NPS: ITS CHALLENGES IN RESPOND TO USE AND HARMFUL EFFECTS

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BACKGROUND

• Designer Drugs, Legal High, Research Chemicals, “sinte”

• Formally known as New Psychoactive Substances

• NPS are drugs of abuse that are not controlled by the 1961 Convention on Narcotic Drugs of the 1971 Convention on Psychotropic Substances, which might pose a public health threat.

• Constant modification in chemical structure and rapid spread through the internet → serious social issues

• Demand to develop substances that imitate the effect of controlled drugs/progenitors → unintended consequences → serious public health issues

• Internet as a media to design/create, promote and distribute → lucrative market → local to global market → minimum knowledge on the adverse effect

• New drugs emerging at faster speed than existing regulations
NPS IDENTIFIED BY THE WORLD AND INDONESIA

- 1004 NPS types identified in the world (UNODC Early Warning Advisory on New Psychoactive Substances, September 2020)
- 78 NPS types identified in Indonesia
- 74 NPS types controlled by the Ministry of Health regulation number 22 & 23, 2020
- 4 NPS types not yet controlled by the Ministry of Health Regulation

Source: UNODC, Ministry of Health, BNN Drug Center Laboratory

NPS TYPES IDENTIFIED IN INDONESIA

- 78 NPS identified in Indonesia
  1. Synthetic Cannabinoids: 30 types
  2. Synthetic Cathinones: 22 types
  3. Phenylethylamine Derivatives: 14 types
  4. Plant-based Substances: 4 types
  5. Ketamine and PCP: 4 types
  6. Tryptamines: 2 types
  7. Piperazinines: 2 types

Source: BNN Drug Center Laboratory
NEW PSYCHOACTIVE SUBSTANCES (NPS) ANALYZED AT BNN DRUG CENTRE LABORATORY 2013-2018

NO. OF SAMPLES

- Others
- Ketamine & Pencyclidine Type Substances
- Plant-based Substances
- Piperazines
- Tryptamines
- Phenethylamine
- Synthetic Cathinone
- Synthetic Cannabinoid
DEVELOPMENT OF NPS REGULATIONS IN INDONESIA

Regulation Of The Minister Of Health No. 13/2014
Regulation Of The Minister Of Health No. 2/2017
Regulation Of The Minister Of Health No. 41/2017
Regulation Of The Minister Of Health No. 58/2017
Regulation Of The Minister Of Health No. 50/2018
Regulation Of The Minister Of Health No. 44/2019
Regulation Of The Minister Of Health No. 5/2020
Regulation Of The Minister Of Health No. 22/2020
Regulation Of The Minister Of Health No. 23/2020
Various NPS found in Indonesia

- Widespread growth of Arabic tea - cathinone
- Synthetic Cannabinoid
- Synthetic Cathinone
- Phenylamine
- Benzylpiperazine on ecstasy

40 kg of synthetic cannabinoid seized - East Java

11.5 kg of Kratom - Belitung

Synthetic cannabinoid 6.228.49 gram, tobacco to mix 1.895 gram and cannabis 97.96 gram → 104 bottles
WHY NPS?

- Curiosity, peer influence
- Overcome anxiety, lack of motivation, headaches, muscle pain
- Eluding social-economic problems
- Something “herbal”, “natural”
- Among drug users – alternative cheaper drugs, “legal”, as a substitute when controlled drugs are unavailable
- Undetected in urine
SIGNS AND SYMPTOMS

- Euphoria
- Agitation/Irritability
- Hallucinations (visual/auditory)
- Delusions – reference, paranoid, grandiose
- Aggressive behaviour
- Confusion
- Movement disorders
- Chest pain

- Tachycardia
- Hypertension
- CPK elevations
- Nausea/vomitus
- Conjunctival injection
- Cardiac Ischemia*
- Acute Kidney injury*
- Myocardial Infarction*
- Seizure
CASE STUDY

• JH, 24 y.o, restless since 3 days. Tried self-stop Ketamine use 7 days ago. Daily use of 5 bottles ketamine. Heated liquid ketamine in microwave to powder form and snorts it 3-5x/day. Used ketamine for 3 months for work purpose and energized. Symptoms: restless, irritable, vomitus, tremor, cold sweat, emotionally unstable, difficulty sleeping (self medicate with Alprazolam 2 mg to sleep). Hears unclear voices since 7 days.

• History of – heroin 0.5-1 g (2-3 x/week) followed by alternate use of naltrexone 50 mg, methadone 100mg, suboxone 4mg-12mg. No history of proper T&R program

• Mental status – irritable, tremor, hypothym, depressive, nihilistic idea, auditory hallucination

• Treatment- Olanzapine IM 1dd10 mg, Aripiprazole 1dd10mg → 2 dd 10 mg, Lorazepam 2dd2mg, Escitalopram 1dd10mg

• Follow-up : withdrawal improved, self-discharge 1 week, seek help only in withdrawal state
SUSTAINABLE REHABILITATION

PREPARATION
- SCREENING
  - ASSESSMENT
    - Voluntary
    - Compulsory

REHABILITASI
- TREATMENT PLAN
  - BRIEF INTERVENTION
  - OUT PATIENT
  - IN PATIENT

AFTERCARE
- OBSERVATION
  - MONITORING
  - GUIDING

OUTCOME
- RECOVERY
- PRODUCTIVE
- SOCIAL FUNCTION

IN PUT
- USERS/ABUSERS
  a. Voluntary
  b. Compulsory

BIOPSYCHO SOCIAL

RELAPSE
CHALLENGES

• Lack of clinical studies on effects of NPS
• Lack of public awareness campaign on NPS and its harmful effects
• Limited capacity to conduct interventions at various settings
• NPS is used together with other substances such as alcohol, opiates, stimulants and benzodiazepines → effect on diagnosis
• Sophisticated use of NPS
• Lack of practical means to identify NPS such as test-kit
• Serious social and public health issues
RECOMMENDATIONS

- Massive public campaign/ awareness on NPS
- Enhancing capacity of practitioners
- Development of treatment guidelines for NPS
- Exchange of expertise among practitioners in the region
- Further research on NPS
THANK YOU

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