood are the riskiest period. The data further indicate that the prevalence of men and women almost equally in junior high (3.40% and 3.20%), then at the high school level men have the highest prevalence rate (5%), while women are only half (2, 3%). In the adult working population, LIPI-BNN statistics reported (2018) that the prevalence of under 30 years is 2.70% (Men) and 1% (women), while those aged over 30 years are 2.80 % (Men) and 1.4% (women). As explained above, many women also use drugs that

<sup>2</sup> No total figures obtained because a person can be poly-drug user

are not for medical purposes. In Indonesia, many women use the ATS to manage their weight (to be thin) with sufficient medical implications seriously.<sup>3</sup>

**Table 03: Prevalence of Abuser in Adolescents and Youth**

Educational Background	Ever Used		Last Year to Use	
	N	%	N	%
Junior High School	63	4.8 %	43	3.3%
Senior High School	127	6.4%	71	3.6%
College	113	6.0%	53	2.8%
<b>TOTAL</b>	<b>303</b>	<b>5.8%</b>	<b>167</b>	<b>3.2%</b>

Source : Data BNN-LIPI, 2018

### c. Basic Health Research Data in 2018 (RISKESDAS, 2018)

There are following data on the use of several types of Narcotics from the Basic Health Research in 2018.

#### c.1. Tobacco and Cigarettes

RISKESDAS 2018 reported that 0.7% of children at the age of 10- 15 years have smoked tobacco every day. When they were older, the prevalence of smoking increased every day to 12.7% (aged 15-19 years) and 27.3% (aged 20-24 years). Men who consume cigarettes per day are higher (47.3%) than women (1.2%). Moreover, more people are living in rural areas (25.8%) than those in urban areas (23.3%).

In terms of the first time using alcohol, 3.8% of children and adolescents started smoking at the age of 5-9 years. While more girls started early to smoke (1.3%) compared to males (0.9%). Also, more villagers also started smoking early (1.0%) than city residents (0.7%).

#### c.2. Alcohol Consumption

The 2018 RISKESDAS report shows that 0.3% of the population aged 10-14 have consumed alcohol during the past month (including alcoholic drinks like Whiskey). The prevalence of alcohol consumption

<sup>3</sup> Drug Information, <https://obat-drug.blogspot.com/2014/10/amphetamine-amfetamine.html>.

increases when aged 15-19 years (3.7%) and ages 20-24 years (6.4%). Traditional alcohol plays a huge role because it is consumed by more than 33% of the population. More men (6.1%) consume alcohol compared to women (0.4%).

#### **d. Narcotics Policy in Indonesia Today**

The narcotics policy in Indonesia currently still focuses on moral-legal approaches and leads to human rights-based policies, especially the right to get medical treatment and to be healthy for addicts. The policy is set in the several acts which underwent a change and is equipped with various government regulations and president decree and several government agencies. The narcotics policy at first is stipulated in Law No. 22 of 1997 on Narcotics. In the law, it mandates to establish a coordinating agency to set a national policy in narcotics in terms of availability, prevention, and eradication of drug abuse and illicit trafficking. This institution was given the nomenclature of the National Narcotics Coordination Board (BKNN), which was later changed to the National Narcotics Board (BNN) through Presidential Decree Number 17 of 2002.

Situation circulation and use of narcotics in Indonesia prompt the government issued new regulations to replace Law No. 22/1997 concerning narcotics, which is considered no longer relevant. The government issued Law 35 of 2009 concerning Narcotics. There are several objectives to be achieved by the Indonesian government with the enactment of Law No. 35 of 2009, namely: (1) ensuring the availability of narcotics for the health benefit and/or the science and technology development; (2) prevent, protect and save the Indonesian people from narcotics abuse; (3) combating narcotics illicit trafficking and narcotics precursors; and (4) ensuring the setting of medical and social rehabilitation efforts for abusers and drug addicts.

However, Law No. 35/2009 concerning Narcotics rated less attention to the rights of narcotics users. Drug users are categorized as addicts, that is people who use or abuse narcotics and are in a dependency of narcotics, both physically and psychologically. In article 55 paragraph (2) states that narcotics addicts and victims of narcotics abusers must undergo medical and social rehabilitation. Mandatory rehabilitation which

is a series of mandatory reporting, and plus criminal threats if not reporting themselves, it has a potential to violate the right to health. Whereas, the right to health is a guarantee given by the state in relation to information regarding the type of service to be provided to drug users and the provision of services or medical treatments must be based on the consent of the person being treated.

In addition, the Law No. 35 of 2009 on Narcotics shows that the parliament intends to defend their opinion those drug users as criminals by setting them as narcotics abusers, namely people who use narcotics against the law. In practice, law enforcement in Indonesia still views the use of narcotics as a criminal offense or legal issue rather than as a health issue. In the implementation of Law No. 35 on Narcotics, the view of addicts or victims of narcotics abusers is more dominant as criminals compared to health and healing approaches to narcotics dependence.

Besides the Narcotics Act, there is also Government Regulation No. 25 of 2011 on the Implementation of Mandatory Report of Narcotics Addicts (Regulation No. 25 of 2011). Wherein in Article 13 paragraph (3) Government Regulation No. 25 of 2011 states that narcotics addicts who are undergoing judicial processes can be placed in medical or social rehabilitation. In practice, mandatory reporting program is conducted by National Narcotics Board, Provincial Narcotics Board (BNNP), City/Regency Narcotics Board (BNNK) or goes to the institution designated as IPWL (Mandatory Report Recipient Institution) of the Ministry of Health and Ministry of Social.

The impetus for using a public health approach in Indonesia in responding to narcotics problems, prompted the Attorney General's Office and the Supreme Court to issue a circular letter for the placement of narcotics victims / abusers into rehabilitation institutions. The Attorney General's Office issued a circular letter of the Attorney General Number SE-002 / A / JA / 02/2013 on Placement of Narcotics Abuse Victims to the Medical and Social Rehabilitation Institution within the Narcotics criminal justice system". Previously, the Supreme Court (MA) issued SEMA 7 of 2009 on Placement of Drug Users into Therapy and Rehabilitation Institutions (SEMA 7/2009) which coincided with the enactment of Law Number 35 of 2009 on Narcotics. By the amendment

of SEMA No. 07 of 2009 to SEMA No. 04 of 2010, it can be said that the Supreme Court still acknowledges that the majority of prisoners and detainees in narcotics cases are included in the category of users or even victims when he/she is viewed from a health aspect, in fact those are sick, and of course imprisonment is not a right step <sup>4</sup>.

The next development related to narcotics policy was the signing of a joint regulation in 2014 relating to the Handling of Drugs Addicts and Victims of Drugs Abuse in the Rehabilitation Institution. National Narcotics Board, the Secretariat of Supreme Court, the Ministry of Law and Human Rights, the Attorney General's Office, and the Indonesian National Police (Mahkumjakpol) signed joint regulation relating to the Handling of Drugs Addicts and Victims of Drugs Abuse in the Rehabilitation Institution. This signing was carried out by Supreme Court, the Ministry of Law and Human Rights, Ministry of Health, Ministry of Social Affairs, Attorney General, Indonesian National Police, and National Narcotics Board at the Vice Presidential Palace. At that time, BNN and the Secretariat of Mahkumjakpol claimed this is a concrete step for the government in suppressing the number of addicts and victims of drugs abuse in Indonesia.

In 2014, President Joko Widodo stated that Indonesia faced Narcotic Emergency. This statement was responded by government agencies by increasing law enforcement and rehabilitation efforts. Law enforcement is carried out through field operations and efforts to improve rehabilitation access through setting rehabilitation targets for 100,000 narcotics users. The target of rehabilitation in its implementation was carried out through an intensified mandatory report program which proved to be less effective.

The rehabilitation program through mandatory reporting program is considered less in accordance with the policies of the UNODC / WHO in 2012 declared it was more recommended for treatment as an alternative than imprisonment that issued a mandatory rehabilitation. Mandatory treatment is considered less effective because there is a coercion element and not because of the narcotics users awareness or needs.

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<sup>4</sup> Eddyono et al. 2016. Reviewing the Rehabilitation of Narcotics Users in Judicial Practices Implementation of SEMA and SEJA Regarding Placement of Narcotics Users in Rehabilitation Institutions in Surabaya. ICJR.

In addition, mandatory reporting is also considered less in line with the joint commitment of the newly signed representative of the Indonesian government in special session of the general assembly on the world drug problem (UNGASS) in April 2016.

In the section “Treatment of drug use disorders, rehabilitation, recovery and social reintegration ; preventing, treating and caring HIV / AIDS, hepatitis viruses and other blood-borne infectious diseases ”, the recommendations provided to promote effective steps in minimizing adverse public and social health as the consequences of drug abuse.

In 2014, National Narcotics Board, the Secretariat of Supreme Court, the Ministry of Law and Human Rights, the Attorney General's Office, and the Indonesian National Police (Mahkumjakpol) signed joint regulation relating to the Handling of Narcotics Addicts and Victims of Narcotics Abuse in the Rehabilitation Institution. This signing was carried out by Supreme Court, the Ministry of Law and Human Rights, Ministry of Health, Ministry of Social Affairs, Attorney General, Indonesian National Police, and National Narcotics Board at the Vice Presidential Palace. At that time, National Narcotics Board and the Secretariat of Mahkumjakpol claimed this is a concrete step for the government in suppressing the number of addicts and victims of narcotics abuse in Indonesia.

The Government decided to hold a National Action Plan for Strengthening the Prevention and Eradication of Drug Abuse and Illicit Trafficking (P4GN) in 2018-2019. This is stipulated in the annex to Presidential Instruction (Inpres) Number 6 of 2018 which was signed by President Joko Widodo on August 28, 2018 (Link: [Inpres Nomor 6 Tahun 2018](#))<sup>5</sup>. This Presidential Instruction as a legal umbrella for all Ministries / Institutions, to jointly carry out P4GN National Action Plan (NAP) activities and contain enthusiasm, RAN will be implemented in synergy with the National Narcotics Board together with Ministries / Institutions and Regional Governments. Responding to the issuance of Presidential Instruction No. 6 of 2018, prompted the Head of BNN to issue Regulation of the Head of National Narcotics Board No.10 of 2018 regarding the implementation of the RAN P4GN within the National Narcotics Board.

P4GN 2018-2019 classified into categories: (A) Prevention; (B) Eradication; (C) Rehabilitation; (D) R&D of Handling Drugs Abuse and Narcotics Precursors. Some programs of each category, described as follows:

- (1) Prevention Department several National Action Plan's to be carried out in the prevention category including: 1) Dissemination of Narcotics and Narcotics Precursor hazards as well as information about P4GN to employees of the State Civil Apparatus, TNI soldiers, and members of the Indonesian National Police with the person in charge of National Narcotics Board the Ministry of PAN-RB, and the Ministry of Home Affairs; 2) Implementation of International Youth Day at central and provincial government; and 3) Establishment of 5 (five) Education Information Center of narcotics, psychotropic and addictive substances (drugs PIE) in 5 vulnerable and susceptible areas of Narcotics and Narcotics Precursor. Besides that, there are another NAP programs: 1. Implementation of urine test to all employees of the State Civil Apparatus, including a candidate of the State Civil Apparatus; 2. The establishment of anti-narcotics task forces / volunteers and narcotics precursors; and 3. Implementation of anti-narcotics training of young cadres and drug precursors.
- (2) Eradication Department. In this eradication sector, several National Action Plan's have been prepared including: 1. Rescuing assets originating from narcotics and narcotics precursors or money laundering related to narcotics and narcotics precursors; 2. Supervision of narcotics correctional institutions; and 3. Establishment of a narcotic detention house.
- (3) Rehabilitation Department, several NAPs in the field of rehabilitation in 2018-2019 include: 1. Provision of rehabilitation services in each province, regent, and city; and 2. Coaching child victims, child witnesses and child abusers of narcotic drugs and precursors.

#### **e. Policy in Research and Development of Drug Abuse and Narcotics Precursor Management.**

There are some National Action Plan's program that have been prepared, such as: 1. Survey on the prevalence of drugs abuse and narcotics precursors; 2. Provision of data related to P4GN; and 3. Provision

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<sup>5</sup> <https://setkab.go.id/inilah-rencana-aksi-nasional-pencegahan-dan-pemberantasan-narkotika-2018-2019/>

of data integration applications related to P4GN. From the various programs listed, generally in prevention sector, dissemination of Narcotics and Narcotics Precursor hazards and urine tests to all employees in the Ministry / Institution are still the main programs in prevention sector. The dissemination program of which can be carried out in each Ministry / Institution by coordinating with the National Narcotics Board, for example at the recruitment or promotion time. Though it is clear this urine test program has proven to be less effective and requires a large budget.

The opportunity of cooperation with non governmental institutions related to NAPs P4GN program is explicitly less visible. Whereas, the involvement of civil society has developed quite large seen in research, policy studies and programs which is directly involved in providing services for drugs users. The role of civil society organizations could be a government partner both as supervisors of government work and assistances in implementing government duties.

There are some programs that need to be considered in relation to the availability of funding and the effectiveness of implementation program, such as establishing narcotic detention centers and providing rehabilitation services in each province, regency, and city. Planning to provide a rehabilitation center requires a regency and city levels but it will answer the needs of rehabilitation centers in each region. The strategy for establishing a rehabilitation center needs to consider the readiness of resources and distributed data of narcotics use situations for effective utilization of rehabilitation centers.

## **1.2. Formulation of Research Problem**

Health is not only a matter of “not being sick” physically-biologically and mentally, but also there is a well-being sense of social and cultural at the same time. So, the impact of drugs use also formulated as the influence and impact of psychoactive substances that are consumed not for medication/ medical purposes on one’s health and well-being physically-biologically, mentally-psychologically, and in socio-cultural, or unit (family and community) where that person is lived.

The formulation implies that health issue is not only an individual issue but also a systemic issue. It means that an individual's experience in using narcotics is going to be reflected not only as an individual's experience, but also as the most proximal systemic experience to his life.

### **1.3 Research Objectives**

The general objective of this research is finding a systemic overview drugs use effects to its user individually on his/her personal and elements in socio-cultural relations with influential parties in his life. It can be specified as follows:

1. To understand the impact of narcotics use in determining the user's life journey, both physically, mentally-psychologically, and socially.
2. To understand the impact of situation faced by individuals who are consuming narcotics in their roles in friendship, family, community and country.
3. To understand the contribution of non-physical-biological factors in determining the severity and recovery of narcotics users

### **1.4. Benefits of Research**

- a) Providing information to the public related to drugs use effects that are not only physical-biologically, but also psychologically, socially and spiritually impacts.
- b) Finding alternative ways to package a variety of prevention messages based on research data.
- c) Finding policy direction in the future, particularly in demand reduction strategies and adverse effects.
- d) Manifesting the role of various society elements, families, communities, schools, and the private sector in handling narcotics.



II

# LITERATURE REVIEW



BALAI REHABILITASI BNN  
BADDOKA - MAKASSAR

Rehabilitation Center of National Narcotics  
Board Baddoka, Makassar



Toraja Batik, South Sulawesi



# LITERATURE REVIEW

## 2.1. Health Impacts of Narcotics Use

We define what is “healthy” meant especially the WHO version (WHO, 1946; Callahan, 1973; van Spijk, 2002) before discussing the impact of Narcotics use on health. According to the UN health authority, HEALTH is: “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity”. This definition emphasizes the importance of expanding the notion of being healthy not only as a condition in which an infection or the presence of certain weaknesses or deficiencies, but also a more comprehensive condition physically-biologically, mentally, and socially. Although it is considered quite controversial, this holistic healthy concept endeavour to provide a healthy condition as the humans’ ability to adapt and manage physical, mental, and social challenges throughout their lives.

The direct impact on long-term use various types of drugs repeatedly on the brain has been widely described in many sources. Basically, narcotics whether depressants, stimulants, and hallucinogens directly influence the chemicals that manage the “reward circuit” or the center of emotions and feelings that cause a sense of “good and satisfied” (as part of the limbic system), even various cognitive functions (thinking and memory) of individuals, if stimulated, it will trigger a tendency for repetitive behavior. This is important to highlight because the beginning of the narcotics use is generally voluntary. Chemicals changes of these

sense centers trigger a tolerance <sup>6</sup> of substances and ultimately lead to withdrawal symptoms followed by physical symptoms such as severe flu.

These pain and discomfort encourage individuals to find and use it again so the pattern of substance use is no longer voluntary, but under influence of drugs or withdrawal symptoms (*sakaw*). It is due to be fixated on the pain prevention because of withdrawal symptoms, the user is not concerned with his/her health in general, including many cases of anemia and the spread of opportunistic infections (such as HIV / AIDS). If the user is a pregnant mother, the baby's brain and physic will gain serious negative effects (Gateway, <https://www.gatewayfoundation.org/faqs/effects-of-drug-abuse/>).

One of tangible impacts from long-term sustainable narcotics use is addiction or drug dependence. Drug dependence or addiction is the base of the spread of various negative impacts or disorders in the physical-biological, mental, and social domains. People who gets drugs addiction frequently has one or more health problems. Problems arisen can be related to physical and mental disorders. Physical disorders are lung disease, heart disease, stroke, cancer, and mental health conditions. Scanned images, chest X-rays and blood tests can show long-term damaging of drug use throughout the body. For example, tobacco smoke can cause cancer, methamphetamine can cause severe tooth decay known as "mouth meth," and opioids can cause overdoses and death. In addition, some drugs, such as inhalants, can damage or destroy nerve cells, both in the brain and the peripheral nervous system (nervous system) outside the brain and spinal cord).

The use of narcotics can also increase the risk of contracting Human Immunodeficiency Virus (Hepatitis), Hepatitis B and Hepatitis C. These infection can occur from sharing injection equipment and unsterile sexual activity. Heart and valve infections (endocarditis) and skin infections (cellulitis) can occur after exposure to bacteria by injection drug use.

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<sup>6</sup> Tolerance is a biological-chemical process in which in the long-term use of the biological body will require a greater amount of substances to cause the same effect.

The nature of addiction not only endangers a person who uses drugs, but also can interfere in others health. As an example, using drugs while pregnant or breastfeeding may cause the baby gets “withdrawal” symptoms after birth is called Neonatal Abstinence Syndrome (NAS), while some children were exposed to drugs as a child will get problems in behavioral development, attention and thought. Drug use also increases the spread of infectious diseases. Excessive drug injection contributes 1 in 10 cases of HIV. Injection of drug use is also a main factor in the spread of hepatitis C, cause of endocarditis, cellulitis, and increase the chances of risky sexual behavior. In addition, drug use also increases the risk of motor vehicle accidents. In the Annex we include a literature review on substances types and their impacts on human health.

