Prescription Opioid Use among Subpopulations

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Disclosures

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NIA

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CDN, New York, through sub-contract with Group Health NW/ Kaiser Permanent NW through sub-contract with inVentiv Health
An issue of ACCESS
Epidemic is FAR-REACHING
Populations

- First multi-site study of prevalence of psychiatric disorders in North America, 1980, with follow ups
- National study of drug use among 10 to 18 year olds
- Prescription drug study (opioids, sedatives and stimulants among college students and older adults) to test reliability of DSM substance use disorders
- Impaired professionals/Elite athletes
- Community members in Northcentral Florida, including rural counties; sex workers
- ED populations
- Populations in Taiwan, Afghanistan, India and Haiti (not discussed today)
Nonmedical Opioid Pain Relievers and All-Cause Mortality: A 27-Year Follow-Up From the Epidemiologic Catchment Area Study

Linda B. Cottler, RN, PhD, MPH, Hui Hu, BS, Bryan A. Smallwood, MPH, James C. Anthony, PhD, MSc, Li-Tzy Wu, RN, ScD, MA, and William W. Eaton, PhD

Objectives. We investigated whether nonmedical opioid pain reliever use is associated with higher mortality in the general US population.

Methods. We assessed the history of nonmedical opioid pain reliever use among 9985 people interviewed at baseline of the Epidemiologic Catchment Area Program initiated in 1981 to 1983 in Baltimore, Maryland; St. Louis, Missouri; and Durham, North Carolina. We linked the data with the National Death Index through 2007.

Results. Nonmedical opioid pain reliever use was 1.4%. Compared with no nonmedical drug use, mortality was increased for nonmedical opioid pain reliever use (hazard ratio [HR] = 1.60; 95% confidence interval [CI] = 1.01, 2.53) or nonmedical use of other drugs (HR = 1.31; 95% CI = 1.07, 1.62). Mortality was also higher for males and for those beginning nonmedical opioid pain reliever use before aged 15 years.

Conclusions. A history of nonmedical opioid pain reliever use was associated with increased mortality, in particular for males and early onset users.
<table>
<thead>
<tr>
<th>Drug Use Variable</th>
<th>Minimally Adjusted Model,(^a) HR (95% CI)</th>
<th>Fully Adjusted Model,(^b) HR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Categorization 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonmedical use of opioid pain relievers</td>
<td>1.83 (1.17, 2.87)</td>
<td>1.60 (1.01, 2.53)</td>
</tr>
<tr>
<td>Nonmedical use of other drugs</td>
<td>1.44 (1.17, 1.76)</td>
<td>1.31 (1.07, 1.62)</td>
</tr>
<tr>
<td>No nonmedical use of any drugs (Ref)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Categorization 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonmedical use of opioid pain relievers with age of onset &lt; 15 y</td>
<td>3.85 (1.83, 8.09)</td>
<td>3.25 (1.55, 6.82)</td>
</tr>
<tr>
<td>Nonmedical use of opioid pain relievers with age of onset ≥ 15 y</td>
<td>1.43 (0.83, 2.48)</td>
<td>1.29 (0.74, 2.24)</td>
</tr>
<tr>
<td>Nonmedical use of other drugs with age of onset &lt; 15 y</td>
<td>2.03 (1.19, 3.49)</td>
<td>1.75 (1.00, 3.08)</td>
</tr>
<tr>
<td>Nonmedical use of other drugs with age of onset ≥ 15 y</td>
<td>1.41 (1.14, 1.74)</td>
<td>1.30 (1.05, 1.61)</td>
</tr>
<tr>
<td>No nonmedical use of any drugs (Ref)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Categorization 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonmedical use of opioid pain relievers with history of daily use</td>
<td>2.27 (1.31, 3.95)</td>
<td>2.03 (1.18, 3.51)</td>
</tr>
<tr>
<td>Nonmedical use of opioid pain relievers without history of daily use</td>
<td>1.28 (0.61, 2.67)</td>
<td>1.06 (0.48, 2.32)</td>
</tr>
<tr>
<td>Nonmedical use of other drugs with history of daily use</td>
<td>1.86 (1.41, 2.47)</td>
<td>1.70 (1.28, 2.24)</td>
</tr>
<tr>
<td>Nonmedical use of other drugs without history of daily use</td>
<td>1.28 (1.01, 1.62)</td>
<td>1.17 (0.92, 1.50)</td>
</tr>
<tr>
<td>No nonmedical use of any drugs (Ref)</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. CI = confidence interval; HR = hazard ratio.

