Dual Diagnosis: The key to personalised addiction treatment?

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<th>Disclosure</th>
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<td>(Potential) conflict of interest</td>
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Outline

- Looking back
- Dual Disorders
  - Definitions and Is the concept of Dual Disorders important?
  - Epidemiology, pathology
  - Diagnosis and approach
- Personalised Addiction Care
  - What is it? And is it new?
  - Is it the future, and if so how far are we?
  - How does Dual Disorder Treatment help in personalising treatment?
Addiction Care: A Short History

- 1784 – Rush argues that alcoholism should be treated (USA)
- 1849 – “Alcoholism” term coined by Magnus Huss (Sweden)
- 1870's – Keely “cures” for alcoholism in USA
- 1880 – Freud suggests Cocaine to cure alcoholism
- 1910 – Sterilisation laws for addicts, alcoholics and mentally ill (USA)
- 1935 – AA is formed (USA) (Bill Wilson and Dr Bob),
- 1939 – Alcoholics Anonymous book published
- 1948 – Minnesota Model created
- 1950 – Pleasure Centre discovered (Olds and Milner)
- 1952 – AMA defines addiction as a primary, chronic disease with genetic, psychosocial, and environmental factors influencing the condition’s prognosis

https://www.recovery.org/topics/history-of-addiction-treatment/
Addiction Care a short history

- 1958 – Halfway House Association opens
- 1960 – Jellinek (USA) coined “Disease concept of addiction”
- 1964 – 1975 – Medical Aid associations start funding rehab
- 1964 – Methadone introduced
- 1971 – Narcan registered
- 1978 – Dopamine hypothesis of reward (Wise et al)
- 1982 – Betty ford Clinic opens
- 1982 – CA formed
- 1994 – SMART recovery is started
- 1994 – Naltrexone for alcohol registered

https://www.recovery.org/topics/history-of-addiction-treatment/
Addiction Care the last 20 years

- Role of Dopamine and the Nucleus Accumbans confirmed in addiction
- Neuroimaging techniques (MRI, PET etc) identified many structures involved in addiction (Nora Volkow, NIDA president)
- 1999 – Frontostriatal system involved (Jentsch and Taylor)
- 2010 – Executive system/cognitive control of processes responsible for behavioural aspects of addiction (George and Coob)
- CBT (and its different forms)
- Motivational Interviewing
- Combined interventions for addiction
- IDDT: Integrated Dual Disorder treatment
Definitions

...addicts of g...
Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.
Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one’s behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.
Definitions

- Dual diagnosis - Mental illness and substance abuse occurring together in the same person
- Comorbidity - Two (or more) co-occurring disorders / dysfunctions
- Co-occurrence - Two “things” happening at the same time
Concept

- Comorbidity:
  - Addiction plus another mental illness

- Cause/effect on
  - Biological
  - Psychological
  - Social
  - Spiritual
Case Ms. X

- 29 y/o, Asian female, university student, residing in The Hague.
- Presenting with suicidal thoughts (wanting to die when she was 36) because she doesn’t want to live long with the life she’s experiencing.
- In addition: a labile mood, not sleeping well, poor concentration and being distractible, she experiences panic attacks when thinking about exams.
- She uses alcohol daily to calm her nerves and eats coffee to wake up in the mornings and get to lectures.
- She diagnosed herself with borderline personality disorder, panic disorder and depression.
How frequently does it occur?

- Lifetime prevalence of any mental illness: 42.7%
- Lifetime prev.: substance related disorders: 19.1%
  - Lifetime prevalence of mood disorders: 20.1%
  - Lifetime prevalence of anxiety disorders: 19.6%
  - Lifetime prevalence of ADHD: 9.2%
- Lifetime prev: SUD in severe mental illness: 40% - 60%
- Pts in addiction units with mental illness: 60% - 80%

De Graaf et al, NEMESIS-2
How frequently does it occur?

- Schizophrenia also with SUD: 47%
- Bipolar also with SUD: 52% - 56%
- Depression also with SUD: 19% - 27%
- ADHD also with SUD: 20% - 25%
- Anxiety disorders also with SUD: 24% - 35%
- Post Traumatic Stress Disorder also with SUD: 22% - 43%
- Personality Disorders also with SUD: 44% (Alcohol)
How frequently does it occur?

- Pathological Gambling Disorder
  - Lifetime prevalence: any other psychiatric disorder 97%
  - + alcohol use disorder 75%
  - + drug use 40%
  - Personality disorders > 60%
  - Mood disorders ~ 50%
  - Anxiety disorders > 40%

Case Ms. X continued

- In early childhood she had feelings of insecurity, poor attachment to her parents and often felt depressed.
- Later in life she realized that even though she was academically strong she struggled with completing tasks, always being late and only performing well under pressure.
- After many failures she started to become more and more anxious resulting in panic attacks, experiencing fear of failing and eventually fear of fear itself.
- It was in University where she realized that she can augment behaviour using alcohol and coffee to decrease restlessness and increase alertness.
THE GOLDEN CIRCLE

WHAT

HOW

WHY

by SIMON SINEK
Why do people start using?

