THE SEVEN SINS OF PSYCHOPHARMACOLOGY

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HOW DO CLINICIANS LEARN ABOUT PSYCHOTROPIC DRUGS?

• Reading the literature
• Continuing medical education
• Colleagues
• Clinical experience
HOW DO CLINICIANS LEARN ABOUT PSYCHOTROPIC DRUGS IF:

- They don’t read the literature?
- They don’t attend CME activities?
- They practice in isolation?
- Their clinical practice is skewed and is small?

ANSWER: CLINICAL TRIAL AND ERROR, OR WORD OF MOUTH HEARSAY EVIDENCE
SOME GENERALLY ACCEPTED RESEARCH DATA THAT DRIVE CLINICAL PRACTICE

• Antipsychotics are effective agents for acute treatment of psychosis and prevention of relapse
• Antidepressants are effective agents for acute treatment of depression and prevention of relapse
• Some mood stabilizers are effective for acute treatment cycling mood disorders and prevention of relapse
• Benzodiazepines are effective for acute treatment of anxiety (and some sleep disturbances) and prevention of relapse
• Cognitive enhancers may be effective for moderating decline of Alzheimer’s dementia
NOT ALL EVIDENCE IS EQUALLY RELIABLE OR VALID

EXAMPLES OF QUESTIONABLE DATA:

• Are the new drugs better than the old? *(SOMETIMES, BUT NOT OFTEN)*
• Are there differences among the new drugs? *(OCCASIONALLY)*
• Do psychotropic drugs have specific therapeutic properties (for specific symptoms? Specific diagnoses? Specific patients? *(DOUBTFUL)*
• Are higher doses better? *(NOT USUALLY)*
• Is polypharmacy (even “creative polypharmacy”) really helpful? *(DEPENDS ON WHOM YOU ASK)*
PROBLEMS WITH CLINICAL TRIALS RESEARCH

• Studies are often designed by drug companies (NOT ALWAYS AS BAD AS YOU MIGHT THINK)

• Diagnostic heterogeneity in order to achieve adequate samples (VERY COMMON DESPITE USE OF DSM CRITERIA)

• Doses do not correspond to clinical practice (USUALLY TOO LOW IN A CLINICAL TRIAL, FOR SAFETY)

• Short time-frame for study of therapeutic effect (ALMOST ALWAYS TOO SHORT; TIME COUNTS)
PROBLEMS WITH CLINICAL TRIALS RESEARCH-II

- Use of rating scales that have little clinical relevance (EXAMPLE: 17 ITEM HAM-D SCALE HAS ONLY 1 ITEM RATING DEPRESSION)
- Rush to publication of small sample results (OH DEAR; WHAT ARE THE EDITORS DOING?)
- Publication of dissemination of small differences in large sample studies (THE EDITORS ARE STARTING TO DO A BETTER JOB OF SCREENING MANUSCRIPTS)
- Some valid data may be misinterpreted and lead to erroneous prescribing, or under prescribing (RESULTS OFTEN TRUMPETED IN MEDIA)
SOME EVIDENCE MAY CAUSE CONFUSION IN A CLINICIAN

- May erroneously shift prescribing practices
- May have medico-legal standing
- Is used to create algorithms and expert guidelines that may not correspond to clinical experience
- May interfere with “art of prescribing”
PROBLEMS READING THE LITERATURE

• Not enough time
  – Too many journals
  – Too expensive to subscribe
  – Journals too technical
    • Increased level of pharmacological and neurobiological sophistication

• Usual solutions
  – Don’t read at all
  – Read only throwaways, summaries, abstracts
    • May not accurately convey information
    • May be biased, drug company supported
PROBLEMS WITH CONTINUING MEDICAL EDUCATION

• Often biased, incomplete
  – May be “too up-do-date” with emphasis on recent discoveries only
  – May be too technical, depending on audience and presenter
  – Too expensive, bad times, need to give up income generating hours to attend
  – “Experts” may not know everything
• Memory for lecture material is poor
• Case-based examples are good but inefficient
PROBLEMS WITH CLINICAL EXPERIENCE

• Opinion about a drug is often based on a very small sample:
  – Many clinicians make up their mind after only 2-3 trials

• Small sample does not take into account many variables in response:
  – Genetic polymorphisms
    • Receptor sensitivity
    • Pharmacokinetics
    • Blood brain barrier
  – Ethnic variations

• Response may be associated with dose
PROBLEMS WITH COLLEAGUES

• Information often based on small sample
• May activate transference-counter transference issues between colleagues
• Experts may not know everything
WHAT IS A CLINICIAN TO DO?

• Usually bases prescribing practices on limited clinical experience and incomplete or inaccurate literature and research, occasionally altering drug choices and doses based on such information.

