Normality & Psychiatry

Rod Moore, dr. odont.

Discussion

• Normality – What does it mean to be normal?
  [link](http://www.youtube.com/watch?v=9uKZT1k0O6M&hl=en)

Why study abnormality?

• Compromises ability for contact/communication
• Influences behaviour in the chair → pain perception and cooperation
• Psychoactive medications → Xerostomia, drug interactions

Meaningfulness of language

• From a social perspective fx people with another language or the way one speaks, can fall outside of "normal"
• Think of the difficulty providing treatment without understandable language!
• Often there is a need for interpreters. This is more and more common, such as foreign language, but also help for handicapped, dementia, other mental illness

Normality

• Statistical (e.g. most frequently occurring, average)
• Social/ethnic (e.g. social norms)
• Healthy/sick (e.g. physical, mental)
• Ethical/moral (e.g. virtuous)

Questions

• What mental health patients do we find in the dental clinic?
• What patients do we most frequently encounter?
Mental illness is far more frequent than most people think
Of 5.5 million Danes (2011)
• At least 200,000 suffer from depression
• At least 250,000 of severe anxiety
• At least 200,000 of abuse
• At least 60,000 of personality disorders
• 50,000 of dementia/Alzheimer’s (15% over 65 år)
• 40,000 are affected by severe psychoses

Every other Danish family is in contact with the mental health care system re. treatment

Occurrence of mental illness, contd.
• 15% depressive symptoms-recurring depression or lasting sadness
• 20% have phobias, panic attacks or persistent anxiety
• 20% have substance abuse problems - alcohol/drugs
• 15% over 65 years old will suffer dementia
• 12% experience personality disorders
• Many have several symptom types (co-morbidity)
• Ca. 700 Danes commit suicide each year; 10 times as many try

Dynamic gradient
• "Psychiatric illnesses have dynamic gradients"
• "... no clear correlation between the psychiatric diagnosis and psychiatric patients’ functional level"
(Hemningsen et al., 2000)

Questions
• When is one mentally ill?
• What is mental illness?
behavioral maladaptiveness?

Diagnostic models
• Dimensional models (dimensionality, continuity) - degrees of symptoms
• Typological models (Categories) – ICD og DSM

2015 → ICD-11 and DSM-V will converge
Psychiatric Diagnoses
• Principal – main Dx causing need for Tx
• Provisional – symptoms that occupy some of the patient’s dysfunctionality
• Co-morbidity
  > 85% of pts. have another provisional Dx
  > 60% of pts. have at least two

Psychotic disorders
• Classical: Loss of contact with prevailing social reality
  “The concept of psychosis is where the patient has lost the ability to assess (test) reality marked by his experiences, feelings, ideas and behavior”
  (Hemningsen et al., 2000)
  – Schizophrenia et al. psychotic mental disorders
  – Heavy affective states (depression, bipolar)
  – Addiction (drugs)
  – Organic disorders (dementia/Alzheimer’s)

Categorical Diagnostic Systems
• DSM-V
• (ICD-11)

Psychotic versus Not psychotic

Psychotic disorders

Schizophrenia (DSM)
Characteristic symptoms:
* Delusions  
  * Hallucinations (voices)
* Disorganized speech
* Have their own logic
* Very disorganized or catatonic behavior
* Emotionally flat
• A single criterion symptom above is sufficient for diagnosis, if imagination is bizarre or hallucinations consist of commentative or conversive voices
• Social/occupational dysfunction: Reduction in one or more of the person’s daily functional areas

Psychotic versus Non-psychotic
• Psychotic = Perception of reality is NOT normal; most often leads to antisocial behavior, and is often greatly debilitating; Moderate to severe mental disorders
• Non-psychotic = Perception of reality is normative; does not usually lead to anti-social behavior, but can be severely debilitating; Slight to moderate mental disorders

http://www.youtube.com/watch?v=c5zDmOZjXBI&NR=1
Schizophrenia, clinical impressions

- The patient is experiencing the world in a distorted way, i.e. experiences things by his "own logic".
- You can't change this, so keep in mind...
  - Ensure that the patient is under treatment/takes medicine
  - Neuroleptics → xerostomia, hyposalivation
  - Be calm; keep conversation on current situation
  - Repeat and summarize the verbal contract often
  - Physical contact can be problematic; must be clear and part of a verbal contract
- Often shy and withdrawn; challenges the social context
- Remember! Patients are really experiencing their "own logic". It is no good just to try and "talk sense".