\(^a\)Adjusted for age at interview, race/ethnicity, gender, and site.

\(^b\)Adjusted for age at interview, race/ethnicity, gender, site, education, marital status, occupational status, alcohol dependence or abuse, and cigarette smoking.

\(^c\)We determined that participants had a history of daily or near-daily use if they reported “ever used any one of these drugs or any other illicit drug every day for 2 weeks or more.”
Mortality among heroin users and users of other internationally regulated drugs: A 27-year follow-up of users in the Epidemiologic Catchment Area Program household samples

Catalina Lopez-Quintero, Kimberly B. Roth, William W. Eaton, Li-Tzy Wu, Linda B. Cottler, Martha Bruce, James C. Anthony

Show more

http://dx.doi.org/10.1016/j.drugalcdep.2015.08.030

Highlights

- **Heroin** users were 3–4 times more likely to die prematurely as compared to non-using individuals.
- Heroin-predicted excess risk of dying is seen even with relatively low intensity heroin use.
- Traumatic injury, infections (e.g., HIV/AIDS) and poisonings were prominent causes of death among heroin users.
Methods
• US National Death Index (NDI) records through 2007 disclosed 723 deaths.
• NDI enabled estimation of heroin-associated risk of dying as well as survivorship.

Results
• Cumulative mortality for all 18–48 year old participants is 3.9 deaths per 1000 person-years vs 12.4 deaths per 1000 person-years for heroin users.
• Heroin use predicted a 3–4 fold excess of risk of dying prematurely.
• Post-estimation record review showed trauma and infections as top-ranked causes of deaths.
National Monitoring of Adolescent Prescription Stimulants Study (N-MAPSS)
Aims

- Detect current levels and potential signals of misuse, abuse and diversion of Rx stimulants among 10 to 18 year olds, including source
- Detect regional (urban, rural and suburban) as well as secular trends
- Assess other prescription drug use and illicit drug use in this population
Design

- Entertainment venue intercept study
- Ten different cities, nationwide, 4 waves
- Urban, suburban and rural sites
- 11,048 youth
- No parental consent needed: anonymous
- Brief assessment (20 minutes)
- Also asked about other drug use and risk
Questions on past 30-day prescription opioid use

102. In the last 30 days, have you taken Vicodin or Hydrocodone? Examples are pictured above.

107. In the last 30 days, have you taken OxyContin or Oxycodone? Examples are pictured above.
Definition of non-medical use

Non-medical use of opioids in the past 30 days was defined as:

• a non-approved route of administration
  – non-labeled route of administration of medication rather than taken by the labeled oral route

• use that was not prescribed
  – use of someone else’s prescription
Patterns of Opioid Use among 10 to 18 year olds, NMAPSS

Gender differences in prevalence of and risk factors for opioid misuse in youth: Results from N-MAPSS.
Odds for Misuse of Opioids among 10 to 18 year olds

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Home Setting</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School Grades</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Employed</td>
<td>-</td>
<td>.5 (.3,.9)</td>
</tr>
<tr>
<td>Mj Use (past 30 days)</td>
<td>-</td>
<td>3.7 (1.5,8.9)</td>
</tr>
<tr>
<td>Tobacco Use</td>
<td>5.1 (2.2,11.9)</td>
<td>-</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>-</td>
<td>5.6 (1.4, 21.8)</td>
</tr>
<tr>
<td>-ever</td>
<td></td>
<td>8.3 (2.5, 28.1)</td>
</tr>
<tr>
<td>-past 30 days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consequences and risks both.
Prescription Drug Abuse Study
Data from the NIDA-funded Prescription Drug Misuse, Abuse and Dependence Study (Cottler, PI)