It is due to the complexity of symptoms called addiction, so addiction diagnostic criteria are comprehensive, it is covering psychosocial and physical health problems. The following 11 criteria are used to determine the addiction of DSM-V, which list the various criteria, as follows:

1. The harmful ways of using drugs to themselves or others.
2. Individuals or users experience social (relational) or interpersonal problems due to the use of the drug.
3. Leaving aside all responsibilities and roles at work, school or home because of the drug use.
4. When stopping to consume the drug, he/she gets very painful and disturbing withdrawal symptoms.
5. Users are getting a tolerance that should add a dose of their use to obtain the same effect as before.
6. The number of uses increase due to tolerance and usage over a longer period of time
7. Tried to stop repeatedly or control usage but it never worked.
8. Too much time is wasted on drug use.
9. Began to cause physical problems (such as liver damage, lung cancer) and psychological (depression and anxiety)
10. Many activities are usually fun to do but are no longer carried out due to drug use.
11. Symptoms of craving arise when the effects of the drug have disappeared

## 2.2. Addiction Theory and Its Implication to the Policy

### a. Addiction as Moral and Criminal Issues

There are several explanatory (theories) frameworks regarding addiction related to the drugs use not for medical purposes but for recreational or life-style drug use. The most dominant theory is considering that drugs use is a criminal act and contrary to morals. This view originates from Prohibition<sup>7</sup> which has been applicable in several centuries ago. At the development of Islam era in the Middle East, approximately in the 7th century AD, Islamic Sharia law forbidden the consumption of various substances which can cause intoxication (not only alcohol, including the use of hashish or cannabis). Even so, the practice of using hashes was considered unlawful, especially in Egypt in the 11th century to the 14th, if used for medicinal purposes. As it was based on Qanun's law, intoxication was considered criminal and infringed religious norms and morality at once. Prohibition in Ottoman era under Emperor Murad IV (1612-1640), even included drinking coffee which was considered as an intoxicating drink. Another case in Europe in the same period, coffee was banned because it was imported from Muslim Turkey as a criminal offense

In Asia, King Ramathibodi I of Thailand (1314-1369) banned the opium trade which lasted nearly 500 years until the King Rama IV era (1851-1868) who opened Thailand to Europeans and allowed migrants from China to consume opium. In 1360, King Hayam Wuruk ordered Mpu Prapanca wrote down about the adverse effects of opium in his book *Negerakertagama* (Yatim in Yatim & Irwanto, 1986).

This ban emerged again as a public policy called Prohibitionism in Western Europe and America in the 20th century<sup>8</sup> which ultimately influenced the Convention on Narcotics at the United Nations called Single Convention on Narcotic Drugs which was followed by the 1971 Convention on Psychotropic Substances. As a technical basis, the UN agreed to the UN Convention Against Illicit Traffic in Narcotics Drugs

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<sup>7</sup> Prohibition is a period in history where the government or religious institutions prohibit the use of certain psychoactive substances for normative and moral reasons (Wikipedia, [https://en.wikipedia.org/wiki/Prohibition\\_of\\_drugs](https://en.wikipedia.org/wiki/Prohibition_of_drugs))

<sup>8</sup> Prohibiting the use of psychoactive drugs not for medical purposes was carried out in the UK through the Pharmacy Act 1868 which regulates the distribution of poisons and drugs, then Dangerous Drug Acts were issued in 1928 which caused alcohol and marijuana become illegal in the UK and spread to all colonies including in the US.

and Psychotropics Substances 1988. This convention was triggered by the growing demand for recreational and lifestyle drugs in the Western Hemisphere and hence this Convention became the basis for the regulation of the use of dangerous psychoactive substances so as not to be misused and become the basis of criminalization policies throughout the world<sup>9</sup>. Only a few countries provide concessions for the use of cannabis for cultural purposes (India) and medical (Dutch) purposes. Indonesia has the Narcotics Act No. 22 of 1997 that is based on the three Conventions.

Legal, moral, and religious considerations in the use of narcotics apparently do not lead to significant changes in the prevalence of use and losses incurred to society and the country, especially as exclusion and imprisonment indiscriminately have caused poor treatment to the users and its approaches such as War on Drugs which costs trillions of US dollars and takes away the millions of people's lives who could have been saved through rehabilitation and public health-based interventions. Many countries then revised their Narcotics Acts and began to understand the importance of saving humans through certain interventions and rehabilitation. The old narcotics act in Indonesia was replaced by Act no. 35 of 2009 which is more based on public and mental health in which the role of reports and treatments for addicts is more prominent than previous acts.

## **b. Addiction as a Brain Disease**

At the same time, scientists in the United States, especially those who work for NIDA (the National Institute of Drug Abuse) disseminated addiction theory as a problem in the central nervous system or the brain that is called as The Science of Addiction: Drugs, Brains, and Behavior<sup>10</sup> that was put forward initially by Alan Leshner in his writings *Addiction is a Brain Disease* (1998; 2001) and Margaret Munro who wrote *The Hijacked Brain* (2015). This brain disease theory is based on the assumption that psychoactive substances are used not for medical purposes, indiscriminate doses, and mixed with various other substances that have negative effects are not only able to enslave the brain which has the same neurotransmitter

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<sup>9</sup> Although the convention itself does not provide specific instructions for the criminalization of possession of prohibited substances (TNI, <https://www.tni.org/en/publication/the-un-drug-control-conventions#5>)

<sup>10</sup> <https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/preface>

elements with these substances, but also damage the mechanism at the same time due to indiscriminate and lasts long use.

One of the symptoms that becomes the basic argument is the symptoms of drug withdrawal or addiction. Addiction, which is commonly understood as a problem of brain disease since the 1990s, is based on an neurocentrism understanding. It is the understanding of recreational drugs set human behavior through certain brain structures, so there is a real difference from observations between an addicted brain and non-addicted brain. This difference is then considered a cause of addiction and being a target to provide treatment for that addiction. So, the programs carried out to treat brain addictions by using pharmacology is its perspectives.

Grifell & Hart (2018) mentioned the dangerous assumption of a sick brain theory is that any use of certain drugs (for example, cocaine, heroin, or methamphetamine) considered be a pathology, even the use for non-problematic social-recreational which characterized the majority of experiences who are taking drugs at this time, seen as a problem. Assumptions that addiction is a brain disease must be re-evaluated to formulate a more accurate drug addiction point of view based on evidence and emphasize the important role of psychosocial, environmental and alternative supporting factors rather than only drugs to reduce a problematic drug usage.

### **c. Addiction as Social Construction**

The dissatisfaction of experts in dealing with public policies emphasized criminalization and then took a pathological medical model (brain disease). It encouraged experts to form a consortium of Narcotics policies in the world called the International Drug Policy Consortium or IDPC<sup>11</sup> which builds new, more sympathetic narratives and supports the development of Harm or Risk Reduction strategies. The emergence of Harm Reduction (HR) or Risk Reduction to overcome the adverse effects of War on Drugs is triggered by a sense of justice and more positive thoughts about the use of narcotics. An approach that recognizes the Narcotics usage is a socio-cultural construction in which there are

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<sup>11</sup> <https://idpc.net/>

structural poverty, legal injustice, and public policies that do not defend communities whose lives have been very difficult either poverty or because of emergencies including armed conflict. Therefore, this policy is often called a rights-based or human rights- based policy.

HR programs are widely implemented in various countries in many ways, such as Methadone and Buprenorphine substitution services, syringe exchange, behavior change counseling, partner counseling, etc. to prevent disease transmission carried by blood when using injection narcotics. This is crucial when it came up sexual lifestyle used Narcotics (stimulant) as part of the ritual and sexual satisfaction were called Chemsex (Beg, 2017; Stevens & Forrest, 2018). In addition, the UN also promoted an economic approach to replace Narcotics plants with Cash Crop Substitution in lieu of growing cannabis, opium, and cocaine in producing countries such as Thailand, Myanmar, etc.<sup>12</sup>

#### **d. Addiction as Bio-Psycho-Social-Spiritual (BPSS)**

The development of perspectives in understanding narcotic addiction has led to the argument shifting that addiction is a problem triggered by a single cause (such as physical/biological /brain /moral deficit /criminogen) in a more comprehensive direction. Addiction is a complex problem caused by various interrelated causes. UN agencies such as UNODC and WHO are currently adopting new approaches how to understand the issue of addiction or the use of narcotics as a Bio-psycho-social issue or Bio-psycho-social Model of addiction. This view was presented by Dr. George Engel (1977) who stated that a disease, whatever it is, cannot be understood only from a biological or anatomical point of view but required a social and cultural perspectives which became a context or “environment” of the disease. This view was adopted by activists of addiction and rehabilitation in the late 1990s as a solution to monolithic theory. In the context which the spiritual problems also influenced the meaning of addiction, then the model into Bio-Psycho-Social-Spiritual or BPSS (Frankle, Quill, & McDaniel, 2003; Borrell-Carrio, Suchman, & Epstein, 2004; Howarth et al, MentalHelp.net). This perspective will be used in formulating research problems in this research.

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<sup>12</sup> Asian Correspondents, 23 Dec.,2014 <https://asiancorrespondent.com/2014/12/burmese-opium-farmers-seek-viable-alternative-crops/>.

As this BPSS model broadens the causality scope of addiction, so the intervention model developed must be systemically realized into the ecological theory of human development from Broffenbrenner (1994). This developmental ecology theory shows that

humans develop from a fetus into an adult through various interactions with factors in the micro system (family, schoolmates, playmates, teachers etc.), meso system (various things that existed in the community where the family life), and macro systems (various governmental institutions and regulations that affect him and his family). An important history or event in their personal or community life will influence the direction of their development due to all of these systems are in a time dimension. It is closely related to the individual as an addict with the policy direction taken by the government.

**Figure 01 : Ecological Systemic Theoretic Model**





# METHODOLOGY



Rehabilitation Centre of BNN  
Tanah Merah, Samarinda



Kembang Kenanga Batik, Samarinda



## METHODOLOGY

### 3.1. Research Time and Location

#### a. Research Time

The research was conducted for 7 (seven) months starting from May to November 2019. Data collection were carried out in September-October 2019 with pre-visit activities beginning in September 2019. Then proceed it with field data collection until October 2019

#### b. Research Location

The research was conducted in 6 (six) provinces, as follows:

1. Batam, Riau Islands Province
2. Lampung, Lampung Province
3. Bogor, West Java Province
4. Medan, North Sumatera Province
5. Samarinda, East Kalimantan Province
6. Makassar, South Sulawesi Province

The choice of research location considers the effectiveness of the coordination and data collection, various characteristics of respondents and types of narcotics used. Respondents on this research were clients who took part in rehabilitation programs at the Rehabilitation Center of National Narcotics Board, post rehabilitation programs, outpatient programs at Pratama Clinic and programs that partnered with community components.

## **3.2. Research Design**

### **a. Types of Research**

This research is quantitative descriptive research supported by qualitative research based on life history and experiences from informants. Methodologically, this study is called mixed-method where quantitative descriptive method used as the main approach. While, a qualitative approach is used to provide more detailed explanations that are not possible to obtain from quantitative instruments. Quantitative data were collected through a survey using a questionnaire, while qualitative data were obtained through semi-structured interviews by using guidelines on topics that wanted to be explored further from informants.

### **b. Research Framework**

Health problems are not only a matter of “not being sick” physically-biologically and mentally, but also at the same time there is a sense of social and cultural well-being. Therefore, the impact of the narcotics use is formulated as the influence and impact of psychoactive substances used not for medicinal /medical purposes on the physical and biological, mental-psychological, and socio-cultural health and welfare of a person or unit (family and community) where they live.

The formulation above implies that health problems are not only individual problems but also systemic problems. It means an individual's experience in using narcotics will be reflected not only as an individual's experience, but also as the most proximal system experience in his life.

### **c. Ethical Clearence**

The ethical clearence assessment of the research was carried out by the Ethics Commission of the UNIKA Atmajaya Research and Service Institute.

## **3.3. Data Collection Methods**

Due to this research is a mixed-method, using quantitative and qualitative approaches, thus each approach has different data collection methods and sources of information.

## a. Quantitative Approaches

### 1) Research Respondents

Research respondents are drug users who are undergoing rehabilitation or post rehabilitation programs at the National Narcotics Board rehabilitation site or their partners.

The inclusion criteria for determining respondents in the research sample, namely:

- Having used drugs for the past 2 years
- Having or were currently getting BNN rehabilitation services in 2017-2019 at the Rehabilitation Center and Workshop of National Narcotics Board, including IPWL participants of National Narcotics Board program partners. Priority respondents patients who undergoing rehabilitation at Balai BNN and patients after rehabilitation.
- Ages 15 - 64 years (UNODC standard)
- Not in a condition of severe mental disorder

In this research, the researcher is not only collaborated with rehabilitation service providers, but also with communities organizations of National Narcotics Board program partner and Narcotics user communities, both men and women.

### 2) Sampling Technique

Respondents as research samples were taken by using a sampling technique Proportional Random Sampling (*Sage Research Methods*<sup>13</sup>)

In random sampling, each group of population has an opportunity to become a sample, but the research sampling also considers the purpose of sample variation to be achieved.

The number of samples was calculated by using the Slovin formula (Sevilla et. Al., 1960: 182), as follows:

$$n = \frac{N}{1 + Ne^2}$$

Description: n: total sample ; N: total population and e: error tolerance

<sup>13</sup> <https://methods.sagepub.com/Reference/encyc-of-research-design/n340.xml>

From the formula above, the total population (N) is the total number of rehabilitation participant listed in 6 research locations for period 2017-2019. Furthermore, the number of samples obtained (n) will be divided proportionally according to the population in each research location.

Based on data from 6 rehabilitation centers of BNN, the population of rehabilitation participants data in 6 cities during 2017-2019 is N = 4,203 people with distribution as follows:

**Table 04: Listing Candidates Respondents by Year and Location**

Location	Year			
	2017	2018	2019	Total
West Java (Lido)	686	716	254	1,656
South Sulawesi (Badoka)	313	304	134	751
Riau Islands (Batam)	201	233	116	550
North Sumatera (Deli Serdang)	72	87	86	245
Lampung (Kalianda)	130	122	65	317
East Kalimantan (Tanah Merah)	252	263	169	684
<b>TOTAL</b>				<b>4,203</b>

By using 4% of fault tolerance limit will be obtained the required number of samples as many as 545 people. Taking into account the situation in the field added 10% of respondents as a backup, so the required total sample is 600 respondents. Distribution of the number of respondents per Province namely:

**Table 05: Number of Respondents Selected by Location**

No	Location	Total Respondents
1	West Java (Lido)	215
2	Riau Islands (Batam)	80
3	East Kalimantan (Tanah Merah)	95
4	North Sumatera (Deli Serdang)	55
5	Lampung (Kalianda)	55
6	South Sulawesi (Badoka)	100

The sample selection is carried out through several stages including:

- a) Prospective female respondents directly selected as respondents
- b) Prospective respondents with experience of using opiates-heroin directly taken as respondents
- c) Another prospective respondents were selected randomly from the list of potential respondents listed. If the selected respondent can not participate in the research, the respondents were replaced by other respondents. Prospective respondents were rehabilitation clients who took part in rehabilitation programs, both inpatient and outpatient at National Narcotics Board rehabilitation and National Narcotics Board partners.

## **b. Qualitative Approach**

The qualitative approach is used to explore a deeper information from research informants, both those involved directly or indirectly in providing assistance and caring to narcotics users as a data triangulation.

Qualitative data was collected to deeper understand the addiction experience of the respondents and those who related to his addiction (family members, spouses, doctors, counselors and social workers in implementing the rehabilitation component of the community). Data collection was carried out through semi-structured interviews. Interviewed informants were 20 people per province. The informants' inclusion criteria for in-depth interviews include:

- 1) Narcotic Users
  - Willing to be interviewed
  - Ages 15-64 years
  - Do not experience severe mental disorders
  - Having a living history in experiencing the effects of systemic narcotics and toughness in facing those impacts - particularly if it contains the story of a successful recovery.
  - Having a living history in experiencing the effects of systemic narcotics and showing helplessness in preventing and overcoming the adverse effects of narcotics use.
- 2) Technical stakeholders (doctors / psychiatrists, social workers)
  - Willing to be interviewed

- Having experience in handling clients of drug users at least 1 year
- 3) Family of narcotics users (parents, spouse)
- Willing to be interviewed
  - Having experience / interacting directly / living at home with narcotics users

**c. Research Instrument**

**1) Instruments of Quantitative approach**

Quantitative data collected was carried out through surveys using a questionnaire. At the end of the questionnaire, there was an assessment of motor skills - using the EURO Quality of Life QoL (5D-5L) developed by EuroQol Group in 1990 to measure health status consisting of 5 dimensions: mobility, self-care, daily activities, illness /discomfort, and anxiety/ depression. This tool has been adapted by Purba et al, (2017) and made Indonesian version.

The questionnaire used in the Health Research of Drug Abuse consists of several elements, namely:

a	BLOCK I	Place Description
b	BLOCK II	Enumeration Information
c	BLOCK III	Characteristics of Respondents
d	BLOCK IV	Experience Using Narcotics
e	BLOCK V	Risk Behavior
f	BLOCK VI	Experience of Pain Outside Drug Drops (Impact of Narcotics Abuse on Physical, Emotional, Social and Spiritual Conditions)
g	BLOCK VII	Supporting Factor / Booster
h	BLOCK VIII	Impact of Long-Term Use of Narcotics Experience
i	BLOCK IX	Dealing With Self-Assessment of the State Apparatus;
j	BLOCK X	Motor Ability
k	BLOCK XI	Self-assessment; EURO QoL (EQ-5D) Questionnaire on holistic health

**2) Instrument of a qualitative approach**

instruments of data collection with a qualitative approach is in semi-

structured interview questions guide. Each group of informants has a different instrument guide. Question topics for each informant include:

- a) Drugs user
  - Activities and quality of life before and after using Narcotics
  - Support system received from family, friends, school/work/ community, religion teachers and experience in accessing health and rehabilitation services.
  - Other things needed to minimize drugs use effects
  - Suggestions for this research recommendations.
- b) Informants group of medical workers and social workers;
  - Experience during treatment.
  - Type of indeterminate widely experienced by clients in nursing homes
  - Support system provided by family /friends of clients handled
  - Challenges and obstacles encountered in providing treatment to clients, families, policies and existing treatment system.
  - Other things needed to minimize drugs use effects.
  - Suggestions for this research recommendations
- c) Informants of family members /spouses of drug users
  - Experience dealing with family members /clients due to drug use, support systems provided by family /friends and types of physical, social, mental impacts experienced by users
  - Challenges and obstacles encountered in providing /seeking help; regarding access to (information, geographical), financial, and policy administration system and referrals.
  - Other things needed to minimize drugs use effects.
  - Suggestions for this research recommendations.

#### **d. Trial Questionnaire**

The instrument trial was conducted to 40 rehabilitation clients at the Lido BNN Rehabilitation Center. The trial was conducted with the intention that there is a legibility test and an interview eligibility test.

After the trial activities, then discussed and evaluated its trial results of each researcher carried out. Evaluation of trial findings is used to improve research instruments, determined appropriate interview methods and improved research protocols.

## e. Research Organization

### 1) Researcher Team

The research team are people who have capacities and experience in researching and handling narcotics problems. The Research Team was led by a researcher from BNN and supervised by Senior Consultants and high leaders of BNN. In collecting field data, researchers are assisted by local partners, field coordinators and enumerators. The number of enumerators in each province is different according to the number of respondents in the province.

### 2) Data Management

#### a. Data Collection:

- Research data were taken by enumerators who had attended training and had special expertise in communicating with drug abusers.
- EURO QoL (EQ-5D) data regarding self-assessment of motor skills and self-health assessment will be filled in by each participant / respondent accompanied by an enumerator individually.
- The life-history interview will be conducted by the researcher after the researcher determined that the respondent's "case" falls within the criteria for the life-history interview. Data will be recorded and transcribed by verbatim for analysis.
- Interviews for stakeholders will be along with life history interviews where data and information are obtained based on life events, especially events that determine the participant's life (trajectories).

#### b. Quality control

Data quality control is carried out in before and during the research process. Before going on the field, enumerators and interviewers are trained to ensure understanding of research instruments, research methods, and other field techniques. During collecting data, the researcher was assisted by one field coordinator whose special task was data controlled and two local partners would check the data before data entry. After entering data into database system, random checking will be performed to ensure the correctness of data entering the system.