- Experimental
- To feel good
- To feel better
- To do better
“The Chicken - or - The Chicken Egg”
What is the interaction in Dual Diagnosis?

- Primary mental illness leading to addiction
  - Self medicating symptoms
  - Self medicating side effects
    - Schizophrenia: nicotine use $\rightarrow$ decreased S/E and (-) symptoms

- Mental illness itself can trigger or worsen addiction
  - Mania: increased impulsivity $\rightarrow$ increase risk of use/relapse
  - Panic: alcohol $\rightarrow$ impulsivity $\rightarrow$ other addiction

- Prescribing addictive medicine might trigger addiction (rare)
What is the interaction in Dual Diagnosis?

- Primary addiction with psychiatric sequelae
  - Intoxication can cause symptoms of mental illness
  - Substance use can unmask underlying mental illness
  - No clear evidence if substance use cause mental illness as such
    - Cannabis – inducing first psychosis
  - Substance use can worsen existing mental illness
What is the interaction in Dual Diagnosis?

- Dual primary diagnosis (Two separate diagnoses, unrelated, might interact)

- Common etiology
  - Bio-psycho-social factors lead to both conditions e.g. Family dysfunction + conduct disorder = addiction
  - Shared genetic risk e.g. ADHD and addiction have shared genomes involved
<table>
<thead>
<tr>
<th>Case Ms X continued</th>
<th>Infancy</th>
<th>Childhood</th>
<th>Adolescence</th>
<th>Early adulthood</th>
</tr>
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<tbody>
<tr>
<td>Attachment issues with strict father, emotionally unavailable mother</td>
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<tr>
<td>Restlessness, inattention, underachievement, not finishing tasks, etc</td>
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<td></td>
<td></td>
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<tr>
<td>Depression, feelings of worthlessness, poor self esteem</td>
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<tr>
<td>Alcohol use daily, augmenting attention and performance with alcohol and dry coffee</td>
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<td></td>
<td></td>
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<tr>
<td>Anxiety and panic attacks when not using alcohol or coffee</td>
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Untreated dual diagnosis

- Negative effect on treatment
  - Addiction predicts worse outcome for mental illness
  - Mental illness predicts worse outcome for addiction
  - Non-response or poor response to regular treatment
  - More frequently non-compliant
  - Increased hospital admission rates
  - Increased suicidality rate
  - Increase overall health cost
Untreated dual diagnosis

- Negative effect on psychosocial functioning
  - Higher rate of homelessness
  - Higher unemployment rate
  - More family problems
  - Legal problems / arrest more likely / frequent

- Medical problems
  - Higher HIV, Hepatitis and STD rate
  - Higher mortality rate
Untreated dual diagnosis

- Poor accessibility to health services
  - More stigma within health sector
  - Less qualified staff to treat both disorders
  - More problems getting care / treatment
  - Lower availability of dual disorder facilities
Assessment – the bare minimum

- Biographical assessment incl. family history (Lifespan + genogram)
- Complete addiction history
- Complete medical and psychiatric history (symptom clusters)
- Trauma history (physical / emotional / ACE)
- Functioning (QOL, different life domains)
- Assess safety
- Screening tools are not diagnostic
- First the big picture, then treatment strategy
## Bio-psycho-social model

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<tr>
<th>Biological</th>
<th>Psychological</th>
<th>Social</th>
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<tr>
<td>• Genetic predisposition</td>
<td>• Personality structure</td>
<td>• Peer relationships</td>
</tr>
<tr>
<td>• Physical development</td>
<td>• Self-esteem</td>
<td>• Family constellation</td>
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<tr>
<td>• Intelligence</td>
<td>• Insight</td>
<td>• Transitions within the family (ARISE)</td>
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<tr>
<td>• Temperament</td>
<td>• Defence mechanisms</td>
<td>• Work environment</td>
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<tr>
<td>• Medical comorbidity</td>
<td>• Patterns of cognition</td>
<td>• Ethnic influences</td>
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<td></td>
<td>• Responses to stressors</td>
<td>• Socioeconomic issues</td>
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<td></td>
<td>• Trauma history</td>
<td>• Culture</td>
</tr>
<tr>
<td></td>
<td>• ACE (Adverse Childhood Events)</td>
<td>• Religion</td>
</tr>
<tr>
<td></td>
<td>• Coping strategies</td>
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The Big Picture (Dynamic approach)