- 378 participants, 18 to 65, who used opioids in past 12 months

- Reliability study of DSM IV Substance Use Disorders
40% of users met criteria for DSM IV opioid dependence

- Mainly tolerance/withdrawal
- Giving up activities to use
- Legal problems (not in DSM 5)
Nearly all feel that b/c opioids are medicines obtained from a doctor, they are safe and sharable for the same indication.

<table>
<thead>
<tr>
<th>Lifetime Opioid Dependence*</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had an opioid in the medicine cabinet when you were 14</td>
<td>2.185</td>
<td>1.080-4.417</td>
</tr>
<tr>
<td>Grew up thinking there was a pill for everything</td>
<td>1.816</td>
<td>1.142-2.889</td>
</tr>
<tr>
<td>Parents always give you medicine to feel better when you were 11 to 14</td>
<td>0.954</td>
<td>0.628-1.447</td>
</tr>
</tbody>
</table>
Occupational Hazard

- Elite athletes
THE MOST DANGEROUS GAME.

How to Fix Football
BY SEAN GREGORY

The Crisis in High Schools
BY BUZZ BISSINGER
Dan Johnson, former Miami Dolphins tight end, took nearly 1,000 painkillers/month for career pain.
Study Overview

- Late 2009, contacted by a sports journalist to find out if we would be interested in helping him with an observation:
- Former NFL Players have a significant level of pain, and they misuse prescription drugs
- Some complain of being heavily dependent on pain pills
- Funded by ESPN and NIDA
Sample

- All 1,788 former NFL football players in the 2009 NFL Retired Players Association directory who retired between 1979 and 2006
Substance Use by Level of Pain

Opioid Use:

- None: N=52, N=200
- Mild: N=200
- Moderate: N=280
- Severe: N=111
Injury, pain, and prescription opioid use among former National Football League (NFL) players

Linda B. Cottler\textsuperscript{a,}\textsuperscript{*}, Arbi Ben Abdallah\textsuperscript{a}, Simone M. Cummings\textsuperscript{a}, John Barr\textsuperscript{b}, Rayna Banks\textsuperscript{b}, Ronnie Forchheimer\textsuperscript{b}

\textsuperscript{a} Department of Psychiatry, Washington University School of Medicine, 40 North Kingshighway, Suite 4, St. Louis, MO 63108, USA
\textsuperscript{b} ESPN Enterprise Unit, ESPN Productions, Inc., ESPN Plaza, Bristol, CT 06010, USA
Trajectory of Opioid Use from NFL to Present

Used Prescription Opioids During NFL? (N=644)

No (308) 48%
  - No use past 30 days (286) 93%
  - Used as Rx’d past 30 days (17) 5%
  - Misused past 30 days (5) 2%

Yes (336) 52%
  - Used as Rx’d (98) 29%
  - Misused (238) 71%
    - No use past 30 days (163) 68%
    - Used as Rx’d past 30 days (40) 17%
    - Misused past 30 days (35) 15%
Trajectory of Opioid Use from NFL to Present

- Players who misused during their NFL career were 3.2 times as likely to misuse in the past 30 days as NFL players who used just as prescribed.
- Of the 7% (n = 45) of players who reported past 30 day opioid misuse, 78% (35/45) had a history of opioid misuse during their NFL career.