### 3.4 Research Implementation

#### 1) Technical guidance

Technical guidance is carried out at the preparation stage before starting to collect data. Technical guidance was facilitated by two facilitators from the research team. Technical guidance was followed by local partners, field coordinators and enumerators. Activities in technical guidance are to provide an understanding of the description, objectives and research procedures, understand the instrument, collect sample and data techniques.

#### 2) Licensing/ Permit

Licensing activities carried out by researchers together with a local partner of rehabilitation centers and Provincial Narcotics Board (BNNP) to the Director of Rehabilitation Institute at the sites. This activity carried out to promote the purpose and goals of research and ask for referrals as well as support to the research smoothly.

#### 3) Quantitative Data Collection

The activity start to cross-check data llisted of narcotics user that has been prepared during the process and after technical guidance. Based on the listed data, the researcher conducted a sampling in accordance with the protocol.

Quantitative data collection is carried out by enumerators, controlled by field coordinators and researchers. In special circumstances, the Field Coordinator can assist to collect data, and to ensure the readiness of selected prospective respondents.

The following list of institutions are places for conducting research in each province

**Table 06 : Research Location in Each Province**

No	Province	Research Location		
		Directly managed by Provincial Narcotics Board Coordination	Managed by Provincial Narcotics Board Partner	Others
1	Riau Islands	<ul style="list-style-type: none"> <li>• Rehabilitation Center Provincial Narcotics Board</li> <li>• Post Rehab Program Provincial Narcotics Board</li> <li>• Pratama Clinic</li> </ul>	Coaching House	
2	Lampung	<ul style="list-style-type: none"> <li>• Kalianda Rehabilitation Workshop</li> <li>• Provincial Narcotics Board Post Rehab Program</li> <li>• Pratama Clinic Provincial Narcotics Board</li> </ul>	<ul style="list-style-type: none"> <li>• Ataraxis Home</li> <li>• House of Serenity</li> </ul>	
3	North Sumatera	<ul style="list-style-type: none"> <li>• Deli Serdang Rehabilitation Center</li> <li>• Provincial Narcotics Board Post Rehab Program</li> <li>• Pratama Clinic Provincial Narcotics Board</li> </ul>	<ul style="list-style-type: none"> <li>• Charitas Foundation</li> <li>• Bukit Doa Foundation</li> <li>• Medan Plus Foundation</li> <li>• Yaomi Foundation</li> <li>• KM Rumah kita</li> </ul>	
4	West Java	<ul style="list-style-type: none"> <li>• Lido Rehabilitation Center</li> <li>• Provincial Narcotics Board Post Rehab Program</li> <li>• Pratama Clinic Provincial Narcotics Board</li> </ul>	<ul style="list-style-type: none"> <li>• Agape</li> <li>• Kapeta</li> <li>• Kedathon</li> <li>• Breakthrough</li> <li>• Peka</li> <li>• Kharisma</li> </ul>	
5	East Kalimantan	<ul style="list-style-type: none"> <li>• Tanah Merah Rehabilitation Center</li> <li>• Provincial Narcotics Board Post Rehab Program</li> <li>• Pratama Clinic Provincial Narcotics Board</li> </ul>	Sekata	
6	South Sulawesi	<ul style="list-style-type: none"> <li>• Baddoka Deli Serdang Rehabilitation Center</li> <li>• Provincial Narcotics Board Post Rehab Program</li> <li>• Pratama Clinic Provincial Narcotics Board</li> </ul>	<ul style="list-style-type: none"> <li>• YPKNM</li> <li>• Siammasei Foundation</li> <li>• Transit Maros Clinic</li> <li>• Gaya Celebes Foundation</li> <li>• Daar Ulil Albab Institute</li> </ul>	Sayang Rakyat Hospital, Client Referrals from Community Component Partners

Details number of respondents who were successfully interviewed in each Province are listed in the following Table 07.

**Table 07 : Total Respondents Per Province**

No	Province	Total Respondent
1	Riau Island (Batam)	80
2	West Java (Lido)	215
3	North Sumatera (Deli Serdang)	55
4	Lampung (Kalianda)	57
5	East Kalimantan (Tanah Merah)	95
6	South Sulawesi (Badoka)	100
<b>TOTAL</b>		<b>602</b>

#### 4) Qualitative Data Collection

In-depth interviews were conducted by researchers, local partners and field coordinators. Total informants interviewed were 120 people consisting of 60 narcotics users, 36 technical stakeholders (doctors / psychiatrists, counselors, social workers) and 24 families.

**Table 08 : Distribution of In-depth Interview Informants**

No	Province	Total Informant			Total
		Drug Users	Social Workers / Workers	Family / Couples	
1	West Java	10	5	5	20
2	Riau Islands	10	5	5	20
3	East Kalimantan	10	5	5	20
4	North Sumatera	10	6	4	20
5	Lampung	10	5	5	20
6	South Sulawesi	10	6	4	20

## 5) Monitoring Evaluation

Evaluation and monitoring conducted during the data collection. During collecting data, coordination is carried out periodically by the field team to ensure that data collected is correct and in accordance with procedures. In addition, this stage is carried out to avoid misunderstanding of the interviewer when the filling process

In general, evaluation and monitoring of data collection are undertaken by all teams involved in research. Some activities as part of monitoring and evaluation are:

### a) Coordination of research team periodically

Coordination activities are taken a part periodically in accordance with the needs in site. Coordination is used as a means to discuss the preparation, strategy and schedule of research. It is also a means of sharing information, discussing cases and determining potential informants for interview.

### b) Questionnaire Cross Check

Cross checking is a step that is conducted to re-check the completeness of the questionnaire before submitting it to the center. There are two stages undertaken in cross checking, namely the first stage is carried out among enumerators and the next stage is carried out by field coordinators and researchers by showing the following:

- Completeness of filling out the questionnaire
- Appropriateness of the questionnaire flow
- The logic answers from respondents.

If the cross check findings indicate that incompleteness and incompatibility are found in the questionnaire, then an interview must be conducted by the enumerator to respondents recorded in the questionnaire.

### c) Spot-Check

Spot-check tasks are taken by researchers, field coordinators, and localpartners. Spot Check is a random re-check of a number of respondents who have been interviewed. Spot check questions

are fixed, for example age, interview time, education and several other variables. The number of spot check respondents is around 10% of the total sample or adjusted to field conditions. If based on the results of the spot-check enumerator found that enumerator didn't come to respondent but the questionnaire is filled out, then enumerator is immediately terminated and it will be transferred to another enumerator.

d) Supervision

Supervision performed by representatives of the Research and Development Centre of National Narcotics Board to ensure data collection run well, in accordance with the design and research protocol.

### **3.5 Data Processing and Analysis**

Data from research findings are entered into tabulated data using SPSS Version 23 after managing it by using Microsoft Excel. Before it processed, the data was cleaned to check the wrong data entry or various anomalies in the received data. Analysis of research data through calculation of frequency distribution to check data consistency and cross-tabulation among variables. The quantitative data will be presented in tabular/ graphical form.

Data from in-depth interviews are presented in resumes and interview transcripts as basis of grouping themes or variables to answer the research objectives. Furthermore, the data from the interviews will complement the chart data to completes analysis in supporting quotations.

### 3.6 Quality of Life / Well-being

Respondents assess their own quality of life using instruments (EQ-5D-5L) and EQ VAS (Visual) <sup>14</sup>. The assessment carried out on five dimensions namely mobility, self-care ability, daily activities, pain/discomfort and anxiety/ depression, using five levels of scale from no problem, mild, moderate, sufficient and very problematic. Furthermore, respondents gave an assessment of health conditions when interviewed from a score of 1-100 using the EQ-VAS instrument (the visual analogue scale)

The assessment of quality of life is presented in three points as follows:

- a. Results from the EQ-5D-5L descriptive system as a health profile  
One way to present data as a health profile is in a table with the frequency or proportion of problems reported for each level for each dimension. This table is divided into include proportions per subgroup, such as age, sex and length of time used for narcotics. The EQ-5D-5L levels will also be grouped into 'no problem' (i.e. level 1) and 'problem' (i.e. level 2 to 5).

In addition, a comparison will be made between the EQ-5D-5L data from the this research with data from the study<sup>15</sup> to discuss the value of EQ-5D-5L in general population in Indonesia.

- b. Presenting the results of the EQ-5D-5Lan Reenen / Bas Janssen index value  
The EQ-5D-5L index value can be presented in the same way as the EQ VAS data, which uses a measure of central tendency and dispersion.
- c. EQ-VAS results as a measure of overall self-health status ranking  
To present all aspects of EQ-VAS data regarding the assessment of self-health status was displayed in a measure of central tendency and size of dispersion. It can be the average value and standard deviation, median value and the 25th and 75th percentiles.

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<sup>14</sup> Janssen Bas, Van Reenen, EQ-5D-5L User Guide Basic Information on How To Use The EQ-5D-5L Instrument.

<sup>15</sup> Data Self-reported health using the EQ-5D-5L descriptive system and the EQ VAS. Sumber Purba et al, The Indonesian EQ-5D-5L Value Set. July 2017.

### 3.7 Research Limitations

A research certainly has research limitations no exception, including this research. In this research, there are some limitations: **First**, the research respondents is the client who was still in rehabilitation and post-rehabilitation treatment. The research population was a client in the home and outside home who has different characteristics.

In terms of relationships with family and relatives, for example the distance and affordability of rehabilitation centers can determine the quality of their relationships. Likewise in terms of general health, clients are getting treatment and care from care taker will be better able to take care of their health. Meanwhile outside the rehabilitation centre, there are many challenges that can cause their health conditions not to be optimal.

**Second**, due to the women participation in this research is very small (37 people or 6.1%), recruitment of this population as a sample cannot be done randomly and lessons learned from this population have limitations in generalizations.

**Third**, this also applies to recruit heroin users. As the numbers are small, the researchers recruit everything in the listing without random selection.

**Fourth**, research methods that relied on respondents' responses use recollections about the thing or event being asked. This limited the respondent's response regarding the name of the substance used, amount, duration, and method. It is same case with health impacts. Respondents may not remember or do not know about certain disorders or diseases they have been experienced. Therefore, their answers are only an indication of their experience so far and will tend to be more unspoken.





IV

# RESEARCH FINDINGS



Rehabilitation Centre of BNN  
at Batam



Melayu Ikan Tamban Batik, Riau Islands

# IV

## RESEARCH FINDINGS

### 4.1. Characteristics of Respondents

#### 4.1.1. Characteristics of Demography

To get a general description of the demographic characteristics of respondents table 09 below presents the demographic characteristics of all respondents (n = 602).

**Table 09 : General Characteristics of Respondents (n = 602)**

Variabel of Demography	n (%)
<b>Sex</b>	
Male	656 (93.9)
Female	37 (6.1)
<b>Age Group</b>	
<20 year	100 (16.6)
20-29	288 (47.8)
30-39	159 (25.6)
40+	60 (10.0)
<b>Educational Background</b>	
No School	12 (2.0)
Not completed in primary school	18 (3.0)
Elementary School / Islamic ES equivalent	45 (7.5)
Junior High School/ Islamic JHS equivalent	108 (17.9)
Senior High School / Islamic SHS equivalent	345 (57.3)
Academy /University	74 (12.3)

Variabel of Demography	n (%)
<b>Job Status</b>	
Student	60 (10.0)
Non-job	119 (19.8)
Households	10 (1.7)
Farmer	15 (2.5)
Fisherman	12 (2.0)
Entrepreneur/Seller	161 (26.7)
Civil Servants/Civil Army/Police/BUMN Employee	45 (7.5)
Private Sector	93 (15.4)
Freelancer	87 (14.5)
<b>Residence</b>	
With parents	406 (67.4)
Own	81 (13.5)
Brother/relatives	113 (18.8)
Friend	73 (12.1)
Spouse	175 (29.1)
Dormitory	10 (1.7)
Prison / detention	9 (1.5)

From Table 09 above, it seems clearly the majority of respondents in this research were male (93.9%) with ages around 20-39 years (73.4%), mostly unmarried (54.5%), having an education level above senior high school (69.6%), and has worked (70.2%). Although it is not equally distributed, all types of work are represented. From the aspect of their residence, most respondents still live with their parents (67.4%), even though some live with a spouse (29.1%).

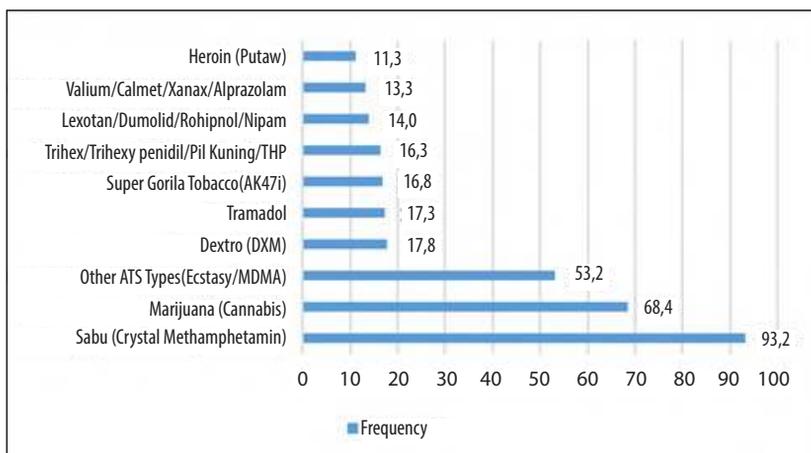
#### 4.1.2 History and Risk of Drugs Abuse

To see the history of drugs abuse, there were several variables analyzed, namely: a) the most used substances; b) age of onset and how long to use the substance; c) how many types of substances are used, and d) how to use the substances. A history of substance abuse is related to health risks that occurred.

### a) The Most Used Substance

In the questionnaire presented 28 types of substances known by/ are often misused. This health research asks which substances have been used. Figure 02 below explains the 10 substances that were most chosen by respondents.

**Figure 02 : 10 The most used substance**



It is known that crystal meth is the most used of the 10th most used substances, then followed by cannabis, other types of ATS - specifically MDMS (ecstasy), and psychotropic substances (Dextro, Tramadol and others). This trend was consistent with the facts in this found in the prevalence survey of National Narcotics Board from 2014 which stated that the achievement rate of crystal meth and ATS seizures increased rapidly.

### b) Age of The First Time and Duration of Substance Abuse

The following table 10 shows there were 12 substances used by respondents before they were 20 years old (light green). Most of these substances are psychotropic drugs available on the public market. The youngest average age of 14 years was Inhalants abusers. Three substances that were considered dangerous substances also used before the age of 20 years, namely marijuana (16.8 years), heroin (18.7 years), crystal meth or methamphetamine (19.7 years).

**Table 10: Age of First Time Use and Duration of Use of Substances**

Types of Substances	Age of First Time Use (Year)		Duration of Use (Year)	
	N	Mean	N	Mean
Marijuana (Cannabis, <i>Cimeng, Mariyuana, Gele, Daun</i> )	419	16.80	411	4.6
Heroin ( <i>Putaw, bedak, etep</i> )	68	18.68	63	5.4
Morfin (brown sugar)	16	22.38	12	3.8
Tramadol ( <i>Trama</i> )	105	18.66	102	1.9
<i>Shabu</i> /Meth Kristal/Methamphetamine	560	19.74	557	6.5
Supergorilla tobacco/ <i>Hanoman/Ganesha/Sun Gokong/Gor, AK47I</i> )	101	22.13	100	1.2
Lexotan/Dumolid/Rohipnol/Nipam (Magadon/BK/ <i>Pil Koplo</i> )	83	18.57	81	3.4
Kokain (Coke, Snow, Koka, Happy Dust, Charlie)	22	22.55	22	1.1
Kodein	17	21.82	16	1.0
Opium ( <i>Candu, Poppy</i> )	6	22.00	6	0.5
Metadon (without doctor's prescription)	13	26.31	13	2.9
Inhalan (Volatile substances) such as Aica Glue, Goat Brand Glue, Gasoline, Thiner, Etil, Spiritus, Markers	87	14.60	87	1.3
Dextro (DXM, Dextromethorpan)	109	16.67	106	1.3
Suboxone/burenorphine (without doctor's prescription)	10	23.00	10	1.6
Petidin (without doctor's prescription)	3	24.33	3	3.4
LSD (Acid, tabs, trips)	39	21.62	39	0.1
Hasish	16	22.44	16	1.1
Ecstasy/ <i>Inex</i> /MDMA/Happy Five/ <i>Cece/XTC/Pil Y</i>	321	20.41	317	1.0
Valium/Calmet/Xanax/Alprazolam (without doctor's prescription)	78	21.65	78	3.8
Trihex/Trihexy penidil/ <i>Pil kuning/THP/Double L/Pil Trek</i>	99	17.71	98	3.2
Katinon (Kats)	3	21.67	3	2.0
Metilon (Molly)	2	23.50	2	0.4
Zenith (Camophen/Somadril/PCC/Dil Jin)	39	18.33	38	0.1
Over Consumed Headache Drugs	24	18.54	23	2.2
Mushroom/Cow Dung Mushroom	61	20.38	60	1.5
Ritalin/Prohier (without doctor's prescription)	7	23.57	7	0.8
Flakka (zombie drug)	1	20.00	1	1.8

Table 10 data showed the duration of substances use, crystal meth was the longest substance used with an average use (6 years 5 months),

heroin (5 years 4 months), cannabis (4 years 7 months), morphine (3 years 9 months), Lexotan and other similar types of this substances(3 years 5 months), Suboxone without a doctor's prescription (3 years 5 months). While, other substances have been used for an average of 1 to 2.5 years.

### c) Types of Substances Used

Table 11 below provides information that most respondents, regardless of age, sex, and various other demographic variables, tends to use more than one substance.

**Table 11: Number of Substances Used by Respondents**

Respondent's Characteristic	Number of Substances Used by Respondents					
	Mono drug	2-5 substance	6-10 substance	11-15 substance	16+ substance	N
<b>Age Group</b>						
15-19 Year	18.0	66.0	16.0	0.0	0.0	100
20-29 Year	13.5	67.4	15.3	2.8	1.0	288
30-39 Year	10.4	75.3	11.0	3.2	0.0	154
40-49 Year	15.1	60.4	13.2	11.3	0.0	53
50+	42.9	28.6	14.3	14.3	0.0	7
<b>Sex</b>						
Male	13.8	68.1	14.0	3.5	0.5	565
Female	16.2	67.6	16.2	0.0	0.0	37
<b>Marital Status</b>						
Unmarried	12.2	66.2	19.2	1.8	0.6	328
Married	17.5	68.4	7.8	5.8	0.5	206
Death Divorced	33.3	66.7	0.0	0.0	0.0	6
Life Divorced	9.7	77.4	9.7	3.2	0.0	62
<b>Educational Background</b>						
No school	8.3	75.0	16.7	0.0	0.0	12
Not completed primary school	27.8	61.1	11.1	0.0	0.0	18
Elementary School/ Islamic ES equivalent	15.6	77.8	6.7	0.0	0.0	45
Junior High School/ Islamic JHS equivalent	19.4	64.8	13.0	1.9	0.9	108
Senior High School/ Islamic SHS equivalent	12.2	68.1	15.7	3.5	0.6	345
Academy/University	10.8	67.6	13.5	8.1	0.0	74

Respondent's Characteristic	Number of Substances Used by Respondents					
	Mono drug	2-5 substance	6-10 substance	11-15 substance	16+ substance	N
<b>Job Status</b>						
Student	16.7	60.0	21.7	0.0	1.7	60
Unemployed	10.9	67.2	17.6	4.2	0.0	119
Housewife	20.0	80.0	0.0	0.0	0.0	10
Farmer	13.3	86.7	0.0	0.0	0.0	15
Fisherman	25.0	58.3	16.7	0.0	0.0	12
Private Entrepreneur /Seller	11.8	69.6	14.3	4.3	0.0	161
Civil Servants/Army/Police/BUMN Employee	26.7	68.9	4.4	0.0	0.0	45
Private employees	9.7	74.2	11.8	4.3	0.0	93
Freelancer	16.1	62.1	14.9	4.6	2.3	87
<b>Total</b>	<b>14.0</b>	<b>68.1</b>	<b>14.1</b>	<b>3.3</b>	<b>0.5</b>	<b>602</b>

From the data above, there is interesting information the more mature the more substance used. From the education side, the higher education the more substances used, especially after secondary education and above. Thus, more than 80% of research respondents were polydrug users or used more than 2 substances and more than 62% used more than 3 substances. In particular, they represented young people both students and productive workers who were the nation's hopes. Using and mixing more than one type of substances will risk the interaction between substances that have an impact on death more than one type of substance it will be a risk of the interactions effects among substances that can be deadly (see ANNEX).

