Factors contributing to increased nonmedical prescription drugs use

UNODC Experts Meeting:
The nonmedical use of prescription drugs: policy direction issues

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Who is at risk and why?

I'll see your Dolpanide and raise you two Slorpatols.

With prescription drug costs skyrocketing, many senior citizens have come up with other ways to obtain their medications.
Objectives for this session

- Which are the social factors contributing to an increased nonmedical prescription drugs use? (Short-cuts?)
- Which factors make women and young and elderly people risk populations?
- Are health care professionals also a risk population?
- Does the mentality/education of physicians have influence in the increase of nonmedical prescription drugs use?
- What is the role of online pharmacies?
- Are new populations using prescription drugs for nonmedical purposes or are they switching from the use of illicit drugs?
- What are the risk and protective factors?
Monitoring misuse of medicinal products in Europe

- EMCDDA already collecting data on misuse and health consequences related to misuse of medicinal products thought its GPS, ESPAD, TDI and DRD key epidemiological indicators

- Ongoing cooperation with the EMA for the exchange of data available through the Reitox early warning system (EWS) and the EU pharmacovigilance system

- Need to explore new data sources and conceptualise clear methodological framework (2010WP) since misuse of medicinal products especially when used in combination with illicit drugs is a phenomenon of growing importance
Monitoring misuse of medicinal products in Europe

- In 2010/2011, the EMCDDA will look at
  - Results from GPS and school surveys in Europe (benzos included) plus other data already available and collected by the EMCDDA
  - The assessment of implementation of routine data collection of these data
  - Online prescription regulation in MS
  - Internet snapshot of online pharmacies in Europe
  - Literature review on online availability and use of medicinal products (online pharmacies)
- Contract a study aiming at identifying the first elements on which the monitoring of misuse of medicinal products in Europe could rely on
Some „distinct“ groups...

(1) Chronic pain patients
(2) Older adults, elderly
(3) Adolescents, young adults
(4) Street drug users, other SUD
(5) Mentally ill individuals
(6) Health care professionals
(1) Chronic pain patients

- When a patient is in physical or emotional pain, prescribing controlled substances (Rx drugs) often appears to be the simplest and most efficient way to relieve suffering and distress.

- However, in a minority of cases, this approach leads to Rx drug abuse and patient harm.

- 87% report at least one indicator of medication misuse in the prior year.

- Predictor LT diagnosis of SUD: Increased likelihood to report borrowing pain medication from others and requesting an early refill of pain medication.

- Group potentially at risk for addiction is significant.

Cowan et al., 2003
Fishbain et al., 1992
Isaacson et al. 2005
Morasco & Dobscha, 2008
(2) Older adults, elderly

- Few comparable data on drug abuse in this population
- App. 25% of all Rx drugs are sold to elderly (mainly against chronic pain, insomnia and anxiety disorders)
- Estimate: Up to 11% of older women misuse Rx drugs
- In Germany, 80% of prescriptions for benzodiazepines and in England 80% of prescriptions for hypnotics are for people 60+
- However, inappropriate medication itself does not seem to be the major cause of adverse drug reactions in the elderly but the inappropriate use of drugs

Main preventable factor is the reduction in the number of drugs given

Lohse & Müller-Oerlinghausen, 2004; Jahnsen & Glaeske, 2001
Culberson & Ziska, 2008; Drug Ther Bull, 2004
Laroche et al., 2006; Simoni-Wastila & Yang, 2006
(3) Adolescents, young adults

- 9.1% of teens (aged 12-17 years) misused Rx drugs in 2005 and Rx drugs are the most commonly abused drugs for 12-13 year-olds
- As many new abusers of Rx drugs as new users of marijuana in 2006
- Significant increases from 2000-2004, while use of all other drugs decreased
- „Generation Rx“ (Partnership for a Drug-Free America 2005)
(3) Adolescents, young adults

**Predictors of misuse, risk factors**

- **Poorer academic performance**
- Past year **MDD**
- Past year *misuse of alcohol, cigarettes, marijuana, cocaine or inhalant use or non-medical use of Rx drug(s)*
- **Girls** have **higher dependence and abuse rates** of Rx drugs across all drug classes
- Misuse of Rx drugs is **particularly problematic for adolescents** (uncertain implications for future addiction)

Compton & Volkow, 2006
SAMHSA, 2004, 2006
Schepis & Krishnan-Sarin, 2008
Simoni-Wastila et al., 2004
(3) Adolescents, young adults
Motives and conceptions