L.B. Cottler et al. / Drug and Alcohol Dependence 116 (2011) 188–194
Source of Pills during NFL career (n=336)

- 37% obtained from MD only
- 12% obtained from non-medical source only (teammate, coach, trainer, family member)
- 51% obtained from both MD and other source
In Players Own Words

- We should be monitored
- I am sick and need help
- It wasn’t worth it
- I would do it again
Occupational Hazard

- Impaired professionals
Objectives

- Estimate prevalence of substance use, abuse, and dependence disorders, and other psychological disorders in impaired physicians and health professionals
- Who undergo monitoring
- Conducted qualitative and quantitative study
Participants and Recruitment

- Participants were recruited from the Professionals Resource Network (PRN) Impaired Practitioners Program of Florida
  - All individuals had to be at least 18 to consent to participate
  - Physicians, pharmacists, and allied healthcare professionals (e.g. occupational therapists, physical therapists, massage therapists) were recruited during one of their visits to their evaluator

- 6/29 evaluation sites across Florida:
  - Orlando
  - Cape Coral
  - Ft. Lauderdale
  - Miami
  - Tampa
  - Gainesville
Reasons for misuse of prescription medication among physicians undergoing monitoring by a physician health program.

Merlo LJ¹, Singhakant S, Cummings SM, Cottler LB.

Author information

Abstract

OBJECTIVES: Substance-related impairment of physicians is a small but serious problem, with significant consequences for patient safety and public health. The purpose of this study was to identify reasons for prescription drug misuse among physicians referred to a physician health program for monitoring because of substance-related impairment, to develop better mechanisms for prevention and intervention.

METHODS: A total of 55 physicians (94.5% male) who were being monitored by their State physician health program because of substance-related impairment participated in guided focus group discussions. Participation was anonymous. Discussions were transcribed from 9 separate focus groups, lasting 60 to 90 minutes each. Qualitative analyses were conducted to examine themes.

RESULTS: All participants were diagnosed with substance dependence, and 69.1% of them endorsed a history of misusing prescription drugs. Participants documented the following 5 primary reasons for prescription drug misuse: (1) to manage physical pain, (2) to manage emotional/psychiatric distress, (3) to manage stressful situations, (4) to serve recreational purposes, and (5) to avoid withdrawal symptoms.

CONCLUSIONS: Our results emphasize the importance of self-medication as a leading reason for misusing prescription medications, although recreational use was also an important factor. Prevention efforts targeting prescription drug misuse among physicians should be initiated during medical training, with continuing education requirements throughout the physicians' careers.
Prescription drug diversion among substance-impaired pharmacists.

Merlo LJ¹, Cummings SM, Cottler LB.

Author information

Abstract

BACKGROUND AND OBJECTIVES: Prescription drug addiction is a significant problem affecting healthcare professionals. The purpose of the present study was to identify common mechanisms of prescription drug diversion by pharmacists, in order to facilitate the development of effective prevention programs and policies for this high-risk group.

METHODS: A total of 32 pharmacists (71% male) who were being monitored by their State professional health program (PHP) due to substance-related impairment participated in anonymous guided group discussions.

RESULTS: Participants documented six primary methods of drug diversion by pharmacists: (1) taking expired drugs that can no longer be sold by the pharmacy and are awaiting disposal; (2) assuming responsibility for managing the pharmacy inventory and/or changing inventory records to prevent detection of missing drugs; (3) forging prescriptions for themselves, family members, friends, or customers in order to gain access to the drugs; (4) using "sleight of hand" techniques to acquire drugs while filling prescriptions or shelving products; (5) blatantly stealing drugs from the pharmacy, even in front of coworkers or video cameras, and (6) collecting patients' unused medications and keeping them.

CONCLUSIONS AND SCIENTIFIC SIGNIFICANCE: Efforts to address the problem of prescription drug abuse and diversion by pharmacists should be expanded in order to safeguard pharmacies and the patients they serve. Future research should extend this study to larger samples and assess best practices for decreasing prescription drug diversion by pharmacists with addiction.

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Recovering substance-impaired pharmacists' views regarding occupational risks for addiction.

Merlo LJ¹, Cummings SM, Cottler LB.

Abstract

OBJECTIVE: To better understand the occupational risks for substance use disorders among pharmacists and possibilities for improved prevention.

DESIGN: Descriptive, nonexperimental, cross-sectional study.

SETTING: A southeastern state from December 2008 to April 2009.