• This leads to the “7 sins” of psychopharmacology.
SIN #1: THE THREE “D’S”

- **Diagnosis**
  - Need to “go beyond” DSM criteria:
    - Life context of symptoms; current stress
    - Psychological profile of patient; prior symptoms
    - Family history
  - Clinicians may not have adequate time for comprehensive diagnostic evaluation
  - Patients may not provide adequate or accurate information leading to correct diagnosis
  - Prescribing a particular drug for a particular symptom is not always helpful
SIN #1: THE THREE “D’S” - II

• **Dose**
  – Lack of response is often dose related
    • Adequate number of drug molecules must cross the blood-brain-barrier, get to the receptor site and stay there for a sufficient period of time to effect a response
  – May depend on genetic polymorphisms, presence of other medications, ethnic background
  – May be lower or higher than recommended range
    • Sometimes, only a fraction of the usual dose is effective
    • Occasionally (not frequently), very large doses are needed
SIN #1: THE THREE “D’S” - III

- **Duration**
  - Most drugs need to be given for several months (or longer)
    - Psychiatric medications work primarily by changing genetic transcription in the nucleus of neurons; this requires time
  - Adequate doses are often lowered or stopped too soon:
    - Clinician is worried about side effects;
    - Patient feels better and “no longer needs the medication” (very common)
– Stopping too soon increases the likelihood or recurrence (original problem) or relapse (new episode)
– Given the chronic nature of many psychiatric disorders, some drugs need to be continued indefinitely
  • Regular dose check-ups are required
SIN #2: POLYPHARMACY

• Using more than one drug from the same class of therapeutics (e.g. more than one antipsychotic)
  – No data supporting improved therapeutic effect
  – Data demonstrating increased side effects
  – Clear increase in cost
  – Increased side effects and cost may lead to increased non-adherence and relapse
SIN #2: POLYPHARMACY (continued)

- Sometimes, augmentation with a second drug is helpful (e.g. a second antidepressant), but not always; data are unclear
- More than one benzodiazepine or mood stabilizer is rarely useful
SIN #3: NOT TALKING TO THE PATIENT

- Data show that patients respond better to medications when they are prescribed in a context of psychological understanding among patient, family and clinician
  - Feeling understood promotes better therapeutic alliance with prescriber
SIN #4: IS THERE BETTER LIVING THROUGH CHEMISTRY?

• Medications are not the solution for all human suffering
  – Normal worry, grief, sadness, elation, exuberance, do not necessarily require medications

• Patients may expect medications when visiting a doctor

• Doctors may prescribe medications in order to avoid more lengthy and complicated interviews with troubled patients

• Some normal mood fluctuation may be helped by medications ("Listening to Prozac")
SIN #5: LACK OF COMMUNICATION WITH OTHER PHYSICIANS

- Prescribers must know the health status and medications of patients before prescribing psychotropic drugs
- Problems:
  - Insufficient time, staff, or response for information to be requested or received
  - Prescriber grandiosity: “I can do it all myself”
- Other physicians are usually glad to talk with psychiatrists about prescribing psychotropics
SIN #6: LACK OF COMMUNICATION WITH OTHER MENTAL HEALTH PROVIDERS (OR FAMILY)

• Absolute necessity for frequent contact with other treaters and therapists
  – Especially true if therapist is not a physician
    • Therapist thinks prescriber misses the psychological issues
    • Prescriber thinks the therapist misses the diagnosis and severity of the problem
  – May also be a problem when prescriber and therapist are different sexes
SIN #7: NOT KEEPING UP WITH THE LITERATURE

- Reading the wrong literature (biased), misreading the literature (only the abstract) or not reading at all
  - It is absolutely necessary for some updated material to be read regularly
  - Summary newsletters may be excellent sources of new psychopharmacology information

- Reading an article: must pay attention to:
  - Sample size, duration of study, doses, rating scales, outcome criteria; rudimentary statistics
  - Who supported and funded the study
FINAL SUGGESTIONS

• Use medications appropriately but judiciously
• More medications and higher doses do not necessarily lead to better outcome
• Most importantly:
  – Many patients are seriously overmedicated
  – Talk to your patients and listen to them
  – Be curious about their stories and what the symptoms mean to them
  – Don’t just catalog symptoms: ask yourself why this patient is suffering now
  – Be Sherlock Holmes: All patients have a story; you must unravel it. Listen and watch for clues and follow them. This will help with your prescribing
  – Think of your own experience seeing a physician and behave with the patient as you would like your physician to behave with you
  – Be humble: we do not know as much as we think we do
ART OF PSYCHOPHARMACOLOGY

• Establishment of therapeutic alliance (partnership with patient)
• Longitudinal, continuity of care
• Attention to non-psychiatric factors
• Involvement of significant others
• Dosing and appointment flexibility
• Interpersonal behavior
ART OF PSYCHOPHARMACOLOGY -II

• Understanding non-pharmacological factors that contribute to response:
  - Expectation
  - Prior experience
  - Transference issues

• Specific prescribing circumstances:
  - Number of medications, dosing schedules, medication costs
  - Understanding the individual’s experience of side effects
ART OF PSYCHOPHARMACOLOGY - III

• Understanding response vs. remission
  – Response isn’t good enough
  – Is clinical trial remission the same as feeling better?

• Understanding risk/benefits for an individual patient.
  E.g.:
  • Sexual dysfunction
  • Flattening of affect and emotional distancing
  • Increased forgetfulness, attention and concentration
  • Weight gain, change in body shape
  • Loss of athletic/artistic abilities