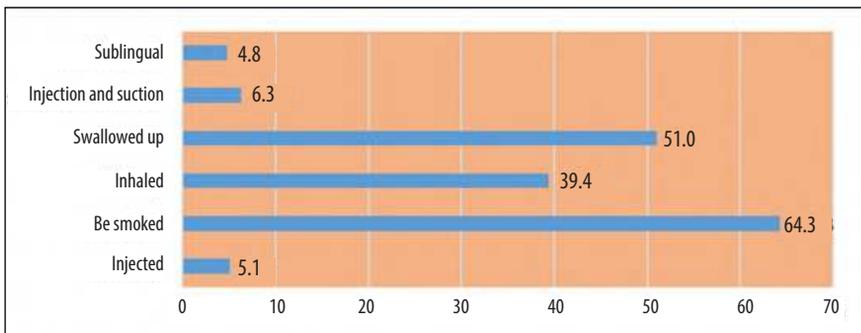
#### d) How to use substances

Various abused substances are presented in various forms, from natura (leaves, flowers, seeds) to various other forms such as pills, crystalline powder, paste, and liquid. Therefore, some substances will tend to be used in certain ways. However, please note that many substances are packaged differently. The way of substances used creates its specific risk. The direct effect on the body occurred when a substance used in certain parts of the body such as injecting in a vein, or oral cavity, throat and lungs if inhaled, smoked or inhaled. If

it injected, it will be dangerous because the remaining blood in the syringe will last more than 12 hours and transmit the disease in the blood if the injection used without sterilization. HIV and hepatitis (C and B), for example, are very common infecting injected heroin users. The same thing also happened through a hug or scratching. While, being inhaled and smoked are also getting a risk to the respiratory system and oral cavity. Therefore, the information in Figure 03 below is interesting to observe.

Data of Figure 03 explains the most common method of using substances is to be smoked, inhaled, and swallowed. The data described types of abused substances are methamphetamine, cannabis, other types of ATS, and psychotropic drugs. Other substances are relatively less than 10%.

**Figure 03: Ways to Consume Substances (n=602)**



However, the above data cannot be directly interpreted. Not only because of the respondents are polydrug users, but also certain types of abuse carried out by abusers of various substances (See Table 12). Therefore, it is interesting to know the types of substances and how to use it. Based on the cross tabulation between how to use it and the substance used, there were interesting facts found. This fact is shown in table 12 there is no isolated risk to one type of substance or only one method of use.

**Table 12: How to Use and What Kinds of Substances**

How To Use	Substances that Used
Injected	46% heroin user 1.2% marijuana user 31% morphine user 0.7% meth user 4.8 cocaine user 16.7% methadone user 50% suboxone user 66.8% pethidine user 0.6% MDMA user 3.9% valium user 1% trihexyphenidyl user 5.1% zenith user 14% ritalin user
Smoked	13.2% heroin user 54.2% meth user 89.1% gorilla tobacco user 4.8% cocaine user 40% opium user 93.3% hasish user 66.7% cathinone user 3.3% magic mushroom user 14.3% ritalin user
Inhaled	4.9% marijuana user 20.6% heroin user 56.3% morphine user 42.5% meth user 6.9% gorilla tobacco user 76.2% cocaine user 28.6 PCP user 18.8% codeine user 40% opium user 5.3% LSD user 6.7% hasish user
Injected and inhaled	19.1% heroin user 6.3% morphine user 2% crystal meth user 14.3% PCP user 2.6% valium and others user

How To Use	Substances that Used
Swallowed	6.3% morphine user 100% tramadol user 2% gorilla tobacco user 97.65% lexotan others user 14.3% cocaine user 81.3% codeine user 20% opium user 83.3% methadone user 57.1% PCP user 99.1% dextro user 10% suboxone user 33.3% pethidine user 18.7% LSD user 98.4% MDMA user 92.2% valium user 99% trihexyphenidyl user 33.3% cathinone user 100% metilon user 94.9% zenith user 100% headache drug user 91.8% magic mushroom user 85% ritalin user 100% flakka user
Sublingual	10% suboxone user 76.3% LSD (Acid) user

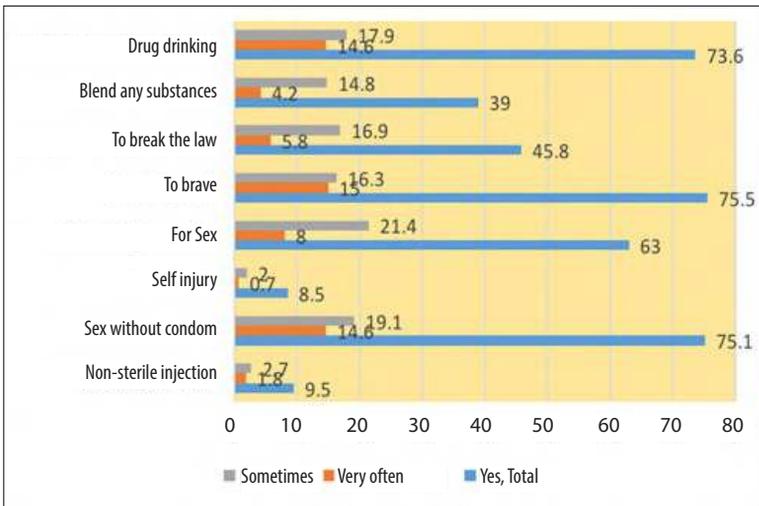
With the additional information above,, we will better understand that users of methamphetamine, cannabis, morphine, heroin, suboxone and LSD are going to face the highest risk due to many ways of misuse. especially because of the risk of injection method that carries the virus in the blood due to the use of unsterilized syringes. Inhaled or smoked typical substances like cannabis/marijuana, cocaine, methamphetamine, inhalation and others will certainly provide a risk to oral cavity, throat and lungs. While, other swallowed substances will provide a risk to the central nervous system due to a dangerous mixture of substances. In other words, it is impossible to determine the effects of certain substances specifically by using this survey research methodology because of the complexity of substance abuse. If you want to state more specific arguments, it is necessary to do laboratory experimental research based

### 4.1.3. Risk Due to Behavior When Using Substances

Based on Figure 04 below, we need to be aware of the risky behavior under the intoxicification. Information shows that about 8.5-75.5% of respondents have committed a variety of risky behaviors when using Narcotics, whether injecting without sterilization, self-injuring, driving a vehicle in a state of drunkenness, and mixing the substances they used. The implications of the above risky behaviors not only on health but also on the safety of the abusers and others.

This information shows although the behavior of “drunk and driving” are relatively small numbers, it is realized that 17.9% stated sometimes did it and 14.6% stated very often but overall 73.6% of respondents had done this risky behavior.

**Figure 04: Risks Regarding Goals and Behavior During Detoxification (n=602)**



By interviewing informants, there are various reasons why they perform such risky behaviors

## QUALITATIVE FINDINGS

Some of the goals recognized by Narcotics users as follows:

*"...Well, maybe it could be more likely that you want to be more socially accepted.."(21004, M - 36 years)*

*"...after using it, I actively earn money, then I am smart to prank people"(41005, M – 30 years)*

*"...Yes, in my opinion, when I used drugs, I felt confidence to go to school. For example, when I learned Social Studies, I tried to ask something, sitted in the front of the class, so be confident at that time I used drugs ... I also asked to the teacher, oh my God, you are the most active student here, he said. Wow, I said cool, I was the most active in class. At that time, I was appointed to be the chairmen of class president, Im proud of myself .....next day...I said it again....I become the class president, how should I do. Let me be with my friends the next day, but I can't finish it, just buy it....."  
( 11008, M - 28 years).*

*"... Firstly, it is originally due to my weight, my weight was up to 120 kg, so my friends offered this, I asked him, if i used it, I could get weight loss he said," (31002, Klien. M - 39 years)*

*"... my client also works ... as a laborer he felt that he is able to lift up to tens of kilos at that time if he used it (substances), But if he did not use it, he couldn't lift it, so he thought he has to use it. Then there is also the case of my client that he worked on the ship. He used it for five days. Then, he worked for five days as then limitation of it worked without sleeping, Then he doped and used it continually."  
(52002, Conselour M - 27 years)*

## 4.2. Relationship With Physical Health

After studying the various risks related to abused substances, this research will try to find the effects of the abused substance on multiple aspects of an individual's health and well-being. Table 13 below explains what health risks experienced of respondents, at least once in their lives.

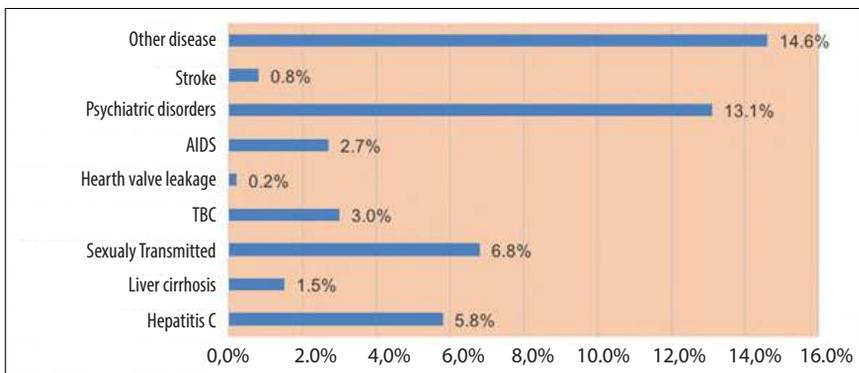
**Table 13 : Experience of Health Disorders (n = 602)**

Variable (%)	Cumulative	Min 1 x	Some-times	Often enough	Often	Very often
Illnes/Disease	Yes					
Infection of Respiration	52.8	9.0	21.9	10.0	6.6	5.3
Infection of Skin	24.1	7.1	8.3	3.8	3.0	1.8
Infection of Mouth	59.5	13.8	17.9	11.5	9.3	7.0
Overdose	14.1	9.5	2.7	0.7	1.0	0.3
<b>Other Physical Impact</b>						
Dizziness/Heavy Headache	73.4	10.5	21.3	16.8	14.6	10.3
Convulsions	11.1	4.0	3.2	1.5	2.0	0.5
Dehydration / Paralysis	21.3	9.1	5.3	3.7	2.5	0.7
Tooth Disorder	64.1	15.0	18.3	14.3	9.8	6.8
Oral Cavity Disorder	60.1	9.6	19.6	11.5	13.6	5.8
Eye Disorder	45.5	7.5	17.1	7.8	9.0	4.2
Unstable menstruation(p)	2.8	0.0	1.0	0.7	0.5	0.7
Vaginal Discharge(p)	2.8	0.5	0.8	0.5	0.5	0.7

In general, Table 13 above shows the various physical complaints of respondents related to the use of abused substances. If we look at the cumulative answers, so oral cavity and throat disruption were the most frequent complaint, where oral infections complaints attained (59.5%), respiratory problems (52.8%), skin disorders (24.1%), and overdoses (14.1%). Other physical effects they got are severe dizziness (73%), tooth disorders (64.1%), and oral disorders (60.1%) were the most common complaints with variations in the frequency of occurrence.

Respondents also mentioned the long-term effects of abused substances as shown in Figure 05. At least about 35 respondents (6%) stated that they had long-term health problems such as hepatitis C and others. It was estimated that the health effects above related to the most widely used substances are ATS and cannabis/marijuana, as well as various psychotropic substances that are analgesic, sedative, and antidepressant that affected memory and mental disorders. It should be underlined that this answer depended on the respondent's knowledge and memory. Many respondents may not know or do not care about their health even after seeing a doctor.

**Figure 05: Long-term Impact of Narcotics Use (n=602)**



Based on the figure above, the long-term physical impact often experienced by respondents is 13.1% psychiatric disorders. Secondly, sexually transmitted diseases by 6.8%; thirdly, hepatitis C is 5.8%; fourthly, TBC is 3.0%. Other diseases are liver cirrhosis (1.5%), stroke (0.8%), heart valve leakage (0.2%), and other diseases 14.6% (depression, hallucinations, bipolar disorder, various forms of anxiety, and difficulty sleeping).

## QUALITATIVE FINDINGS

**Respondent 31006, F, 22 years** - who has undergone rehabilitation twice (in 2017 and 2019) at the same rehabilitation institution, she has been married and divorced twice, with three children, but they are cared for by ex-husband family.

*"after using it, I become lazy and just wants to sleep"*

*"become thin, my weight is 45 (kg) from 50-55 (kg) "(within 1 (one) year).*

**Respondent 31007, F** - After using narcotics, she got unnatural and no quality in life. There were many complaints physically, insomnia, and hard to eat. Schools dropped out because they often skipped classes, were not trusted by extended families, the main family was broken, children stayed away, there were are more fellow users who became my friends.

*"... After using drugs, the quality of life is ruined and very messy, morals are not maintained, up to me, do not care about other people, do not care about who you are, who I am. Physical health feels bad, insomnia, difficulty in eating, and unwell."*

**Respondent 51005, F, 24 years** – She finally returned to prostitution because of living with drugs. Many of the negative changes she felt after using drugs, including changes in physical, mental, and social. She also admitted having 14 husbands (unregistered married ) in her black world. Until the time of the interview, her family did not know whereabouts her since she went to prison.

Physical disorders felt by informants after using drugs (methamphetamine): the body becomes thin, vomiting blood. The body feels weak when not using meth. In contrast, worked diligently, when she used meth. Mental disorders felt by informants: hallucinations, easy to forget, more sensitive (irritable), paranoid.

### **According to The Doctor 32011, F, 32 years**

*".....Clients usually do not want to eat more and are getting insomnia. They feel full of confidence, do the maximum activity, they were not sleepy instead of staying awake, as long as three days, sometimes they do not eat well, in contrast, their activities are full... "*

*"... If the methamphetamine causes coughs anyway ..., it similar to cannabis, and also cigarettes ... it causes respiratory problems, while if they got hepatitis, it might be infected as HIV. Crystal meth is usually used for sex, increasing sex passion, free sex can be a risk of transmission due to viruses ... "*

*".... marijuana and crystal meth causes have many similar symptoms, yes psychotic symptoms, psychotic is hallucinations, delusions ..."*

### **According to The Doctor 52001, M, 34 years**

*"The common effects of methamphetamine are infection problems in the upper respiratory system. Hence, clients who are still detoxifying, sometimes there are complaints of coughing, breathlessness, maybe there was a history of aggravating, for example, clients have asthma, used methamphetamine and also stimulant continually so that it aggravated them. If they do not have a history of withdrawal, sometimes chest tightness, palpitations, sometimes dizziness in vary... their complaint is usually headaches, which is intermittent ... "*

*"... The effect of (using gorilla) is like being overcrowded by a burden, it's hard to do everything, such as getting oppression, but its withdrawal isn't heavier than meth withdrawal,"*

*"... The glue is usually used by underage, and their economic level is middle. Beginners....they tend to do hallucinations sometimes also breathless, the mental disorders from methamphetamine is mostly hallucinations.... hallucinations of vision and hearing, some delusions cannot be broken .. "*

## Especially for Female

*"...The physical disorders of men and women are more or less the same, but it's just because of women's menstruating, so it starts to be disturbed, then there is a physiological problem. Sometimes there are not getting menstruation for 1-3 months. Whereas, normally there is no problem, no complaints..." (Doctor 42017, M-38 Years)*

*"...A woman ....has unstable emotions, so there is a difference with a man who is still possible to do this. Again, if it's a woman, her mood swing is very easy to change, especially if a visit time, then she will miss her child, she wants to go home, asks to go home... asks for going and returning home..." (Doctor 52020, M-34 Years).*

### 4.3. Relationship With Mental and Social Health

The relationship between the respondents and their family, relatives, and other people around them are an important part of their social welfare. If we refer to Table 14 below, the use or abuse of substances is one of the factors considered by respondents having the following effects:

**Table 14: Mental-Emotional Conditions (n=602)**

Variable (%)	Cumulative	Min 1 x	Some-times	Often Enough	Often	Very Often
Fear, worry, panic	86.4	11.6	26.6	20.1	14.3	13.8
Excommunicated, paranoid	80.0	10.5	19.8	19.3	16.3	14.1
Depression, hopeless	58.0	14.0	17.8	10.8	9.1	6.3
Wanted to commit suicide	22.3	13.0	4.2	3.3	1.3	0.5
Cut off with family	24.7	10.0	7.3	2.2	2.5	2.7
Violence experiencing	46.5	13.5	14.6	8.1	6.6	3.7
Getting violence from other people	41.7	15.4	12.5	8.6	2.8	2.3
Memory disorder	77.1	11.0	19.9	20.3	16.4	9.5
Hallucinations of the five senses	56.3	12.8	15.8	7.3	6.8	4.7
Self-loathing	56.3	14.6	20.4	9.5	7.8	4.8
Hate those closest to you	55.7	16.9	14.5	7.1	4.8	2.3
Feeling labeled negative by close relatives	72.3	14.8	20.3	14.3	13.5	10.5

Table 14 above shows that more than 50% of respondents experienced a variety of mental and emotional problems and negative emotional relationships with their closest people. Even, there were 2 out of 10 users (22.3%) ever wanted to end their own lives.

Another important question considered is regarding the emotional-mental health of the respondents itself based on abused substances. Table 15 below explains the effects of the abuse of substance on various mental, relational, and emotional aspects of respondents.

**Table 15: Relations between Primary Substances Used and Emotional Mental Problems**

Emotional Problems	Primary Substances Used					
	Crystal Meth	Marijuana	Ecstasy/MDMA	Dextro	Tramadol	NPS Synthetic
<b>N sample</b>	<b>561</b>	<b>412</b>	<b>320</b>	<b>107</b>	<b>104</b>	<b>101</b>
Dear, worry, panic	86,8%	88,1%	86,6%	90,7%	86,5%	88,1%
Excommunicated, paranoid	80,9%	83,3%	80,6%	85%	79,8%	81,2%
Memory disorder	77,5%	83,5%	79,1%	86,9%	71,2%	84,2%
Negatively labeled by relatives and friends	74,5%	79,4%	79,1%	81,3%	73,1%	76,2%
Depression, hopeless	59,4%	64,1%	67,2%	68,2%	62,5%	66,3%
Self-loathing	58,6%	61,7%	61,3%	63,6%	51%	56,4%
Getting violence from other people	47,8%	50,2%	48,1%	60,7%	41,3%	46,5%
Hallucinations of the five senses	47,1%	50%	50%	62,6%	58,7%	62,4%
Hate parents and siblings	46,7%	48,3%	49,1%	46,7%	42,3%	43,6%
Violence experiencing from others	42,6%	46,4%	47,8%	52,3%	47,1%	49,5%
Wanted to commit suicide	23,2%	23,8%	26,3%	33,6%	32,7%	29,7%
Cut off with family	25%	26,2%	25,6%	32,7%	27,9%	14,9%

In general, there are almost no different effects between the main substances used and emotional disorders. Dextrometorphan (Dextro) users, it is cough suppressants having relatively high rates of almost all disorders, even the highest in suicidal ideation. Likewise, Tramadol users, that is pain killers as opiate derivative. Pharmacologists are needed to explain these results. It should also be underlined, that respondents are polydrug users, so the relationship between substance abuse with mental-emotional and social symptoms as above is still proxy and associative rather than causative.