PARTICIPANTS: 32 participants (72.7% men) from the impaired professionals monitoring groups in the geographic regions within the state that had the greatest number of physicians, pharmacists, and allied health professionals currently under monitoring contracts for substance use disorders.

INTERVENTION: Guided group discussions regarding substance use among health care providers.

MAIN OUTCOME MEASURES: Persistent occupational risks for development of a substance use disorder among pharmacists.

RESULTS: Several occupational hazards unique to the pharmacy profession might contribute to the problem of substance use disorders among some members of this population, including increased access to potent drugs of abuse, a stressful/unpleasant working environment, a culture that unofficially condones medication diversion, lack of education related to addiction, and lack of support for individuals seeking treatment.

CONCLUSION: These results have important implications for the education of student pharmacists, the continuing education of licensed pharmacists, and the management of pharmacies in which these individuals work. Given the potential occupational risks for substance abuse associated with the pharmacy profession, additional training, monitoring, changes to the work environment, and increased confidential access to treatment may be needed to safeguard pharmacy professionals and the communities they serve.
Research Procedure: C-DIS-IV

- Computerized Diagnostic Interview Schedule Version IV (C-DIS-IV)
  - Fully structured questionnaire
  - Instrument based on the logic and background of DSM-IV
  - Used to ascertain levels of substance use, abuse, dependence, and other psychiatric disorders among participants
  - The C-DIS-IV was administered in private by computer
    - Evaluator blinded to the results

Lifetime psychiatric and substance use disorders among impaired physicians in a physicians health program: comparison to a general treatment population: psychopathology of impaired physicians.

Cottler LB¹, Ajinkya S, Merlo LJ, Nixon SJ, Ben Abdallah A, Gold MS.
### PRN Physicians and NESARC Wave 1 matched cohort:

<table>
<thead>
<tr>
<th>PRN physicians (n=101)</th>
<th>NESARC Wave 1 matched physician controls in tx (n=404)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived better health</td>
<td>Increased rate of nicotine dependence</td>
</tr>
<tr>
<td>Increased rate of smoking</td>
<td>Same rate of use as PRN MDs</td>
</tr>
<tr>
<td>Higher rate of crack/cocaine abuse/dependence</td>
<td></td>
</tr>
<tr>
<td>Higher rates of opioid abuse/dependence</td>
<td></td>
</tr>
<tr>
<td>Higher rates of sedative abuse/dependence</td>
<td></td>
</tr>
<tr>
<td>Higher rate of alcohol abuse/dependence</td>
<td></td>
</tr>
</tbody>
</table>
Persons in EDs

- 58% of ED visits are for painful conditions
  Niska R et al, 2007

- EDs are frequently targeted by individuals seeking opioids for nonmedical use
  Wilsey BL, et al, 2005

- Of High School seniors who reported using opioids non-medically, 21% reported that they received these medications from an Emergency Department.

- Bachman JG,
Opioid Risk Tool

- NIDA T32 fellow in ED
- Randomized chairs in ED
- Assessed Opioid Risk: age, family hx of alcohol, illicit drug use, Rx drug use, Personal hx of alcohol, illicit drug use, Rx drug use, depression, psychiatric illness
  - 0-3- low risk
  - 4-7 moderate risk
  - 8-26 high risk
The average Opioid Risk Tool score by age and gender
Young H, Tyndall A and Cottler LB. 2016
The perception of sharing prescribed controlled substances by opioid risk classification