**Predisposing factors:**
“What made me vulnerable in the first place?”

**Precipitating factors:**
“What triggered the most recent episode?”

**Problems/diagnoses:**

**Protective factors:**
“Which positive things do I have going for me?”

**Perpetuating factors:**
Things that keep the problems going on / keeps me from recovery
Diagnosis – some aspects

- Does it matter?
- Only diagnose if you are trained to do so
- Be careful with sharing provisional / differential diagnoses
- Stay clear of lay diagnoses
- Questionnaires are never diagnostic
- DSM-5 / ICD
- Psychodynamic diagnosis
- Capture the Big Picture
Implication for specific treatment

Quadrants of Minkhoff

- **A**: Severe mental illness, mild addiction
- **B**: Severe addiction, mild mental illness
- **C**: Severe mental illness, severe addiction
Implications for treatment

- Indication for more specific treatment
- Taking into account more factors
Sequential treatment

First: SUD
Second: Mood D/O
Third: Anxiety D/O
Forth: ADHD
Last: Nicotine use

Treatment in adults often stop here
Treatment in children often start here
Sequential treatment

First: SUD
Second: Mood D/O
Third: Anxiety D/O
Forth: ADHD
Last: Nicotine use

Increase relapse risk
Integrated Dual Disorder Treatment

According to most pressing or clear diagnosis, start treatment with most pressing, thereafter treat sequentially, monitor closely, clarify diagnosis.
Integrated Dual Disorder Treatment

- Same team
- Same location
- Same time

- More effective than parallel treatment

- At least ten studies show integrated treatment is more effective than traditional sequential treatment

Drake et al, Schiz Bulletin 1998; Drake et al, Psych Services 2001 for summaries
Integrated Dual Disorder Treatment

- Multidisciplinary Team
- Stage-Wise Interventions (stages of change, stages of treatment)
- Access to Comprehensive Services (e.g., residential, etc.)
- Time-Unlimited Services Assertive Outreach
- Motivational Interventions (And invitational interventions, ARISE?)
- Substance Abuse Counseling

Drake et al, Schiz Bulletin 1998; Drake et al, Psych Services 2001 for summaries
Integrated Dual Disorder Treatment

- Group Treatment
- Family Participation
- Participation in Alcohol & Drug Self-Help Groups
- Pharmacological Treatment
- Interventions to Promote Health
- Secondary Interventions for Treatment of Non-Responders

Drake et al, Schiz Bulletin 1998; Drake et al, Psych Services 2001 for summaries
Personalised addiction care
Personalised medicine: is it new?

- 400 BC  Hippocrates (Dx and Rx of individuals according to the 4 humours (blood, phlegm, black bile and yellow bile)
- 19\textsuperscript{th} century  Claude Bernard “a physician treats an individual in an individual manner”
- 1902  Archibald Garrod’s paper “The incidence of allcaptonuria: A study in Chemical Individuality”
- 2015  E Vieta coined term precision psychiatry in the column (personalised medicine applied to mental health: precision psychiatry

Personalised medicine

- **Personalised medicine** implies a targeted focus on the patient’s individual characteristics and a better selection of treatment strategies to increase positive outcomes and reduce misdiagnoses and cost.

- **Precision medicine** implies that technologies and treatments are not developed for each individual patient, but rather that a high level of exactness in measurement will be achieved such that eventually it will be personalized.


Precision psychiatry

“an emerging approach for treatment and prevention that takes into account each persons variability in genes, environment and lifestyle”

LEXICALLY a modifier:
- “the quality, condition or fact of being accurate”
- “refinement in a measurement, calculation or specification”

IMPLICATION: psychiatry will have foundation in measurement, thus objectivity instead of subjectivity

GOALS and implication of Precision in addiction care

- More accurate diagnosing
- Through individualised assessment
- To treat more specifically
- In order to improve outcomes
- And decrease cost

Implication of Precision in addiction care

- NNT (Number Needed for Treatment) = epidemiological measure that estimates the number of patients needed to be treated in order for one to benefit from the treatment
- Evidence Based Practice = proving one treatment for one group of patients
- Evidence Based Guidelines = are limited AND currently they compare groups of people with the treatment to groups of people without
- Meta-analyses = designed to study specific interventions and compare these; therefore they compare average differences and do very little to predict outcome for an individual
- WHAT IS NEEDED? Evidence based strategies and predictive instruments to adequately select treatment or prevention strategies

Personalised care – key points / summary

- Medicine has always had a personalised approach
- Psychiatry as the most subjective of all disciplines has the most to gain from precision medicine
- Even though precision psychiatry is still new, we have a lot to offer when it comes to personalised approaches to care
- Precision psychiatry will revolutionise the field – also for addiction care
- Precision psychiatry will add to personalised psychiatry (and therefore addiction medicine)

How will practice be changed?