Interviewing informants of research respondents, parents, doctors, and psychologists show the use of narcotics abuse on mental health is a real and serious problem. For women, the impact is more complicated because of the greater disgrace and stigma.

## QUALITATIVE FINDINGS

### **Mental / Psychological Impact**

*"... the definite impact of mental disorders depends on the duration and intensity of abuse, how often he uses it, the dose, and whether there is genetic susceptibility or no, so that it means he has genetically a talent to experience mental disorders, it may be descendants of his family who have mental disorder...so well, he used the drugs to trigger it, so it appeared, whereas, if he didn't use drugs, it did not appear "***(42017, Doctor M-38 Years)**

*".. some people ,who counseled me, tell about an example... ma'am.. such as when they used it, they were always haunted by the scared feeling of arrested. So... when they used it in a room, if there was someone who suddenly opened the door, sometimes it appeared in their minds, it seems to be the police who came in...feeling scared to be arrested). It happened to my some clients.*  
**(52002, Conselor, M-27 Years)**

*"... If you commit suicide, there is a mental disorder, it most often like depression to suicide."***(42017, Doctor M, 38 Years)**

*"... now there are precisely a lot of psychiatric problems ... the average abuse is also a lot of synthetic, ultimately it more influences their behavior and psychiatric. In the past, because of the misuse of heroin/putaw, it was a physical impact ... "* (41015, Nurse, F, 30 Years)

### **Canabis and Synthetic Canabis User Experience**

*"... What I felt when I used it to my body, I was being thin and then forgetful, having a sensitive feeling to other people, then they felt a shadow of people who were talking about me"* (510015, F, 24 Years)

*".. This gorilla makes me hallucinate, but in fact, I am forced to think even though it looks like runny so..."* (41005, M)

*".. marijuana and crystal meth are many similar symptoms, psychotic symptoms, psychotic hallucinations, delusions"* (Doctor 42017, M-38 Years).

### **Dextro user experience::**

*".. in Mangkutana (Luwu), for the price of 75 thousand two seeds, the effect is calm love..but also makes it paranoid ... "Feelings are on the body, just like illusions ..."* (61002, F-18 Years)

*... I feel like I want to keep on using it, bro, for example, when I don't use, I continue to see the family so sad, bro, when I use it I am happy, cool, I don't think, then when the dosage goes down it becomes sad again, bro, oh why am I like this, I see. The problem is that I have been thinking about my family, I finally drank mosquito repellent and seven glasses of rat poison in my room to kill myself, but I don't know, when I was in middle school in 3rd grade, the effect was just nausea, nausea, vomiting, bro,"* (41002, F).

### **Glue and Methamphetamine**

**Doctor, 52001, M 34 Years**

*... Glue is usually a minor, their usual economy. Beginners ... they*

*tend to be sometimes hallucinated too tight. If the mental disorder, from crystal meth is mostly hallucinations, hallucinations of vision and hearing, some insights can not be broken. "*

### **Stigma in Women**

*..the population of women is not willing to rehab. Finally, they told me that outside it is not easy sis for us to ventured into rehabilitation because we have been labeled as women, not to mention labeled women who use, not to mention labeling women who wear and rehabilitate. Stigma is double, so care may be more to how to restore their functions as women " (52004, Psychologist, F-33 Years)*

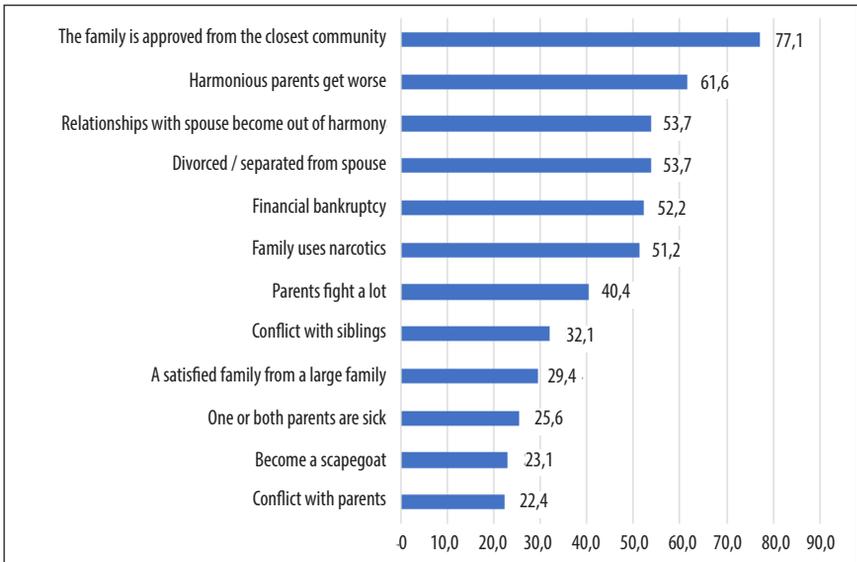
*'... because women are usually more strict, even though there are many cases ... because here they are ashamed, when they are rehabilitated, families are also ashamed, men are normal ... so women usually take care" (32011, F)*

*'... Challenges to women, the stat of women facilitates female clients, because they have to facilitate in terms of their emotions too. The problem of addiction is then added to the emotional condition that is more sensitive than men, not to mention the problem they are stigmatized because they are women ... " (52004, Psychologist, F-33 Years)*

*'..If a woman is emotionally unstable, so there she is different, if a man can, this is it, but if it's a woman, her mood swing is very easy to change, especially if you've already visited, I will miss you, if you want to go home, you want to go home, you want to go home " (52020-Doctor 2, M-34 Years)*

Specifically, this research also wants to understand the impact of narcotics abuse on the relational quality of the respondent's family. As explained earlier in the theoretical part of this research, what is meant by being healthy is physically, mentally, socially, and spiritually healthy. The family is a crucial part of the healthy ecology of each respondent. Healthy relationships with family members have meaning and a significant impact on the welfare of the respondent's life. Likewise, the harmony of spouses relationship. Figure 06 give information as follow :

**Figure 06: Impacts on Family Relationship (n=602)**



According to Figure 06, there are some serious effects of narcotics abuse. They felt their families were isolated from the closest community, there were no harmonious relationships with parents, and relationships with spouses become disturbed. Respondents also believed that the use of narcotics had caused disharmony between families, both with parents and siblings. The reader needs to be careful in interpreting this data because the data is not presented in the form of cause and effect. Does family disharmony become a result or cause of drug abuse. Respondents felt that their status as narcotics abusers had an association with family conditions and other social relationships.

In the following Table 16, a test is carried out to find is there an association between the duration of respondents misused various types of Narcotics and the quality of family, partner and close relative relations. In general, there is a linear relationship between the conditions of relations with family and close relatives. Even so, the effects of the substance are not seen. It means, in all substance abuse, there is a tendency the longer of respondent uses a substance, the greater proportion that recognized the problem.

**Table 16 : Duration of Five Main Substances Abuse According to Social Health (n = 602)**

Family Relationship/ Time Used Sub- stances (years)	Marijuana			Tramadol			Crystal Meth			Dextro			Ecstasy		
	N= 412			N=104			N=561			N=107			N=320		
	< 2 years	2-5	5												
N sampel															
Parents fight a lot	41.9	56.3	53.8	38.4	47.4	50.0	36.4	46.5	49.4	54.3	70.6	37.5	44.4	43.2	41.7
Conflict with parents	19.5	28.1	13.6	27.4	10.5	30.0	28.0	24.1	18.0	16.0	17.6	12.5	20.5	16.2	23.6
Parents who are already out of harmony, it is getting worse	31.6	32.8	30.3	23.3	31.6	10.0	25.8	32.4	30.6	30.9	47.1	25.0	23.4	35.1	40.3
Conflict with siblings	65.6	64.1	69.7	64.4	63.2	60.0	52.3	66.5	69.4	69.1	76.5	75.0	63.2	75.7	73.6
You become a scapegoat for all problems in the family	60.9	48.4	58.3	38.4	42.1	50.0	43.9	61.8	58.4	58.0	76.5	62.5	49.7	67.6	58.3
One or both of your parents is sick	56.7	50.0	53.8	52.1	47.4	50.0	50.0	57.6	52.9	61.7	70.6	75.0	55.0	52.7	52.8
Family financial bankruptcy	40.0	39.1	45.5	37.0	42.1	50.0	28.0	44.7	46.7	54.3	35.3	50.0	39.2	52.7	44.4
The family is approved from the closest community	74.9	71.9	70.5	75.3	78.9	50.0	80.3	74.7	68.6	72.8	82.4	50.0	75.4	68.9	72.2
Harmonious parents get worse	24.7	25.0	25.0	17.8	26.3	40.0	18.2	24.1	26.7	22.2	29.4	25.0	22.2	28.4	22.2
Relationships with spouse become out of harmony	54.4	57.8	70.5	38.4	31.6	70.0	37.9	54.7	67.5	55.6	58.8	62.5	57.3	59.5	70.8
Divorced / separated from spouse	32.6	37.5	41.7	20.5	36.8	60.0	25.0	28.2	40.8	33.3	17.6	25.0	41.5	31.1	44.4
Children/other fam- ily members used narcotics because of influenced by others	20.5	31.3	28.0	21.9	21.1	10.0	12.1	27.6	24.7	29.6	41.2	37.5	21.1	18.9	31.9

To illustrate it, consider the results of the qualitative interviews below. Informants of this interview consist of respondents, parents, and professionals who showed various examples of disruption of social relations. From the research respondents, there are several expressions indicated that social relations with their family and relatives are bad before they abused Narcotics.

## QUALITATIVE FINDINGS

**Recognition of Information 31007 (F)** - a housewife who is also a narcotics user, tells how complex the relationship with the closest people, as an anal, wife, and mother who has children

*Relationships with families are not good, families don't trust us, in daily terms, they are stigmatized, want to ask for suspicious venture capital. Relationships with families are destroyed. Children also don't trust their mothers. Children don't want to talk the same as his mother. In May of 2017, I entered rehabilitation and ended in September. Enter again in March of 2018 ended in July. Enter again in August 2019 until now. Children are disappointed, and they choose to stay with their grandparents. My father-in-law also asked my husband and me to divorce, because if I join, use it again. Clients don't work, and husbands work part-time for car seats. The average number of users, including the nieces, is all used. Friends who don't use are just a little, but they aren't close. If you use it, it will be messier, talk carelessly. Friends who do not use goes away. There is no respected figure other than her husband and parents, it is also a mess, let alone the husband also uses it so even though I respect it is still distrustful and very messy. I live independently with my husband near the in-law's house, but after 2016 relapses, many quarrels, finally, I separated the house and returned to the parents' house. The initial repair is after sister brother in law put me in rehab. The environment around the house when still in use, do not want to accept, they know but do not care. It can be concluded that the quality of life after using drugs is destroyed and not qualified ... "*

**Informant (31002, M-32 Years)**

*In the beginning, my family didn't know yet, bro. Before getting*

*caught using drugs is harmonious, close, trusted, and continues to be good- OK, but since I found out I'm not close anymore, have rather tenuous, often lectured, told not to change like so again. When with friends, friends don't stay away but often given advice, practically stopped until when you want to use, the body is gone, but not kept away. "*

### **Recognition of parents, children become a disgrace in the family**

*"... I'm actually very embarrassed by my son's behavior, I had wanted to run away from Makassar, feeling my problem is the biggest and most severe. I had thought to "Ruqyah" my child, but there is advice from family that have contact with Provincial Narcotics Board to take the child to Provincial Narcotics Board directly ... "(63020, F - 58 Years)*

### **Some informants already have communication barriers with their parents:**

*"... I don't feel close to my parents ... not comfortable like that. Sometimes we talk, but not too much..."(61002, F- 18 Years)*

*"If there are no important things, lazy to communicate with family ... and social ... if there is a new event join, but if for a comfortable chat, it's good to join with our own community .. 'Because we addicts feel different from another. Finally carried away bring feelings ... (620011, F- 35 Years)*

*"In the beginning ... we became a very protective father, father the good was off the mark, didn't want to sexual relationship with wife, don't want to be the same anymore wants to find another deterrent, from there we gamble again, gameling is the most do, so if it's longer, it wants it gambling gambling gambling and gambling if gambling wins into girls running like that "(41004, M, 37 Years)*

*"At the age of (8 years old) he talks like this" he became a righteous person please, sorry mom waiting here crying every day "he said just like that .... indirectly my child is growing up with not his age .. I'm afraid there is, yes the impact of all of that is the impact of my behavior as his father does give him a good education"(41004- M, 45 years)*

*The purpose of my life is falling apart ... I want to live happily with my child.. So I always said, "don't be far from mother, son ... if there are you moms will be excited. When we eat together, mom is very happy. ... if there are grandchildren ... happy to have entertainment ... "(61004- F, 40 years)*

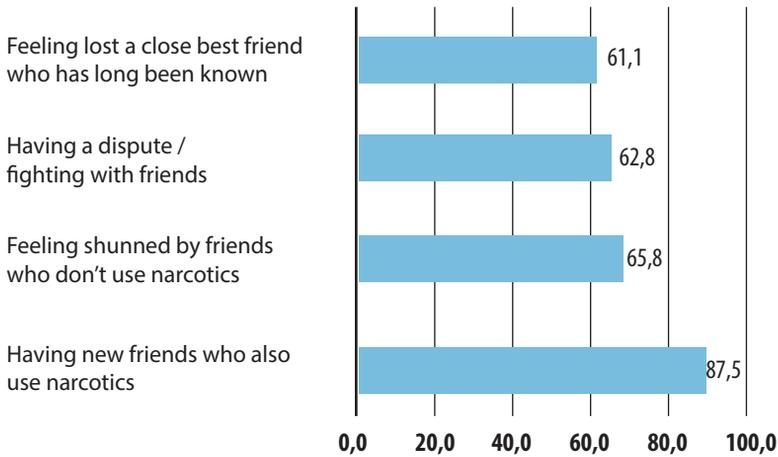
Drug abuse affects the life of the closest people to drug users. Family to be anxious when bringing clients to visit and withdraw from an extended family environment due to childlike behavior stealing not only at home but also at relatives' homes. This thing causes parents to visit their families rarely. There is a wife who ultimately often gets rough treatment, both verbal and physical from a partner who is dependent on drugs. The following is an acknowledgment from the informant regarding the impact of drug abuse by a cousin or close relatives:

*"In that case, the first change he had earlier understood the situation, even he used to be able to advise people or advised me so. Because even the age is different six years, but increasingly active, he was reacting like a child that is, whenever there is a problem he immediately gets emotional, then he starts feeling that way verbally and physically."(13019, F).*

#### **4.4. Impact of Narcotics Use on Friendship, School, and Workplace**

School is the second meaningful environment for every child and teenager. Likewise, the workplace is an important place for working adults. Therefore, a disruption in relations in this environment will affect the respondents' quality of life.

**Figure 07: Impacts on Family Friendship (n= 602)**



Most respondents acknowledged that drugs abuse harmed their friendship, especially with non-drugs users. Most of them also admit that they also make new friends who use the drug when using drugs.

**Table 17: Impacts of Drugs on School (n = 602)**

Variable (%)	Cumulative	Min 1 x	Some-times	Quite often	Often	Very often
Like to skip class / be lazy	56.0	3.5	7.5	14.1	17.1	13.8
Interfere with closest friend relationships	39.9	8.6	11.5	7.5	9.1	3.2
Interfere with relationships with teachers / lecturers	33.6	7.0	9.5	7.3	5.5	4.3
Academic achievement	53.2	6.5	9.0	11.8	16.4	9.5
Dropped out school	22.1	9.8	2.8	2.8	2.5	4.2

Although not all respondents acknowledged the adverse effects of drug use on academic achievement or their relationships with friends and teachers, at least half of the respondents reported negative experiences. Two out of ten respondents have ever been dropped out of school.

## 4.5. Impact on the Neighborhood and State Apparatus

The neighborhood is a support source of social, emotional, and cultural for respondents. Table 18 illustrates drug use impacts the relationship between an individual and his/her family in the environment.

### a) Relationship with the neighborhood

**Table 18: Impacts of Drugs on the Neighborhood (n = 602)**

Variable(%)	Cumulative	Min 1 x	Sometimes	Quite often	Often	Very often
Do not participate in activities	74.6	10.0	15.9	12.0	14.8	21.9
Negative prejudice	73.6	11.5	19.8	15.4	16.8	10.1
Suspected by people around	72.1	10.5	20.6	15.8	14.1	11.1
Not valued/involved	45.0	8.5	10.3	9.8	7.0	9.5
Enemies with the community	23.4	5.3	8.5	4.3	3.0	2.5
Reported by security	22.1	8.3	3.3	1.3	2.7	2.2

Likewise, drugs use impact on relations in the community. Most respondents said they had experienced various negative and questionable experiences, especially suspected and became the negative subject of conversation in the community, although all respondents did not acknowledge it.

### b) Conflict with law enforcement

Law enforcement officials are an integral part of the order and security of a community. If many individuals have problems with law enforcement apparatus, so the community certainly is having social problems. As citizens, everyone must participate in maintaining order and a sense of security in their environment. It is important to know how to secure respondents with legal officers because the misuse of substances classified as Narcotics is against the law and criminalized. Table 19 illustrates the duration of Narcotics abuse and the quality of the relationship between respondents and their environment.

**Table 19: Relations between Narcotics-Consuming Time related to Conflict Experience with Law Officers**

DURATION/ CONFLICT EXPERIENCE WITH LAW			Arrested by the officer	Detained officer	Processed case in court	Imprisoned
Duration	<2 Years	Frequency (N)	17	12	0	0
		Percentage	6.4%	5.8%	0.0%	0.0%
	2 - 5 Years	Frequency (N)	62	46	11	15
		Percentage	23.3%	22.3%	22.0%	22.1%
	>5 Years	Frequency (N)	187	148	39	53
		Percentage	70.3%	71.8%	78.0%	77.9%
Total			266 (100%)	206 (100%)	50 (100%)	68 (100%)

The table above illustrates that the duration of drugs uses, the greater tendency to deal with the law. Addicts with drug use over five years have experienced to be arrested by officers (70.3%), detained officers (71.8%), processed cases in court (78%), and incarcerated (77.9%). It shows the more experienced addicts in consuming drugs, the more likely they are dealing with the law because those who initially only become drug users can develop to be couriers, dealers, and even drug dealers to be able to meet their needs in consuming drugs.

## QUALITATIVE FINDINGS

### Friendship

The negative impact related to the friendship above directly or indirectly opened a new communication used by drug users. Losing, fighting, and alienating of old friends who were previously known by the user, the user opens a new communication with users who has similar activity with drug use. Closed communication tends to make users are more comfortable discussing with individuals who are equally consuming narcotics. One of the example:

*"If you meet a friend who used to be a schoolmate ... I like to hide, I don't want to meet them, but those who are instead looking around ... and say ...brother, never mind ... we're already like brothers. I want to see you smile like you used to."* (61004, F-40 Years).