<table>
<thead>
<tr>
<th></th>
<th>Low + Moderate Risk (Score 0-7) N=171</th>
<th>High Opioid Risk (Score 8+) N=129</th>
<th>Total N=300</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-45</td>
<td>91 (53%)</td>
<td>85 (66%)</td>
<td>176 (59%)</td>
<td>0.03</td>
</tr>
<tr>
<td>46-54</td>
<td>24 (14%)</td>
<td>19 (15%)</td>
<td>43 (14%)</td>
<td></td>
</tr>
<tr>
<td>&gt;55</td>
<td>55 (32%)</td>
<td>25 (19%)</td>
<td>80 (27%)</td>
<td></td>
</tr>
<tr>
<td><strong>What do you do with your additional prescribed controlled medications?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share w family &amp; friends</td>
<td>5 (3%)</td>
<td>23 (18%)</td>
<td>28 (9%)</td>
<td>0.001</td>
</tr>
<tr>
<td>Save for later</td>
<td>96 (56%)</td>
<td>85 (68%)</td>
<td>181 (60%)</td>
<td>0.11</td>
</tr>
<tr>
<td>Dispose of all medications appropriately</td>
<td>69 (40%)</td>
<td>29 (22%)</td>
<td>98 (33%)</td>
<td>0.0017</td>
</tr>
<tr>
<td>There is nothing wrong with sharing prescribed controlled substances</td>
<td>21 (12%)</td>
<td>24 (19%)</td>
<td>45 (15%)</td>
<td>0.17</td>
</tr>
</tbody>
</table>
Gaps

- Starts with my talk… too much to say in 15 minutes from decades of work
- Consequences and harms exist and vary with data collected
Youth

- Ask youth what they think would help reduce non-medical use (ex. NMAPSS)
- NIH ABCD study- monitor longitudinally
Occupational Monitoring

- Start early, start young with athletes
- Monitor all elite athletes in all leagues and franchises (hockey, baseball, soccer) longitudinally
- Impaired professionals: need studies past 5 years of monitoring (MDs, pharmacists, nurses, pilots etc)
Public health gaps

- Fund life course studies with appropriate and relevant data
- President’s week focused on opioid epidemic and is one such effort
Important public health measures
FDA requires strong warnings for opioid analgesics, prescription opioid cough products, and benzodiazepine labeling related to serious risks and death from combined use

Action to better inform prescribers and protect patients as part of Agency’s Opioids Action Plan

For Immediate Release
August 31, 2016
Resources are Needed for…

- Standardized surveillance with expert monitoring
  - Experts could be users themselves, giving information through social media, though can produce bias and “fetishized” Science 2106; Palen L and Anderson KM
27 Heroin Overdoses Reported in West Virginia Over Four Hours

A rash of 27 heroin overdoses, including 1 fatal overdose, occurred within a 1.5 mile radius of Cabell County, West Virginia over the course of approximately 4 hours on on August 15, 2016. It is not known what the heroin was mixed with at this time. Below are links to some recent articles about these overdoses.
More Gaps…

- Study Extended Release/Long Acting (ER/LA) Opioids – no studies have been done on these (most still on patent)

- Insufficient data on long-term effectiveness of long-term opioid therapy for chronic pain (even short-acting)
Goals of the Extended-Release/Long-Acting (ER/LA) Opioid PMR studies

To provide quantitative estimates of the serious risks of misuse, abuse, addiction, overdose, and death associated with long-term use of opioid analgesics for management of chronic pain, among patients prescribed ER/LA opioid products. Risk will be assessed relative to efficacy.

As part of a series of post-marketing requirement (PMR) studies for extended-release (ER) and long-acting (LA) opioid analgesics, the Food and Drug Administration (FDA) is requiring New Drug Application (NDA) holders of ER/LA opioids to:

- Conduct studies among patients with chronic pain who are using long-term opioid therapy
- Estimate the incidence of the following clinical endpoints:
  - Misuse
  - Abuse
  - Addiction
  - Overdose
  - Death
- Validate the measures used to estimate the incidence of these endpoints
- Medical chart review of electronic health records is part of this PMR protocol
MUSE Participating Study Sites

- Kaiser Permanente Northwest
  Portland, OR
- Group Health Cooperative
  Seattle, WA
- Kaiser Permanente Southern California
  Pasadena, CA
- Henry Ford Health Systems
  Detroit, MI
- Geisinger Health System
  Danville, PA
- Meyers Primary Care Institute
  Worcester, MA
- Albert Einstein College of Medicine
  New York, NY
- Clinical Directors Network
  New York, NY
- University of Florida
  Gainesville, FL
- Veterans Administration
  Palo Alto, CA
- Kaiser Permanente Southern California
  Pasadena, CA
Final word

- Public health issue: Where you live and what you do makes a difference in your risk for use
- Major harms and consequences are premature deaths, dependence
- Substitution therapy: cannabis, other drugs
- Blend pain research with addiction research
- Epidemic reaches all populations
- Need longitudinal studies with dx criteria and questions to assess all of the causality criteria
- Person centered outcomes
Tip of the Iceberg
Non-medical use of prescription drugs in Bangalore, India.