- Diagnosis will be more precise
- Genetics will become more important
- Treatment selection will be more precise
UBUNTU - “I am because we are”
1. Cultural aspects

- “A common heritage or set of beliefs, norms, and values shared by a group of people”
- Dynamic
- Has impact on:
  - Prevention of mental illness and/or addiction
  - Development of mental illness and/or addiction
  - Motivation for treatment
  - Type of treatment best suited
  - Recovery process
  - Relapse risk
1. Cultural aspects

- Stigma through culture
- Society, subgroup, family etc.
- Practice should be personalised:
  - Understand racial, ethnic, religious and cultural background
  - Understand influence this has on both addiction and comorbidity
  - Recognize the effect on motivation, treatment, recovery and relapse risk
  - Develop programmes and train staff in order to be more culturally sensitive
  - Family therapy
Case Ms. X continued

- Cultural aspects
  - Parents denied the diagnosis of ADHD (father nor daughter sought help)
  - Thus, primary underlying trigger which led to addiction was never treated
  - Addiction is stigmatized and the family was ashamed to talk about this, hindering her to seek help
  - Therapy was influenced by shame, absence of family involvement and differences in cultural background of team and patient
  - Understanding the effects of immigration, marginalisation and lack of cultural bonding to Dutch Culture were liberating for the patient
2. Family

- ARISE
- Genograms
- Transitional Family therapy
- Genetic component
- Heritage
- Resilience
Case Ms. X continued

“Mother”
DD: Depression
?Personality D/O

“Brother”
Alcohol
Internet gaming addiction

Immigration, 1980

“Ms X”
Alcohol
Caffeine
DD: ADHD
?Depression
?Panic D/O
Attachment
Self-esteem
Psychosocial problems

“Father”
Alcohol
DD: ?ADHD
?Depression

Death, 2016

Immigration, 1980

“Father”
Alcohol
DD: ?ADHD
?Depression

Death, 2016
3. Ethics

- Autonomy vs paternalism
4. Gender specific approach

- Gender groups
- Stereotypes
- Stigma
- Sexual preference and identity
5. e-Health

- Outreach pre treatment
- Prevention
- Used in treatment
- Outcome monitoring
- Tracking processes
- Research
  - Big data
  - Individual progress / outcome / parameters
Ms. X outcomes

- After 6 weeks: treated for addiction and ADHD.
- Rest and focus, able to do work necessary for her recovery.
- Engaged in 12 step meetings as well as ADHD support groups.
- At university work on end thesis and her grades improved.
- No anxiety or panic attacks and she wanted to live until she was really old.
- Resistance of family to engage in therapy remains
- She experience hope for the future and connection with fellows and this kept her going and working on her recovery.
GOAL of treatment is RECOVERY

SUBSTANCE USE DISORDER COURSE OF RECOVERY

ADDICTION ONSET
HELP SEEKING

4-5 YEARS
SELF INITIATED CESSATION ATTEMPTS

8 YEARS
4-5 TREATMENT EPISODES
MUTUAL HELP ORGANIZATIONS

5 YEARS
CONTINUING CARE
MUTUAL HELP ORGANIZATIONS

FULL SUSTAINED REMISSION
(1 YR ABSTINENT)

RELAPSE RISK DROPS BELOW 15%

OPPORTUNITY FOR EARLIER DETECTION THROUGH SCREENING IN NON-SPECIALTY SETTINGS LIKE PRIMARY CARE/ED

60% OF INDIVIDUALS WITH ADDICTION WILL ACHIEVE FULL SUSTAINED REMISSION (WHITE, 2013)

RECOVERY RESEARCH INSTITUTE
RECOVERYANSWERS.ORG
Recovery from the patients perspective

- Feeling supported by family and peers and being able to participate in the community - BEING CONNECTED

- Holistic and individualized treatment approach, seeing the person “behind the symptoms” – INDIVIDUALIZED TREATMENT/ SHARED DECISION MAKING

Recovery from the patients perspective

- Having personal beliefs, such as fostering feelings of hope, building a new sense of identity, gaining ownership over one's life, and finding support in spirituality – SPIRITUALITY

- Importance of meaningful activities that structure one's life and give one motivation to carry on - MEANINGFULLNESS

Next Tuesday

- Review your current caseload and review for any missed dual diagnoses
  - Use timelines, biographies, genograms and dynamic formulations in order to UNDERSTAND
- Consider your own initial assessment of patients
- Be sure to:
  - See the WHOLE patient
  - Install HOPE
  - LISTEN
  - Be KIND
  - Show COMPASSION
  - Build TRUST
Thank You

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