People often stigmatize the perpetrators of social deviations, not least to narcotics users. Like the first time an individual is known to use drugs, people usually assume they are people who make a big mistake and dirty. This condition was experienced by one of the informants who gave information that:

*"It's already dirty bro ... labeled as s user, shunned by people ... We don't even use it, but people say he is a user ..."* (11008, M).

### **School**

The use of narcotics exacerbates relationships in schools or college - because the attention is not on academic achievement:

*"... The school doesn't know he uses it, but as there is a problem, he likes to fight ... hit my class's sister ... then he was given a warning letter even though he will do the exam ... often given warning letter previously because he likes to crash, hit my class's sister ..."* (61002)

*"... school, was dropped out, because of the crime of snatching bro. The money is used for narcotics use and jackpot gambling. It is more used for narcotics use especially crystal meth.."* (11004, M).

*"It's just a fad ... so believe it yourself ... feels good, .. he has repeatedly entered the counseling guidance room. I have read later..then .. given out apparently ... "* (61002)

*"when I was in grade 1st Islamic Junior High School, I can still be top 10 as using narcotics, then after the second year begins to decline ... I rarely go to schools, often play drugs. No more concentration, sitting in the back of the class."* (11011, M).

*"... There is no problem, the school is fine, just often runs away, often skips school, there are almost four times a month. Then there is money for paying a book but not paid instead used for buying drugs. At the age of 17 years, I have used methamphetamine drug. After consuming methamphetamine continually then finally the drug stopped and rarely drank alcohol ... had a chance to study Law, but it only lasted for one semester, because there were two users as friends, so all friends do not ask me not to go to university, then finally skipping it ... "* ( 41002, F).

### **Profession**

Many informants have decreased performance in their work, as stated as follows:

*"... the work is disturbed, sis ... if we don't consume it, most of us don't work, just sleep ... when we consume it, we can work ... income runs out there.."* (31003, M - 46 Years)

*"... If there are more vacancies ... but I am sick ... so if my body is not strong, it's better if I stop ... if people expect us, but can't work ... it's better to stop ..."* (61004, F-40 Years).

Even when the informant worked as a Sex Worker - this was her confession:

*".... I, yes, he is very proud of me because I was not yet using it before, working diligently means that I never make problems while I was using it, so I became lazy at work, I just wanted to courtship continuously with a man who had no money, ... who only used it .... His germ, until I was kicked out ... I am usually a polite person, as long as I use it, there are no manners. In fact, I continue to fight against my bosses, denying it continuously"* (51005, F- 24 Years).

### Conflict with law

This condition eventually led narcotics users or former users to the tendency of committing criminal acts to get money. It was stated by one of the informants that:

*“If there is no more money then stolen it... I once stole in 2 mosques. Infaq money ,, and then go tococonut trees people. I climbed the tree, then I took it and sold it .. “(11020, M).*

## 4.6. The Current Reason for Entering Rehabilitation

Because respondents were recruited from the rehabilitation center, we explore information about their reasons for participating in rehabilitation.

**Figure 08: Reasons for Being in Rehabilitation (n=602)**

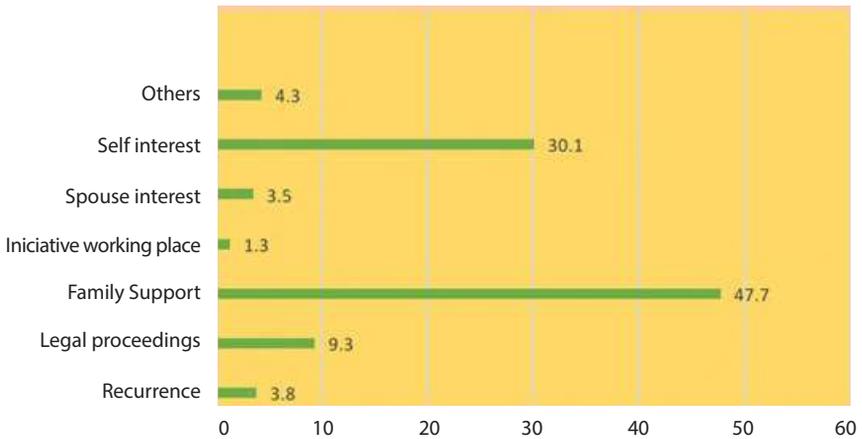


Figure 08 provides information that respondents who are currently still in rehabilitation are due to personal, family, or partner encouragement. It's just 13% of respondents said that they were rehabilitated this time due to recurrence or legal process. Initiatives from the workplace were not put forward.

## 4.7. Support Source for Recovery

**Table 20: Supporting Factors in Recovery Efforts**

No	Variable (%)	Cumulative	Category Level (%)				
			Min 1 x	Seldom	Quite Of-ten	Often	Very of-ten
1	<b>Family</b>						
	Parents suddenly unite and support	44,5	4,5	7,6	10,8	10,6	10,0
	Parents are angry but support recovery	86,2	3,0	6,6	13,3	23,3	40,0
	Brother and sister are supportive	86,3	2,5	3,0	9,6	23,1	48,5
	Spouse is faithful and supportive	53,3	2,0	3,7	5,8	11,3	30,6
2	<b>Working Place/School</b>						
	Coworkers support	53,7	6,0	10,0	12,1	12,0	13,6
	Management support	26,9	3,7	5,3	7,6	7,6	12,6
	Teacher/Lecturer support	15,6	3,0	2,7	2,5	4,2	3,3

From these data, it is shown that is about 86% of respondents received family support from parents and siblings (brother / sister). Here, the spouse also showed high concern at 53.3%. Besides getting support from family, many of them also received support from co-workers (53.7%). In table 20, co-workers also showed high concern for the recovery of the respondent, this is because they care about the lives of individual respondents, the future of their family life, and do not want the workplace to be affected by using drugs habit. It is not only concern to family, coworkers, but also the school environment but also provides support (26%), although the percentage is not too high, this can be due to the use of drugs in the school is still covered up because of the consequences caused by it is expelled from school.

The following interview with the respondents told about a child who receives various supports from parents and close relatives.

## QUALITATIVE FINDINGS

### Family and closest people

Support from the closest people of respondent is needed when participating in the rehabilitation program. Their presence is needed to motivate him/her so he/she rises again from his/her adversity and increase self-confidence. As stated by the informant in his interview with the researcher.

*"... I feel my family very support me. I started calling both parents, calling another family yesterday, . It' was very supportive, bro ... so I' was touched, I' also cried bro. Yes, it was natural that I cried too, I sinned a lot, I lied a lot too, to both parents, my family. When I joined to this rehabilitation, my family often used to get angry because I rarely came home .. came home late at night, in the morning....got angry. I felt that ahh... i was excluded from my family ... actually i wasn't..... bro. My family really loves me, bro" (41008, M)*

*"...I'm very happy ... to see my mother, brother and sister... happy we could talk together.." (31001, M -19 Years)*

*"... A great support from the family was given to respondents. Sister also gives mmotivation so that respondent wants to rise up again wants to get up again, my parents who supported me to be rehabilitated up to 3 times so that I could recover soon, frequently visited respondent despite the distance from home to rehabilitation centre up to 4 hours in drive... after rehabilitation, my future plans are backing to work as a counselor again or opening a business .....are always supported by parents.." (31002, M)*

Even the neighbours around respondent's house also gave support and advice when clients were taken to the rehabilitation, the respondent's home, by giving advice when the client will be taken to a rehabilitation institution.

*"... neighbour... they were supported me especially the neighbours who lived next door...they said i had to listen to my mom, she*

*already tired, i need to be rehabilitated... also the neighbourhood chief said that.. ...” (11004, M)*

The addicts really need family in recovery process, but not all clients get the support. As stated by one rehabilitation officer ::

*“... Sometime family support came in different ways, there was family which is very supportive and gave the client good attention, on the other hand there was a clients who seem to be dumped by their families*

*and also we found a family which is careless to the clients when they needed to go the the doctor or health center. we already gave them a refferece to be able to see the doctor but they didn't take care of it.....” (52020, M)*

Among those who visited their family who were being rehabilitated, there were also friends of clients visited. however it was restricted, because they could be friends who may gave a negative impact to the clients (PIC). As stated by the following rehabilitation officers:

*“... i'm affraid that they were not just an ordinary friends of client, but also their PIC friends., it's dangerous. He has asked to use it. ....most of friends are rarely give them support than families ...” (52020, M)*

### **Self motivation**

It is not only support obtained from those closest person, but also it much needed motivation from the client itself. No matter how much encouragement was given by the family and closest person, it will not be able to recover the addiction without any motivation from the client itself. But it is very difficult for addicts to get it because the effects of addiction caused by drugs is very large, as well as the influence of negative friends who will always overshadow the addicts to go back to use narcotics.

However, not a few of respondents stated they joined the

rehabilitation center by their own will. This as stated previously, it also shown from the result of in-depth interviews between researchers and the rehabilitation clients, which is as follows :

*"... I have a father, sir, ... my father is also a drug dealer too ... then my father was arrested. Well my "mother" ... I am thinking about her ... she is my motivation to change ... and make my mam happy, sir. That's why I joined this rehab. If it just changes like that ... I can't..." (11007, M -17 Years)*

*"... I might feel tired, spend quite a lot of money, I think the money I spent could be used to build a house, have a family ... that's what I think..." (51017, M - 20 Years)*

*"... i had my goal here so that when i return to Nunukan, i can help others ..." (51013, M - 32 Years)*

**From the interview's transcripts above, information can be obtained that they want to get recovered by their own willingness in order to make their parents happy, and for their future, also they want to be useful for others, etc.**

## 4.8. Quality of Life

### 4.8.1 EQ 5D-5L results of narcotics users compared to EQ 5D-5L data in general population of The Indonesian EQ-5D-5L (2017) <sup>15</sup>

The well-being condition is seen from several dimensions, namely mobility, self-care, ordinary activities, pain/discomfort, and anxiety/depression. Each dimension is assessed according to the level of problems that arise from no problems to extreme problems.

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<sup>15</sup> Data Self-reported health using the EQ-5D-5L descriptive system and the EQ VAS. Sumber Purba et al, The Indonesian EQ-5D-5L Value Set. July 2017.

Respondent's self-assessment of Narcotics-use who have had or are undergoing rehabilitation compared to general population respondents (Table 21), there are an increase of respondents who experienced problems in self-care dimension of narcotics users by 2.3%, while ordinary activities dimension is 7.28%, then anxiety / depression dimension 8.15%.

**Table 21: Domain-based Welfare Score (n = 602)**

Problems Level	Descriptive System of EQ-5D-5L by score (%)									
	Mobility		Self treatment		Common activity		pain		Anxiety/depression	
DATA SOURCE	Reference	Re-search	Reference	Re-search	Reference	Re-search	Reference	Re-search	Reference	Re-search
Having Problems	7.96	7.1	1.89	4.20	10.82	18.1	39.66	36.0	34.25	42.4
Light	6.74	6.1	1.71	3.00	9.68	14.1	36.53	24.40	28.18	30.4
Moderate	1.04	0.8	0.09	0.50	1.14	3.30	2.56	8.80	5.50	8.10
Heavy	0.19	0.2	0.09	0.70	0.00	0.50	0.57	1.50	0.38	2.70
Extreme	0.00	0.00	0.00	0.00	0.00	0.20	0.00	1.30	0.19	1.20

From the information in Table 21 above, research respondents have worse scores, especially when examined the severity, namely in the severe and extreme categories.

**Table 22: Level of Problems experienced by Narcotic Consumers from 5D-5L Results Based on Age**

Dimension 5D 5 L	Age Group (Years)			
	< 20	20 - 29	30 - 39	40+
Walking ability	8%	2%	10%	0%
Self care	4%	5%	5%	0%
Daily activities	19%	15%	15%	50%
Comfort / pain	38%	30%	40%	0%
Anxiety / depression	45%	36%	45%	50%
Total	100%	100%	100%	100%

Based on the age characteristics, the comfort and anxiety problems tend to be owned by more than 35% of narcotics users from various age.

#### 4.8.2 Personal Health Assessment Score (EQ-VAS)

The score of self-health assessment in general and narcotics users population who participated in the rehabilitation showed the higher evaluation in the narcotics users of the rehabilitation participants.

Narcotics users of rehabilitation participants generally rated their health to be an average of 85. This is a self-expression of how rehabilitation users feel the quality of their health is now better than before by taking part in rehabilitation and being under the influence of narcotics abuse.

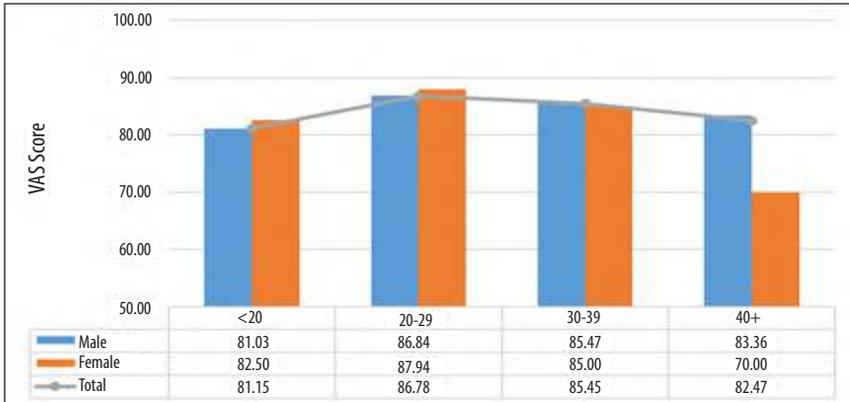
**Table 23: Comparison between EQ-VAS scores in the General Population and Narcotic Consumers Participating in Rehabilitation**

EQ-VAS Value	Reference Data	Research Data
Mean	79,38	85,07
Standar deviasi	14,01	13,705
25th Percentil	70	80,00
Median	80	90,00
75th Percentil	90	95,00
Total	100%	100%

#### 4.8.3. Comparison of Welfare Score Between Gender and Age Groups

Figure 09 below shows the average of EQ VAS score between men and women has the similar type of tendency, where in the age group 20-29 years have the highest self-quality assessment score compared to other age. It means that, the older respondent, the more decreased of condition .

**Figure 09: The EQ-VAS Average Score of Respondents as Drugs Consumers based on Gender and Age Group**



The decline in health and well-being conditions in line with increasing age is no different from the general population. The decrease in the group of women who were research respondents needs to be observed because it was lower than male. Related to the decline in the relationship between the burden of stigma and more serious illness, it can not be answered in this research because the less number of female respondents.

#### 4.9. Post Rehabilitation Support Needs

The important thing that need to be considered is that addicts need support when they have finished rehabilitation program so they can apart from narcotics use. Many of the temptations they will encounter when they go back to their environment, especially if they return to the community of negative friends. Although it was not asked in the questionnaire, it was asked in a qualitative interview.

Support from family and loved ones is needed to fortify them so they do not go back to use drugs. As stated by the following rehabilitation officers.

*“When there are abuser and the only one who got rehabilitated was the client, i could emphasized that what needs to be rehabilitated is all, even if necessary, the community environment must know that people with substance abuse must be helped, especially about Mbak Kris’s stigma which is still a problem, because the biggest stigma comes from the family.....” (52004 – F)*

The stigma that is always attached to the addicts will continue to overshadow them even when they are declared to recover after following a rehabilitation program. The existence of this stigma causes them to return to drugs abuse. This is as stated by the client when asked what his hopes when returning to the following community.

*“... Yes, it does not stigmatize even though I feel so hard to get through this to be able to change...” (51012 – M)*

*“The community environment must know that people with substance abuse must be assisted, especially related to stigma, because the biggest stigma comes from the family... besides that, the clients is stigmatizing themself ...” (52004-Psychologist F- 33 Years)*

But there were also respondents who stated that they would keep trying not to consume drugs even though they received stigma from the public. As stated by the following respondents:

*“... Thinking about it now. Surely people think put a negative thought on me huh. but certainly I have to do the best for the family. Let that stigma ... surely it is my own deed, it’s clear. People also don’t believe. Most people don’t know what I did in rehab. Maybe they think it’s like in prison. There are those who know and don’t know what it seems to be like. I Maybe stigma might still exist. Because I went home yesterday, to celebrate Eid, i just been there for two days ... Yes, so why should I go back to the village again, surely*

*people are suspicious again. I just think so. In this place we also learn to deal with the people there. Here we also learn how to do good things so that trust will come naturally, at least starting from the family first ... (51016 –F, 31 Years)*

In addition to the stigma that exists in the community, another problem faced by an addicts after being rehabilitated is when they returns to the environment that once introduced them to narcotics. An addicts who has completed the rehabilitation program must be able to protect themselves from the negative environmental influences so they don't return to using narcotics.

In addition, the most appropriate solution to overcome this problem is that former addicts do not return to to their previous environment, they should move to an environment that is safer from narcotics. They needs support from the family to be able to move from their previous environment.



V

# CONCLUSION

Rehabilitation Centre of National Narcotics Board  
Deli Serdang, North Sumatra





Nias Batik, North Sumatra



## CONCLUSION

1. Indonesia has a drugs problem which is characterized POLYDRUG USE by a young population, experimenting with various psychoactive substances, using it in a risky way, and tending to use it long term. Most of them use substances before they are 20 years old. They are candidates for a serious and expensive burden of disease in Indonesia.
2. Long-term drugs abuse, especially ATS, cannabis, heroin, hallucinogens, NPS and various over-the-counter psychoactive drugs have a serious impact on physical and mental-emotional health aspects. In addition, the negative impact of drugs abuse and other substances also affects well-being and quality of life aspects that involve social relations with family and close relatives, friends and work colleagues, as well as the neighborhood.
3. The effects of substance abuse in the spiritual life also needs to be considered carefully, because the abusers often feel isolated and do not get help in this realm.
4. Schools have an important role in prevention and post rehabilitation programs. This institution has a performance measure that can be used to guide observations when individuals begin to have problems with drugs. In addition this institution has a very crucial role for

individuals who want to return to the community after undergoing a rehabilitation program

5. Family, spouse and close relatives are important supporting of emotional factors and resources in recovery efforts. Interviews with clients show that they feel very grateful when families are still willing to pay attention and support their recovery. In the post rehabilitation stage, the role of the family not to exclude ex-addicts who return home is a crucial factor in preventing relapse.
6. Female respondents have specific needs. Further research is needed to understand their complexity and special needs, especially the factors that cause them tend to not reach professional rehabilitation services.
7. Self-assessment of drugs-use respondents who have or are undergoing rehabilitation compared to respondents in the general population has a higher level of problems in the dimensions of self-care ability, doing daily activities and anxiety /depression.
8. Drugs users participating in the rehabilitation assess their health quality so that an average score of 85 and a median value of 90 is obtained. This value is a self-expression to illustrate that drugs users who have or are currently rehabilitating their health quality are better than before undergoing rehabilitation and are under the influence drugs abuse.
9. There is a serious need to develop a post-rehabilitation support program. Especially when families cannot provide full support and the community still discriminates and tends to give a negative stigma. Facilities owned by National Narcotics Board to support post-rehabilitation needs to be sought to provide relevant services.