Simpel skizofreni case

- Per 48 yo - Randers in and out of hospital last 13 years
- Genetic predisposed+ traumatic boat accident / mortal fear
- Distorted reality, i.e. experience things by own logic; life takes place in a "bubble" or "bell jar"
- Voices, anxiety panic attacks and self-isolation
- Many years of Zoloft did not work; now Seroquel
- Per first now sees a "social life" and is "starting all over"; it's a challenge after "being a patient" for 33 years.
- Per also suffers from severe odontophobia; (co-morbid) feels embarrassed and guilty; girlfriend doesn't know
- Tx challenge: avoid provoking the "BIG anxiety" during odontophobia therapy.
- Rx: conversations; short sessions; manageable agreements

Depression

- Moderate-severe depression can be psychotic
- Light-moderate depression not usually psychotic

Dysthemia

- Light-moderate mood swing; non-psychotic

Affective disorders (depression, mood swings)

- Depression
  - Emotional symptoms
    - Melancholy, guilt, weeping, anxiety.
    - Mood worst in morning; better during day.
    - 92% lose interest in former interests.
    - 64% isolate themselves from other people;
    - 2 x more often women
  - Cognitive symptoms
    - Negative thoughts self, others, future (despair).
    - Motivation-related symptoms
    - Difficulty in taking action; deciding.
  - Physical symptoms
    - Decreased appetite, weight changes, sleeping problems, reduced libido, headache, back pain, brain damage

- Dysthemia
  - Light-moderate mood swing; non-psychotic

Depression (severe, controlled type)

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- Physical symptoms

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Depression (severe, controlled type)

- Cognitive symptoms
- Physical symptoms
As a dentist meeting patients with severe depression (medicated): remember to ...
• ensure patient complies: medicine, control
• difficult to motivate/agree with due to feelings of emptiness and indifference.
• pain threshold has been adversely affected
• only older psychotropic substances (MAO-inhibitors) interact with local anesthesia
• Often xerostomia depending on medicine

Bipolar disorder - clinical impression
• Often experience patient as completely "down" or completely "up"; (not always diagnosed in earlier phases)
• Remember that the patient is ill and needs help.
• The patient can seem very irritating and appealing
• Patients often say and do things they regret afterwards, e.g. concerning money, openness, sex. Pay attention your own limits, and to patient's lack there of.
• The patient is often sharp. Can't talk the patient "down". You must remain calm and organized (not easy).
• Wait to decide on some treatments to a more "controlled" period (e.g. expensive crown & bridge etc.)

Non-psychotic disorders
• Reality perception is normal; disturbance does not usually lead to anti-social behavior, but can be severely debilitating
• “Light to moderate mental disorders"
  – Personality disorders (incl. BPD)
  – Neurodevelopmental disorders (ASD, ADHD, Tics )
  – Eating disorders (bulimia, anorexia)
  – Light to moderate depression or mood swing
  – Obsessive Compulsive Disorder (OCD)
  – Posttraumatic Stress Disorder (PTSD)
  – Anxiety modes (general anxiety, panic, phobias)

Personality
• "Personality is an individual and complex pattern of fundamental and stable psychological traits. These traits express themselves as an individual's typical and recurring way to think, feel and act."
  (Hemmingen et al., 2000)
Normality and personality

• There is a continuum, where individuals can be very different without being abnormal.

Fx Rod Moore

<table>
<thead>
<tr>
<th>Trait</th>
<th>%</th>
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<tbody>
<tr>
<td>Openness</td>
<td>89%</td>
</tr>
<tr>
<td>Conscientiousness/duty</td>
<td>64%</td>
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<tr>
<td>Extroverted</td>
<td>74%</td>
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<tr>
<td>Kindness</td>
<td>73%</td>
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<tr>
<td>Nervousness</td>
<td>25%</td>
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Personality Disorders

• Eccentric/severe (paranoid, schizoid personality disorder, skizotypal)
• Dramatic/serious (anti-social, histrionic, narcissistic, unstable)
• Avoidant/mild (dependent, evasive, compulsive)

Distribution of personality traits in a population (e.g. Danish)