Nattala P1, Murthy P, Kandavel T, Cottler LB.

Abstract

BACKGROUND: Non-medical prescription drug use is an ongoing problem in India; however, there is paucity of literature in the Indian population.

OBJECTIVE: The objective of the present study is to explore the non-medical use of prescription medicines in urban Bangalore, South India (N = 717).

MATERIALS AND METHODS: Participants were recruited using a mall-intercept approach, wherein they were intercepted in 5 randomly selected shopping malls, and interviewed on their use of prescription medicines.

RESULTS: The mean age of the participants was 28 years (S.D. 5). The non-medical use of different prescription medicine classes over the past 12 months was as follows: anti-inflammatories and analgesics (26%), opioids (17%), antibiotics (13%), and sedatives (12%). The majority reported "use without prescription," while "use in ways other than as prescribed" was also reported. In all cases, chemist shops were the main source of obtaining the drugs non-medically. In multivariate logistic regression analyses, non-medical use was found to be significantly associated with participants' baseline characteristics like gender, education, current employment status, and marital status. Sixty-five percent stated that although "doctor's prescription is not required for common complaints, we can decide ourselves;" while 60% stated, "it's okay to deviate from a prescription as needed." One hundred percent said that "using prescription medicines is more socially acceptable, and safer, compared to alcohol or illicit drugs."

CONCLUSION: These findings underscore the need for considering various contextual factors in tailoring preventive interventions for reducing non-medical use of prescription drugs.
Prevalence of drug and alcohol use in urban Afghanistan: epidemiological data from the Afghanistan National Urban Drug Use Study (ANUDUS).

Cottler LB1, Ajinkya S2, Goldberger BA3, Ghani MA4, Martin DM6, Hu H6, Gold MS7.

Abstract

BACKGROUND: Previous attempts to assess the prevalence of drug use in Afghanistan have focused on subgroups that are not generalisable. In the Afghanistan National Urban Drug Use Study, we assessed risk factors and drug use in Afghanistan through self-report questionnaires that we validated with laboratory test confirmation using analysis of hair, urine, and saliva.

METHODS: The study took place between July 13, 2010, to April 25, 2012, in 11 Afghan provinces. 2187 randomly selected households completed a survey, representing 19 025 household members. We completed surveys with the female head of the household about past and current drug use among members of their household. We also obtained hair, urine, and saliva samples from 5236 people in these households and tested them for metabolites of 13 drugs.

FINDINGS: Of 2170 households with biological samples tested, 247 (11·4%) tested positive for any drug. Overall, opioids were the most prevalent drug in the biological samples (5·6%), although prescription drugs (prescription pain pills, sedatives, and tranquilisers) were the most commonly reported in the past 30 days in the questionnaires (7·6%). Of individuals testing positive for at least one substance, opioids accounted for more than 50% of substance use in women and children, but only a third of substances in men, who predominantly tested positive for cannabinoids. After controlling for age with direct standardisation, individual prevalence of substance use (from laboratory tests) was 7·2% (95% CI 6·1–8·3) in men and 3·1% (2·5–3·7) in women-with a national prevalence of 5·1% (4·4–5·8) and a prevalence of 5·0% (4·1–5·8) in Kabul. Concordance between laboratory test results and self-reports was high.

INTERPRETATION: These data suggest the female head of household to be a knowledgeable informant for household substance use. They also might provide insight into new avenues for targeted behavioural interventions and prevention messages.