VI

# FUTURE IMPLICATION OF NARCOTICS POLICY



Rehabilitation Center of National Narcotics Board  
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Siger Batik, Lampung

## FUTURE IMPLICATION OF NARCOTICS POLICY

1. Indonesia has long faced on the adverse effects of drugs abuse. Global efforts with other countries have been carried out since the beginning of the new order and to this day the problem is still very serious. Therefore, various policy analysis need to be carried out. The health impact places a significant burden on the Draft State Budget, but a detailed study of health costs for narcotics abuse has not been conducted. It is time for the government, in this case the National Narcotics Board (BNN) to seek a variety of strategic research in connection with the economic costs of health, social, and other benefits and determine a more comprehensive response strategy.
2. In addition to the trend of substance abuse, it should be noted that National Narcotics Board survey since 2013 showed that the drugs abuse in Indonesia is characterized by young people and polydrug users. This fact is a challenge itself because polydrug users are vulnerable to the influence of substances while at the same time vulnerable to the effects of interactions between substances (Vanderplasschen, De Maeyer, Colpaert, Cogel, Rea, Dom, Sabbe & Broekaert, [http://www.belspo.be/belspo/organisation/publ/pub-ostc/Drug/rDR55\\_en.pdf](http://www.belspo.be/belspo/organisation/publ/pub-ostc/Drug/rDR55_en.pdf) ) which is very dangerous for the health and lives of its users. erefore, polydrug-users will be a very expensive health burden if not taken seriously.

3. One topic of discussion in public policy handling and narcotics countermeasures is sectoral authority. National Narcotics Board was established under the mandate of Law No. 35 of 2009 concerning Narcotics so that the authority is to supervise and control substances contained in the list of the Act. In addition to the categories listed above, especially the misuse of drugs that can be purchased freely or through prescription must be monitored and controlled by the health sector namely BPOM and the Ministry of Health. This sectoral debate can lead to an adverse decision if it does not look at the reality above, namely that users or those who abuse Narcotics also abuse other substances including over-the-counter drugs and substances that circulate in the community or so-called polydrug users. Sectoral oversight will require very difficult coordination which has not been going well so far. Therefore, it is necessary to conceive and create a special cross-sectoral criminal unit, which so far may already exist within the National Narcotics Board or Police institutions with expanded mandates or more flexible functions so that they can respond to various dynamic changes in the demand-supply chain and its market.
  
4. The next issue that needs to be discussed is substance abuse as part of a lifestyle. The theoretical approach uses a bio-psycho-social-spiritual model framework, providing opportunities to see substance abuse as part of a lifestyle that is aspirated by its users (Davies, Ellison, Ward, & Laudet, 2015; Rahman, Gupta, Suklecha, & Khunte, 2010 ). thus, finding out the reason for substance abuse becomes crucial because it will determine what lifestyle a user imagines and this relates to what substance is chosen and with whom the substance is used. National Narcotics Board in its epidemiological research in 2015 has warned of the increasing abuse of ATS, specifically crystal meth and ecstasy in addition to the abuse of cannabis which has always been the most selected substances. Misuse of heroin or putaw that is rife in previous years has decreased dramatically. The improved level of per capita economic income in line with the rise of entertainment centers and clubbing, which matches the stimulant characteristics such as ATS, a community that is more open and involves more people than culture that reflects a generation of confusion and frustration that underlies depressant abuse including heroin. However, authorities that oversee

substance abuse need to be aware that there is no sedentary lifestyle. The increase in opium production in the world (65% from 2016 to 2017) reported by The World Drug Report (UNODC, 2018) in the Afghanistan region signals that opiates will return again. Maybe in a new and cheaper form.

5. The role of the community, especially schools and workplaces, to work with families and National Narcotics Board, namely:
  - a. Early detected cases of drug abuse and narcotics. Observations at school and at work are far more likely to find problems in the behavior of individuals who abuse Narcotics. In addition, educational institutions need to create an atmosphere of teaching and learning that supports positive self-concept, a sense of courage and ability (self-efficacy), and the ability of students to choose positive alternative activities. These things are often the reasons for substance abuse because they want to be brave, unable, and sometimes want to be more creative. At home, individuals can isolate themselves in the room or outside the house so that other people's supervision become limited. Reports on early indications can help parents, the apparatus or the abusers to get or receive assistance. Early detection balanced with early intervention will help manage the client's risky behavior, especially preventing more substances from being used and in the long run. In addition, clients can also be helped not to use substances in an intoxication state. For this reason, it is necessary to develop supportive and educative school and workplace policies that reduce the fear of reporting and seeking professional help.
  - b. Preventive efforts must be done early and must be more aggressive and comprehensive because adolescence (10 years and over) is an age at risk for gateway drugs. Besides that, cigarette and alcohol monitoring is also very crucial. In this case we tend to underestimate existing data and facts because these two substances play a role in social functions that are accepted by society.
  - c. Support post-rehabilitation recovery and reintegration. Schools and workplaces are secondary environments that are urgently needed by survivors of rehabilitation. Many addicts are arrested and lose school opportunities because of carrying, experimenting, or recreational users. The opportunity to continue

school and work is the hope of most addicts who complete their rehabilitation program. Building a school culture and work culture that does not discriminate against former addicts and individuals who have been in conflict with the law will be an enabling environment for long-term sustainable recovery.

6. Indonesia has long invested in rehabilitation, especially when the Indonesian Supreme Court issued SEMA No. 3 of 2011 which prioritizes the treatment of narcotics abusers in the Rehabilitation Institution and encourages the issuance of Government Regulation No. 25 of 2011 concerning Implementation of Report Obligations. Various parties stated that this new policy did not work well due to the lack of capacity of the Reporting Obligatory Institution in providing professionals who manage medical treatment programs (doctors, psychiatrists) which sometimes have an impact on the availability of essential medicines, and who manage psychosocial programs (social workers, addiction counselors, psychologist, spiritual handler). This need was voiced both by respondents / research informants, and by professional workers in rehabilitation institutions who felt overwhelmed because they were few and did not receive serious professional support. In addition, it should also be noted that qualitative data shows that clients and their families have difficulty accessing rehabilitation services because they are only in certain regions/cities. Strategic and community-based expansion is needed so that in terms of financing does not burden the client and his family.
7. In connection with the above problem, mental health problems have not been given much attention such as depression, paranoia, anxiety, etc. this is due to lack of professional resources, so there is a tendency to respond to these symptoms when they are disturbing. Increasing staff capacity through task and skill shifting programs in dealing with psychosocial and mental health issues will greatly assist client recovery without serious dependence on medical and psychological professionals.
8. Judging from the needs based on gender, qualitative data shows that the needs of female respondents are more complex than men's.

One reason is the problem of dependence on couples, families both nuclear families and extended families, on their own children when they have offspring and double stigma they experience. Reaching out and helping families and clients to have the courage to have information about available services is an important program in every rehabilitation institution, both inpatient and outpatient.

9. Self-assessment of narcotic-use respondents who have or are undergoing rehabilitation compared to respondents in the general population has a higher level of problems in the dimensions of self-care ability, doing daily activities and anxiety / depression. This factor is one source of bias in this study but also shows the importance of rehabilitation care.

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# APPENDIX



National Narcotics Board  
Headquarters, Jakarta



Gurdo (Garuda) Batik

## Appendix 1 Effects of Types of Narcotics

Types	Substances	Effects
Cannabis	Marijuana	<p>WHO states that Cannabis is a generic terminology used to denote several concoctions of the Cannabis sativa plant. The main psychoactive substance in cannabis is (Delta) <math>\Delta</math>-9 tetrahydrocannabinol (THC). Its compounds are structurally similar to THC referred to as cannabinoids. There are several compounds which have different structures but similar to pharmacological properties. Marijuana from Mexico, for instance, has exactly cannabis plants, called "marijuana" (unpollinated female plants are called "hashish") Produced as hashish oil is cannabinoid oil which is processed from its resin or crude plant material.</p> <p>The effect of a cannabinoid substance called delta-9 Tetrahydrocarbo cannabinol or THC works on certain brain cell receptors which will normally react to natural substances similar to THC in the brain. The substances have a role in the development and function of the brain. Marijuana will push the function of the part of the brain which contains the highest amount on the receptors. This will cause the users to feel "high" and experience several other effects, such as:</p> <ul style="list-style-type: none"> <li>• Change in time consciousness</li> <li>• Mood swings</li> <li>• Body movement disorder</li> <li>• Thinking and problem solving difficulties</li> <li>• Impairment of long-term memory</li> </ul> <p>Long-term effects :</p> <ul style="list-style-type: none"> <li>• Impairment of thinking ability, memory processing, and learning functions which also affect brain performance.</li> <li>• Respiratory problems. Marijuana smoke can cause irritation on lungs which triggers coughing with phlegm, lung disease to lung infections.</li> <li>• Heart rate increase. Marijuana can increase heart rate after 3 hours of smoking. This can cause heart attack.</li> <li>• Impairment on infancy. The use of marijuana during pregnancy may affect infant's brain and behavior.</li> </ul>

Types	Substances	Effects
		<ul style="list-style-type: none"> <li>• Hallucinations, paranoia and unclear thinking.</li> <li>• The use of marijuana can affect a person's mental state.</li> </ul>
<p>Psyche- delic or hallucino- genic</p>	<p>Several natural and synthetic substances</p>	<p>There are natural or synthetic substances which if consumed can cause sensory hallucinations, especially auditory and visual. In general, the effects on the human body are: increased heart rate, nausea, dry mouth, trouble sleeping, change in body temperature, excessive sweating, panic attack, strange behavior, paranoia and up to psychosis.</p> <p>Long-term effects: continuous symptoms of psychosis (visual impairment, chaotic thoughts, paranoia, mood swings). Consumption in high doses may cause seizures, paralysis, memory loss (amnesia) and limited difficulties.</p>
	<p>LSD (acid)</p>	<p>It is the most powerful psychoactive substance in changing a person's feelings and perceptions. The substance is made from lysergic acid (lysergic acid) which comes from the ergot fungi that grows on wheat and other grains.</p> <p>The substance is presented in crystals and distributed in liquid form. However, LSD is widely marketed in the form of capsules or small pills and gelatin sheets which will melt when touching saliva.</p> <p>The effect of LSD (Lysergic Acid Diethylamide) is unpredictable, but depends on how much it is used, on a person's mood, personality, and on the situation at the time it is being consumed.</p> <p>Like a roll of a dice — a race, pseudo high feeling or severe paranoia. Usually, the first effect of LSD works 30 to 90 minutes after the drug is taken. The pupils often enlarge. Body temperature may be higher or lower, while blood pressure and heart rate may increase or decrease. Sweating or cold is common. LSD users frequently experience loss of appetite, sleeplessness, dry mouth and tremors.</p>

Types	Substances	Effects
	Ketamine or Special K, Valium Kucing, KitKat, horse anesthesia, etc.	<p>Drug which is used as animal anesthesia, where animals are put to sleep during surgical procedures. Therefore, Ketamine is often available on the free market and is widely used by veterinarians. This drug is abused due to its recreational effect like a calming, dissociative, and hallucinogenic effect. Its chemical structure is almost the same as the one in Phencyclidine or PCP and results in an unconnected feeling with the environment. Long-term use causes tolerance and psychological addiction.</p> <p>The effects of long-term</p> <ul style="list-style-type: none"> <li>• Often feel sleepy</li> <li>• Changes in perception of color and sound</li> <li>• Hallucinations, delirium, confusion</li> <li>• Learning and thinking difficulties</li> <li>• Agitation</li> <li>• Numb</li> <li>• Uncontrolled muscle movements, seizures</li> <li>• Speech disorder</li> <li>• Increased pressure in the brain and eyes which causes brain swelling, Brain nervous system fatigue, tumors and glaucoma</li> <li>• Easily forget</li> <li>• Difficulty in controlling eye movements</li> </ul>
	Psilocybin or Mushroom (Blue Omelette, magic mushroom, little smoke, shroom)	<p>Psilocybin (<i>4-phosphoryloxy-N, N-dimethyltryptamine, DHT</i>) is a natural ingredient in the shape of mushrooms which grow a lot in cow dung. Its use is recreational to cause hallucinations or imaginations which may endanger one's self or others.</p> <p>Short-term effects of magic mushroom on mind and consciousness:</p> <ul style="list-style-type: none"> <li>• Overemotional feeling. It could be overly happy, overly sad, or overly angry</li> <li>• Unable to tell the difference between fantasy and reality</li> <li>• Anxiety</li> <li>• Panic attacks</li> <li>• Disorientation or daze</li> <li>• Fear or paranoia</li> <li>• Find things either hilarious or depressing</li> </ul>

Types	Substances	Effects
		<p>Short-term effects of magic mushroom on the body (biologically):</p> <ul style="list-style-type: none"> <li>• Numbness, especially on the face</li> <li>• Increased blood pressure and heart rate</li> <li>• Dry mouth, even nausea, and vomiting</li> <li>• Weak muscles, twitching, or spasms</li> <li>• High fever to shivering and sweating</li> <li>• Uncontrollable urination</li> </ul> <p>Long-term effects on mind and awareness:</p> <ul style="list-style-type: none"> <li>• Changes in mindset (becoming more chaotic and disorderly)</li> <li>• Decreased cognitive function</li> <li>• Delusions and hallucinations</li> <li>• Impulsive behavior (risky and reckless)</li> <li>• Drastic and unexpected mood swings</li> <li>• Death due to careless and dangerous actions, such as suicide</li> </ul>
	<p>Peyote</p>	<p>Peyote is a type of cactus that contains mescaline substances that give hallucinatory effects to the user. It is called 'buttons' because what is taken to be consumed is the part near the root of the plant, which looks like a button. Mescaline is psychotic and functions as a stimulant. This substance has an effect that can last for 10-12 hours. It is often used for contacting ancestral spirits by the Native Americans. It is also used to treat asthma, toothache, fever, childbirth pain, breast pain, rheumatism, diabetes, etc. The use of Peyote if used with other stimulants, will potentially increase blood pressure and heart rate. The use during pregnancy may cause congenital disabilities to the baby.</p> <p>One of the effects of peyote is a damaged mechanism of serotonin release, which affects perception, hunger, mood, body temperature, muscle control, behavior, and sensory aspects of sex.</p>

Types	Substances	Effects
	Amethyst	<p><i>Datura Stramonium</i> or Amethyst in Indonesia is known as 'Trumpet' Flower. It contains various types of alkaloids, such as atropine, hyoscyamine, and scopolamine. The roots, leaves, flowers, fruits, seeds, and stems are useful. There are nine types of amethyst, but the one with white flowers are the most poisonous. Amethyst has many benefits for health, including overcoming seizures, asthma, gout, and various skin diseases. However, if it is being abused, especially by smoking it, the following effects will occur:</p> <ul style="list-style-type: none"> <li>• Hallucinations and temporary joy</li> <li>• Prolonged dizziness to vomiting.</li> <li>• Although due to health benefits from the amethyst, it is called the 'Angel's Trumpet', it may turn to be the 'Devil's Trumpet' which has the potential to kill the users if being abused.</li> </ul>
	PCP ( <i>Angel's dust</i> )	<p>It is also known as Angel's Dust. At first, in 1926, it was made for anesthesia to reduce pain, but later in 1950, it got banned due to its side effects. Other effects of PCP or Phencyclidine other than anesthetics include:</p> <ul style="list-style-type: none"> <li>• Hallucinations and dissociative (difficult to tell the difference between what is real and what is not)</li> <li>• Increased energy and loss of sleepiness</li> <li>• Euphoria and peacefulness</li> <li>• Amnesia</li> <li>• Confused thoughts and feelings between dreams and reality</li> <li>• Changes in perception of time</li> <li>• Heart rate and breathing become fast, and body temperature rises which results in a lot of sweating</li> </ul> <p>If taken in higher doses, it causes:</p> <ul style="list-style-type: none"> <li>• <i>Delirium</i> (Unable to tell the difference between what is real and what is not)</li> <li>• Drastic mental changes such as panic attacks and paranoia</li> <li>• Become delirious</li> </ul>

Types	Substances	Effects
		<ul style="list-style-type: none"> <li>• Total loss of motor nerve control/whole body muscle control</li> <li>• Slow heartbeat and breathing</li> <li>• Epileptic seizures</li> <li>• Causes coma and even death. Long-term use of PCP causes damage to brain tissue and causes a mental illness that resembles schizophrenia.</li> </ul> <p><b>Effects on the Brain:</b> Abuse of PCP distorts the perception of vision and sound. It results in feelings of being lost and isolated from the surrounding and even from themselves. This effect is affected by the disruption of interactions between nerve cells and the neurotransmitter serotonin.</p> <p><b>Effects on users :</b> If someone tries to abuse a drug once, and it becomes a habit, it will tend to be difficult for the abuser. This abuse can also lead to addiction and compulsive PCP seeking behavior despite severe adverse consequences. During this process, there are long and short term effects depending on the quantity and the use of the drug.</p> <p><b>Long term effect:</b> Some of the long term effects caused by PCP abuse in a long time include negative effects on the respiratory system and the cessation of the respiratory system within a few minutes, which results in sudden death, vomiting, blurred vision, eye twitching, etc. Around 90% of PCP drug abusers are taken to the emergency room with severe psychological effects. Abuse of high doses of drugs will affect the central nervous system, and abusers may experience a coma.</p>

Types	Substances	Effects
		<p><b>Short-term effects:</b> The least dangerous effect is a mood disorder for 48 hours with symptoms such as anxiety, the respiratory rate will increase slightly, and there is an increase in blood pressure along with an increase in pulse rate. Short breath, redness with excessive sweating, and loss of muscle coordination may also occur. This drug can impair thinking and communication ability due to the abuse.</p>
	Synthetic N, N-Di-methyl-tryptamine (DMT or N, N-DMT)	<p>It is shaped in white crystalline powder and administered by snorting or smoking. It is available in liquid form as well so that it can be injected. Even in small amounts, it will have a psychedelic effect because they affect the neurotransmitter serotonin. This substance is popular among people who want to have strange experiences in perception changes in visual and auditory it can cause. The effect is similar to the effect of using LSD and Psilocybin, which are:</p> <ul style="list-style-type: none"> <li>• Perceptions change of space and time</li> <li>• Awareness of a changing body</li> <li>• Visual and auditory hallucinations</li> </ul>
Natural Stimulants	Cocaine	<p>Cocaine is a powerful, addictive substance which is stimulant. It is produced from the leaves of the coca plant (<i>Erythroxylon coca</i>), which grows in South America. Dried-up substances from Coca leaves were found medically beneficial by the German chemist Albert Neiman in the 1960s and in the same year by French chemist Angelo Mariani who claimed that these substances could be used as a beverage ingredient capable of "restoring health and vitality". It turns out to be used by Coca-cola in 1899 and in 1903 this substance no longer used because of the negative effects it causes and due to racial politics at that time.</p>

Types	Substances	Effects
		<p>Due to its form, cocaine is used by snorting (sucking with the nose), but it can also be rubbed on chewing gums. Moreover, today there has been liquid cocaine, which is injected to obtain a quick drug effect that lasts for a more extended period.</p> <p>Cocaine increases the availability of a neurotransmitter called dopamine, which connects to the movement control and reward system in the brain. Dopamine on the brain is naturally rotating back to the cells. Cocaine inhibits the rotating process, which results in the sufficient dopamine between cells that secrete and receive it. It triggers the development of tolerance and the tendency to use even more. Because of its pleasing effects, users tend to use it in large quantities or many times. Therefore, addiction develops quickly, and the results of withdrawal symptoms are harrowing.</p>
	<p><i>Crack-cocaine</i></p>	<p>The next process also made in the form of crystals called Crack which is shaped like rock candy. The price is lower, but the effect is more powerful. It is taken by burning and smoking it. The sound of crystal fragments is what causes to get called Crack. It is considered the most addictive substance in the world.</p> <p><b>Short-term effects:</b></p> <ul style="list-style-type: none"> <li>• Extreme happiness and vitality</li> <li>• High mental alertness</li> <li>• Hypersensitivity to light, sound, and touch</li> <li>• Very easily offended</li> <li>• Paranoia - extreme mistrust of others</li> <li>• Large amounts of cocaine consumption will trigger unusual, unexpected, and aggressive behavior</li> </ul> <p><b>Other effects:</b></p> <ul style="list-style-type: none"> <li>• Vasoconstriction</li> <li>• Nausea</li> <li>• Increased body temperature and blood pressure</li> <li>• Fast and irregular heartbeat</li> <li>• Tremors and twitching muscles</li> <li>• Extreme anxiety</li> </ul>