Hemminguen et al., 2000

Borderline personality disorder

http://www.youtube.com/watch?v=eOphgCJX1FY

“Borderline” in the dental clinic

• Patients have a very dualistic worldview (either good or evil); consider authority as complete and “praise” it, or test its boundaries, provoke, complain and perhaps threaten
• Very unstable mood; often interpret social situations erroneously; reading too much into or overlooking entirely obvious signs; can display paranoia
• Tendency to feel "abandoned" and to be afraid of this. So they should feel welcome.
• Very confused about “Who am I?”; can be self-injurious; “cutting”
Neurodevelopmental Disorders

• Autistic Spectrum Disorders – 1%
• ADHD - 5-9%
• Tics in passing, 15-25% ?
• Tourette - 1-3%

ADHD

Can’t cure it, but rather work with it for improved functionality

• Reduce risk for further complications
• Fit the environment to the patient’s needs
• Improve the patient’s, parents’ and teachers’ ability to deal with the symptoms

Affective disorders (depression, dysthemia)

Light-moderate depression = non-psychotic

* ADHD (Attention Deficit Hyperactivity Disorder)

The symptoms fall into three groups:
• Inattentive or switch focus rapidly AD
• Hyperactive HD
• Impulsivity (often fear of dental treatment)

Important to treat in short sessions (1 hr max)
ADHD is seen in
5-9% of children 4-17 yo
4-5% of adults 18-44 yo (USA)
3-4 times more frequent in men/boys

http://www.youtube.com/watch?v=8MWz.vjgK4c

ADHD

Can’t cure it, but rather work with it for improved functionality

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Depression (DSM)

At least 5 of the following symptoms, over 2 weeks; at least one symptom must be depressed mood, lack of interest or lost pleasure sentiment (on most days)
- Depressed mood most of the day
- Markedly reduced interest in daily activities
- Significant unintended weight loss or - gains (5% in one month), or increased or decreased appetite
- Sleep problems (insomnia or hypersomnia)
- Psychomotor agitation or deceleration
- Fatigue or loss of energy most days
- Senses lack of value, helplessness or extensive guilt
- Reduced ability to think, focus, decide
- Recurrent thoughts of death (not just fear of death), suicidal ideations or attempts

Non-psychotic disorders (DSM-V)

Reality perception is normal; disorder does not usually lead to anti-social behavior, but can be severely debilitating

"Mild to moderate mental disorders"
- Personality disorders (incl. BPD)
- Neurodevelopmental disorders (ASD, ADHD)
- Mild affective disorders (depression, dysthemia)
- Eating disorders (bulimia, anorexia)
- Obsessive Compulsive Disorder (OCD)
- Posttraumatic Stress Disorder (PTSD)
- Anxiety disorders (general anxiety, panic, phobias)

Depression (DSM), cont’d

- Symptoms do not meet criteria for a mixed episode (bipolar)
- Symptoms cause clinically significant "distress" or disability in social, job function or other important areas
- Symptoms are not caused by abuse of medication or medical condition
- Symptoms can not be attributed to loss

Bulimia nervosa

Repeated overeating in specific periods with compensatory behavior such as:
- Self-induced vomiting; abuse of laxatives, dehydrating agents, enemas, fasting or excessive sport
- Above at least 2 times a week for 3 months
- Harsh self-evaluation by body shape / weight
- Often associated with anorexia

http://www.youtube.com/watch?v=aMeqxDQ3cks&feature=related

Depression/Dysthemia

When you encounter a patient with undiagnosed mild depression/dysthemia symptoms:
- It is most often a result of stress & work overload.
- You cannot change it.
- Please be quiet and spacious.
- They can be difficult to motivate/agree with.
- Pain threshold has been adversely negatively affected.
- Refer to physician if you recognize symptoms and they affect daily functions

Bulimia – clinical evidence
OCD
- Obsessive-compulsive disorder
  Genetic predisposition; thus more comparable with psychotic disorders
  Examples in films: "As Good As It Gets", "Aviator"
  http://www.youtube.com/watch?v=44DCWbxNM&feature=related
  http://www.youtube.com/watch?v=JRo1OYzgm8&amp;NR=1 OCD kasusdok

Allow enough time for these patients!