- **Subtypes** should be considered when examining non-medical prescription drug misuse (recreational vs. self-treatment, mixed)
- Research from MTF suggests that **calming prescription** drugs are becoming more popular, whereas stimulants are becoming more less popular – Desire to feel at peace?
- **Misconceptions** on the relative safety of Rx drugs (PATS):
  - One-third of teens believe there is *nothing wrong* with using Rx medications for non-medical purposes occasionally
  - 40% of teens agree that Rx drugs are **much safer to use** than illegal drugs, even without a prescription
  - Close to one-third of teenagers say that Rx painkillers are *not addictive*
- Teens choose to misuse a Rx drug to **obtain a specific pharmacological purpose**

Boyd et al., 2006; Johnston et al., 2006
McCabe, Boyd & Teter, 2009; McCabe et al., 2007
Partnership Attitude Tracking Survey (PATS), 2006
(4) Street drug users, other SUD

- Prescription opioids are an important component of street drug users' drug-taking regimes
- Diverted drugs users resemble those traditionally associated with the abuse of street drugs
- (Illicit) drug use (alcohol, cocaine, cannabis, hallucinogen, non-medical stimulant and sedative/tranquilizer use associated with non-medical use of Rx opioids use
- Use of other illicit drugs is the strongest predictor of non-medical use of Rx opioids

Davis & Johnson, 2008
Havens et al., 2009; Haydon et al., 2005
Hall et al., 2008; Tetrault et al., 2008
Sung et al., 2005
(4) Street drug users

Potential public health benefits?

- Hypothesis: Increase of Rx opioids among street drug users may offer potential public health benefits on several fronts
  - Recent data suggests that primary Rx opioids users appear to exhibit distinctly lower prevalence of key risk behaviours
  - Distinct constitution of the non-medically used Rx opioids substances themselves (street drugs: unknown, often widely varying potency and purity)
  - Distinct drug acquisition activities
- Related and relevant historical example: Off-label and illegal prescription of codeine tablets to thousands of heroin addicts as a health measure in Germany in the 1980s, prior to the widespread availability of MMT

Fischer et al., 2008
(5) Mentally ill individuals

- Higher rates of opioid abuse problems among users of prescribed opioids at least partially mediated by depression and anxiety disorders

> **Hypothesis**: Mental disorders leading to substance abuse among prescription opioid users rather than prescription opioids themselves prompting substance abuse iatrogenically

- SUD due to Rx drug use frequently associated with other axis I/II disorders

Edlund et al., 2008
Huang et al., 2006
(6) Health Care Professionals

- Physicians are as likely to experience drug and alcohol addiction as anyone in the general population.
- Physicians are more likely to abuse prescription medications.
- Practice of self-treatment with controlled drugs is a 'unique concern' for doctors.
- Multiple factors: Anxiety, depression, personality problems, stress at work, family stress, bereavement, injury or accidents at work, pain and a non-specific drift into drinking have been implicated.
- Early diagnosis is critical because doctors are often reluctant to seek help and colleagues reluctant to intervene.
- Interventions may be difficult to implement.
Over-the-counter medication (OTC)

- OTC substances are the predominantly overlooked type of substance abuse by adolescents and young adults
- Phenomenon of legal party pills (piperazine-containing – BZP, mCPP)
- OTC medication plays a considerable role in deliberate self-poisoning

Williams & Kokotailo, 2006
Sheridan et al., 2007
Szkolnicka 2005
Wazaify, Hughes & McElnay 2006
Reasons and other issues...

- **OTC** medication plays a considerable role in deliberate self-poisoning and are the predominantly overlooked type of substance abuse by adolescents and young adults (party pills)

- **Growing availability**? Marked increases in the numbers of prescriptions written for opioids in the USA

- **Internet**? The emergence of "no prescription web sites" introduces a new vector for unregulated access to opioids – However, no parallel increases in problems associated with other Rx drugs

- **Societal norm** that Rx drugs are ubiquitous and universally beneficial - misuse of Rx drug to obtain a specific pharmacological purpose

- Emphasis on **primary care physicians** for care of patients with pain conditions rather than physicians who specialize in pain treatment

INCB, 2007
Zacny et al., 2003
Forman et al., 2006
Challenges...

- Different group(s) (age, gender, background) – how to access, distinguish and monitor these?
- E.g. specialised treatment centres for drug/substance users only reach parts of the total Rx drugs using population; partly "very" hidden populations, difficult to access and to get in contact with
- Frequently, misuse of pharmaceuticals remains undiscovered or is regarded as less problematic even among clients with SUD (implicit hierarchy of substances)
Thank you very much!

“\textit{I can tell this prescription is a phony. The doctor’s signature is legible}.”