Types	Substances	Effects
		<p><b>Long-term effects</b></p> <ul style="list-style-type: none"> <li>• Depending on how it is used, if it is inhaled, the user loses the ability to smell, get a runny nose, swallowing difficulty</li> <li>• If smoked, it may cause cough, asthma, nosebleeds, vulnerability to pneumonia</li> <li>• If chewed and swallowed, it may cause decomposition on rectal areas due to lack of blood flow</li> <li>• If injected, it may cause a risk of bloodborne diseases such as HIV/AIDS, skin infections, etc.</li> </ul>
Synthetic	<i>Amphetamine</i>	<p><i>Amphetamine</i> is a synthetic substance that is usually taken to treat AD-HD (attention-deficit hyperactivity disorder) and narcolepsy. This substance is also usually used for programs to reduce appetite and body weight and not allowed to be used for children.</p> <p><i>Amphetamine</i> is known as a habit-forming substance; hence it is often misused. The use of amphetamine can trigger or worsen episodes of psychosis if the user has a history of depression, mental illness, or bipolar disorder.</p> <p><b>Short-term effects of amphetamine:</b></p> <ul style="list-style-type: none"> <li>• Increases body temperature</li> <li>• Damage to the cardiovascular system</li> <li>• Paranoia</li> <li>• Increases heart rate</li> <li>• Increases blood pressure</li> <li>• Hyperactive</li> <li>• Reduces drowsiness</li> <li>• Decreases appetite</li> <li>• Euphoria</li> <li>• Dry mouth</li> <li>• Dilated pupils</li> <li>• Nausea</li> <li>• Headache</li> <li>• Changes in sexual behavior</li> <li>• Tremor</li> </ul>

Types	Substances	Effects
		<p><b>Long-term effects:</b></p> <ul style="list-style-type: none"> <li>• Psychosis (unreal thoughts, away from reality)</li> <li>• Psychological disorders and behavior</li> <li>• Headaches</li> <li>• Mood swings or mental changes</li> <li>• Trouble breathing</li> <li>• Nutritional deficiencies</li> <li>• Mental disorders</li> </ul> <p><b>Effects on the central nervous system:</b> In the case of acute poisoning, amphetamine users generally feel euphoria, anxiety, agitation, and excessive anxiety</p>
	ATS	<p><i>Amphetamine Type Stimulants (ATS)</i> refer to a group of substances/drugs made based on amphetamine or methamphetamine. However, some of the following substances are also classified as ATS: methcathinone, fenethylamine, ephedrine, pseudoephedrine, methylphenidate, and MDMA or 'ecstasy' - ATS substances which may give hallucinogenic effects.</p>
	<p><i>Crystal-Methamphetamine</i> (Crystal Meth)</p>	<p><i>Crystal meth or Crystal-Methamphetamine</i> is one of the most abused substances in Indonesia. This substance is a synthetic stimulant that triggers the release of dopamine with the same effect as cocaine. Dopamine has an important role in motoric functions, motivation, and how humans define pleasure.</p> <p>The use of <i>methamphetamine</i> causes dopamine to overflow in the brain and the human body, which may damage the important functions, and even affect verbal and motor learning skills.</p> <p>It widely used for recreation, especially for parties and sex. The euphoria effect can last up to 12 hours, making methamphetamine one of the favorite substances, but may give the most serious effects to the brain.</p>

Types	Substances	Effects
		<p><b>Short-term effects</b></p> <ul style="list-style-type: none"> <li>• Loss of appetite</li> <li>• Increased heart rate, blood pressure, and body temperature</li> <li>• Enlarged pupils</li> <li>• Disrupted sleep patterns</li> <li>• Nausea</li> <li>• Strange, unpredictable, sometimes act violently or cruel actions</li> <li>• Hallucinations, excessive happiness, irritability</li> <li>• Panic and psychosis</li> </ul> <p><b>Long term effects</b></p> <ul style="list-style-type: none"> <li>• Permanent damage to blood vessels in heart and brain, high blood pressure resulting in heart attacks, strokes, and death</li> <li>• Damage to the liver, kidneys, and lungs</li> <li>• Damage to nasal tissues if inhaled</li> <li>• Respiratory problems if smoked like a cigarette</li> <li>• Infectious diseases and inflammation, if injected</li> <li>• Malnutrition, weight loss</li> <li>• Severe dental caries</li> <li>• Disorientation, apathy, confusion, and fatigue</li> <li>• Great psychological dependence</li> <li>• Psychosis</li> <li>• Depression</li> <li>• Brain damage similar to Alzheimer’s disease, stroke, and epilepsy</li> </ul>
	Ecstasy (Inex, CTC, Cece)	<p>The history of ecstasy production was developed by a German pharmaceutical factory in 1912. It was called “<i>Methylsafrylaminc</i>”, which had been the main compound for synthesizing various medications to control bleeding – not to control hunger as it is known today. It was quite popular in the 1970-1980s without formal permission from the US food and drug agency. In 1985 the US Drug Enforcement Administration (DEA) banned the use of MDMA and placed it as a substance under supervision.</p>

Types	Substances	Effects
		<p><b>Short-term ecstasy effects</b></p> <ul style="list-style-type: none"> <li>• Decreased appetite</li> <li>• Insomnia</li> <li>• Dizziness and fever</li> <li>• Muscle cramps</li> <li>• Tremors</li> <li>• Cold sweating</li> <li>• Blurred vision</li> <li>• Increased heart rate</li> <li>• Increase in blood pressure</li> <li>• Facial tension on mouth, face, and chin</li> </ul> <p><b>Long-term effects of ecstasy</b>                      Researchers believe that ecstasy can cause leakage on serotonin in the brain during its use. Without the neurotransmitter functioning, conditions such as depression, anxiety, insomnia, and memory loss will be more likely to occur. This condition may appear for a long time, even after it is no longer used.</p> <p><b>The long-term effects of ecstasy on psychology and physical:</b></p> <ul style="list-style-type: none"> <li>• Increased addiction</li> <li>• Panic attack</li> <li>• Insomnia</li> <li>• Confusion</li> <li>• Unable to tell the difference between reality and fantasy</li> <li>• Paranoid delusions</li> <li>• Depression</li> </ul>
Inhalant	Glues which contain Ethyl, Ketones, and others	The effects are euphoria and hallucinations, which can affect brain nerve damage depending on how much it is taken or used. In long-term use can result in pneumonia, heart attacks, hypoxia (lack of oxygen and brain damage).

Types	Substances	Effects
<i>Opioid</i>	<i>Tramadol</i>	<p>This drug is used to reduce pain for adults. It is considered to have something in common with opiate in terms of its ability to reduce pain. It is not recommended for anyone who already consumes antidepressant pills.</p> <p><b>Effects that may appear due to the use of tramadol:</b></p> <ul style="list-style-type: none"> <li>• Dizziness, fatigue, and drowsiness</li> <li>• Nausea and flatulence</li> <li>• Constipation</li> <li>• Dry mouth</li> </ul> <p><b>Long term effect:</b></p> <ul style="list-style-type: none"> <li>• Heart rate becomes slower and irregular</li> <li>• Respiration becomes slower and irregular</li> <li>• Seizures</li> <li>• Thought disorder leading to slow thinking</li> </ul> <p>If tramadol has been taken in the long-term then gets stopped abruptly, withdrawal symptoms may occur, such as abdominal pain, diarrhea, hallucinations, ringing in the ears, and so on.</p>
	<i>Fentanyl</i>	<p>is a form of pain treatment coming from synthetic opiates which are usually prescribed to people who experience severe pain after surgery or pain due to injury, or other causes. This drug is much stronger than heroin and 100 times more potent than morphine.</p> <p>Paul Janssen Pharmaceutical first produced it in 1960. The effect of pain reduction does not last very long, so people often use it many times, especially patients experiencing a feeling of euphoria. When abused, it is often combined with cocaine or heroin. This combination is hazardous. It is presented in the form of a lollipop, a pill that quickly dissolves in the buccal area, and small strips or film put under the tongue. Some of the consequences of abuse are as follows:</p>

Types	Substances	Effects
		<ul style="list-style-type: none"> <li>• Confusion</li> <li>• Depression</li> <li>• Walking difficulty</li> <li>• Stiff muscles</li> <li>• Breathing difficulty</li> <li>• Don't keep sleepy</li> <li>• Dizziness and light-headedness</li> <li>• Slurred speech</li> <li>• Visual hallucinations</li> <li>• Itching</li> <li>• Constricted pupils</li> <li>• Weight loss</li> </ul>
<p><i>Sedative / sleeping pills</i></p>	<p><i>Xanax Camlet/ Calmlet (Alprazolam)</i></p>	<p>Are medicines that are used to reduce brain activity so that individuals feel more relaxed. These medicines are usually prescribed to people who are always anxious and have trouble sleeping.</p> <p><b>The common side effects are:</b></p> <ul style="list-style-type: none"> <li>• Sleepy</li> <li>• Coordination difficulties</li> <li>• Fatigue</li> <li>• Muscle weakness</li> <li>• Ataxia, and</li> <li>• Light-headedness</li> </ul> <p>• If consumed in breastfeeding mothers result in lethargy on their babies and weight loss.</p> <p><b>Less common side effects, for example:</b></p> <ul style="list-style-type: none"> <li>• Headache</li> <li>• Vertigo</li> <li>• Changes in salivation, gastrointestinal disorder,</li> <li>• Skin rashes and</li> <li>• Vision problems</li> </ul> <p><b>More serious side effects which occur relatively rarely:</b></p> <ul style="list-style-type: none"> <li>• Respiratory depression</li> <li>• Addiction</li> <li>• Mental disorder</li> <li>• Amnesia Confusion</li> <li>• Blood disorders and jaundice</li> <li>• Urinary retention</li> <li>• Hypotension</li> </ul>

Types	Substances	Effects
		<p>Paradoxical side effects may occur, including:</p> <ul style="list-style-type: none"> <li>• Anxiety</li> <li>• Irritable</li> <li>• Seizures</li> <li>• Insomnia</li> <li>• Muscle cramp</li> <li>• Changes in libido</li> <li>• In some cases, anger and even violence.</li> </ul>
	Barbiturates	<p>The word “barbiturate” is the barbituric compound acid. This substance is also used as a sedative or hypnotic drug which makes people feel calm. It is widely used for the treatment of anxiety, insomnia, and seizures in the 1960s-1970s. Today, it has been replaced with benzodiazepines, which are considered safer. This drug carries the risk of addiction and is prone to overdose with symptoms such as coordination disorder, lethargy, slow speech, and speaking difficulty, agonal breathing, coma, and death.</p>
Benzodiazepine / Tranquilizer	Valium Rohypnol, Magadon Koplo Pills, BK, Mboat, Mboti, Roda Nipam	<p>Benzodiazepines are also sedatives used to treat anxiety, panic disorders, muscle spasms, and seizures, the effects of alcohol withdrawal, and pain before menstruation.</p> <p><b>Side Effects of Benzodiazepines</b></p> <p>Drug reactions in every person are different. Possible side effects after using benzodiazepine drugs:</p> <ul style="list-style-type: none"> <li>• Sleepiness</li> <li>• Dizziness</li> <li>• Confusion</li> <li>• Limp</li> <li>• Memory disorders</li> <li>• Impaired body balance</li> <li>• Akathisia (a body movement disorder)</li> <li>• Seizures</li> <li>• Nausea</li> <li>• Vomiting</li> <li>• Constipation</li> <li>• Dry mouth</li> <li>• Weight gain</li> </ul>

Types	Substances	Effects
		<ul style="list-style-type: none"> <li>• Difficulty in controlling appetite</li> <li>• Decreased sexual desire</li> <li>• Respiratory depression</li> <li>• Drastic fall in blood pressure</li> <li>• Desire to commit suicide</li> </ul>
Analgesic, Antitussive	Dex-tromethorphan (Dextro)	<p>Dextromethorphan is an opioid analgesics used to relieve cough (antitussive). It is an over-the-counter drug and is abused a lot. It should not be used for cough with phlegm and is not for long-term use. Overuse may result in death to pediatric patients. It should not be given to children aged four years and under and is not recommended for pregnant women. Do not take this drug while taking alcohol, diet pills, caffeine pills, and stimulants because it will increase the risk of drug side effects.</p> <p>Side effects of this drug are:</p> <ul style="list-style-type: none"> <li>• Itches</li> <li>• Facial swelling</li> <li>• Breathing difficulty</li> <li>• Seizures</li> <li>• Hallucinations</li> <li>• Orientation disorder</li> </ul>
Others	Trihexy-phenidyl/ Trihex	<p>Is a drug used to treat Parkinson's disease and is often misused. This drug is classified as <i>antimuscarinic</i>. It is available in liquid form.</p> <p><b>Side effects:</b></p> <ul style="list-style-type: none"> <li>• Dry mouth</li> <li>• Bulging eyes or blurred vision</li> <li>• Tired or dizzy</li> <li>• Difficulty urinating or constipation</li> <li>• Nervous or anxious</li> <li>• Stomach disease</li> <li>• Reduced sweating</li> <li>• Irritated/agitation</li> </ul>

Types	Substances	Effects
	Zenith ( <i>Car-nophen</i> )	<p>Is an anti-depressant but is also used to relax muscles or overcome muscle spasms. Many are from the Philippines. Misuse of this substance results as follows:</p> <ul style="list-style-type: none"> <li>• Heart rate increases dramatically</li> <li>• Indigestion</li> <li>• Hallucinations and unconsciousness</li> <li>• Confusion</li> <li>• Seizures</li> <li>• Numbness</li> <li>• Nausea and vomiting</li> <li>• Easily offended</li> <li>• Floating sensation</li> <li>• Fainted</li> <li>• Headache</li> <li>• Stomach ache</li> </ul>

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Drugabuse.com: <https://drugabuse.com>

NIH National Institute on Drug Abuse: <https://www.drugabuse.gov/>

Narconon : <https://www.narconon.org>

## Appendix 2 Drugs Effects

Effects	Type and Class of Substances	Description
Constipation	Anti-psychotic: Clozapine	General constipation (25% of the frequency of bowel movements) occurs in psychotic patients who take antipsychotic drugs, especially clozapine. This drug can cause gastrointestinal complications, which may (rarely) cause death. It is estimated that 30-60% of patients taking clozapine experience constipation.
Neurological disorders and brain damage	All psychoactive substances	Its effects go through the central nervous system and affect the management of neurotransmitters - i.e., the fluid released by the brain to affect feelings and body muscles. Therefore, abuse of psychoactive substance in the long term will disrupt the neurotransmitter's normal utilization pattern. Not to mention if it is mixed with harmful substances such as ethyl ether, acetone, gasoline, and others.
Respiratory tract	Zenith ( <i>Carnophen</i> )	Is an anti-depressant but is also used to relax muscles or overcome muscle spasms. Many are from the Philippines. Misuse of this substance results as follows: <ul style="list-style-type: none"> <li>• Heart rate increases dramatically</li> <li>• Indigestion</li> <li>• Hallucinations and unconsciousness</li> <li>• Confusion</li> <li>• Seizures</li> <li>• Numbness</li> <li>• Nausea and vomiting</li> <li>• Easily offended</li> <li>• Floating sensation</li> <li>• Fainted</li> <li>• Headache</li> <li>• Stomachache</li> </ul>

Effects	Type and Class of Substances	Description
Gastrointestinal Disorders	Alcohol	Alcohol affects the acidity of the digestive system, which may cause peptic ulcers and a condition called <i>Mallory-Weiss Syndrome</i> , i.e., bleeding that occurs due to tearing of the mucosal lining between the stomach and esophagus.
	Opiates and their derivatives such as <i>morphine, oxycontin, and vicodin</i>	The use of opiate-based substances will cause <i>narcotic bowel syndrome</i> , i.e., digestive function is weakened, which results in bloating, constipation, nausea, and vomiting.
	Cocaine	The use of Cocaine is associated with the risk of blood clots, causing a lack of blood supply to the liver and result in necrosis in liver and gangrene.
Prenatal effects on baby during pregnancy	Alcohol	Consumption of alcohol in large amounts during pregnancy will cause FAS ( <i>Fetal Alcoholic Syndrome</i> ) to the baby, which is serious brain damage.
	Stimulants, marijuana, and tobacco	May result in still-birth or death to the baby in the womb.
	MDMA	Placental disorders, fetal growth restriction, abnormalities on the brain and heart, the risk of premature birth.
	Inhalant	Unplanned abortion, the abnormal physical shape of the fetus.
	Cocaine, heroin	Cause <i>Neonatal Abstinence Syndrome</i> , symptoms of withdrawal of drugs in the fetus, which results in eating difficulty, frequent seizures, colic, and the slow development of motor skills after they are born.

Effects	Type and Class of Substances	Description
Hormonal effect	Types of brain hormones	Serotonin ( <i>pleasure hormone</i> ) Dopamine ( <i>reward hormone</i> ) Epinephrine - adrenaline hormone to fight
	<i>Opiate</i>	Can cause gonadal and adrenal dysfunction in both men and women which increases the risk of infertility and triggers mental disorders.
	Steroids	Reduce sperm productivity, testicles shrink, and triggers testicular cancer
	Alcohol	Can damage the gland function which releases hormones (because it disrupts blood sugar production and calcium metabolism) which can result in serious consequences, especially on reproductive ability, the strength of bone mass, and affect growth and development. Also, alcohol use also has the potential to disrupt the function of thyroid hormone receptors.
	Cocaine	Being influential to the menstrual cycle. Cocaine causes an increase in the Prolactin hormone, which inhibits the release of a mature egg (ovulation), and leads to Polycystic Ovary Syndrome - infertility due to lack of ovulation.
	Heroin	Women who use heroin will stop menstruating after experiencing heroin addiction because their production of the estrogen and testosterone hormones is disrupted.
Baldness	Steroids	Causing male pattern baldness to women.
	Alcohol	Causing malnutrition and hair loss. Malnutrition can also lead to a lack of thiamine which causes brain damage and hair loss.

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# HEALTH 2019

## Research of Drugs Abuse Effects

Health Research of Drug Abuse Effects 2019 is conducted based on cooperation between National Narcotics Board (BNN) and Atma Jaya Catholic University and National Institute of Health Research and Development, Ministry of Health, Republic of Indonesia. This research is conducted in six provinces, which provides places for rehabilitation for drug abusers, such as West Java, Riau Islands, North Sumatra, Lampung, South Sulawesi, and East Kalimantan. The target of this research is clients/participants who undergo services in places implementing narcotics prevention programs by National Narcotics Board such as Rehabilitation Center, Post Rehabilitation Program, Primary (Pratama) Clinic of Provincial Narcotics Board, and Community Partners of Provincial Narcotics Board.

The main research objective is to obtain a systematic picture of narcotics use effects on an individual and elements of socio-cultural relations, which influence personal life. This research is one of the National Priority Programs which are used as a reference in implementing the national policy



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