Continuum concept of anxiety
- Adaptive anxiety:
  - An adaptive reaction comes in response to what may be a realistic danger; body becomes ready for “fight or flight”.
- Pathological anxiety:
  - Unrealistic or exaggerated fear reactions, which impair or restrict people’s everyday lives/function

Post-Traumatic Stress Disorder (PTSD)
- Reliving trauma: repeated nightmares
- Avoidance of similar situations
- Irritability, anhedonia
- Substance / alcohol abuse
- Aggression
- Often difficulty with dental treatment; triggers fearful responses
  http://www.youtube.com/watch?v=1HrYDHnO6EM&feature=fvwrel

Anxiety Disorders
- General anxiety disorder (GAD)
- Panic anxiety disorder (PD)
- Social anxiety disorder (SAD)
- Phobia (extended avoidance due to anxiety)

Anxiety & The Limbic System
“Old brain and New brain”

Adaptive anxiety
Pathological anxiety

THE ANATOMY OF ANXIETY...
Limbic system

- **Hippocampus**: records details, facts and data; a conduit to the cortex (new brain) for processing meaning. Can easily experience cell destruction with overload and lead to memory loss.

- **Amygdala**: central to registering emotional significance of stressful stimuli and creating "emotional memories". Triggers hypothalamus to release stress hormones. A smoke detector for body and brain, regarding survival needs and threats. Connections with new brain and sensory nerves aid learning about potential threats for the future, creating/modifying trigger responses.

- **Thalamus**: receives information outside the body through senses and passes it on to the cortex and amygdala for taking action.

- **Hypothalamus**: sends and receives information inside the body. Starts stress response by telling adrenal glands to produce. If hypothalamus is overtrained to respond to stress, it helps define personal reaction patterns such as emotional/physical overreaction to "lesser" stressors.

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**Anxiety disorders**

- **General anxiety disorder (GAD)**
  - anxiety and concern for many things over a long time; nervous behavior, very animated

- **Panic disorder (PD)**
  - anxiety and concern for many things over a long time; nervous behavior, very animated

These can be co-morbid with depression/dysthemia to some degree or other

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**Social Anxiety Disorder (SAD)**

- fear/avoidance of social/performance situations or enduring them with distress.
- E.g., eating, drinking, or writing in public; talking to authority figures; giving a talk; attending social events; being observed at work; using a public toilet, and being the center of attention.
- Common somatic complaints: trembling, shaking, blushing, sweating, stuttering, abdominal distress, and palpitations.

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**Phobias**

Resemble panic-like reactions, but specific to:

- **things**: (e.g. spiders, snakes, injections, sharp objects etc)
- **situation/events**: (e.g. flying, death, accidents etc.) or
- **social situations**: (e.g. giving speech, being on stage, blushing, public toilets, anxious re. what others think etc.)

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**Questions**

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Extra slides on neurophysiology of anxiety/depression (PDF) →
Neurophysiology of anxiety:

- Stress response activates hypothalamic-pituitary-adrenal axis, which is hyperactive in depression and anxiety disorders.
- Corticotropin-releasing factor (CRF), a 41 amino acid peptide, is a CNS neurotransmitter that mediates these autonomic, behavioral, immune, and endocrine stress responses.
- CRF peptide also increases pain perception.
- γ-Aminobutyric acid (GABA) inhibits CRF release.

Shelton, 2004

Glucocorticoid stress hormones activate the locus caeruleus in the brainstem to produce norepinephrine activating the amygdala. Amygdala also sends more CRF, leading to a vicious circle of feedback between mind and body. Repeated stimulation of amygdala & hippocampus results in neurocell-destruction and influences newer regions of the brain (ie, long-term sensitization). Prolonged exposure of the CNS to glucocorticoid hormones eventually depletes norepinephrine levels in the locus caeruleus. As norepinephrine is an important neurotransmitter involved in attention, vigilance, motivation, and activity, the onset of depression may subsequently occur. Lack of serotonin increases in anxiety disorders and agents that enhance serotonin neurotransmission may stimulate hippocampal 5 HT1A receptors, thus promoting neuroprotection and an anxiolytic effect. Levels of GABA appear to be decreased in the cortex of patients with PD, compared with those in control subjects. Benzodiazepines facilitate GABA neurotransmission and reduce anxiety.

Shelton, 2004